



SPECIALTY FLUID FITTINGS & ACCESSORIES CATALOG

For Lubrication Systems
Catalog B151

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Notes:

Item part numbers in BLUE are non-stock. Check with customer service for lead times. Photos/Drawings are representative of their product groups.

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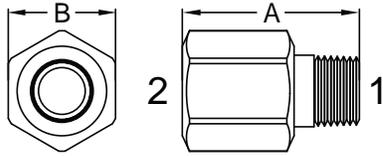
Search Tips:

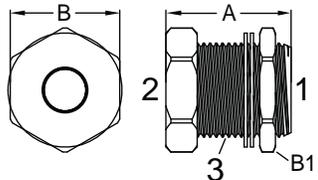
On your keyboard, push 'control' and the 'F' key together to search by part number or phrase.

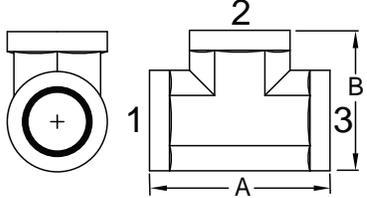
Quick Disconnect Couplings Complete	COUPLING	THREADS		BDI PART#	ISO	DIMENSIONS		DRAWINGS
		Female (1)	Male (2)			A	B	
	FS-M	1/8NPT	1/8NPT	B6571		2.09"	.625"	
		Female (1)	Female (2)			A	B	
	FS-F	1/8NPT	1/8NPT	B6576		2.09"	.625"	
		1/4NPT	1/4NPT	U43521	7241-1B	2.80"	.75"	
		3/8NPT	3/8NPT	U43531	7241-1B	2.80"	.75"	
		1/2NPT	1/2NPT	U43541	7241-1B	3.60"	1.125"	
		Male (1)	Male (2)			A	B	
	MS-M12	1/8NPT	1/8NPT	B6574		2.125"	.625"	
		Male (1)	Female (2)			A	B	
	MS-F	1/8NPT	1/8NPT	B6609		2.125"	.625"	

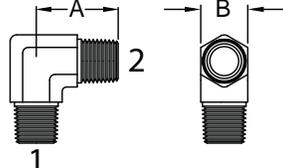
Note: To uncouple quick disconnect coupling, pull knurled sleeve in direction of arrow. To join quick disconnect coupling, push both ends together. An internal check valve prevents flow from line connected on left side, shown above.

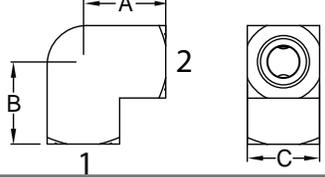
Quick Disconnect Couplings Halves-SOCKETS	THREAD	BDI PART #	INFORMATION			DIMENSIONS		DRAWINGS
	Female (1)		CHECK	ISO	USED WITH	A	B	
	1/8NPT	U422AC	ONE-WAY	6150B	U421A, MP	1.906"	.75"	
	1/8NPT	U422A	—	6150B	U421A, MP	1.906"	.75"	
	1/4NPT	UX43521	TWO-WAY	7241-1B	UX43522,TTN,DYN,DYX,BL,AF,MPI	2.265"	.88"	
	1/4NPT	U422BC	ONE-WAY	6150B	U422BC/U421B	2.125"	.75"	
	1/4NPT	U422B	—	6150B	U421BC/U421B	2.125"	.75"	
	3/8NPT	U422C	—	6150B	U421CC/U421C	2.187"	.812"	
	1/2NPT	UX43541	TWO-WAY	7241-1B	UX43542	2.937"	1.19"	
	Female (1)					A	B	
Quick Disconnect Couplings Halves-PLUGS	1/4NPT	UX43522	TWO-WAY	7241-1B	UX43521	1.22"	.75"	
	1/2NPT	UX43542	TWO-WAY	7241-1B	UX43541	2.0"	1.125"	
		MALE (1)						
	1/4BSPT	52043	TWO-WAY	7241-1B	TTN	2.22"	.862"	
	Male (1)					A	B	
Quick Disconnect Couplings Halves-PLUGS	1/8NPT	U421A	—	6150B	U422AC/U422A	1.59"	.50"	
	1/4NPT	U421BC	ONE-WAY	6150B	U422BC/U422B	1.75"	.562"	
	1/4NPT	U421B	—	6150B	U422BC/U422B	1.75"	.562"	
	3/8NPT	U421CC	ONE-WAY	6150B	U422CC/U422C	1.75"	.687"	
	3/8NPT	U421C	—	6150B	U422CC/U422C	1.75"	.687"	

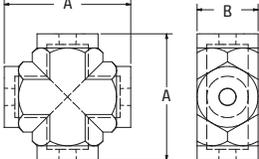
	THREADS		BDI PART #		DIMENSIONS		DRAWING
	Male(1)	Female(2)	Steel	Brass	A	B	
	1/8NPT	1/8NPT	35629-1	A3920	.75"	.50"	
	1/8NPT	1/8NPT	—	A3528	1.0"	.50"	
	1/8NPT	1/8NPT	35629-2	A2540	1.25"	.50"	

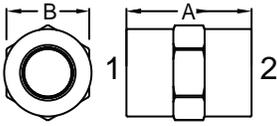
	THREADS			BDI PART #		DIMENSIONS			DRAWING
	Female(1)	Female(2)	Male(3)	Steel	Brass	A	B	B1	
	1/8NPT	1/8NPT	3/4-20	—	21230-1	1.0"	.88"	.88"	
	1/4NPT	1/4NPT	3/4-16	—	32461-1	1.5"	1.0"	.938"	
	1/4NPT	1/4NPT	3/4-16	—	15757	0.938"	1.0"	1.0"	
	3/8NPT	3/8NPT	1-14	—	U162C	1.31"	1.0"	1.0"	
	1/2NPT	1/2NPT	1-1/8-14	—	U162D	1.50"	x	x	

	THREADS			BDI PART #		DIMENSIONS		DRAWING	
	Female(1)	Female(2)	Female(3)	Steel	Brass	A	B		
	1/8NPT	1/8NPT	1/8NPT	—	A4071	.562"	.75"		
	1/8NPT	1/8NPT	1/8NPT	—	U137A	1.125"	.563"		
	1/4NPT	1/4NPT	1/4NPT	—	B9592	1.438"	1.625"		
	1/4NPT	1/4NPT	1/4NPT	—	U137B	1.56"	.781"		
	1/4NPT	1/4NPT	1/4NPT	—	U163B	—	1.8"		.
	3/8NPT	3/8NPT	3/8NPT	—	U163C	—	1.94"		.
	1/2NPT	1/2NPT	1/2NPT	—	U163D	—	2.5"		.

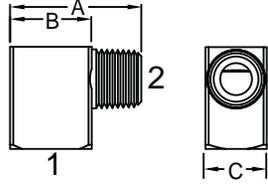
	THREADS		BDI PART #		DIMENSIONS		DRAWING
	Male(1)	Male(2)	Steel	Brass	A	B	
	1/4NPT	1/4NPT	—	27699	1.09"	.50"	
	1/4NPT	1/4NPT	37272	—	1.09"	.56"	
	1/4BSPT	1/4BSPT	35858	—	28MM	28MM	

	THREADS		BDI PART #		DIMENSIONS			DRAWING
	Female(1)	Female(2)	Steel	Brass	A	B	C	
	1/8NPT	1/8NPT	—	B8025	.5625"	.5625"	.5625"	
	1/8NPT	1/8NPT	U134A	—	.5468"	.5468"	.5468"	
	1/4NPT	1/4NPT	U134B	—	.781"	.781"	.781"	

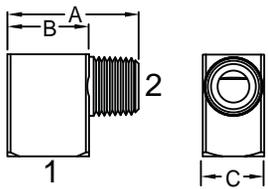
	THREADS				BDI PART #		DIMENSIONS		DRAWING
	Female(1)	Female(2)	Female(1)	Female(2)	Steel	Brass	A	B	
	3/4NPT	3/4NPT	3/4NPT	3/4NPT	32213	-	2.72"	1.313"	
	1/4NPT	1/4NPT	1/4NPT	1/4NPT	37068	-	1.76"	.75"	

	THREADS		BDI PART #		DIMENSIONS		DRAWING
	Female(1)	Female(2)	Steel	Brass	A	B	
Straight Coupling 	1/8NPT	1/8NPT		B6539	.75"	.50"	
	1/4NPT	1/4NPT	B10501	B8614	1.12"	.75"	
	1/4NPT	1/4NPT	U112B*	-	1.25"	.72"	
	3/8NPT	3/8NPT	UX84D	-	1.50"	.81"	
	1/2NPT	1/2NPT	U112D*	-	2.12"	1.06"	
	3/4NPT	3/4NPT	U112E*	-	2.0"	1.37"	
	1NPT	1NPT	U112F*	-	2.37"	1.75"	

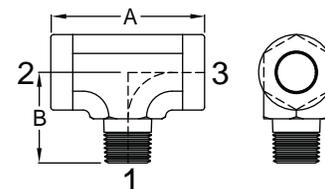
*No Hex, M.I.

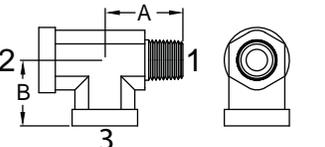
	THREADS		BDI PART #		DIMENSIONS			DRAWING
	Male(2)	Female(1)	Steel	Brass	A	B	C	
90 Degree Elbow Connector 	1/4-28	1/4-28	—	B4453	.53"	.313"		
	1/4-28	1/4-28	—	B6241	.656"	.312"		
	1/8NPT	1/8NPT	—	A2768	.812"	.50"		
	1/8NPT	1/8NPT	—	B5326*	.812"	.50"		
	1/8NPT	1/8NPT	—	B1936	.938"	.50"		
	1/8NPT	1/8NPT	—	A2309	1.25"	.50"		
	1/8NPT	1/8NPT	—	B1741	2.0"	.50"		
	1/8NPT	1/8NPT	—	A2539	1.63"	.50"		
	1/8NPT	1/8NPT	—	B1936	.937"	.50"		
	1/8NPT	1/8NPT	—	U152A	.81"	.50"		
	1/8NPT	1/8NPT	U1104AS	—	1.00"	.50"		
	1/8NPT	1/8NPT	50-5**	—	1.0"	.50"		
	1/4NPT	1/4NPT	—	U152B	1.12"	.688"		
	1/4NPT	1/4NPT	U1104B	—	1.34"	.69"		.69"
	3/8NPT	3/8NPT	U1104C	U152C	1.75"	.88"		1.01"
	1/2NPT	1/2NPT	—	B8930-1	1.97"	1.67"		
	1/2NPT	1/2NPT	32582-1	—	1.97"	1.23"		
	1/8BSPT	1/8BSPT	—	19832	.81"	.50"		
	M6X1	M6X1	—	AR108	14MM	8MM		
	M8X1	M8X1	—	B8516-4	19MM	11MM		
	M8X1	M8X1	—	AR120	19MM	11MM		

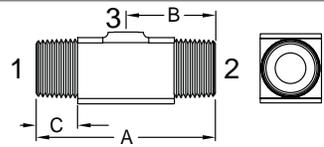
* CHROME **NICKEL

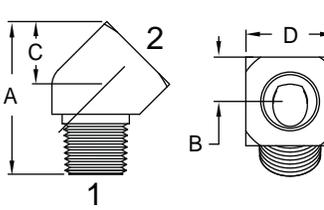
	THREADS		BDI PART #		DIMENSIONS		DRAWING
	Male(2)	Female(1)	Steel	Brass	A	B	
90 Degree Adapter 	10-32	1/8NPT	B7653	—	.81"	.50"	
	1/4-28	1/8NPT	27718	—	.81"	.50"	
	1/4-28	1/8NPT	A8440	—	1.0"	.78"	
	1/4-28	1/8NPT	50-4**	—	.81"	.50"	
	5/16-32	1/8NPT	B5717	—	.81"	.50"	
	1/8NPT	1/4NPT	U1105A	—	1.18"	.68"	
	1/8NPT	1/4NPT		33224C	1.40"	.82"	
	1/4NPT	3/8NPT	37009	—	1.7"	1.10"	
	1/8BSPT	1/8NPT		19833	.81"	.50"	
	M6X1*	1/8NPT	AR104	B8516-1	20MM	.472"	
	M8X1*	1/8NPT	—	AR1682	20.7MM	12.7MM	
	M8X1.25*	1/8NPT	—	B8516-2	21MM	.50"	
	M10X1.5*	1/8NPT	—	B8516-3	21MM	.50"	
	M8X1.25*	1/8NPT	—	AR105	21MM	.50"	
	M10X1.5*	1/8NPT	—	AR106	21MM	.50"	

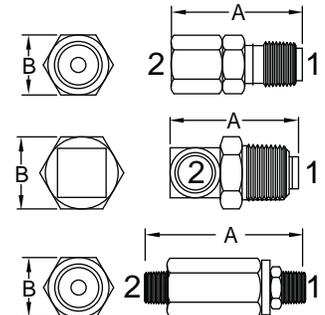
*TAPERED **NICKEL

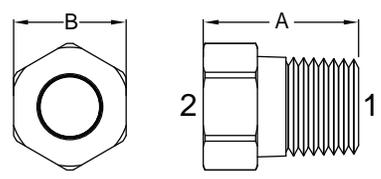
	THREADS			BDI PART #		DIMENSIONS		DRAWING
	Male(1)	Female(2)	Female(3)	Steel	Brass	A	B	
Tee Connectors Male Branch Tee 	1/8NPT	1/8NPT	1/8NPT	—	B4390	.50"	.687"	
	1/4NPT	1/4NPT	1/4NPT	37270	B10101	1.73"	1.1"	

	THREADS			BDI PART #		DIMENSIONS		DRAWING
	Male(1)	Female(2)	Female(3)	Steel	Brass	A	B	
Tee Connectors Male Run Tee 	1/8NPT	1/8NPT	1/8NPT	—	15922	.78"	.55"	
	1/8NPT	1/8NPT	1/8NPT	26978	—	.78"	.66"	
	1/8NPT	1/8NPT	1/8NPT	—	U156A	.656"	.562"	
	1/4NPT	1/4NPT	1/4NPT	19283	—	.78"	.66"	
	1/4NPT	1/4NPT	1/4NPT	—	U156B	.906"	.781"	
	3/8NPT	3/8NPT	3/8NPT	26978-2	—	1.22"	1.02"	

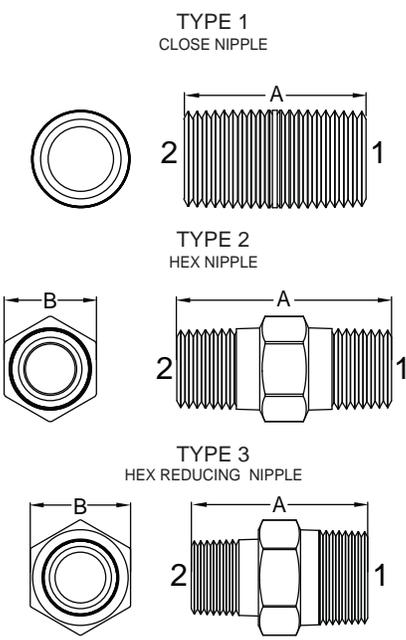
	THREADS			BDI PART #		DIMENSIONS			DRAWING
	Male(1)	Male(2)	Female(3)	Steel	Brass	A	B	C	
Female Branch Tee Connector 	1/8NPT	1/8NPT	1/8NPT	B3807	—	1.125"	.56"	.31"	

	THREADS		BDI PART #		DIMENSIONS					DRAWING
	Male(1)	Female(2)	Steel	Brass	A	B	C	D	DEGREE	
30, 45 & 60 Deg Elbow Connectors 	1/4-28	1/8NPT	20-6	—	.812"	.25"	.28"	.50"	45 DEG	
	1/4-28	1/8NPT	50-6*	—	.812"	.25"	.28"	.50"	45 DEG	
	1/8NPT	1/8NPT	—	B3133C	.83"	.25"	.25"	.50"	45 DEG	
	1/8NPT	1/8NPT	—	B2686	.81"	.25"	.25"	.50"	60 DEG	
	1/8NPT	1/8NPT	—	B2778	.93"	.25"	.25"	.50"	60 DEG	
	1/8NPT	1/8NPT	U1103A	—	1.0"	.25"	.25"	.50"	45 DEG	
	1/4NPT	1/4NPT	U1103B	—	1.34"	.34"	.22"	.69"	45 DEG	

	THREADS		BDI PART #			DIMENSIONS		DRAWINGS	
	Male(1)	Female(2)	Steel	Brass	PSI	NOTES	A		B
Swivel Fittings 	1/8NPT	1/8NPT	B5776	—	20	ELBOW SWIVEL	1.312"	.50"	
	1/8NPT	1/8NPT	B6666	—	20	STRAIGHT SWIVEL	1.312"	.50"	
	1/8NPT	1/8NPT	—	U9975	1000	ELBOW SWIVEL*	2.34"	.562"	
	1/8NPT	1/8NPT	—	22633	20	ELBOW SWIVEL(B5776C)	39MM	.50"	
	1/4NPT	1/8NPT	B3010	—	20	ELBOW SWIVEL	1.312"	.625"	
	1/4NPT	1/4NPT	—	U9976	1000	ELBOW SWIVEL*	2.34"	.562"	
	3/8NPT	1/8NPT	B3964	—	70	ELBOW SWIVEL	2.0"	.75"	
*Internal bearing swivel	Male(1)	Male(2)							
	1/4NPT	1/4NPT	U988B	—	10000	STRAIGHT SWIVEL	2.0"	.75"	

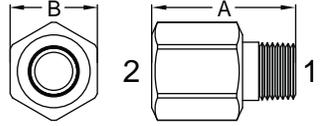
	THREADS		BDI PART #			DIMENSIONS		DRAWING
	Male(1)	Female(2)	Steel	Brass	Stainless	A	B	
Reducing Bushing 	1/8NPT	1/4NPT	—	B9686	—	1.06"	.75"	
	1/4NPT	1/8NPT	—	B6131	—	.625"	.562"	
	1/4NPT	1/8NPT	U104B1	—	—	.625"	.625"	
	1/4NPT	1/8NPT	50-2*	—	—	.72"	.562"	
	3/8NPT	1/8NPT	—	B9955	—	.687"	.687"	
	3/8NPT	1/4NPT	—	B9956	—	.687"	.687"	
	3/8NPT	1/8NPT	U104C1	—	—	.656"	.687"	
	3/8NPT	1/4NPT	U104C2	—	—	.656"	.687"	
	1/2NPT	1/8NPT	—	B9904	—	.812"	.812"	
	1/2NPT	1/4NPT	—	B9953	—	.812"	.812"	
	1/2NPT	1/4NPT	—	—	FIT13682A54	1.08"	.875"	
	1/2NPT	1/8NPT	U104D1	—	—	.75"	.875"	
	1/2NPT	1/4NPT	U104D2	—	—	.75"	.875"	
	1/2NPT	3/8NPT	U104D3	—	—	.75"	.875"	
	3/4NPT	1/4NPT	U104E2	—	—	.84"	1.06"	
	3/4NPT	3/8NPT	U104E3	—	—	.84"	1.06"	
	1NPT	3/8NPT	U104F3	—	—	1.06"	1.437"	
	2NPT	1/2NPT	FIT13682A63	—	—	1.75"	2.5"	
	1/4BSPP	1/8BSPT	—	17959	—	.625"	14MM	
	1/4BSPP	1/8NPT	—	17966	—	.625"	14MM	
1BSPP	1/4NPT	B10485	—	—	1.03"	1.625"		

* NICKEL

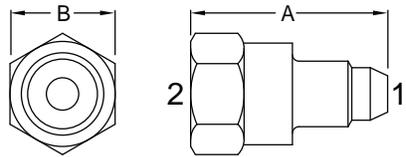
	THREADS		BDI PART #			DIMENSIONS			DRAWINGS
	Male(1)	Male(2)	Steel	Brass	Stainless	A	B	TYPE	
Nipples   	5/16-24	5/16-24	—	20124*	—	1.156"	.375"	2	
	1/8NPT	1/8NPT	-	A4019	—	.828"	.375"	2	
	1/8NPT	1/8NPT	—	—	21466	2.50"	-	1	
	1/8NPT	1/8NPT	35790-1	—	35639	1.01"	.437"	2	
	1/8NPT	1/4-28	27715	—	—	1.21"	.437"	3	
	1/8NPT	5/16-24	—	B4317	—	.875"	.375"	3	
	1/4NPT	1/4NPT	35790-2	B8927-1	—	1.375"	.625"/.562"	2	
	1/4NPT	1/4NPT	—	U15122	—	1.375"	.562"	2	
	1/4NPT	1/4NPT	—	7108415	—	.875"	-	1	
	1/4NPT	1/8NPT	35790-5	B9593	—	1.19"	.562"	3	
	1/4NPT	1/8NPT	—	22675	—	33MM	16MM	3	
	1/4NPT	1/8NPT	35790-5	U15121	—	1.18"	.562"	3	
	3/8NPT	3/8NPT	35790-3	32485-1	—	1.41"	.687"/.75"	2	
	3/8NPT	3/8NPT	—	—	35665	1.0"	-	1	
	3/8NPT	3/8NPT	FIT13682A12	—	—	1.5"	.687"	2	
	3/8NPT	3/8NPT	FIT13682A13	—	—	2.0"	.687"	2	
	3/8NPT	1/4NPT	35790-6	U15132	—	1.40"	.562"	3	
	1/2NPT	1/2NPT	FIT13682A5	—	—	2.0"	.875"	2	
	1/4BSPT	1/4BSPT	35857	AR697	—	35MM / 27MM	14MM	2	
	M8X1	M8X1	—	34957C	—	13MM	-	1	
	M8X1	M8X1	—	15822*	—	.828"	10MM	2	
	M10X1	M10X1	—	34958C	—	15MM	-	1	
	M10X1	M10X1	—	60414-1**	—	16MM	-	1	
	M10X1	M10X1	—	25632*	—	26MM	11MM	1	
	M10X1	M10X1	—	AR1110	—	21MM	10MM	2	
	M12X1	M12X1	—	34959C	—	17MM	-	1	
	M12X1	M12X1	—	60414-2**	—	18MM	-	1	

* JUNCTION BAR CONNECTOR

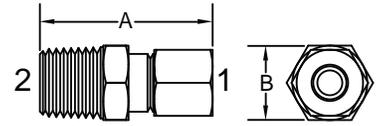
** INCLUDES INTERNAL 5MM HEX ONE END

	THREADS		BDI PART #		DIMENSIONS		DRAWING
	Male(1)	Female(2)	Steel	Brass	A	B	
Straight Adapter 	10-32*	1/8NPT	—	32667	.70"	.437"	
	1/4-28	1/8NPT	B4311	—	3/4"	.50"	
	1/4-28	1/8NPT	27717	—	7/8"	.50"	
	1/4-28	1/8NPT	20-1	—	.875"	.50"	
	1/4-28	1/8NPT	50-1**	—	.875"	.50"	
	1/4-28	1/4NPT	202-2A	—	.105"	.625"	
	1/8NPT	1/8BSPP	—	26718	17.65MM	14MM	
	1/8NPT	1/4NPT	U1106A	—	1.19"	.62"	
	1/8NPT	1/4NPT	—	B9686	1.06"	.75"	
	1/8NPT	1/4NPT	202-2	—	1.05"	.625"	
	1/8NPT	1/4NPT	502-2*	—	1.05"	.625"	
	1/4NPT	3/8NPT	U1106B	—	1.44"	.88"	
	1/4NPT	1/8BSPT	—	19583	.75"	.562"	
	3/8NPT	1/2NPT	U1106C	—	1.62"	1.0"	
	1/8BSPP	1/8NPT	B10279-3	—	7/8"	.562"	
	1/4BSPP	1/4NPT	B10279-4C	—	1-3/16"	.75"	
	1/4BSPP	1/8BSPP	AR351	—	28MM	19MM	
	1/4BSPP	1/8NPT	B10279-7C	—	1"	.75"	
	1/8BSPT	M10X1	—	17020	1"	14MM	
	1/8BSPT	1/8NPT	—	35673	21MM	14MM	
	1/4BSPT	1/8BSPT	73490-2123	—	28MM	19MM	
	1/4BSPT	1/4NPT	—	35673-1	28.5MM	17MM	
	1/4BSPT	3/8BSPT	73490-2143	—			
	3/8BSPP	3/8NPT	B10279-5	—	1-1/4"	.875"	
	3/8BSPT	3/8NPT	—	35673-2	29.5MM	22MM	
	M5	1/8NPT	—	35622	.575"	14MM	
	M6X1*	1/8NPT	AR101	—	20MM	13MM	
	M8X1*	1/8NPT	—	AR215	20MM	13MM	
	M8X1	1/8BSPT	—	17194	13/16"	14MM	
	M8X1.25*	1/8NPT	—	AR102	19MM	13MM	
	M10X1	1/8NPT	B10279-1C	—	7/8"	.562"	
	M10X1	1/4BSPP	AR514	—	28MM	17MM	
	M10X1.5*	1/8NPT	—	AR103	19MM	13MM	
	M12X1	1/8NPT	B10279-2C	—	7/8"	.625"	
	M16X1.5	1/8NPT	—	42444-5	32MM	19MM	
M22X1.5	M20X1.5	56871	—	34MM	24MM		

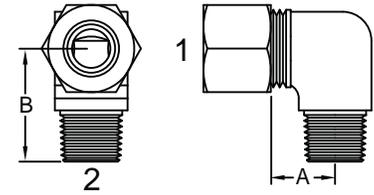
* TAPERED ** NICKEL

	THREADS		BDI PART #		DIMENSIONS		DRAWING
	Male(1)	Female(2)	Steel	Brass	A	B	
Straight Adapter Bijur Special 	5/16-24	1/8NPT	36054	B6056	15/16"	.50"	

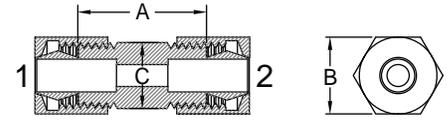
	TUBE / THREADS		BDI PART #			DIMENSIONS		DRAWING
	Tube OD(1)	Male(2)	Steel	Brass	Stainless	Notes	A	
Straight Tubing Adapter Assembly 	1/8	1/4-28	—	27727	35722		.82"	.375"
		1/8NPT	—	27594-1	35655-1		.97"	.437"
		1/8NPT	—	27726	—		.82"	.437"
	5/32	1/8NPT	—	B3297	—		.875"	.375"
		1/8NPT	32995	—	—		28MM	11MM
	3/16	1/8NPT	—	35435	—	CAPTIVE SLEEVE	1.07"	.437"
		1/8NPT	—	B10285	—		1.08"	.437"
		1/8NPT	U83A1	U83A1B	—		1.06"	.50"
		1/4NPT	U83A2	—	—		.968"	.562"
		1/8BSPT	B10407	—	—		1.0"	.437"
	1/4	1/8NPT	B10090-1	B6534	32420-2		1.10"	.437"
		1/8NPT	—	B10224-3	—		1.0"	.437"
		1/8NPT	U83B1	U83B1B	—		1.125"	.50"
		1/4NPT	B10090-2	B6533	32420-1		1.30"	.562"
		1/4NPT	U83B2	U83B2B	—		1.125"	.625"
		3/8NPT	U83B3	—	—		1.125"	.75"
		1/8BSPT	—	15578	—		1.10"	.437"
		1/8BSPP	B10176-3	—	—		1.50"	.562"
		1/4BSPP	B10176-4C	—	—		1.625"	.75"
		1/4BSPT	20806	—	—		1.75"	.562"
		M10X1	B10176-1	—	—		1.50"	.562"
	M12X1	B10176-2	—	—		1.50"	.625"	
	5/16	1/8NPT	—	35532	—	CAPTIVE SLEEVE	1.13"	.562"
		1/8NPT	B10090-3	—	—		1.10"	.562"
		1/4NPT	—	35533	—	CAPTIVE SLEEVE	1.35"	.562"
		1/4NPT	B10090-4	—	—		1.30"	.625"
		1/4BSPP	B10176-5	—	—		1.75"	.75"
	3/8	1/8NPT	—	35436	—	CAPTIVE SLEEVE	1.19"	.625"
		1/8NPT	U83D1	—	34046		1.75"	.75"
		1/4NPT	U83D2	U83D2B	34045		1.75"	.75"
		1/4NPT	—	35437	—	CAPTIVE SLEEVE	1.36"	.625"
		1/4NPT	—	B6514	—		1.42"	.562"
		3/8NPT	U83D3	U83D3B	—		1.562"	.75"
	1/2	1/4BSPP	B10176-6	—	—		1.75"	.75"
		1/4NPT	—	U73EM2	—		1.8"	.866"
		1/4NPT	U53EM2	—	—		1.10"	.812"
		3/8NPT	U53EM3	—	55310		1.10"	.812"
		3/8NPT	—	U73EM3	—		1.8"	.866"
		1/2NPT	—	U73EM4	—		2.14"	1.01"
		1/2NPT	U53EM4	—	—		1.30"	.875"
	4MM	1/8BSPP	73442-1114	—	—	TAPERED	28MM	10MM
		1/8BSPT	AR974	—	—		25MM	10MM
	6MM	1/4-28	53669-1T	—	—		36.5MM	11MM
		1/8NPT	AR138	—	—		25MM	11MM
		1/8NPT	24361-1	—	—		28MM	11MM
		1/8BSPP	73442-1214	—	—		31MM	14MM
		1/8BSPT	AR154	—	—		27MM	11MM
		1/4BSPP	34989	—	—		40MM	19MM
		1/4BSPP	AR397	—	—		33.5MM	14MM
		M6X1	AR1594	—	—		28.5MM	11MM
		M8X1	53669T	—	—		36.5MM	11MM
		M10X1	73442-1244	—	—		31MM	14MM
	8MM	M10X1	AR426	—	—		33MM	14MM
		M12X1	FB1098	—	—		46.5MM	17MM
		1/8NPT	AR167	—	—		32MM	14MM
		1/4BSPP	AR384	—	—		35MM	17MM
M10X1		73442-1344	—	—		28MM	12MM	
M10X1		AR1028	—	—		34MM	17MM	
M12X1		AR5004	—	—	For ZEM35	32.5MM	17MM	
M12X1	AR1027C	—	—	Do not use on ZEM inlet.	35MM	17MM		
10MM	M14X1.5	AR1280	—	—		40MM	19MM	
	1/8NPT	-	AR265	—			19MM	
	1/4NPT	36183	—	—		39MM	19MM	
	1/8BSPP	AR898	—	—		35.5MM	17MM	
	1/4BSPP	AR385	—	—		36MM	19MM	
	1/4BSPT	—	35197	—		33MM	14MM	
	M14X1.5	AR1417	—	—		36MM	19MM	
12MM	M16X1.5	AR906	—	—		40MM	22MM	
	1/4BSPP	AR790	—	—		26.5MM	22MM	
	M14X1.5	AR1281	—	—		27MM	22MM	



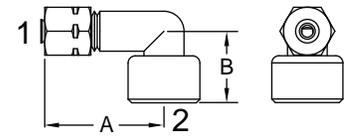
	TUBE/THREADS		BDI PART #			DIMENSIONS		DRAWING
	Tube OD(1)	Male(2)	Steel	Brass	Stainless	Notes	A	
90 Degree Tubing Adapter Assembly 	1/8	1/4-28	—	27728	—		.50"	.515"
		1/8NPT	—	—	35655-2		.656"	.75"
		1/8NPT	—	27725	—		.50"	.656"
	5/32	1/8NPT	—	B3298	—		.812"	.875"
	3/16	1/8NPT	—	B10286	—		.625"	.687"
		1/8NPT	—	35438	—	CAPTIVE SLEEVE	.61"	.69"
		1/8NPT	U87A1	U87A1B	—		.75"	.875"
		1/4NPT	U87A2	U87A2B	—		.875"	.875"
	1/4	1/8NPT	—	B6536	—		.687"	.812"
		1/8NPT	—	B10390-1	—		.62"	.75"
		1/8NPT	B10092-2	—	—		.89"	.78"
		1/8NPT	U87B1	U87B1B	—		.875"	.875"
		1/4NPT	—	B6535	—		.687"	.812"
		1/4NPT	B10092-1	—	—		1.03"	1.09"
		1/4NPT	U87B2	U87B2B	—		.875"	.875"
		3/8NPT	U87B3	—	—		1.00"	.968"
	5/16	1/8NPT	—	35534	—	CAPTIVE SLEEVE	.61"	.74"
		1/4NPT	—	35535	—	CAPTIVE SLEEVE	.71"	.93"
		1/4NPT	B10092-3	—	—		1.03"	1.09"
	3/8	1/8NPT	—	35439	—	CAPTIVE SLEEVE	.74"	.74"
		1/8NPT	U87D1	U87D1B	—		1.25"	.968"
		1/4NPT	—	B6519	—		.812"	.875"
		1/4NPT	U87D2	U87D2B	—		1.25"	.968"
		1/4NPT	—	35440	—	CAPTIVE SLEEVE	.74"	.93"
		1/4NPT	—	B10287-1	—	45 DEG	.55"	.80"
		3/8NPT	U87D3	U87D3B	—		1.25"	.968"
	1/2	3/8NPT	U57EM3	—	55311		.50"	1.25"
	4MM	1/8BSPT	AR975	—	—		9.5MM	12MM
	6MM	1/4-28	53670-1T	—	—		15.5MM	19.6MM
		1/8NPT	AR139	—	—		9.5MM	13MM
		1/8BSPT	AR156	—	—		9.5MM	12MM
		1/4BSPT	AR961	—	—		16MM	18MM
		1/4BSPP	AR959	—	—		26.9MM	32MM
		M8X1	53670T	—	—		15.5MM	19.6MM
		M10X1	AR904	—	—		9.5MM	12MM
	8MM	1/8NPT	AR173	—	—		-	-
		1/8BSPT	AR174	—	—		-	-
		1/4BSPT	AR794	—	—		14MM	18MM
		M10X1	AR617	—	—	SWIVEL TAPERED	11.5MM	15MM
	10MM	1/4BSPT	AR157	—	—		15MM	19MM



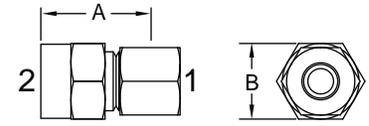
	TUBE		BDI PART #		DIMENSIONS			DRAWING
	Tube(1)	Tube(2)	Steel	Brass	INFO	A	B	
Straight Tubing Coupling Assembly 	5/32	5/32	—	B5163	METAL	1.0"	.375"	.375"
	5/32	5/32	—	20657	NYLON	1.0"	.375"	.375"
	3/16	3/16		35441	CAPTIVE SLEEVE	.72"	.562"	.437"
	3/16	3/16	U84A			1.0"	.437"	.50"
	1/4	1/4	B10094-1			1.17"	.562"	.50"
	1/4	1/4	B10502-1		BULKHEAD	1.13"	.687"	.687"
	1/4	1/4	U84B	U84BB		1.06"	.437"	.562"
	5/16	5/16		35536	CAPTIVE SLEEVE	.85"	.437"	.50"
	3/8	3/8		35442	CAPTIVE SLEEVE	.97"	.625"	.562"
	3/8	3/8	U84D	U84DB		1.50"	.687"	.812"
	1/2	1/2		U74EE		1.09"	.75"	.866"
	4MM	4MM	AR993			12MM	10MM	9MM
	6MM	6MM	AR825		BULKHEAD	34MM	14MM	14MM
	8MM	8MM	AR184			11MM	17MM	14MM



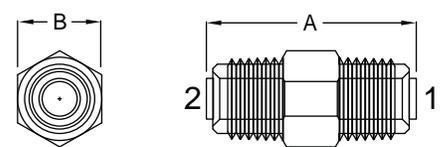
	TUBE / THREADS		BDI PART #		DIMENSIONS			DRAWING
	Tube OD(1)	Female(2)	Steel	Brass	INFO	A	B	
90 Degree Tubing Adapter Assembly 	3/16	1/8NPT	—	35445	CAPTIVE SLEEVE	.98"	.56"	
	3/8	1/2NPT	—	U164K		1.56"	1.18"	

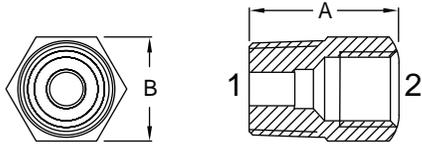


	TUBE / THREADS		BDI PART #		DIMENSIONS		DRAWING
	Tube OD(1)	Female(2)	Steel	Brass	A	B	
Straight Tubing Adapter Assembly 	1/4	1/8NPT	—	B8026	.875"	.50"	

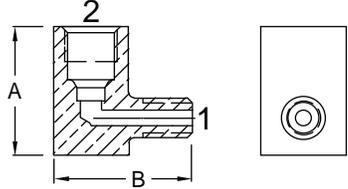


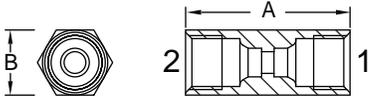
	THREADS / TUBE				BDI PART #		DIMENSIONS		DRAWING
	Male for Tube OD (1)		Male for Tube OD (2)		Steel	Brass	A	B	
	Tube OD	Thread	Thread	Tube OD					
Straight Tubing Adapter Body  Used with B1095 & B1061/B8272.	5/32	5/16-24	5/16-24	5/32	—	B2306	1.0"	.375"	



	THREADS / TUBE			BDI PART #		DIMENSIONS		DRAWING
	Male (1)	Female for Tube OD (2)		Steel	Brass	A	B	
		Thread	Tube OD					
Straight Tubing Adapter Body  See page 18-19 for compression sleeves and bushings.	1/4-28	5/16-24	3/32	B4316**	—	3/4"	.375"	
	1/4-28	5/16-24	4MM-5/32	B4312**	—	3/4"	.375"	
	1/4-28	5/16-24	4MM-5/32	—	B2626	1"	.375"	
	1/8NPT	5/16-24	3/32	—	B3430	5/8"	.437"	
	1/8NPT	5/16-24	4MM-5/32	—	A2835	5/8"	.437"	
	1/8NPT	5/16-24	4MM-5/32	—	B1525	3/4"	.437"	
	1/8NPT	5/16-24	4MM-5/32	—	B10017	1-1/4"	.50"	
	1/8NPT	5/16-24	4MM-5/32	—	B1531	1-1/2"	.437"	
	1/8NPT	5/16-24	4MM-5/32	—	B7768**	1-1/2"	.437"	
	1/8NPT	M10X1	6MM	—	26686	18.92MM	14MM	
	1/8NPT	M8X1	4MM-5/32	—	19172	0.63"	11MM	
	1/8NPT	5/16-24	4MM-5/32	—	B3488	.687"	.437"	
	1/8BSPP	M8X1	4MM-5/32	—	20326	.798"	.50"	
	1/8BSPT	M8X1	4MM-5/32	—	15352	.63"	11MM	
	1/8BSPT	5/16-24	4MM-5/32	—	B8884	5/8"	.437"	
	1/8BSPT	3/8-24	3/16	B9931	—	3/4"L	.437"	
	1/8BSPT	M8X1	4MM-5/32	—	15318	0.63"	11MM	
	M6X.75	5/16-24	4MM-5/32	—	24226	20MM	11MM	
	M6X1	M8X1	4MM-5/32	—	19453	0.815"	11MM	
	M6X1*	5/16-24	4MM-5/32	—	B10323-1	17MM	.394"	
M8X1*	5/16-24	4MM-5/32	—	B10323-3	16MM	.433"		
M10X1	5/16-24	4MM-5/32	—	B10826	7/8"	.562"		
M10X1	M8X1	4MM-5/32	—	AR1113	16MM	11MM		
M12X1	M10X1	6MM	34987	—	20MM	17MM		

* TAPERED **ZINC

	THREADS / TUBE			BDI PART #		DIMENSIONS		DRAWING
	Male (1)	Female for Tube OD (2)		Steel	Brass	A	B	
		Thread	Tube OD					
90 Degree Elbow Adapter Body  See page 18-19 for compression sleeves and bushings.	1/4-28	5/16-24	5/32-4MM	19285	—	.625"	.88"	
	5/16-24	5/16-24	5/32-4MM	—	20131	20MM	.88"	
	1/8NPT	5/16-24	3/32	—	B3431	.562"	.81"	
	1/8NPT	5/16-24	5/32-4MM	—	A3080	.562"	.81"	
	1/8BSPT	5/16-24	5/32-4MM	—	B8883	.562"	.81"	
	1/8BSPT	M8X1	5/32-4MM	—	15320-1	.48"	1.0"	
	M6X.75	M8X1	5/32-4MM	—	20350	.75"	.81"	
	M6X1	M8X1	5/32-4MM	—	19454	.75"	.81"	
	M6X1	5/16-24	5/32-4MM	—	21238	20MM	22.4MM	
	M6X1	M8X1	5/32-4MM	—	24528	20MM	22.4MM	
	M8X1	M8X1	5/32-4MM	—	26810	19.1MM	20MM	
	M10X1	M8X1	5/32-4MM	—	AR1112			

	THREADS / TUBE				BDI PART #		DIMENSIONS		DRAWING
	Female for Tube OD (1)		Female for Tube OD (2)		Steel	Brass	A	B	
	Tube OD	Thread	Thread	Tube OD					
Straight Tubing Coupling Body 	5/32	5/16-24	5/16-24	5/32	—	A2899	.94"	.375"	
	4MM	M8X1	M8X1	4MM	—	19450	.94"	.39"	

* See page 18-19 for tubing connections.

	THREADS / TUBE		BDI PART #		DIMENSIONS		DRAWING	
	Male for Tube OD (1)		Male (2)	Steel	Brass	A		B
	Thread	Tube OD						
Straight Tubing Adapter Body 	1/4-28	3/32	1/4-28	—	B4452	.594"	.312"	
	1/4-28	3/32	M6X1*	—	AR107	15mm	8mm	
	5/16-24	5/32	5/16-24	—	B3794	1.2"	.375"	
	1/8NPT	5/32	5/16-24	—	B2253	.90"	.375"	
	1/8NPT	1/4	7/16-24	—	B6086	.86"	.437"	
	1/2-24	5/16	1/8NPT	—	B150	.81"	.50"	
	1/2-24	5/16	1/4NPT	—	B151	1.09"	.562"	
	1/4NPT	1/4	7/16-24	—	B7903	1.3"	.562"	
	1/4BSPT	1/4	7/16-20	19205	—	1.2"	.562"	
	M10X1	1/4	7/16-24	—	B10790	.87"	.562"	

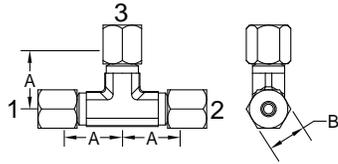
*Taper

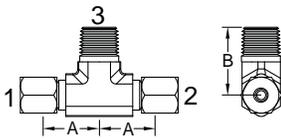
	THREADS / TUBE		BDI PART #		DIMENSIONS		DRAWING	
	Male (2)	Male for Tube OD (1)		Steel	Brass	A		B
		Thread	Tube OD					
90 Degree Tubing Adapter Body 	1/8NPT	3/8-24	3/16	B7747	—	.62"	.69"	
	1/8NPT	7/16-24	1/4	—	B7743	.75"	.80"	
	1/4NPT	7/16-24	1/4	—	B9852	.62"	.75"	

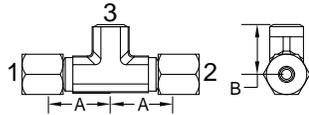
	THREADS / TUBE				BDI PART #		DIMENSIONS		DRAWING	
	Female for Tube OD (2)		Female for Tube OD (3)		Male (1)	Steel	Brass	A		B
	Thread	Tube OD	Thread	Tube OD						
Tee Tubing Adapter 	5/16-24	5/32	5/16-24	5/32	5/16-24	—	20632	1.156"	.375"	

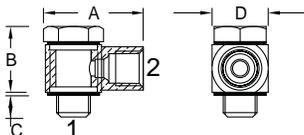
	THREADS / TUBE		BDI PART #		DIMENSIONS		DRAWING	
	Female (2)	Female for Tube OD (1)		Steel	Brass	A		B
		Thread	Tube OD					
90 Degree Elbow Tubing Adapter 	1/8NPT	5/16-24	5/32	—	B3921	.50"	.90"	

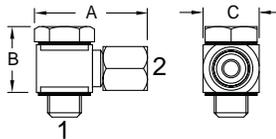
	THREADS / TUBE		BDI PART #		DIMENSIONS		DRAWING		
	Female (2)	Female (3)	Female for Tube OD (1)		Steel	Brass		A	B
			Thread	Tube OD					
Female Tee Tubing Adapter 	1/8NPT	1/8NPT	5/16-24	5/32	—	A4042	.50"	.90"	

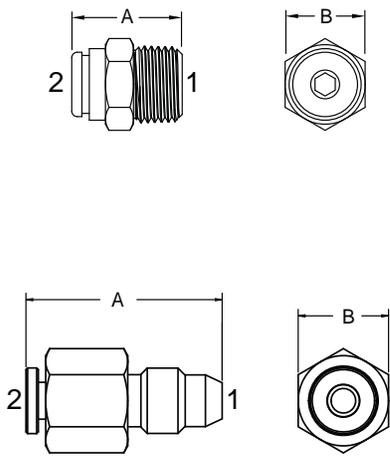
	TUBE			BDI PART #		DIMENSIONS			DRAWING
	Tube(1)	Tube(2)	Tube(3)	Steel	Brass	NOTES	A	B	
Tee Tubing Adapter Assembly 	5/32-4MM	5/32-4MM	5/32-4MM	B10093-7	—		.60"	10MM	
	1/4	1/4	1/4	—	B8109		.625"	.50"	
	5/16	5/16	5/16	—	35537	CAPTIVE SLEEVE	.74"	.562"	
	3/8	3/8	3/8	—	35444	CAPTIVE SLEEVE	.74"	.625"	
	3/8	3/8	3/8	B10093-3	—		1.05"	.687"	
	1/2	1/2	1/2	B10093-4	U70EEE		.843"	.625"	
	6MM	6MM	6MM	35004	—		12MM	14MM	
	8MM	8MM	8MM	AR180	—		29MM	17MM	
	10MM	10MM	10MM	AR181	—				

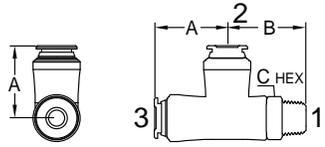
	TUBE / THREADS			BDI PART #		DIMENSIONS		DRAWING
	Tube(1)	Tube(2)	Male(3)	Steel	Brass	A	B	
Male Branch Tee Tubing Assembly 	1/4	1/4	1/4NPT	15209-3	—	1.03"	1.09"	
	3/8	3/8	1/8NPT	—	35443	.75"	.75"	

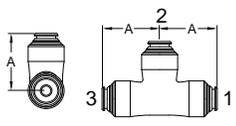
	TUBE / THREADS			BDI PART #		DIMENSIONS		DRAWING
	Tube(1)	Tube(2)	Female(3)	Steel	Brass	A	B	
Female Branch Tee Tubing Assembly 	1/4	1/4	1/8NPTF	B10091-1	—	.89"	.66"	
	1/2	1/2	3/8NPTF	B10091-3	-	1.23"	1.02"	

	THREADS / TUBE			BDI PART #		DIMENSIONS				DRAWING
	Male (1)	Female for Tube OD (2)		Steel	Brass	A	B	C	D	
		Thread	Tube OD							
Banjo Tubing Adapter Body 	5/16-24	5/16-24	4MM 5/32	—	20156	22.6MM	15.2MM	5MM	13MM	
	M6X1	5/16-24	4MM 5/32	—	24656	22.5MM	15MM	7.5MM	12MM	
	M8X1	M8X1	4MM 5/32	—	19776	22.5MM	13.5MM	6MM	13MM	

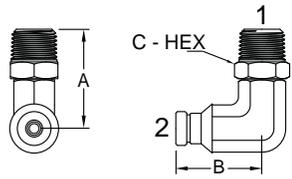
	THREADS / TUBE		BDI PART #		DIMENSIONS			DRAWING
	Tube OD (2)	Male (1)	Steel	Brass	A	B	C	
Banjo Tubing Adapter Assembly 	4MM	1/8BSPP	73442-7113	—	28MM	21MM	14MM	
	6MM	M10X1	34992	—	24MM	18MM	14MM	
	6MM	M12X1	34994	—	33MM	23.5MM	17MM	
	6MM	1/4BSPP	34997	—	33MM	25MM	17MM	
	6MM	M10X1	AR1021	—	36MM	25.5MM	18MM	
	6MM	1/4BSPP	AR1032	—	42MM	30MM	22MM	
	8MM	M10X1	AR1029	—	32MM	22MM	14MM	
	8MM	M12X1	AR1023	—	36.5MM	25MM	17MM	
	8MM	M14X1.5	AR1033	—	42MM	30.5MM	22MM	
	8MM	1/4BSPP	AR982	—	40MM	30MM	22MM	
	10MM	M16X1.5	AR137	—	43MM	32MM	22MM	
	10MM	M14X1.5	AR553	—	41MM	30.5MM	22MM	
	10MM	1/4BSPP	AR983	—	41MM	30.5MM	22MM	

	QC TUBE / THREADS		BDI PART #		DIMENSIONS		DRAWING	
	Tube OD (2)	Male (1)	Brass	Ni-Brass	A	B		
Straight Quick Connect Tubing Adapter Assembly 	1/8	1/8NPT	—	20101-9	14.5MM	11MM	 AR5005 290 psi / 20 bar max	
	5/32-4MM	5/16-24	AR5005	—	—	23.9MM		11MM
		1/8NPT	—	—	20101-1	16.5MM		11MM
		10-32	—	—	27393	17.5MM		.34"RND
		1/4-28	—	—	35746-1	.88"		7/16"
		1/8BSPT	—	—	35261	16.5MM		10MM
		1/4BSPT	—	—	35262	16.5MM		14MM
		M8X1	—	—	AR2011	19.4MM		12MM
		M6X1	—	—	AR1849	26MM		14MM
	M10X1	—	—	AR2003	24MM	14MM		
	3/16	1/8NPT	—	—	20101-10	23.5MM		.437"
	1/4	1/8NPT	—	—	20101-4	19.4MM		11MM
		1/4NPT	—	—	20101-5	20.4MM		14MM
		1/8BSPT	—	—	20101-7	18.4MM		11MM
		1/4BSPT	—	—	20101-8	18.8MM		14MM
	5/16	1/8NPT	—	—	20101-2	27.3MM		13MM
		1/4NPT	—	—	32180	27.8MM		14MM
	3/8	1/4NPT	—	—	20101-12	—		16MM
	6MM	1/8NPT	—	—	20101-6	20.2MM		11MM
		M10X1	—	—	AR1995	28MM		14MM
		M10X1	—	—	AR1855	23MM		13MM
		M8X1	—	—	AR2051	19.3MM		11MM
		M12X1	—	—	AR2052	23MM		16MM
		1/8BSPT	—	—	21459-2	18.5MM		11MM
		1/4BSPP	—	—	AR1983	26MM		16MM
		1/4BSPT	—	—	AR1979	24MM		14MM
	8MM	M6X1	—	—	AR2050	—		—
		M10X1	—	—	AR2158	27.6MM		14MM
		M12X1	—	—	AR2019	—		—
		1/8BSPT	—	—	32178	26.3MM		13MM
10MM	1/8BSPP	—	—	AR1997	27.4MM	14MM		
	1/4BSPP	—	—	AR2013	27.4MM	16MM		
	1/4BSPP	—	—	AR1725	35.4MM	17MM		
12MM	M12X1	—	—	AR2058	—	—		
	1/4BSPP	—	—	AR2043	36MM	20MM		

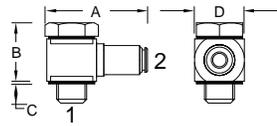
	QC TUBE / THREADS			BDI PART #		DIMENSIONS			DRAWING
	Tube OD (2)	Tube OD (3)	Male (1)	Steel	Ni-Brass	A	B	C	
Tee Male Branch Quick Connect Coupling Assembly 	5/16	5/16	1/4NPT	-	328071	.84"	1.46"	.562"	 290 psi / 20 bar max

	QC TUBE			BDI PART #		DIMENSIONS	DRAWING
	Tube OD (1)	Tube OD (2)	Tube OD (3)	Steel	Ni-Brass	A	
Tee Quick Connect Coupling Assembly 	4MM	4MM	4MM	—	AR2132	18MM	 290 psi / 20 bar max
	6MM	6MM	6MM	—	AR2134	20MM	
	8MM	8MM	8MM	—	AR2135	22MM	
	10MM	10MM	10MM	—	AR2136	28MM	
	12MM	12MM	12MM	—	AR2137	30MM	

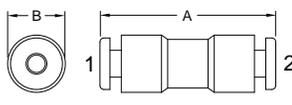
QC fittings for use with Nylon tubing

	QC TUBE / THREADS		BDI PART #		DIMENSIONS			DRAWING
	Tube OD (2)	Male (1)	Steel	Ni-Brass	A	B	C	
90 Degree Quick Connect Tubing Adapter Assembly 	1/8	1/8NPT	—	32394-1	.67"	.74"	-	
	5/32-4MM	1/8NPT	—	15920-1	22MM	18MM	.406"	
		1/4-28	—	35746-2	.48"	.60"	-	
		10-32	—	27305	.93"	.726"	.437"	
		M6X1	—	AR2120	17MM	17MM	10MM	
		M8X1	—	AR2121	18MM	17MM	11MM	
	1/4	1/8NPT	—	32712-1	.884"	.885"	.472"	
		1/4NPT	—	32712-2	.904"	.885"	.551"	
	5/16	1/8NPT	—	15920-2	24.5MM	23.5MM	.50"	
		1/4NPT	—	15920-4	28.5MM	23.5MM	.562"	
	6MM	1/8NPT	—	32179-1	18.9MM	16MM	10MM	
		M10X1	—	AR2113	30MM	19MM	14MM	
		M12X1	—	AR1988	30MM	20MM	16MM	
		M6X1	—	AR2111				
		M8X1	—	AR2112				
		1/8BSPT	—	AR1980	14MM	21MM	20MM	
		1/4BSPP	—	AR2089	33MM	20MM	19MM	
	8MM	1/4BSPT	—	AR1981	14MM	21MM	20MM	
		1/2NPT	-	37306	22.5MM		22MM	
		M10X1	—	AR2114	32MM	21MM	14MM	
		M12X1	—	AR2115	32MM	20MM	16MM	
		1/4BSPP	—	AR2091	35MM	22MM	19MM	
10MM	1/8BSPT	—	32179	18.9MM	23MM	10MM		
	M12X1	—	AR2117	40MM	27.5MM	17MM		
	1/4BSPP	—	AR2093	39MM	28MM	19MM		
12MM	M12X1	—	AR2118					
	1/4BSPP	—	AR2095	41MM	30MM	19MM		

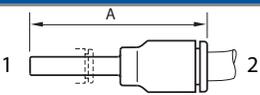
290 psi / 20 bar max

	QC TUBE		BDI PART #		DIMENSIONS				DRAWING
	Tube OD (2)	Male (1)	Steel	Ni-Brass	A	B	C	D	
90 Degree Quick Connect Tubing Banjo Assembly 	4MM	M10X1	—	34763		20MM	8MM	14MM	
	6MM	M10X1	—	AR2141	30MM	20MM	8MM	14MM	
	6MM	M12X1	—	AR2142					
	6MM	1/8BSPP	—	AR2143	30MM	20MM	8MM	14MM	
	6MM	1/4BSPP	—	AR2144	30MM	20MM	8MM	14MM	
	8MM	M10X1	—	AR2145					
	8MM	M12X1	—	AR2146					
	12MM	M12X1	—	AR2152					

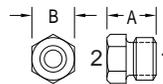
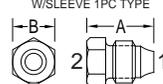
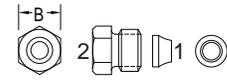
290 psi / 20 bar max

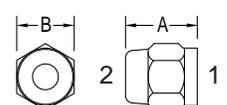
	QC TUBE		BDI PART #		DIMENSIONS		DRAWING
	Tube OD (1)	Tube OD (2)	Nylon	Ni-Brass	A	B	
Straight Quick Connect Coupling Assembly 	5/32	5/32	35526	—	.98"		
	1/4	1/4	34021-1	—	1.37"	.59"	
	4MM	4MM	60075	AR2059	33MM	10MM	
	6MM	6MM	—	34966	36MM	12MM	
	6MM	6MM	—	AR2061	36MM	12MM	
	8MM	8MM	—	AR2062	38MM		
	10MM	10MM	—	AR2063			

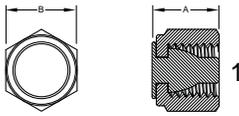
290 psi / 20 bar max

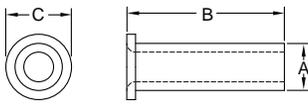
	QC TUBE		BDI PART #		DIMENSIONS		DRAWING
	Standpipe O.D. (1)	Tube OD (2)	Nylon	Ni-Brass	A	NOTES	
Str. QC Expander 	4MM	6MM	AR2210	—	37MM		
	6MM	1/4"	35749	—	1.75"		

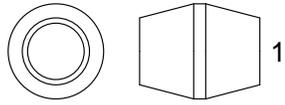
QC fittings for use with Nylon tubing

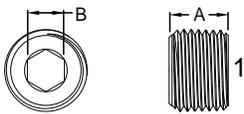
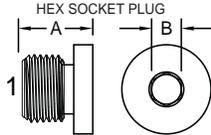
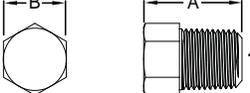
	TUBE / THREADS		BDI PART #			DIMENSIONS		TYPE	NOTES	DRAWINGS
	Tube OD (2)	Male (1)	Steel	Brass	Stainless	A	B			
Male Compression Bushings 	3/32	5/16-24	—	B3373	—	.468"	.375"	1		TYPE 1 WITH NO SLEEVE 
	3/32	5/16-24	—	BB3373	—	.468"	.375"	1	BAG/25 B3373	
	1/8	5/16-24	—	24570	—	.468"	.375"	1		
	1/8	5/16-24	27339	—	27339SS	.36"	.312"	1		TYPE 2 W/SLEEVE 1PC TYPE 
	1/8	5/16-24	—	27337	27337SS	.497"	.312"	2		
	1/8	5/16-24	27340	—	27340SS	.50"	.312"	3		
	5/32	5/16-24	—	B3783	—	.468"	.312"	1		TYPE 3 W/SLEEVE 2PC TYPE 
	5/32	5/16-24	—	BB3783	—	.468"	.312"	1	BAG/25 B3783	
	5/32	5/16-24	—	B1371	—	.468"	.375"	1		
	5/32	5/16-24	—	BB1371	—	.468"	.375"	1	BAG/25 B1371	
	5/32	5/16-24	—	B3734*	—	.468"	.375"	1	CHROME	
	3/16	3/8-24	—	B1914	—	.531"	.375"	1		
	3/16	1/8NPSF	U81AA1	U81AA1B	—	.843"	.437"	2	FOR NYLON	
	1/4	7/16-24	—	B2519	—	.562"	.437"	1		
	1/4	1/8NPSF	U81B1	U81B1B	—	.75"	.437"	2	FOR NYLON	
	1/4	1/4NPSF	U81B2	U81B2B	—	.937"	.562"	2	FOR NYLON	
	3/8	3/8NPSF	U81D3	U81D3B	—	1.0"	.687"	2	FOR NYLON	
	4MM	M8X1	73511-5133	15326	—	12MM	8MM	1		
	4MM	M8X1	—	15328C	—	11.9MM	10MM	1		
	4MM	M8X1	—	34494	—	11.9MM	10MM	1	BAG/25 15328C	
	6MM	M10X1	34999	—	—	13MM	10MM	1		
	6MM	M10X1	—	22545	—	13MM	11MM	1		
	6MM	1/8BSPT	63422-2261	—	—	21MM	10MM	2		
	6MM	1/8BSPT	—	63422-2241	—	21MM	10MM	2		
	8MM	M12X1	73511-5163	—	—	14MM	12MM	1		
	8MM	M14X1.5	35000	—	—	16MM	14MM	1		
	10MM	3/8BSPT	63422-2211	—	—	33MM	17MM	2		
	10MM	M16X1.5	—	25568	—	20MM	17MM	1	USE W/25677	

	TUBE / THREADS		BDI PART #			DIMENSIONS		NOTES	DRAWING
	Tube OD (2)	Female (1)	Steel	Brass	Stainless	A	B		
Female Compression Nuts 	3/32	1/4-28	—	B3610	—	.406"	.312"		
	3/32	5/16-24	—	B3312	—	.468"	.375"		
	1/8	5/16-24	—	24448	—	.468"	.375"		
	5/32	5/16-24	—	B1095	—	.468"	.375"		
	5/32	5/16-24	—	B3733	—	.516"	.375"	CHROME	
	3/16	3/8-24	—	B1226	—	.468"	.437"		
	3/16	3/8-24	—	35433	—	.38"	.437"	CAPTIVE SLEEVE	
	3/16	3/8-24	—	BB1226	—	.468"	.437"	BAG/25PCS B1226	
	1/4	7/16-20	—	B10089-1	—	.70"	.56"		
	1/4	7/16-24	—	B6087	—	.437"	.50"		
	5/16	1/2-24	—	B146	—	.437"	.562"		
	5/16	1/2-24	—	35531	—	.45"	.625"	CAPTIVE SLEEVE	
	3/8	9/16-18	—	B10089-3	—	.75"	.69"		
	3/8	9/16-24	—	B6531	—	.468"	.625"		
	3/8	9/16-24	—	35434	—	.42"	.562"	CAPTIVE SLEEVE	
	4MM	M8X1	—	15327	—	.468"	10mm		
	4MM	M8X1	—	34495	—	.468"	10MM	BAG/25PCS 15327	
	4MM	M8X1	-	63422-2341	-	13MM		NUT&SLEEVE FOR ZEE	
	6MM	M12X1.5	AR204	—	—	14.5MM	14MM		
	6MM	M14X1.5	AR1272	—	—	16.5MM	17MM		
	6MM	M10X1	AR194	—	—	11.5MM	12MM		
	8MM	M14X1.5	AR205	—	—	14.5MM	17MM		
	10MM	M16X1.5	AR208	—	—	15.5MM	19MM		

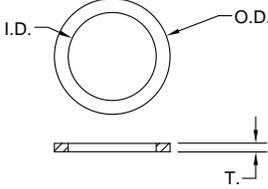
	THREADS		BDI PART #		DIMENSIONS		DRAWING
	Female (1)		Brass		A	B	
	5/16-24		B3478		.57"	.375"	
	5/16-24		A4082		.286"	.375"	

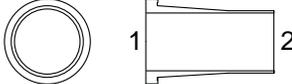
	TUBE	BDI PART #	DIMENSIONS				DRAWING
	Tube OD	#	INSERT O.D. A	LENGTH B	FLANGE O.D. C	CAN BE USED WITH TUBE P.N.	
	5/32	19268	.098"	.315"	.157"	5N25	
	1/4	B144-2	.142"	.737"	.25"-.27"		
	1/4	B144-3	.157"	.487"	.245"		
	1/4	B144-4	.164"	.647"	.25"	B8598	
	1/4	B144-6	.127"	.479"	.235"	B10437	
	1/4	B144-7	.180"	.647"	.245"	B8599	
	1/4	B144-11	.150"	.562"	.218"	21672	
	5/16	20108-1	.232"	.50"		20100	
	5/16	36447	.1875"	.625"	.234"	29942	
	3/8	B144-5	.245"	.844"	.36"	B10067	
	4MM	22585-1	3MM	15.5MM	4MM		
	4MM	AR629	2.7MM	10MM			
	6MM	34836	4MM	14MM	5MM	35006	
	6MM	22585-2	4MM	15.5MM	5MM	B10437C	
	6MM	AR1094	4MM	10MM		27490/35006	
	8MM	34837	5MM	14MM	8MM	35007	
	10MM	34838	7.5MM			34825	
	10MM	22585-3	7.5MM	15MM	10MM	34825	
	10MM	35735	6MM	MM	8MM	10N6-BLACK	
	12MM	34839	9MM	15MM	12MM	34826	

	TUBE	TYPE	BDI PART #			NOTES	DRAWINGS
	Tube OD (1)	#	Steel	Brass	Stainless		
	3/32	1	—	B3313	—		
	3/32	1	—	BB3313	—		B3313 PACK OF 50
	1/8	2	—	27338	—		NYLON TUBING
	1/8	2	—	—	27338SS		NYLON TUBING
	1/8	1	—	24456	—	METAL TUBING	
	5/32	1	—	B1061	—	METAL TUBING	
	5/32	2	—	B8272	—	NYLON TUBING	
	5/32	1	—	BB1061	—	B1061 PACK OF 50	
	5/32	2	—	BB8272	—	B8272 PACK OF 50	
	3/16	1	—	B1227	—		
	1/4	1	—	B2520	—	METAL TUBING	
	1/4	2	—	B10202	—	NYLON TUBING	
	1/4	3	B10088-1	—	—		
	5/16	3	B10088-2	—	—		
	3/8	1	—	B6532	—		
	3/8	3	B10088-3	—	—		
	4MM	3	73511-1134	—	—		
	4MM	1	—	35001	—		
	4MM	3	AR995	—	—	LL SERIES	
	4MM	4	—	73511-2711	—		
	6MM	4	—	73511-2721	—		
	6MM	3	AR206	—	—	LL SERIES	
	6MM	3	73511-1154	—	—	LIGHT SERIES	
	6MM	1	—	35002	—	LIGHT SERIES	
	6MM	2	—	22577	—	NYLON TUBING	
	6MM	1	—	B2520C	—	METAL TUBING	
	6MM	1	—	AR938	—	METAL TUBING	
	8MM	3	AR200	—	—	L SERIES	
	8MM	3	73511-1164	—	—	LIGHT SERIES	
	8MM	1	—	35003	—	LIGHT SERIES	
	8MM	3	73511-1224	—	—	HEAVY SERIES	
	10MM	3	73511-1234	—	—		
	10MM	1	—	25677	—	USE W/25568	
	10MM	3	AR209	—	—	L SERIES	

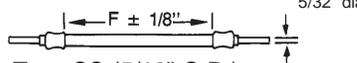
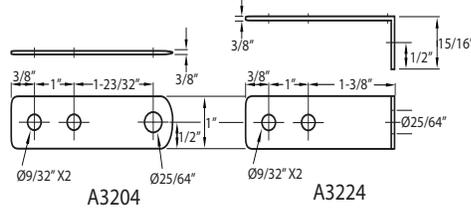
	THREADS		BDI PART #			DIMENSIONS			DRAWINGS
	Male (1)	Steel	Brass	Stainless	TYPE	A	B	COPPER WASHER/ O-RING REQUIRED	
Plugs 	1/4-28	B10555	—	—	4	.50"	.25"	X	<p>TYPE 1 HOLLOW HEX PIPE PLUG</p> 
	5/16-24	—	B3784	—	4	.625"	.312"		
	5/16-24	—	B3992	—	5	.468"	.312"		
	5/16-24	—	BB3992*	—	5	.468"	.312"		
	5/16-24	—	34496**	—	4	.625"	.312"	X	
	5/16-24	27336	—	27336SS	4	.497"	.312"		
	1/16NPT	U119ZC	—	—	1	.312"	.156"		
	3/8-24	32999	—	—	2	.408"	.187"	X	
	1/8NPT	HP603	—	—	1	.281"	.187"		
	1/8NPT	35573-1	—	—	3	.75"	.562"		
HOLLOW HEX PIPE PLUG	1/8NPT	U119AC	—	UST119AC	1	.312"	.187"		<p>TYPE 2 HEX SOCKET PLUG</p> 
	7/16-20	26173-1	—	—	2	.46"	.187"	X	
	1/4NPT	HP616	—	—	1	.312"	.25"		
	1/4NPT	35573-2	—	—	3	.437"	.437"		
	1/4NPT	U119BC	—	UST119BC	1	.437"	.25"		
	9/16-18	26173-2	—	—	2	.49"	.25"	X	
	3/8NPT	HP615	—	—	1	.50"	.312"		
	3/8NPT	U119CC	—	—	1	.50"	.312"		
	3/8NPT	—	—	35664	1	.87"	.69"		
	1/2NPT	HP621	—	—	1	.562"	.406"		
HEX SOCKET PLUG 	1/2NPT	U119DC	—	UST119DC	1	.562"	.375"		<p>TYPE 3 HEX HEAD PLUG</p> 
	3/4NPT	U119EC	—	—	1	.625"	.562"		
	1/8BSPP	15426	—	—	2	11MM	5MM	X	
	1/4BSPP	35009	—	—	3	12.5MM	7MM	X	
	1/8BSPT	19026	—	—	1	8MM	5MM		
	1/8BSPT	—	—	19026SS	1	8MM	5MM		
	1/8BSPT	20937-1	—	—	1	8MM	5MM		
	1/4BSPT	20937-2	—	—	1	10MM	7MM	X	
	3/8BSPP	74106-1144	—	—	2			X	
	HEX HEAD PLUG 	M8X1	—	15322	—	4	15.87MM	8MM	
M8X1		—	34497***	—	4	15.37MM	8MM	X	
M10X1		—	27450	—	5	12MM	12MM	X	
M10X1		74106-1164	—	—	2	11MM	5MM	X	
M12X1		35008	—	—	2	15MM	17MM	X	
M14X1.5		—	34773	—	3	10MM		X	
M16X1.5		45111	—	—	2	15MM		X	
M22X1.5		22454	—	—	5	20MM	27MM	X	
M22X1.5		37160****	—	—	5	20MM	27MM	X	
CLOSURE PLUG 									

*BAG OF 25 B3992
 **BAG OF 10 B3784
 ***BAG OF 10 15322
 ****Includes 1/4NPSF female tap

	USED ON		DIMENSIONS			BDI	DRAWING
	Thread Size	I.D.	O.D.	T.	Part Number		
Copper Seals 	M5	5.2MM	7.4MM	1MM	20913-5		
	M6	6.2MM	9.9MM	1MM	20913-4		
	M6	6.2MM	10.5MM	1.5MM	25589-26		
	M8	8.2MM	12.9MM	1MM	20913-6		
	M8	8.2MM	11.4MM	1MM	20913-9		
	M10	10.2MM	13.4MM	1MM	20913-1		
	M10	10.2MM	13.9MM	1MM	20913-2		
	M12	12.2MM	15.4MM	1.5MM	20913-3		
	M16	16MM	20MM	1.85MM	25589-23		
	M16	16.3MM	20MM	1.5MM	23483		
	M22	22.4MM	27MM	1.5MM	25589-7		
	M10 - 1/8BSPP	10.2MM	13.4MM	1MM	72712-1094		
	M10 - 1/8BSPP	10.2MM	13.4MM	1.5MM	25589-2		
	M13	13.4MM	18.8MM	1.5MM	25589-5		
	M14 - 1/4BSPP	14.2MM	17.9MM	1.5MM	35010		
	M15	15.2MM	18.9MM	1.5MM	20913-7		
	3/8BSPP	17MM	21MM	1.5MM	72712-1324		
	1/2BSPP	21MM	26MM	1.5MM	72712-1364		
1BSPP				72712-1624			

	TUBE	BDI PART #		INFORMATION		DRAWING
	Tube OD (1)	Steel	Brass	TYPE	DRILLED HOLE SIZE (2)	
Drive Bushings 	5/32	-	B3596	REAMED TAPER	.20"	
	5/32	B4067	-	STRAIGHT DRILL	1/4"	
	3/32	-	B5271	REAMED TAPER	9/64"	
	3/32	B4440	-	STRAIGHT DRILL	11/64"	

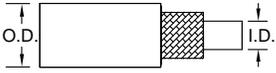
Flexible SLR Hose Assemblies ~ 200 PSI MAX Pressure

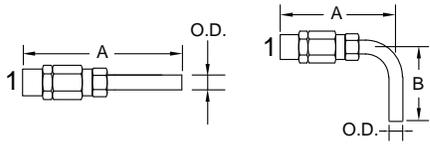
	LENGTH		BDI PART #						DRAWINGS
	F	SS	SS	SC	CC	SSS	SSA		
		5/16" O.D.	7/16" O.D.	7/16" O.D.	7/16" O.D.	5/16" O.D.	3/8" O.D.		
SLR Hose Assemblies 	4"	B4514	—	—	—	—	—	 Type SS (5/16" O.D.) See Note 5 See Note 2	
	5"	B4515	B2962	B4857	B4873	20106-4	19006-5		
	6"	B4516	B3134	B4858	B4874	20106-6	—		
	7"	B4517	B2963	B4859	B4875	20106-7	19006-7		
	8"	B4518	B3433	B4860	B4876	20106-8	19006-8		
	9"	B4519	B2542	B4861	—	20106-9	—		
	10"	B4520	B3145	B4862	B4878	20106-10	B06-10		
	11"	B01-11	—	—	—	—	—		
	12"	B4588	B3135	B4863	B4879	20106-12	19006-12		
	14"	B4589	B3530	B4864	B4880	20106-14	B06-14		
	15"	B5768	B3136	—	—	—	—		
	16"	B6415	B3531	B4865	B4881	20106-16	B06-16		
	17"	B01-17	—	—	—	—	—		
	18"	B6416	B3137	B4866	B4882	20106-18	B06-18		
	19"	—	B02-19	—	—	—	—		
	20"	B6651	B3532	B4867	B4883	20106-20	B06-20		
	21"	B01-21	B3507	—	—	20106-21	—		
	22"	B01-22	B3528	B4868	B4884	20106-22	B06-22		
	23"	—	—	—	—	—	—		
	24"	B8077	B3508	B4869	B4885	20106-24	B06-24		
	25"	B01-25	B02-25	—	—	—	—		
	27"	B01-27	B3533	B4870	B4886	20106-27	B06-27		
	28"	B01-28	B02-28	—	—	20106-28	—		
	30"	B01-30	B3534	B4871	B4887	—	B06-30		
	32"	—	B02-32	—	—	—	19006-32		
	33"	B01-33	B3735	B4872	B4888	20106-33	—		
34"	—	B02-34	—	—	—	—			
35"	—	19002-35	—	—	20106-35	—			
36"	B01-36	B4780	—	B04-36	20106-36	B06-36			
38"	B01-38	B02-38	—	—	—	B06-38			
40"	B01-40	B4235	B03-40	—	20106-40	19006-40			
42"	—	B02-42	—	—	—	—			
44"	—	B4796	—	—	20106-44	—			
45"	B01-45	B02-45	—	—	—	—			
46"	B01-46	B8786	—	—	—	—			
48"	B01-48	B4980	B5819	B6317	20106-48	B06-48			
50"	—	B02-50	—	—	—	—			
52"	—	B4418	—	—	—	—			
53"	B01-53	—	—	—	—	—			
54"	—	B02-54	—	—	—	—			
56"	B01-56	B4011	—	B04-56	20106-56	—			
60"	B01-60	B4740	B03-60	—	20106-60	—			
62"	—	19002-62	—	—	—	—			
66"	—	B4795	—	—	—	—			
70"	—	B02-70	—	—	—	—			
72"	B01-72	B4994	—	B6318	20106-72	B06-72			
84"	B01-84	B6320	—	—	20106-84	—			
96"	B01-96	B02-96	—	B04-96	—	19006-96			
100"	—	—	—	—	20106-100	—			
120"	B01-120	B9436	—	—	20106-120	—			
130"	—	B02-130	—	—	—	—			
144"	—	19002-144	—	—	20106-144	—			
168"	—	19002-168	—	—	—	19006-168			
180"	B01-180	—	—	—	—	—			
264"	—	—	—	—	20106-264	—			
SLR Hose Brackets	A3204	STRAIGHT HOSE BRACKET (FOR TYPE C ENDS)						 A3204 A3224	
	A3224	90 DEGREE HOSE BRACKET (FOR TYPE C ENDS)							
	A3165	TERMINAL NUT 3/8-24 FOR HOSE BRACKETS (9/16HEX, 5/32 THICK)							

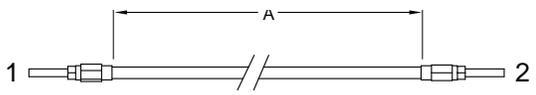
- Note 1: Above hoses are also available in special lengths
- Note 2: Use compression fittings listed on page 18
- Note 3: 3/8-24 NF thread for bracket mounting
- Note 4: 5/16-24 NF thread for 5/32 O.D. tubing connection. Use compression nut B1095 and compression sleeve B1061 listed on pages 18-19
- Note 5: Type 'SS' is not a stainless steel hose.

Hose Notes: Min bending radius "R" for 5/16" O.D. hoses is 1-1/2" inches; for 7/16" O.D. hoses, 2" inches.

PDI Bulk Hose & Assemblies

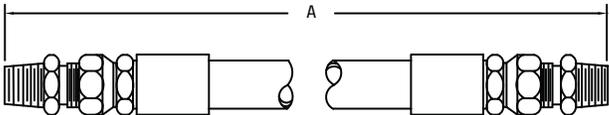
	HOSE		WORKING PRESSURE		BDI PART #	DRAWING
	I.D.	O.D.	PSI	Bar		
PDI Bulk Hose 	4.1 MM	8.75 MM	3000	200	34962	
	6.4 MM	14.4 MM	2100	140	34964	

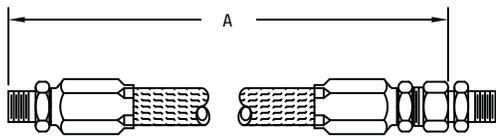
	STAND PIPE SIZE	TYPE	BDI PART #	USE WITH HOSE PART #	DIMENSIONS		DRAWINGS
	O.D.		O.D.	(1)	A	B	
PDI Bulk Hose Reusable Fittings with Stand Pipe 	3/16	STR	29116	34962	58MM	N/A	
	1/4	90 DEG	29220	34962	50MM	32MM	
	1/4	STR	29117	34962	58MM	N/A	
	4MM	STR	29587	34962	64MM	N/A	
	4MM	90 DEG	29585	34962	50MM	32MM	
	6MM	STR	AR1532	34962	64MM	N/A	
	6MM	90 DEG	AR1736	34962	50MM	32MM	
	8MM	STR	34965	34964	71MM	N/A	

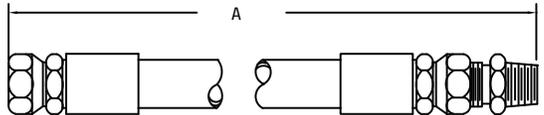
	STAND PIPE SIZE (BOTH ENDS)	HOSE LENGTH	BDI PART #	DRAWING
	O.D. (1 & 2)	INCHES*(A)		
PDI Hose Assemblies 	6MM	8	34971-8	
	6MM	10	34971-10	
	6MM	12	34971-12	
	6MM	14	34971-14	
	6MM	16	34971-16	
	6MM	18	34971-18	
	6MM	20	34971-20	
	6MM	22	34971-22	
	6MM	24	34971-24	
	6MM	26	34971-26	
	6MM	28	34971-28	
	8MM	8	34972-8	
	8MM	10	34972-10	
	8MM	12	34972-12	
	8MM	14	34972-14	
	8MM	16	34972-16	
	8MM	18	34972-18	
	8MM	20	34972-20	
	8MM	22	34972-22	
	8MM	24	34972-24	
	8MM	26	34972-26	
	8MM	28	34972-28	

* Hose length does not include fittings. Assemblies use 34962/34964 hose.

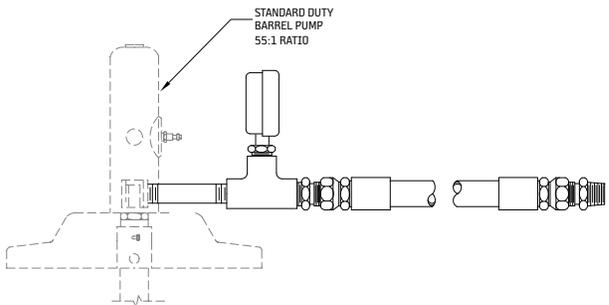
Dualine, Injector & Progressive Hose Assemblies

	BDI PART#	HOSE		ENDS		WORKING PRESSURE		DRAWING
		I.D.	"A"	1st	2nd	PSI	Bar	
Low Pressure Hose Assemblies 	UX702C02012	1/4"	12"	1/4NPT	1/4NPT	500	34	 LOW PRESSURE
	UX702C02024	1/4"	24"	1/4NPT	1/4NPT	500	34	
	UX702C02036	1/4"	36"	1/4NPT	1/4NPT	500	34	
	UX702C02048	1/4"	48"	1/4NPT	1/4NPT	500	34	
	UX702C01060	1/4"	60"	1/8NPT	1/8NPT	500	34	

	BDI PART#	HOSE		ENDS		WORKING PRESSURE		DRAWING
		I.D.	"A"	1st	2nd	PSI	Bar	
Medium Pressure Hose Assemblies 	201221	1/4"	24"	1/4NPT	1/4NPT	2750	189	 MEDIUM PRESSURE
	201222	1/4"	30"	1/4NPT	1/4NPT	2750	189	
	201223	1/4"	36"	1/4NPT	1/4NPT	2750	189	
	201224	1/4"	42"	1/4NPT	1/4NPT	2750	189	
	201225	1/4"	48"	1/4NPT	1/4NPT	2750	189	
	201226	1/4"	60"	1/4NPT	1/4NPT	2750	189	
	201227	1/4"	72"	1/4NPT	1/4NPT	2750	189	
	55323	1/4"	240"	1/4NPT	1/4NPT	2750	189	

	BDI PART#	HOSE		ENDS		WORKING PRESSURE		DRAWING
		I.D.	"A"	1st	2nd	PSI	Bar	
High Pressure Hose Assemblies 	UX718602012	3/8"	12"	3/8-18	3/8NPT	4000	275	 HIGH PRESSURE
	UX718602024	3/8"	24"	3/8-18	3/8NPT	4000	275	
	UX718602036	3/8"	36"	3/8-18	3/8NPT	4000	275	
	UX718602048	3/8"	48"	3/8-18	3/8NPT	4000	275	
	UX718602060	3/8"	60"	3/8-18	3/8NPT	4000	275	
	UX718602072	3/8"	72"	3/8-18	3/8NPT	4000	275	

Barrel Pump Hose Assemblies

	BDI PART #	HOSE		WORKING PRESSURE		ENDS	LONG	DRAWING
		I.D.	PSI	Bar				
Hose Assemblies for drum pumps with Pressure Gauge 	200275	1/2"	5000	344	3/8NPT	72"	 STANDARD DUTY BARREL PUMP 55:1 RATIO	
	HOS14010B	1/2"	5000	344	3/8NPT	144"		
	55317	1/2"	5000	344	3/8NPT	192"		
	55336	1/2"	5000	344	3/8NPT	300"		
Includes Pressure gauge, tee, nipple, bushing & adapters.								

Specialty Hose Assemblies

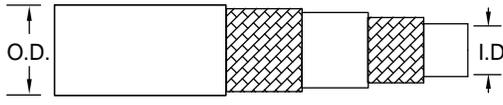
	BDI PART #	HOSE		WORKING PRESSURE		ENDS	TYPE	DRAWING
		I.D.	"A"	PSI	Bar			
	200324	3/4"	72"	1250	86	3/8NPT X 1/2NPT	RELIEF HOSE KIT	
	200306	1/2"	72"	5000	344	3/8NPT X 3/8NPT	LUBE SUPPLY HOSE USED IN 200275	
	55319	1/2"	192"	250	17	1/2NPT X 1/4NPT	AIR SUPPLY HOSE	
	55338	1/2"	300"	250	17	1/2NPT X 1/4NPT	AIR SUPPLY HOSE	
	200325	1/2"	72"	250	17	1/2NPT X 1/4NPT	AIR SUPPLY HOSE	
	200307	3/4"	72"	1250	86	1/2NPT X 1/2NPT	RELIEF HOSE USED IN 200324	
	HOS13907B	1/2"	144"	5000	344	3/4-16 SAE FEMALE(2)	LUBE SUPPLY HOSE USED IN HOS14010B	
	55320	1/2"	192"	250	17	3/4-16 SAE FEMALE(2)	AIR SUPPLY HOSE SIMILAR TO 200513	
	200513	1/2"	72"	250	17	3/4-16 SAE FEMALE(2)	AIR SUPPLY HOSE USED IN 200325	
	55322	1/2"	240"	250	17	3/4-16 SAE FEMALE(2)	AIR SUPPLY HOSE	
	55339	1/2"	300"	250	17	3/4-16 SAE FEMALE(2)	AIR SUPPLY HOSE	
	201369	1/2"	36"	250	17	3/4-16 SAE FEMALE(2)	AIR SUPPLY HOSE	
	55318	1/2"	192"	5000	344	3/4-16 SAE FEMALE(2)	LUBE SUPPLY HOSE SIMILAR 200549	
	55337	1/2"	300"	5000	344	3/4-16 SAE FEMALE(2)	LUBE SUPPLY HOSE SIMILAR 200549	
	200549	1/2"	72"	5000	344	3/4-16 SAE FEMALE(2)	LUBE SUPPLY HOSE USED IN 200306	

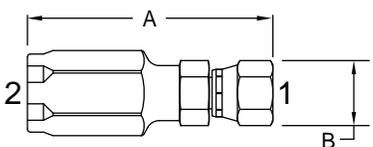
Feed Line Hose Assemblies & Fittings

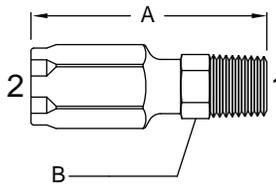
	BDI PART #	CONST.	DESCRIPTION	WORKING PRESSURE		SIZE	DRAWING	
				PSI	Bar			
	27712	STEEL	HOSE STUD	500	34	1/8" O.D. STANDPIPE X 1/4-28 MALE		
	27713		COUPLING NUT			1/8"NPT MALE X 1/4-28 MALE		
	27714		COUPLING NUT			1/4-28 FEMALE		
	27715	STAINLESS STEEL	HOSE STUD			1/8"NPT MALE X 1/4-28 MALE		
	27716		COUPLING NUT			1/4-28 FEMALE		
	27729	HOSE	3/16" I.D. HOSE			25' FT LONG COIL		
	27730					BULK LENGTH		
	27740	HOSE ASSY	1/8"NPT MALE END CONNECTIONS			12" IN		
	27741					18" IN		
	27742					24" IN		
	27743					30" IN		
	27733					6" IN		
	27734					8" IN		
	27735					12" IN		
	27736					18" IN		
	27737					24" IN		
	27738					30" IN		
	27739	36" IN	1/8"NPT MALE AT ONE END AND SWIVEL ADAPTER UNION 1/8"NPT MALE AT OTHER END					

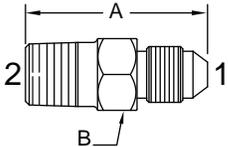
Air Supply Hose Assemblies

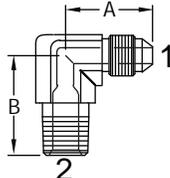
	BDI PART #	HOSE		ENDS		WORKING PRESSURE		DRAWING
		I.D.	"A"	1st	2nd	PSI	Bar	
	201502	1/4"	36"	1/2NPT	1/2NPT	250	17	
	55321	1/4"	240"	1/2NPT	1/2NPT	250	17	

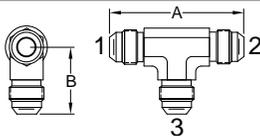
	HOSE WORKING PRESSURE				BDI PART #	INFORMATION	DRAWING
	I.D.	O.D.	PSI	Bar			
Hose 	9/64	7/16	225	15	B4184	NEOPRENE	
	5/32	5/16	225	15	B7515	NEOPRENE	
	3/16	29/64	425	29	U702B		
	3/16	3/8	500	34	27729	25FT LENGTH	
	3/16	3/8	500	34	27730	BULK	
	3/16	.36	400	27	6NE3	BUNA N	
	1/4	0.59	5800	400	B10212-1	SAE100R2	
	1/4	0.53	2750	189	B10212-3	SAE100R1	
	1/4	5/8	500	34	U702C		
	1/4	.59	5800	400	U7184	SAE100R2	
	1/4	9/16	2750	189	201200	MED PRES	
	1/4	0.51	3000	206	35546	SAE100R7	
	3/8	0.75	5000	344	B10212-2	SAE100R2	
	3/8	0.69	2250	155	B10212-4	SAE100R1	
	3/8	.75	4750	327	U7186	SAE100R2	
	1/2	.87	4000	275	U7188	SAE100R2	
	3/4	1.17	2250	155	U71812	SAE100R2	
	1	1.50	2000	137	U71816	SAE100R2	

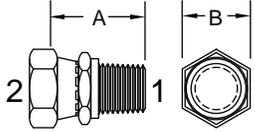
	HOSE	THREAD	BDI PART #		INFORMATION	DIMENSIONS		DRAWING
	I.D. (2)	Female(1)	Steel	Stainless		USE WITH HOSE #	A	
Reusable Hose Fittings: Straight Female Thread SAE(JIC) X Hose 	1/4	7/16-20	201188	201188SST	35546	2.44"	.562"	
	1/4	7/16-20	U43844	35637-1	U7184	2.45"	.562"	
	3/8	9/16-18	U43866	35637-2	U7186	2.74"	.75"	
	3/8	3/4-16	U43886	—	U7186	2.86"	.875"	
	1/2	3/4-16	U43888	35637-3	U7188	3.19"	.875"	
	3/4	1-1/16-12	U4381212	—	U71812	3.53"	1.25"	
	1	1-5/16-12	U4381616	—	U71816	3.93"	1.50"	

	HOSE	THREAD	BDI PART #		INFORMATION	DIMENSIONS		DRAWING
	I.D. (2)	Male(1)	Steel	USE WITH HOSE #		A	B	
Reusable Hose Fittings: Straight Male Thread NPT X Hose 	3/16	1/8NPT	U404AB1	U702B	1.73"	.436"		
	3/16	1/8NPT	U407AB1	U702B	2.45"	.562"		
	3/16	1/8NPT	B10273-1	B10271-2	1.984"	.562"		
	1/4	1/4NPT	B10205-1	B10212-1	2.38"	.562"		
	1/4	1/8NPT	B10205-3	B10212-1	2.20"	.562"		
	1/4	1/8NPT	201185	201200				
	1/4	1/4NPT	201186	201200	2.42"	.562"		
	1/4	3/8NPT	201187	201200				
	1/4	1/8NPT	U43724	U7184	2.20"	.562"		
	1/4	1/4NPT	U43744	U7184	2.38"	.562"		
	3/8	3/8NPT	U43766	U7186	2.58"	.75"		
	1/2	1/2NPT	U43788	U7188	3.11"	.875"		
	1/4	1/8NPT	U404B1	U702C	1.76"	.50"		
	1/4	1/4NPT	U404B2	U702C	1.97"	.562"		
	1/4	3/8NPT	U404B3	U702C				
	1/4	1/8NPT	U407B1	U702C	2.50"	.686"		
	1/4	1/4NPT	U407B2	U702C	2.73"	.686"		
	1/4	3/8NPT	U407B3	U702C	2.73"	.686"		
	3/8	3/8NPT	B10205-2	B10212-2	2.58"	.75"		

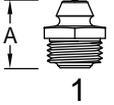
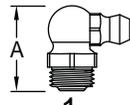
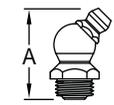
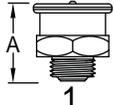
	THREADS		BDI PART #		DIMENSIONS		DRAWING
	Male (1)	Male (2)	Steel	Stainless	A	B	
Straight Adapter Male Thread SAE(JIC) X Male NPT 	1/2-20	3/8NPT	U43165	—	1.37"	.937"	
	1/2-20	1/4NPT	U43145	—	1.42"	.562"	
	1/2-20	1/8NPT	U43125	—	1.21"	.562"	
	7/16-20	3/8NPT	U43164	35638-3	1.44"	.75"	
	7/16-20	1/4NPT	U43144	35638-1	1.42"	.562"	
	7/16-20	1/8NPT	U43124	35638-5	1.21"	.50"	
	9/16-18	1/2NPT	U43186	—	1.68"	.875"	
	9/16-18	3/8NPT	U43166	35638-4	1.43"	.75"	
	9/16-18	1/4NPT	U43146	35638-2	1.43"	.625"	
	9/16-18	1/8NPT	35575-1	35638-8	1.24"	.625"	
	3/4-16	3/4NPT	U431128	—	1.85"	1.125"	
	3/4-16	1/2NPT	U43188	—	1.78"	.875"	
	3/4-16	3/8NPT	U43168	35638-7	1.53"	.812"	
	3/4-16	1/4NPT	U43148	35638-6	1.53"	.812"	
	7/8-14	3/4NPT	U4311210	—	1.95"	1.125"	
	7/8-14	1/2NPT	U431810	—	1.88"	.937"	
	1-1/16-12	3/4NPT	U4311212	—	2.05"	1.125"	
	1-1/16-12	1/2NPT	U431812	—	2.05"	1.125"	
	1-5/16-12	1NPT	U4311616	—	2.29"	1.375"	
	1-5/16-12	3/4NPT	U4311216	—	2.10"	1.375"	
1-5/8-12	1-1/4NPT	U4312020	—	2.45"	1.687"		
1-7/8-12	1-1/2NPT	U4312424	—	2.67"	2.0"		

	THREADS		BDI PART #		DIMENSIONS		DRAWING
	Male (1)	Male (2)	Steel	Stainless	A	B	
90 Degree Adapter Male Thread SAE(JIC) X Male NPT 	7/16-20	1/4NPT	35528-1	35636-1	1.05"	1.09"	
	7/16-20	3/8NPT	35528-3	35636-3	1.13"	1.22"	
	7/16-20	1/8NPT	35528-5	35636-5	.89"	.78"	
	9/16-18	1/4NPT	35528-2	35636-2	1.06"	1.09"	
	9/16-18	3/8NPT	35528-4	35636-4	1.14"	1.22"	
	9/16-18	1/8NPT	35528-8	35636-8	1.06"	.90"	
	3/4-16	1/4NPT	35528-6	35636-6	1.25"	1.22"	
	3/4-16	3/8NPT	35528-7	35636-7	1.25"	1.22"	

	THREADS			BDI PART #		DIMENSIONS		DRAWING
	Male (1)	Male (2)	Male (3)	Steel	Stainless	A	B	
Tee Male Thread SAE(JIC)37 	7/16-20	7/16-20	7/16-20	35582-1	-	.84"	1.46"	
	9/16-18	9/16-18	9/16-18	35582-2	-	28MM	40MM	
	3/4-16	3/4-16	3/4-16	35582-3	-			

	THREADS		BDI PART #		DIMENSIONS		DRAWING
	Male (1)	Female (2)	Steel	Stainless	A	B	
Straight Male Thread X Female Thread Swivel 	1/8NPT	1/8NPSM	B10275-1*	-	1.09"	.562"	
	1/8NPT	1/8NPT	32382-1*	-	.85"	.562"	
	1/4NPT	1/4NPT	37271**	-	1.77"	.562"	
	1/4NPT	1/4NPSM	B10275-3*	-	1.43"	.687"	

* SWIVEL STOPS WHEN TIGHT **45 DEG

	THREAD	TYPE	BDI PART #	DIMENSIONS	DRAWINGS
	Male (1)			A	
Zerk Grease Fittings 	1/4-28	STR SHORT	F651	.53"	Straight  90 Degree  45 Degree  Button Head 
	1/4-28	STR MED	F652	.69"	
	1/4-28	STR LNG	F653	1.12"	
	1/4-28	90 DEG	F656	.75"	
	1/4-28	45 DEG	F657	.81"	
	1/8NPT	STR	15332-1*	.86"	
	1/8NPT	STR	15332-3**	.86"	
	1/8NPT	30 DEG	F671	.843"	
	1/8NPT	65 DEG STR	F672	.843"	
	1/8NPT	90 DEG	15332-2*	.97"	
	1/8NPT	90 DEG	F673	.843"	
	1/8NPT	STR SHORT	F674	.687"	
	1/8NPT	65 DEG LNG	F675	.531"	
	1/8NPT	45 DEG	F678	.890"	
	1/8NPT	STR LNG	F679	1.75"	
	1/8NPT	STD BUTTONHEAD	F1290	.75"	
	1/4NPT	STR	F687	.875"	
	1/4NPT	65 DEG	F689	.968"	
	1/4NPT	STD BUTTONHEAD	F1291	.828"	
	1/4NPT	GIANT BUTTONHEAD	F1292	1.25"	
	3/8NPT	GIANT BUTTONHEAD	F1293	1.312"	
	1/8BSPT	STR	19448	15MM	
	1/4BSPT	STR	19449	19MM	
	1/4BSPT	90 DEG	20870-1	22MM	
	1/4BSPT	45 DEG	20669-2	23MM	
	1/4 DRIVE	STR	F662	.546"	
	3/16 DRIVE	STR	F666	.515"	
	5/16 DRIVE	STR	F668	.546"	
	M6X1	STR	F691	.593"	
	M6X1	45 DEG	F694	.812"	
	M6X1	90 DEG	F697	.75"	
	M8X1	STR	F692	.625"	
	M8X1	45 DEG	F695	.812"	
M8X1	90 DEG	F698	.75"		
M8X1.25	STR	AX12017	17MM		
M10X1	45 DEG	20669-1	25MM		
M10X1.5	STR	21964-1	18MM		

* Leakproof 3K psi
**Leakproof High Pressure 10Kpsi

	TUBE		BDI			# OF		INFO	DIMENSIONS			DRAWINGS
	O.D.	PART #	# OF TUBES	MNTG HOLES	TYPE	A	B		MNTG HOLE			
	3/32	B3570	1	1	1	7/16"	.50"	.14"	.196"	TYPE 1 		
	3/32	34486	1	1	1	BAG 25 B3570	.50"	.14"	.196"			
	1/8	27820-1	1	1	1	NOT SUPPLIED W/SCREWS	.562"	.125"	.156"			
	1/8	27820-2	2	2	6	NOT SUPPLIED W/SCREWS	.312"	.187"	.156"			
	1/8	27820-3	3	2	6	NOT SUPPLIED W/SCREWS	.437"	.187"	.156"			
	1/8	27820-4	4	2	6	NOT SUPPLIED W/SCREWS	.562"	.187"	.156"			
	1/8	27820-5	5	2	6	NOT SUPPLIED W/SCREWS	.687"	.187"	.156"	TYPE 2 		
	1/8	27821-1	1	1	1	STAINLESS, NOT SUPPLIED W/SCREWS	.562"	.125"	.156"			
	1/8	27821-2	2	2	6	STAINLESS, NOT SUPPLIED W/SCREWS	.312"	.187"	.156"			
	1/8	27821-3	3	2	6	STAINLESS, NOT SUPPLIED W/SCREWS	.437"	.187"	.156"			
	1/8	27821-5	5	2	6	STAINLESS, NOT SUPPLIED W/SCREWS	.687"	.187"	.156"			
	5/32	A2435	1	1	1	1/2"	.70"	.20"	.196"			
	5/32	A2764	1	1	1	11/32"	.84"	.25"	.265"	TYPE 3 		
	5/32	B3539	2	1	2	5/16"	.84"	.25"	.196"			
	5/32	B3567	2	1	2	13/16"	1.0"	.25"	.265"			
	5/32	B7535	3-5	1	3	1"	1.1"	.25"	.196"			
	5/32	34487	1	1	1	BAG 25 A2435	.70"	.20"	.196"			
	5/32	34488	1	1	1	BAG 25 A2764	.84"	.25"	.265"			
	5/32	34489	2	1	2	BAG 25 B3539	.84"	.25"	.196"	TYPE 4 		
	5/32	34490	2	1	2	BAG 25 B3567	1.0"	.25"	.265"			
	5/32	34491	3-5	1	3	BAG 25 B7535	1.1"	.25"	.196"			
	3/16	U301A1	1	1	1	W/ 1/4-20X3/8"LG SCREW	1.06"	.25"	.281"			
	3/16	U301A2	2	1	3	W/ 1/4-20X3/8"LG SCREW	1.25"	.25"	.281"			
	3/16	U301A3	3	1	3	W/ 1/4-20X3/8"LG SCREW	1.437"	.25"	.281"			
	1/4	35476	1	1	1	1/2"	1.0"	.312"	.218"	TYPE 5 		
	1/4	B10349-5	1	2	-	WELD BASE	1.531"	1.312"				
	1/4	34492	1	1	1	BAG 25 35476	1.0"	.312"	.218"			
	1/4	U301B1	1	1	1	W/ 1/4-20X3/8"LG SCREW	1.125"	.312"	.281"			
	1/4	U301B2	2	1	3	W/ 1/4-20X3/8"LG SCREW	1.375"	.312"	.281"			
	1/4	U301B3	3	1	3	W/ 1/4-20X3/8"LG SCREW	1.625"	.312"	.281"			
	1/4	U1301B4	4	2	6	W/2PCS 1/4-20X3/8"LG SCREW	1.125"	.312"	.281"	TYPE 6 		
	1/4	U1301B6	6	2	6	W/2PCS 1/4-20X3/8"LG SCREW	1.625"	.312"	.281"			
	1/4	35448-1	1	1	5	RUBBER DIP	1.15"	.39"	.281"			
	3/8	B6508	1	1	1	1/2"	1.0"	.437"	.218"			
	3/8	34493	1	1	1	BAG 25 B6508	1.0"	.437"	.218"			
	3/8	U301D1	1	1	1	W/ 1/4-20X3/8"LG SCREW	1.25"	.437"	.281"			
	3/8	U301D2	2	1	3	W/ 1/4-20X3/8"LG SCREW	1.625"	.437"	.281"	TYPE 7 		
	3/8	U1301D3	3	2	6	W/2PCS 1/4-20X3/8"LG SCREW	1.25"	.437"	.281"			
	3/8	U1301D4	4	2	6	W/2PCS 1/4-20X3/8"LG SCREW	1.625"	.437"	.281"			
	3/8	U1301D6	6	2	6	W/2PCS 1/4-20X3/8"LG SCREW	2.375"	.437"	.281"			
3/8	35448-2	1	1	5	RUBBER DIP	1.55"	.525"	.406"				
1/2	U301E1	1	1	1	W/ 1/4-20X3/8"LG SCREW	1.25"	.562"	.281"				
1/2	U1301E2	2	2	6	W/2PCS 1/4-20X3/8"LG SCREW	1.125"	.562"	.281"	TYPE 8 			
1/2	35448-3	1	1	5	RUBBER DIP	1.70"	.714"	.406"				
.53	B10276-4	1	1	5	HOSE .735-.860	50MM	25MM	.406"				
19/32	B10276-2	1	1	5	HOSE .515-.590	45MM	22MM	.406"				
5/8	U301F1	1	1	1	W/ 1/4-20X3/8"LG SCREW	1.437"	.687"	.281"				
5/8	35448-4	1	1	5	RUBBER DIP	1.83"	.84"	.406"				
3/4	35448-5	1	1	5	RUBBER DIP	2.00"	1.00"	.406"	TYPE 9 			
4MM	73573-4114	1	1	1		20MM	5.5MM	5.5MM				
5.5-7MM	34499	1	1	1	BAG 25 73572-3234	38MM	14MM	6.6MM				
5.5-7MM	73572-3234	1	1	1		38MM	14MM	6.6MM				
7-9MM	35011	1	1	1		40MM	16MM	6.6MM				
7.9MM	35377	1	1	1	BAG 25PCS 35011	40MM	16MM	6.6MM				
7-9MM	73573-3134	1	2	4		48MM	15MM	6.6MM	TYPE 10 			
7-9MM	34758	1	2	4	BAG 10PCS 73573-3134	50MM	15MM	6.6MM				
N/A	U240G2	N/A	N/A	-	1/4-20X3/8"LG SCREW	-	-	-				

	TUBE O.D.	TUBE WALL	BDI PART #	WORKING PRESSURE		MATERIAL	COLOR	NOTES	
				PSI	BAR				
	3/32	.020	3N20	404	27.75	Nylon	Natural	250FT STD REEL	
	1/8	.031	26221	500	34.5	Nylon	Natural	250FT STD REEL	
		.026	26079	625	43	Nylon	Natural	500FT STD REEL	
		.026	27722	625	43	Nylon	Black	25'coil	
		.026	27389	625	43	Nylon	Black	100'coil	
		.031	20295	85	5.75	Polyurethane	Clear		
	5/32	.025	19230	250	17.25	Nylon	Black	250FT STD REEL	
		.025	19230-RD	250	17.25	Nylon	Red	250FT STD REEL	
		.025	19230-BU	250	17.25	Nylon	Blue	250FT STD REEL	
		.025	19230-BR	250	17.25	Nylon	Brown	250FT STD REEL	
		.025	19230-YW	250	17.25	Nylon	Yellow	250FT STD REEL	
		.025	19230-GN	250	17.25	Nylon	Green	250FT STD REEL	
		.025	5N25	300	17.25	Nylon	Natural	250FT STD REEL	
		.035	21267	500	34.5	Nylon	Black	UV	
		.055	5N55	500	34.5	Nylon	Natural		
		.055	5N55-330	500	34.5	Nylon	Natural	330FT STD REEL	
		.055	5N55B	500	34.5	Nylon	Black		
		.055	5N55B-330	500	34.5	Nylon	Black	330FT STD REEL	
		.024	6N24	250	17.25	Nylon	Natural	250FT STD REEL	
		.046	B10271-1	500	34.5	Nylon	Natural		
		3/16	.038	U428A	625	43	Nylon	Natural	
	.046		B10271-4	500	34.5	Nylon	Black		
	0.044		35450	500	34.5	Nylon	Black/Red	2-tube bundle	
	.044		35451	500	34.5	Nylon	Black/Red/Blue	3-tube bundle	
	0.046		35648	500	34.5	Nylon	Black	#0 grease filled 15'LG	
	0.046		35601	500	34.5	Nylon	Black	#0 grease filled 20'LG	
	.044		35453	500	34.5	Nylon	Black/Red	2-tube bndl #0 grease filled 10'LG	
	0.044		35649	500	34.5	Nylon	Black/Red	2-tube bndl #0 grease filled 15'LG	
	0.044		35602	500	34.5	Nylon	Black/Red	2-tube bndl #0 grease filled 20'LG	
	.044		35454	500	34.5	Nylon	Black/Red/Blue	3-tube bndl #0 grease filled 10'LG	
	.044		35650	500	34.5	Nylon	Black/Red/Blue	3-tube bndl #0 grease filled 15'LG	
	0.044		35603	500	34.5	Nylon	Black/Red/Blue	3-tube bndl #0 grease filled 20'LG	
	.062		B10437	500	34.5	Nylon	Black		
	1/4		.040	B8598	100	7	Polyethylene	Clear	200FT STD REEL
			.050	21672	625	43	Nylon	Black	100'coil
		.035	B8599	375	25.75	Nylon	Natural	200FT STD REEL	
		.035	8N30B	425	43	Nylon	Black	250FT STD COIL	
		.062	34211	500	34.5	Nylon	Natural		
		.035	8N30	425	29.25	Nylon	Natural	250FT STD COIL	
		.050	U428B	625	43	Nylon	Natural		
		0.062	35127	500	34.5	Nylon	Black	(B10437) 25FT PRE FILLED W/#0 GREASE	
		0.062	37533	500	34.5	Nylon	Black	(B10437) 25FT PRE FILLED W/#1 GREASE	
		.040	20100	312	21.5	Nylon	Natural	250FT STD REEL	
	5/16	.040	19159	250	17.25	Nylon	Black		
		.059	35520	375	25.75	Nylon	Black		
		.062	B10067	87	6	Polyethylene	Clear	500FT STD REEL	
	3/8	.075	U428D	625	43	Nylon	Natural		
		.075	35543	625	43	Nylon	Black		
		.062	19342	250	17.25	Nylon	Black	250FT STD REEL	
	1/2	.062	19342	250	17.25	Nylon	Black	250FT STD REEL	
.75MM		73100-2128	250	17.25	Nylon	Natural	REPLACED 73100-2114		
4MM	.75MM	4N25W			Polyurethane	Clear			
	1MM	27490	275	19	Nylon	White			
6MM	1MM	35006	500	34.5	Nylon	Natural			
	1MM	B10437C	500	34.5	Nylon	Natural			
	1.5MM	6N3B	471	32.5	Nylon	Natural			
	1.5MM	6N3G-25	471	32.5	Nylon	Natural	6N3B GREASE FILLED 25METERS		
	1MM	35461	101	7	Polyurethane	Clear	100METER ROLL		
	1MM	8N6	125	8.5	Nylon	Natural			
8MM	1.5MM	35007	125	8.5	Nylon	Natural			
	1.5MM	29942	565	39	Nylon	Black	25 METER COIL		
	1.25MM	34825	100	7	Nylon	Natural	25METER ROLL		
10MM	2MM	10N6-BLACK	600	41.25	Nylon	Black	25 METER COIL		
	1.5MM	34826	90	6.25	Nylon	Natural	25METER ROLL		

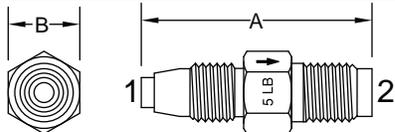
PROTECTION ITEMS	TUBE O.D.	BDI PART #	NOTES	DRAWINGS
	4MM - 5/32	20111	PER FOOT	<p>FITS TUBE O.D. *tubing Not Included.</p>
	5/16	20107		
	4MM - 5/32	15344	PER FOOT	<p>FITS TUBE O.D. (ø .20) *5N25 tubing Included, can be removed.</p>

	TUBE O.D.	TUBE WALL	BDI PART #	MATERIAL	STANDARD		NOTES
					LENGTH		
	3/32	.022	3C22	COPPER	12'		
		0.02	3S20	STEEL	12'		
	1/8	.030	4C30	COPPER	12'		
		.020	27388	STEEL	25'		25'COIL
	5/32	.025	5B25	BRASS	12'		
			5B25-CP	BRASS	12'		CHROME PLATED
		.032	5HB32	BRASS	12'		HARD BRASS
		.025	5C25	COPPER	12'		
		.025	5C25-CP	COPPER	12'		CHROME PLATE
		.025	32196	COPPER	50'		50'COIL
		.055	5C55	COPPER	12'		
		.055	5C55-CP	COPPER	12'		CHROME PLATE
		.028	5SS28	STAINLESS STEEL	10'		
		.020	5S20	STEEL			
	3/16	.032	6HB32	BRASS	12'		HARD BRASS
		.030	6C30	COPPER	50'		
		.030	U424C3	COPPER	8-12'		
	1/4	.035	U424B4	BRASS	10-12'		
			U424D4	COPPER CLAD	8-12'		
		.030	U424C4	COPPER	8-12'		
		.030	8C30	COPPER	12'		
		.035	7914035304WSS	STAINLESS STEEL	20		
		0.028	8SS28	STAINLESS STEEL	10'		
		.028	8S28	STEEL	12'		
		.028	27721	STEEL	25'		25'COIL
		.035	U424E4	STEEL			
		.032	10C32	COPPER	12'		
	5/16	.035	U424E5	STEEL	20'		
		.049	U424B6	BRASS	10-12'		
	3/8	0.028	U424D6	COPPER CLAD	8-12'		
		0.032	U424C6	COPPER	8-12'		
		.049	U424CCC6	COPPER	8-12'		
		.065	21633	STAINLESS STEEL	10'		
		.049	7938049304WSS	STAINLESS STEEL	20		
		.049	U424E6	STEEL	20'		
	1/2	.032	26958	COPPER	50'		50'COIL
		0.049	U424C8	COPPER	8-12'		
		.065	55312	STAINLESS STEEL	-		
	3/4	.065	U424E8	STEEL			
		.065	U424E12	STEEL			
		.083	24S83	STEEL	12'		
	4MM	0.5MM	73100-3124	COPPER	16.4' (5M)		
		0.7MM	73100-1214	STEEL			
	6MM	1MM	27435	BRASS	12'		1/4 HARD TEMPER
		1MM	21431-6	COPPER	12'		
		1MM	25712	COPPER	12'		
		1MM	21182	STEEL			
		1MM	73100-1234	STEEL			
8MM	1MM	10C8	COPPER	12'			
10MM	.75MM	10A8	STEEL				
	1MM	34481	STEEL			ZINC CHROME	
	1.5MM	21431-10	COPPER	10 M		10 METER COIL	

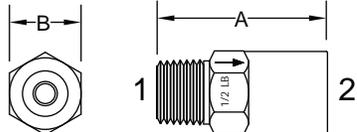
Note: Most metal tubing is normally coiled for shipping. Straight lengths available in some sizes. Specify on order or contact customer service.

	TUBE	BDI		INCLUDES							
	O.D.	PART #	10'-FT	12'-FT	25 PCS	25 PCS	25 PCS	25 PCS	10 PCS	8 PCS	8 PCS
Tubing Service Kit	5/32	K1079	5N25	5C25	B1371	B1095	B1061	B8272	A2435	B3784	A2899

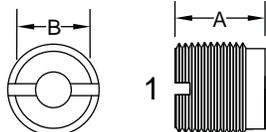
	O.D.	BDI PART #	COLOR	MATERIAL	NOTES
	1/4	35419-1	Black	Polyethylene	100ft coils
	1/2	35419-2	Black	Polyethylene	100ft coils
	3/4	35419-3	Black	Polyethylene	100ft coils
	1	35419-4	Black	Polyethylene	100ft coils
	1/2	35645	Black	Polyethylene	3/8" to 4" Bundling Range
	1	35646	Black	Polyethylene	1" to 7" bundling Range

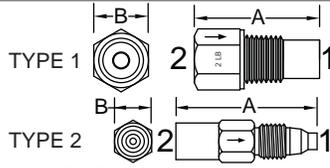
(FLOW →)	OPENING		THREADS		BDI PART #	DIMENSIONS		DRAWING
	PRESSURE	Male (1)	Male (2)	A		B		
Check Valve Junction Mounted 	5 LBS	5/16-24	5/16-24	B3003	1.20"	.375"		
	10 LBS	5/16-24	5/16-24	B3363	1.20"	.375"		
	20 LBS	5/16-24	5/16-24	B3251	1.20"	.375"		
	50 LBS	5/16-24	5/16-24	B5146	1.20"	.375"		

Note: Outlet 5/16-24 thread for 5/32 diameter tubing connection. Use Compression Nut B1095 and Compression Sleeve B1061 listed on pages 16/17.

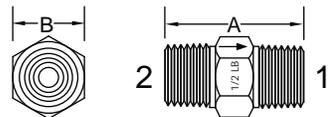
(FLOW →)	OPENING		THREADS		BDI PART #	DIMENSIONS		DRAWING
	PRESSURE	Male (1)	Female (2)	A		B		
Check Valve Adapter Type 	2 LBS	1/8NPT	5/16-24	B3815	1.0"	.437"		
	5 LBS	1/8NPT	5/16-24	B3905	1.0"	.437"		
	10 LBS	1/8NPT	5/16-24	B3906	1.0"	.437"		
	20 LBS	1/8NPT	5/16-24	B4450	1.0"	.437"		
	50 LBS	1/8NPT	5/16-24	B4960	1.0"	.437"		
	2 LBS	1/8NPT	1/8NPTF	B5627	1.0"	.50"		
	70-80 LBS	1/8NPT	1/8NPTF	U1975A1*	1.47"	.50"		
	70-80 LBS	1/8NPT	1/8NPTF	U1975B1*	1.38"	.50"		
	250 LBS	1/8NPT	1/8NPSF	37159**	1.27"	14.2mm		

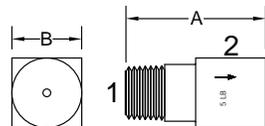
* 2500PSI PROOF PRESSURE.
** STEEL, 5000PSI MAX

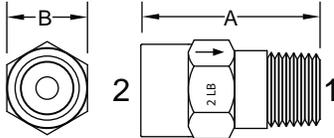
(FLOW →)	OPENING		THREAD	BDI PART #	NOTES	DIMENSIONS		DRAWING
	PRESSURE	Male (1)	A			B		
Check Valve Flush Mounted 	1/2 LB	7/16-20 NF	A3889	USE GASKET A3772	.468"	.362"		
	1/2 LB	1/2-20	B3674	USE GASKET A4191	.468"	.43"		

(FLOW →)	OPENING		THREADS		BDI PART #	DIMENSIONS			DRAWINGS
	PRESSURE	Female (2)	Male (1)	A		B	TYPE		
Check Valve Insert 	2 LBS	5/16-24	1/8NPT	B4301	.875"	.437"	1		
	5 LBS	5/16-24	1/8NPT	B3454	.875"	.437"	1		
	10 LBS	5/16-24	1/8NPT	B3874	.875"	.437"	1		
	20 LBS	5/16-24	1/8NPT	B4023	.875"	.437"	1		
	1 LB	5/16-24	5/16-24	B6999*	1.2"	.375"	2		
	10 LB	5/16-24	5/16-24	20883*	1.2"	.375"	2		

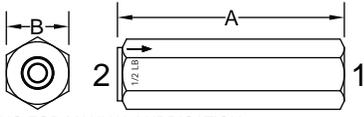
* JUNCTION MOUNT

(FLOW →)	OPENING		THREADS		BDI PART #	DIMENSIONS		DRAWING
	PRESSURE	Male (1)	Male (2)	A		B		
Check Valve Connector 	1/2 LB	1/8NPT	1/8NPT	B5290	.875"	.437"		
	2 LBS	1/8NPT	1/8NPT	B4052	.875"	.437"		
	5 LBS	1/8NPT	1/8NPT	B4942	.875"	.437"		
	10 LBS	1/8NPT	1/8NPT	B4943	.875"	.437"		
	20 LBS	1/8NPT	1/8NPT	B4944	.875"	.437"		

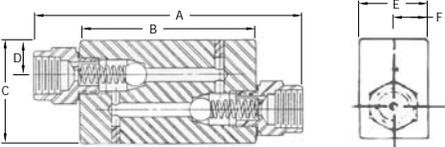
(FLOW →)	OPENING		THREADS		BDI PART #	DIMENSIONS		DRAWING
	PRESSURE	Male (1)	Female (2)	A		B		
Check Valve 90 Degree Connector 	2 LBS	1/8NPT	1/8NPT	B3833	1.0"	.50"		
	5 LBS	1/8NPT	1/8NPT	B3907	1.0"	.50"		
	10 LBS	1/8NPT	1/8NPT	B3908	1.0"	.50"		
	2 LBS	1/8NPT	1/8NPT	B6802	1.0"	.50"		

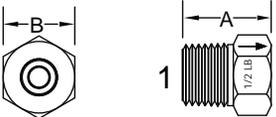
(FLOW→)	OPENING		THREADS		BDI PART #	DIMENSIONS		DRAWING
	PRESSURE	Male (1)	Female (2)	A		B		
 Pressure Relief Valve	2 LBS	1/8NPT	1/8NPT	B5892	.937"	.50"		
	2 LBS	1/8NPT	5/16-24	B7702	1.0"	.437"		
	10 LBS	1/8NPT	5/16-24	B6091	1.0"	.437"		
	6 to 8 oz.	1/4NPT	1/4NPT	27302	-	-		

Note: Valves are ball type with flow capacity of 100cc/minute maximum. Tolerance of valve opening pressure is ±10%. Valves with hexagon or square bodies are stamped with the nominal opening pressure and arrow indicating direction of flow.

(FLOW→)	OPENING		THREADS		BDI PART#	DIMENSIONS		DRAWING
	PRESSURE	Female(1)	Female(2)	A		B		
 Line Check Valve Poppet style	1.5 - 2 LBS	1/4NPT	1/4NPT	U1972B	2.375"	.75"		
	1.5 - 2 LBS	1/4NPT	1/4NPT	U1972B1*	2.375"	.75"		
	5 LBS	3/8NPT	3/8NPT	35677-1	3.0"	1.0"		
	65 LBS	3/8NPT	3/8NPT	35677-2	3.0"	1.0"		

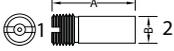
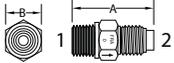
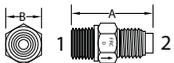
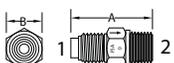
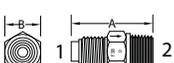
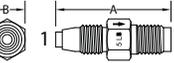
* HAS GREASE FITTING FOR MANUAL LUBRICATION

	BDI PART #	THREADS		DIMENSIONS						DRAWING
		Female (1)	Female (2)	A	B	C	D	E	F	
2-Way Line Check Oil Dualine Systems	U1929D	1/2NPTF	1/2NPTF	5.62"	3.5"	2.25"	0.68"	1.5"	0.75"	
-Proof Pressure 6000 PSI										
-Cracking Pressure 110-120 PSI Avg.										

(FLOW→)	OPENING		THREAD	BDI PART #	DIMENSIONS		DRAWING
	PRESSURE	Male (1)			A	B	
 Pressure Relief Valve	1-5 PSI	1/8NPT	U962B	.484"	.437"		
	50 PSI	1/8NPT	B4974	.625"	.437"		
	75 PSI	1/8NPT	B9943	.688"	.437"		
	100 PSI	1/8NPT	B6898-1	.688"	.437"		
	130 PSI	1/8NPT	B6898	.688"	.437"		
	175 PSI	1/8NPT	B6965	.688"	.437"		
	200 PSI	1/8NPT	B5643	.688"	.437"		
	270 PSI	1/8NPT	B3993	.688"	.437"		
	300 PSI	1/8NPT	19142	.688"	.437"		
	400 PSI	1/8NPT	23232	.688"	.437"		
	450 PSI	1/8NPT	19139	.688"	.437"		
	600 PSI	1/8NPT	29605	23MM	11MM		
	725 PSI	1/8NPT	29541	23MM	11MM		
1000 PSI	1/8NPT	29183	23MM	11MM			

METER UNITS		FLOW	BDI PART		THREADS (FLOW→)		DIMENSIONS		DRAWINGS
TYPE	RATE	#	Inlet(1)	Outlet(2)	A	B			
	3/0	17841-3/0	M8X1* (5/32 or 4mm tube)	1/8BSPT	24MM	10MM			
	00	17841-00							
	0	17841-0							
	1	17841-1							
	2	17841-2							
	3	17841-3							
	4	17841-4							
	3/0	15323-3/0	M8X1	M8X1* (5/32 or 4mm tube)	30.5MM	10MM			
	00	15323-00							
	0	15323-0							
	1	15323-1							
	2	15323-2							
	3	15323-3							
	4	15323-4							
5	15323-5								
	3/0	B8724	1/8NPT	1/8BSPT	53/64	7/16			
	00	B8725							
	0	B8452							
	1	B8726							
	2	B8727							
	3	B8728							
	4	B8729							
5	B8730								
	3/0	B6548	5/16-24	5/16-24* (5/32 or 4mm tube)	1-7/32	3/8			
	00	B2494							
	0	B2495							
	1	B2496							
	2	B2497							
	3	B2498							
	4	B2499							
5	B2500								
	3/0	B7267	5/16-24	5/16-24* (3/32 tube)	1-7/32	3/8			
	00	B3314							
	0	B3315							
	1	B3316							
	2	B3317							
	3	B3318							
	4	B3319							
5	B3320								
	3/0	B6085	5/16-24	1/4-28* (3/32 tube)	1-1/8	5/16			
	00	B3773							
	0	B3774							
	1	B3775							
	2	B3776							
	3	B3777							
	4	B3778							
5	B3779								
	3/0	B7271	—	1/8NPT	29/32	9/32			
	00	B3913							
	0	B3914							
	1	B3915							
	2	B3916							
	3	B3917							
	4	B3918							
5	B3919								
	3/0	B7273	1/8NPT	—	29/32	9/32			
	00	B3980							
	0	B3981							
	1	B3982							
	2	B3983							
	3	B3984							
	4	B3985							
5	B3986								
	3/0	B8878	—	1/8BSPT	29/32	9/32			
	00	B8870							
	0	B8871							
	1	B8872							
	2	B8873							
	3	B8874							
	4	B8875							
5	B8876								

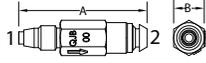
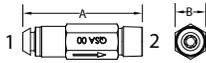
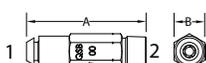
* See page 18-19 for tubing connections.

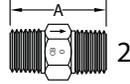
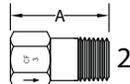
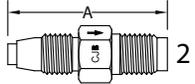
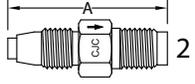
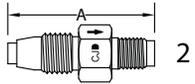
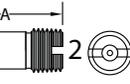
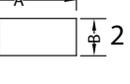
METER UNITS		FLOW	BDI PART	THREADS (FLOW→)		DIMENSIONS		DRAWINGS
TYPE	RATE	#	Inlet(1)	Outlet(2)	A	B		
FKE 	3/0	B8868	1/8BSPT	—	29/32	9/32		
	00	B8860						
	0	B8861						
	1	B8862						
	2	B8863						
	3	B8864						
	4	B8865						
FRA 	3/0	B7265	1/8NPT	5/16-24* (5/32 or 4mm tube)	1	3/8		
	00	B2559						
	0	B3215						
	1	B3216						
	2	B3217						
	3	B3218						
	4	B3219						
FRC 	3/0	B7269	1/8NPT	5/16-24* (3/32 tube)	1	3/8		
	00	B3579						
	0	B3580						
	1	B3581						
	2	B3582						
	3	B3583						
	4	B3584						
FSA 	3/0	B6526	5/16-24* (5/32 or 4mm tube)	1/8NPT	61/64	3/8		
	00	B1620						
	0	B1083						
	1	B1084						
	2	B1085						
	3	B1086						
	4	B1087						
FSB 	3/0	B8717	5/16-24* (5/32 or 4mm tube)	1/8BSPT	61/64	7/16		
	00	B8718						
	0	B8455						
	1	B8719						
	2	B8720						
	3	B8721						
	4	B8722						
MJ 	00	B8042	5/16-24	5/16-24* (1/8" tube)	1-7/32	3/8		
	1	B8043						
	2	B8044						
	5	B9514						

* See page 18-19 for tubing connections.

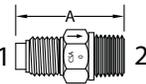
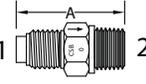
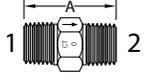
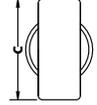
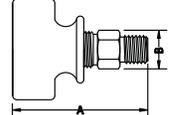
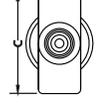
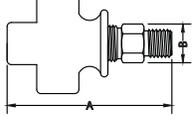
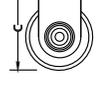
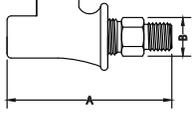
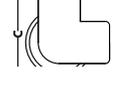
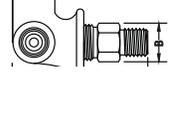
METER UNITS		FLOW	BDI PART	THREADS (FLOW→)		DIMENSIONS			DRAWINGS
TYPE	RATE	#	Inlet(1)	Outlet(2)	A	B	C		
FT 	3/0	B6529	1/8NPT	1/8NPT	53/64	3/8	-	 	
	00	B1398							
	0	B1112							
	1	B1113							
	2	B1114							
	3	B1115							
	4	B1116							
FTA 	3/0	B6549	5/16-24(2)* (5/32 or 4mm tube)	1/8NPT	1-3/8	3/8	1-1/8	 	
	00	B1524							
	0	B1071							
	1	B1072							
	2	B1073							
	3	B1074							
	4	B1075							
FTB 	3/0	B6550	5/16-24(3)* (5/32 or 4mm tube)	1/8NPT	1-3/4	3/8	1-1/8	 	
	00	B1528							
	0	B1077							
	1	B1078							
	2	B1079							
	3	B1080							
	4	B1081							
FTC 	3/0	B6551	5/16-24(2)* (5/32 or 4mm tube)	1/8NPT	1-3/4	3/8	15/16	 	
	00	B1530							
	0	B1098							
	1	B1099							
	2	B1100							
	3	B1101							
	4	B1102							
FTD 	3/0	B6552	5/16-24(2)* (5/32 or 4mm tube)	1/8NPT	1-3/8	3/8	15/16	 	
	00	B1532							
	0	B1106							
	1	B1107							
	2	B1108							
	3	B1109							
	4	B1110							
FTG 	3/0	B6553	5/16-24(3)* (5/32 or 4mm tube)	1/8NPT	1-3/8	3/8	1-1/8	 	
	00	B2759							
	0	B2760							
	1	B2761							
	2	B2762							
	3	B2763							
	4	B2764							
FTH 	3/0	B6554	5/16-24(4)* (5/32 or 4mm tube)	1/8NPT	1-3/8	3/8	1-1/8	 	
	00	B2769							
	0	B2770							
	1	B2771							
	2	B2772							
	3	B2773							
	4	B2774							
FTK 	3/0	B6555	5/16-24(3)* (5/32 or 4mm tube)	1/8NPT	1-3/4	3/8	15/16	 	
	00	B4128							
	0	B4129							
	1	B4130							
	2	B4131							
	3	B4132							
	4	B4133							
FTL 	3/0	B6556	5/16-24(4)* (5/32 or 4mm tube)	1/8NPT	1-3/4	3/8	1-1/8	 	
	00	B4368							
	0	B4369							
	1	B4370							
	2	B4371							
	3	B4372							
	4	B4373							
5	B4374								

* See page 18-19 for tubing connections.

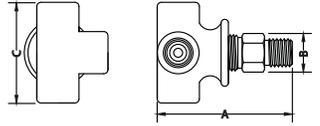
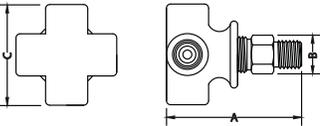
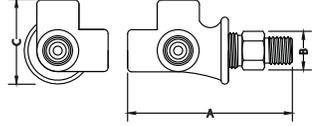
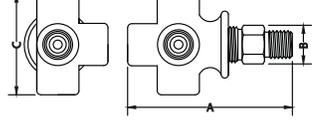
METER UNITS		FLOW	BDI PART	THREADS (FLOW→)		DIMENSIONS		DRAWINGS
TYPE	RATE	#	Inlet(1)	Outlet(2)	A	B		
QJB 	3/0	QJB-3/0	5/16-24	QC (5/32 or 4mm tube)	41.8MM	10MM		
	00	QJB-00						
	0	QJB-0						
	1	QJB-1						
	2	QJB-2						
	3	QJB-3						
	4	QJB-4						
QSA 	3/0	QSA-3/0	QC (5/32 or 4mm tube)	1/8NPT	39MM	10MM		
	00	QSA-00						
	0	QSA-0						
	1	QSA-1						
	2	QSA-2						
	3	QSA-3						
	4	QSA-4						
QSB 	3/0	QSB-3/0	QC (5/32 or 4mm tube)	1/8BSPT	39MM	10MM		
	00	QSB-00						
	0	QSB-0						
	1	QSB-1						
	2	QSB-2						
	3	QSB-3						
	4	QSB-4						
QMB 	3/0	QMB-3/0	M8X1	QC (5/32 or 4mm tube)	41.8MM	10MM		
	00	QMB-00						
	0	QMB-0						
	1	QMB-1						
	2	QMB-2						
	3	QMB-3						
	4	QMB-4						
QQB 	3/0	QQB-3/0	QC (5/32 or 4mm tube)	QC (5/32 or 4mm tube)	52MM	10MM		
	00	QQB-00						
	0	QQB-0						
	1	QQB-1						
	2	QQB-2						
	3	QQB-3						
	4	QQB-4						

CONTROL UNITS		FLOW	BDI PART	THREADS (FLOW→)		DIMENSIONS			DRAWINGS
TYPE	RATE	#	Inlet(1)	Outlet(2)	A	B	C		
CB 	5/0	B8708	1/8NPT	1/8BSPT	53/64	7/16	-	 	
	4/0	B8709							
	3/0	B8710							
	00	B8711							
	0	B8712							
	1	B8713							
	2	B8374							
	3	B8714							
	4	B8715							
	5	B8716							
CF 	5/0	—	1/8NPT	1/8NPT	1-1/32	1/2		 	
	4/0	—							
	3/0	—							
	00	—							
	0	—							
	1	—							
	2	—							
	3	B6528							
	4	B6557							
	5	B6584							
CJB 	5/0	B7034	5/16-24	5/16-24* (5/32 or 4mm tube)	1-7/32	3/8		 	
	4/0	B7035							
	3/0	B7036							
	00	B7037							
	0	B7038							
	1	B7039							
	2	B6817							
	3	B6818							
	4	B6819							
	5	B6820							
CJC 	5/0	B7148	5/16-24	5/16-24* (3/32 tube)	1-7/32	3/8		 	
	4/0	B7149							
	3/0	B7150							
	00	B7151							
	0	B7152							
	1	B7153							
	2	B6930							
	3	B6931							
	4	B6932							
	5	B6933							
CJD 	5/0	B7164	5/16-24	1/4-28* (3/32 tube)	1-1/8	5/16		 	
	4/0	B7165							
	3/0	B7166							
	00	B7167							
	0	B7168							
	1	B7169							
	2	B7170							
	3	B7171							
	4	B7172							
	5	B7173							
CKA 	5/0	B7122	-	1/8NPT	29/32	9/32		 	
	4/0	B7123							
	3/0	B7124							
	00	B7125							
	0	B7126							
	1	B7127							
	2	B7128							
	3	B7129							
	4	B7130							
	5	B7131							
CKB 	5/0	B7133	1/8NPT	-	29/32	9/32		 	
	4/0	B7134							
	3/0	B7135							
	00	B7136							
	0	B7137							
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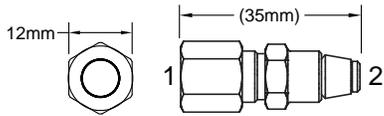
* See page 18-19 for tubing connections.

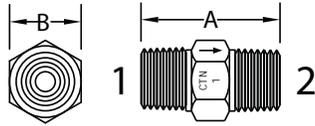
CONTROL UNITS		FLOW	BDI PART	THREADS (FLOW→)		DIMENSIONS			DRAWINGS
TYPE	RATE	#	Inlet(1)	Outlet(2)	A	B	C		
CSA 	5/0	B7022	5/16-24* (5/32-4mm tube)	1/8NPT	61/64	3/8	-	 	
	4/0	B7023							
	3/0	B7024							
	00	B7025							
	0	B7026							
	1	B7027							
	2	B6757							
	3	B6758							
	4	B6759							
	5	B6760							
CSB 	5/0	B8700	5/16-24* (5/32-4mm tube)	1/8BSPT	61/64	3/8	-	 	
	4/0	B8701							
	3/0	B8702							
	00	B8703							
	0	B8179							
	1	B8704							
	2	B8705							
	3	B8706							
	4	B8707							
	5	B8177							
CT 	5/0	B7028	1/8NPT	1/8NPT	53/64	3/8	-	 	
	4/0	B7029							
	3/0	B7030							
	00	B7031							
	0	B7032							
	1	B7033							
	2	B6764							
	3	B6765							
	4	B6766							
	5	B6767							
CTA 	5/0	B7174	5/16-24(2)* (5/32-4mm tube)	1/8NPT	1-3/8	3/8	1-1/8	 	
	4/0	B7175							
	3/0	B7176							
	00	B7177							
	0	B7178							
	1	B7179							
	2	B6775							
	3	B6776							
	4	B6777							
	5	B6778							
CTB 	5/0	B7192	5/16-24(3)* (5/32-4mm tube)	1/8NPT	1-3/4	3/8	1-1/8	 	
	4/0	B7193							
	3/0	B7194							
	00	B7195							
	0	B7196							
	1	B7197							
	2	B7198							
	3	B7199							
	4	B7200							
	5	B7201							
CTC 	5/0	B7186	5/16-24(2)* (5/32-4mm tube)	1/8NPT	1-3/4	3/8	151/6	 	
	4/0	B7187							
	3/0	B7188							
	00	B7189							
	0	B7196							
	1	B7197							
	2	B6779							
	3	B6780							
	4	B6781							
	5	B6782							
CTD 	5/0	B7180	5/16-24(2)* (5/32-4mm tube)	1/8NPT	1-3/8	3/8	15/16	 	
	4/0	B7181							
	3/0	B7182							
	00	B7183							
	0	B7184							
	1	B7185							
	2	B6783							
	3	B6784							
	4	B6785							
	5	B6786							

* See page 18-19 for tubing connections.

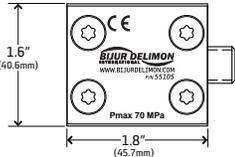
CONTROL UNITS		FLOW	BDI PART	THREADS (FLOW→)		DIMENSIONS			DRAWINGS
TYPE	RATE	#	Inlet(1)	Outlet(2)	A	B	C		
CTG 	5/0	B7212	5/16-24(3)* (5/32-4mm tube)	1/8NPT	1-3/8	3/8	1-1/8		
	4/0	B7213							
	3/0	B7214							
	00	B7215							
	0	B7216							
	1	B7217							
	2	B6787							
	3	B6788							
	4	B6789							
	5	B6790							
CTH 	5/0	B7218	5/16-24(4)* (5/32-4mm tube)	1/8NPT	1-3/8	3/8	1-1/8		
	4/0	B7219							
	3/0	B7220							
	00	B7221							
	0	B7222							
	1	B7223							
	2	B7224							
	3	B7225							
	4	B7226							
	5	B7227							
CTK 	5/0	B7202	5/16-24(3)* (5/32-4mm tube)	1/8NPT	1-3/4	3/8	15/16		
	4/0	B7203							
	3/0	B7204							
	00	B7205							
	0	B7206							
	1	B7207							
	2	B7208							
	3	B7209							
	4	B7210							
	5	B7211							
CTL 	5/0	B7228	5/16-24(4)* (5/32-4mm tube)	1/8NPT	1-3/4	3/8	1-1/8		
	4/0	B7229							
	3/0	B7230							
	00	B7231							
	0	B7232							
	1	B7233							
	2	B7234							
	3	B7235							
	4	B7236							
	5	B7237							

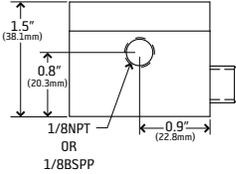
* See page 18-19 for tubing connections.

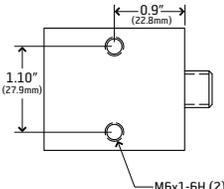
	BDI PART #	DESCRIPTION	CHECK VALVE	TYPE	TUBE/		DRAWING
					TUBE (1)	THREADS (2)	
 *Stainless Steel	35360	OUTLET FITTING	Y	COMPRESSION	3/16"	M10X1	
	35166	OUTLET FITTING	Y	COMPRESSION	1/4"	M10X1	
	23397	OUTLET FITTING	Y	COMPRESSION	4mm	M10X1	
	23301	OUTLET FITTING	Y	COMPRESSION	6mm	M10X1	
	734490763*	OUTLET FITTING	Y	COMPRESSION	6mm	M10X1	
	29080	OUTLET FITTING	Y	PTC	1/4"	M10X1	
	35895	OUTLET FITTING	Y	PTC	4mm	M10X1	
	73449V010	OUTLET FITTING	Y	PTC	6mm	M10X1	
	29076	OUTLET FITTING	Y	-	1/8NPTF	M10X1	
	74161-1851	B PLUG	-	-	-	M10X1	
	23292	B CLAMP RING	-	-	-	-	
	73511-3223	B CLAMP RING	-	-	-	-	
	74161-5741	C PLUG	-	-	-	M10X1	
	72712-1094	C WASHER	-	-	-	-	
	741617621*	B PLUG	-	-	-	M10X1	
	74161-7661*	C PLUG	-	-	-	M10X1	

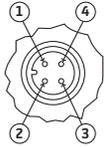
	BDI PART #	DESCRIPTION	THREADS (FLOW→)		DIMENSIONS		DRAWINGS
			Inlet(1)	Outlet(2)	A	B	
	21583-1	CTN-1	1/8NPT	1/8NPT	.83"	.375"	
	21583-2A	CTN-2					
	21583-5A	CTN-5					

	BDI PART #	THREADS	MAXIMUM PRESSURE		SWITCH RATING		ENCLOSURE	MONITORING CONNECTION
			PSI	BAR	MAX VOLTAGE	MAX CURRENT		
 Operating Temp. Range: -4° to 158° F (-20° to 70° C) Lubricant Range: ISO VG32 OIL to NLGI #2 Grease Material: Aluminum/ Stainless (SS) Vibrations: 20 g (10-20000 Hz) (see page 73 for connection cables)	55105	1/8NPT	10153	700	0-24 VDC	0.20 amp	IP67	M12 4-POLE
	55105-B	1/8BSPP						
	55105-SS	1/8NPT						









Refer to the following:
Datasheet: #35978

PIN #	Description	Wire Color
1	Common	Brown
4	Signal	Black

	BDI PART #	VOLTAGE	Hz	ELEC. CONN.	CURRENT		PORT SIZE			TYPE	FLOW MAX	ENCL. NEMA	TEMP RANGE	
					HOLDING	IN RUSH	INLET	OUTLET	EXHAUST					
Solenoid Valves Pneumatic	20311-1	120VAC	50/60	1/4NPTF	0.09 amps	0.12 amps	1/8NPTF	1/8NPTF	1/8NPTF	3/2	0.18Cv	1	0° to 140° F (-18° to 60° C)	
	20311-3	120VAC	50/60	DIN 43650A	0.09 amps	0.12 amps	1/8NPTF	1/8NPTF	1/8NPTF	3/2	0.18Cv	1		
	20311-4	240VAC	50/60	DIN 43650A	0.09 amps	0.12 amps	1/8NPTF	1/8NPTF	1/8NPTF	3/2	0.18Cv	1		
	20311-5	24VDC	-	1/4NPTF	6W		1/8NPTF	1/8NPTF	1/8NPTF	3/2	0.18Cv	1		
	20311-7	24VDC	-	DIN 43650A	6W		1/8NPTF	1/8NPTF	1/8NPTF	3/2	0.18Cv	1		
	20311-8	24VDC	-	DIN 43650A	6W		1/4NPTF	1/4NPTF	1/4NPTF	3/2	0.18Cv	1		
	20311-9	120VAC	50/60	DIN 43650A	0.09amps	0.12 amps	1/4NPTF	1/4NPTF	1/4NPTF	3/2	0.18Cv	1		
	20311-11	24VDC	-	DIN 43650A	6W		1/4BSPP	1/4BSPP	1/4BSPP	3/2	0.18Cv	1		
	201594	120VAC	50/60	1/2NPTF	0.133 amps	0.333 amps	1/2NPTF	1/2NPTF	-	2/2	4.0Cv	4X		32° to 125° F (0° to 52° C)
	U10602D3	240VAC	50/60	1/2NPTF	0.104 amps	0.292 amps	1/2NPTF	1/2NPTF	-	2/2	4.0Cv	4X		
	201595	120VAC	50/60	1/2NPTF	0.133 amps	0.333 amps	3/4NPTF	3/4NPTF	-	2/2	6.5Cv	4X		
VAL10107B	120VAC	50/60	1/2NPTF	16 VA	40VA	1/2NPTF	1/2NPTF	-	2/2	4.0Cv	3/4/4X/7/9	32° to 356° F (0° to 180° C)		
VAL13038A	120VAC	50/60	1/2NPT	25 VA	70 VA	1/2NPTF	1/2NPTF	-	2/2	4.0Cv	4X/7/9			
VAL13717A	120VAC	50/60	1/2NPTF	25 VA	50 VA	1/4NPTF	1/4NPTF	1/4NPTF	3/2	.12Cv	4X			
VAL13718A	120VAC	50/60	1/2NPTF	25VA	70VA	1/2NPTF	1/2NPTF	-	2/2	4.0Cv	1/2/3/3S/4 4X	0° to 140° F (-18° to 60° C)		
U10626A1	120VAC	50/60	1/2NPTF	0.09 amps	0.12 amps	1/4NPTF	1/4NPTF	3/8NPTF	3/2	1.4Cv	4			
U10626C1	120VAC	50/60	1/2NPTF	0.09 amps	0.12 amps	3/8NPTF	3/8NPTF	3/8NPTF	3/2	1.6Cv	4			
U10626A2	240VAC	50/60	1/2NPTF	0.09 amps	0.12 amps	1/4NPTF	1/4NPTF	3/8NPTF	3/2	1.4Cv	4	0° to 140° F (-18° to 60° C)		
U10626A5	24VDC	-	1/2NPTF	2.5W		1/4NPTF	1/4NPTF	3/8NPTF	3/2	1.4Cv	4			
VAL10662B	220/440VAC	50/60	3/4NPT			3/4NPT	3/4NPT	-	2/2	6.5Cv	4/7/9			
35576-1	12VDC	-	DIN 46244B*	6.9W		1/8NPTF	1/8NPTF	M5	3/2	0.09Cv	IP65	15° to 140° F (-9° to 60° C)		
35576-2	24VDC	-												

Configuration: N.C.

Max Pressure: 150 psi (10.3 bar)

UL/CSA/CE

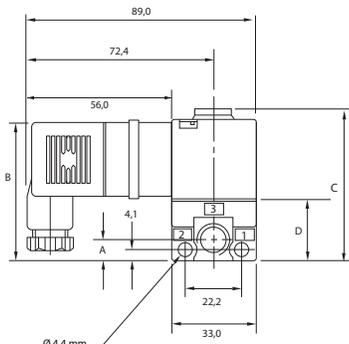
VAL10107B/
VAL13038A/ :
Explosion proof and watertight.

VAL13718A/
VAL13717A:
includes a junction box with screw terminals & high temp coil.

VAL10662B:
250psi max

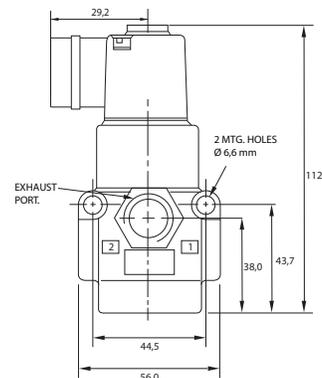
* DIN connector not Included(see page 72)

DRAWINGS



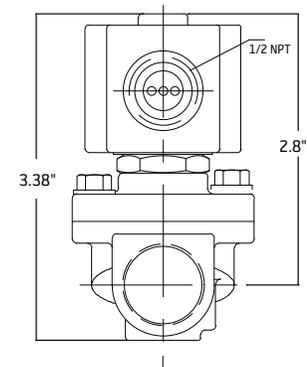
20311 SERIES

Dimensions shown are metric (mm)



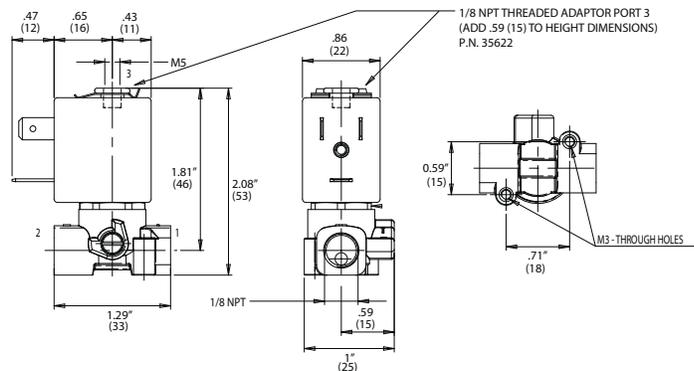
U10626 SERIES

Dimensions shown are metric (mm)



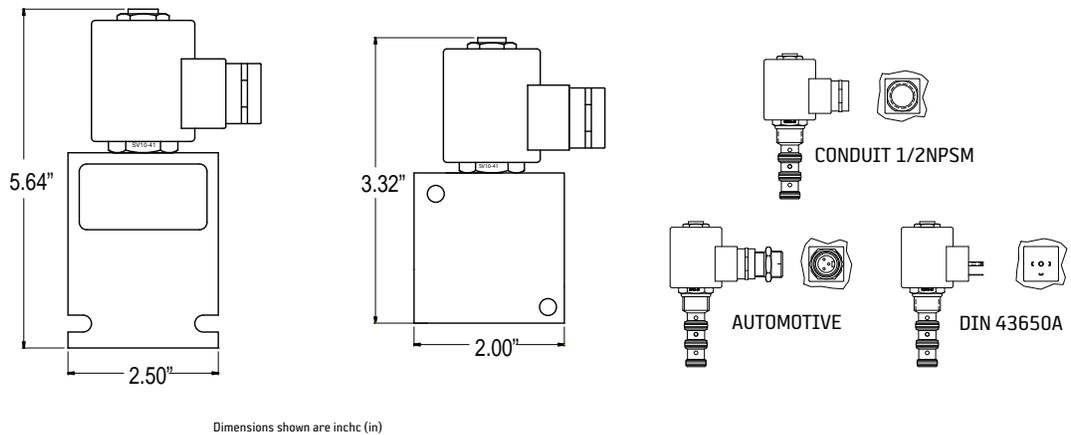
U10602/VAL SERIES

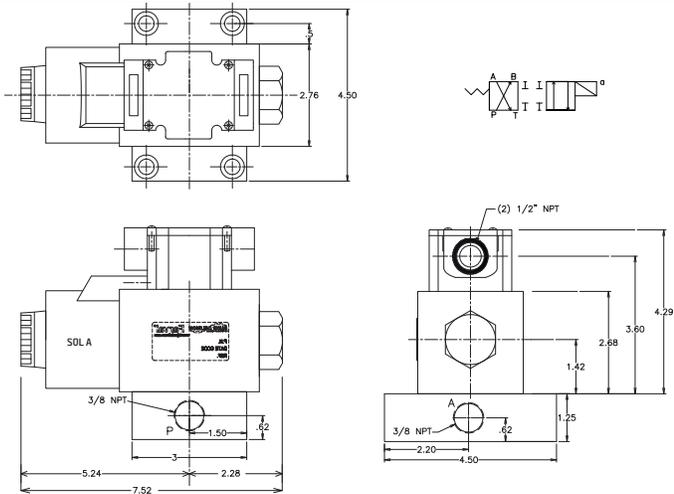
Dimensions shown are inch (in)

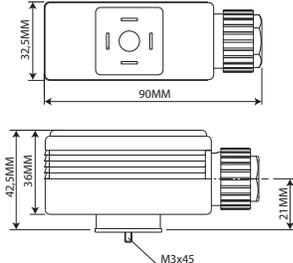


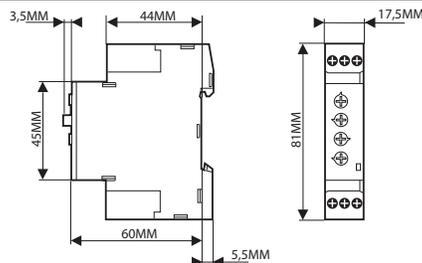
	BDI PART #	VOLTAGE	Hz	POWER	INRUSH CURRENT	PSI MAX	MEDIA	ELEC CONN	SEAL MATERIAL	REPLACEMENT COIL
Solenoid Valves - Electric Shut Off/Zone Remote Mount  Temperature Range: Nitrile (Buna) -40° to 212° F (-40° to 100° C) Fluorocarbon (Viton) -15° to 400° F (-26° to 204° C) Function: N.C. (* N.O.) Port Size: 1/4 NPT Conduit: 1/2 NPSM Note: Manual Override on MCZ2504 models	MCZ2503B00BH12N	12VDC	-	20 W	1.7 amp	3000	GREASE	3-PIN AUTO	NITRILE	CIL13277A1
	MCZ2503B00HC24N	24VDC	-	20 W	0.85 amp	3000	GREASE	DIN 43650A	NITRILE	CIL13278B2
	MCZ2503BV0HC24N	24VDC	-	20 W	0.85 amp	3000	GREASE	DIN 43650A	FLUORO-CARBON	CIL13278B2
	MCZ2503B00BH24N	24VDC	-	20 W	0.85 amp	3000	GREASE	3-PIN AUTO	NITRILE	CIL13277A2
	MCZ2503CV0DL24N*	24DC	-	20 W	0.85 amp	3000	GREASE	CONDUIT	NITRILE	CIL13276B2
	MCZ2503CV0HC24N*	24DC	-	20 W	0.85 amp	3000	GREASE	DIN 43650A	NITRILE	CIL13278B2
	MCZ2501F00HC24N	24DC	-	20 W	0.85 amp	1500	OIL	DIN 43650A	NITRILE	CIL134154
	MCZ2503B00DL11N	115VAC	50/60	20 W	0.17 amp	3000	GREASE	CONDUIT	NITRILE	CIL13276B3
	MCZ2503B00BH11N	115VAC	50/60	20 W	0.17 amp	3000	GREASE	3-PIN AUTO	NITRILE	CIL13277A3
	MCZ2504BV0DL11N	115VAC	50/60	20 W	0.17 amp	3000	GREASE	CONDUIT	FLUORO-CARBON	CIL13276B3
	MCZ2504BV0HC11N	115VAC	50/60	20 W	0.17 amp	3000	GREASE	DIN 43650A	FLUORO-CARBON	CIL13278B3
	MCZ2503BV0DL11N	115VAC	50/60	20 W	0.17 amp	3000	GREASE	CONDUIT	FLUORO-CARBON	CIL13276B3
	MCZ2501F00BH11N	115VAC	50/60	20 W	0.17 amp	1500	OIL	3-PIN AUTO	NITRILE	CIL13416B
	MCZ2501F00DL11N	115VAC	50/60	20 W	0.17 amp	1500	OIL	CONDUIT	NITRILE	CIL134151
MCZ2501A00BH11N	115VAC	50/60	20 W	0.17 amp	3000	OIL	CONDUIT	NITRILE	CIL134151	
MCZ2503B00BH22N	230VAC	50/60	20 W	0.09 amp	3000	GREASE	3-PIN AUTO	NITRILE	CIL13277A4	

DRAWINGS

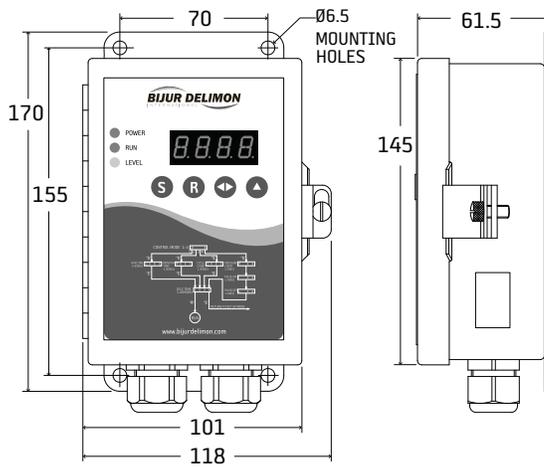


	BDI PART #	VOLTAGE	Hz	HOLDING CURRENT	HOLDING POWER	VOLTAGE RANGE	ELECTRICAL CONNECTION	PORT SIZE
Solenoid Valves - Electric Shut Off/Zone  Operating Temp. Range: 41° to 140° F (5° to 60° C) Function: N.C. Max Pressure: 5000 psi (345 bar) Max Flow: 12 gpm Media: 80SUS Oil up to NLGI #2 Grease	39909	115VAC	50/60	0.49 amp	34 W	80-130V	1/2NPTF	3/8NPTF
	37214	230VAC	50/60	0.24 amp	33 W	180-250V	1/2NPTF	3/8NPTF
	37196	24VDC	-	1.5 amp	36 W	21.6-26.4V	1/2NPTF	3/8NPTF
DRAWINGS								
								

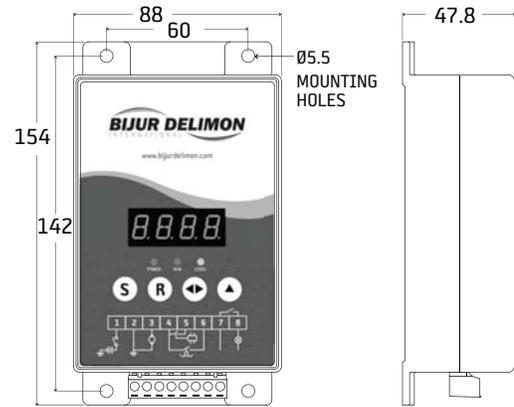
	BDI PART #	VOLTAGE	Hz	TIMER RANGE	ELEC CONN
Solenoid On-Off Timer -DIN connection*  Operating Temp. Range: 14° to 140° F (-10° to 60° C) DIN: DIN 43650 FORM A ENCLOSURE: IP65 *Fits 20311 solenoids (see page 39)	24476	110-230VAC	50/60	0.5 Seconds - 10 Hours	PG9
	24476-24V	24-48VAC / 24-48VDC	50/60(AC)	0.5 Seconds - 10 Hours	PG9
DRAWINGS					
					

	BDI PART #	VOLTAGE	Hz	TIMER RANGE	ELEC CONN	CONTACT FORM	CURRENT RATING
On-Off Timer  Repeat Cycle MOUNTING: DIN RAIL STANDARDS: UL listed cUL listed CSA recognized CE Approved	35074	24VDC - 24-240VAC	50/60 (VAC)	0.1 Seconds - 100 Hours	SCREW TERM	SPDT	10A
DRAWINGS							
							

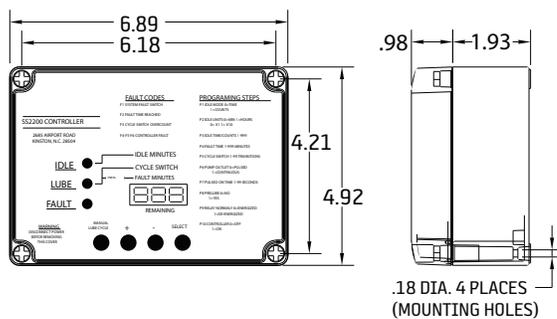
	BDI PART #	VOLTAGE	Hz	FAULT RELAY CONTACTS	ELECTRICAL CONNECTION	REF DATA SHEET	ENCLOSURE RATING	FEATURES / MODES
	22361-E2	110VAC	50/60	30W	CABLE GLAND	46912	IP55	TIMER / INJ / PROG / PULSE
	22361-E1	220VAC	50/60	30W	CABLE GLAND		IP55	TIMER / INJ / PROG / PULSE
	33346E	12/24VDC	-	24VDC,1A	CABLE GLAND	46911	IP67	TIMER / INJ / PROG / PULSE
	33346ME	12/24VDC	-	24VDC,1A	EXT TERM STRIP		IP47	TIMER / INJ / PROG / PULSE
	SS2200	120VAC	50/60	2A	INT TERM STRIP	24735	NEMA 4X	INJ / PROG / PULSE
	SS2200CSA							CSA APPROVED
	SC400	85-265VAC	50/60	5A	INT TERM STRIP	35980	IP56	INJ/PROG/DUALINE/CONT
	SC400CSA							CSA APPROVED



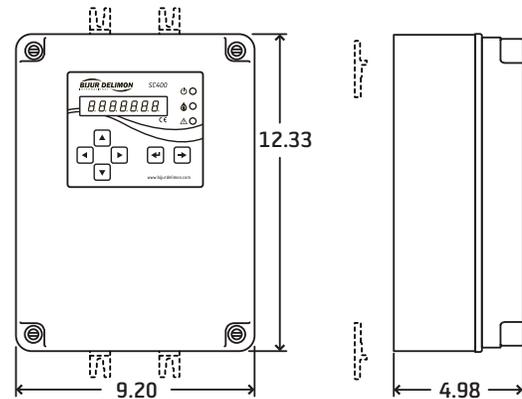
Measurements shown in millimeters.



Measurements shown in millimeters.



Measurements shown in inches.



Measurements shown in inches.

BDI PART #	VOLTAGE	Hz	CONTACT RATINGS	CIRCUITRY	CONNECTION	ENCLOSURE	ACTION	NOTES
Switches								
U625	125-460VAC	50/60	15A	SPDT	1/2NPTF	NEMA 7/9	ROLLER LEVER	XP, UL
U10623	125-480VAC	50/60	15A	SPDT	1/2NPTF	NEMA 1	PLUNGER	MC13974B MC13975B FT15801C8 LC10243/LC11036
	125VDC	-				NEMA 4		
201132	125-480VAC	50/60				NEMA 4		201134
30544	125-250VAC	50/60	10A	SPDT	TERM STRIP	NEMA 1	PLUNGER	MULTIPORT 1000
	480VAC	50/60	3A					
	8-14VDC	-	10A					
	30VDC	-	6A					
	125VDC	-	0.50A					
250VDC	-	0.25A						
MC13975B	125-480VAC 125VDC	50/60	15A	SPDT	AUTOMOTIVE 3-PIN	NEMA 1	PLUNGER	M2500
MC13974B								M2500
FT15801C8					1/2NPTF			3000
LC10243								120LB DRUM LLS
LC11036								400LB DRUM LLS
201134					NEMA 4			3000
17324	600VAC	50/60	15A	SPDT	1/2NPTF	NEMA 4	PLUNGER	M2500G
	250VDC	-	0.5A					
33583	BRACKET FOR 17324							
MCSA2503	250VAC	50/60	5A	SPDT	AUTOMOTIVE 3-PIN	-	MAGNET	M2500G
	28VDC	-	5A					M2500
AC498	10-36VDC	-	100mA	N.O. PNP	M12 (4-POLE)	IP67	PROX	M2500
AC498-1				N.O. NPN				M2500G
66925-1311	10-30VDC	-	200mA	N.O. PNP	M12 (4-POLE)	IP65	PROX	PVB
66925S003			100mA	N.O. NPN				PVBM
DRAWINGS								
<p>U SERIES</p> <p>MCSA2503</p> <p>AC498</p> <p>66925</p> <p>CONNECTIONS: TERMINAL C TO PIN 1 GREEN TERMINAL NC TO PIN 2 BLACK TERMINAL NO TO PIN 3 RED</p>								

Junction Headers



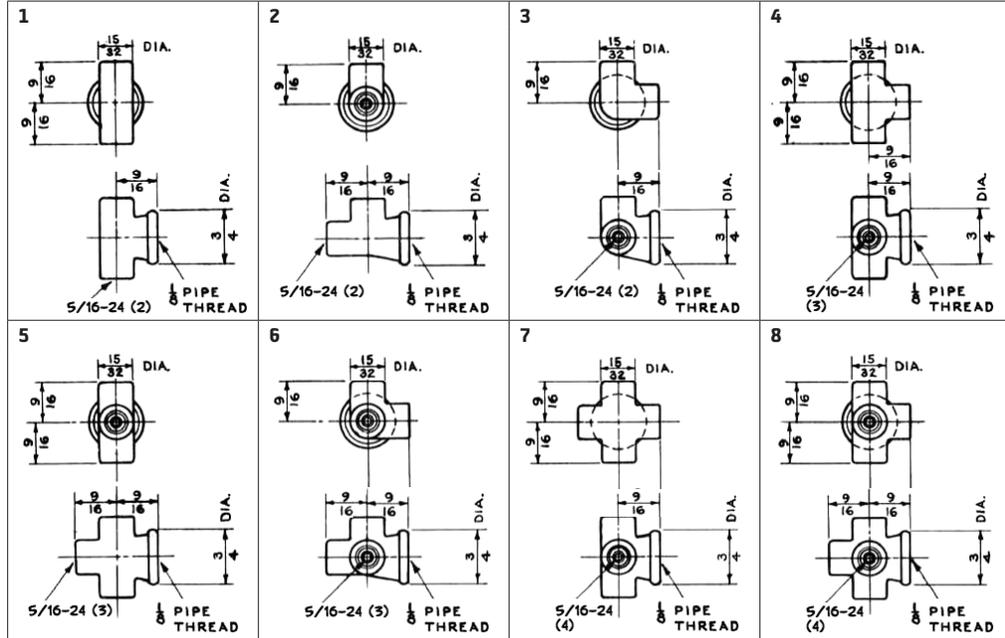
Used with Meter & Control Units (FT/CT)

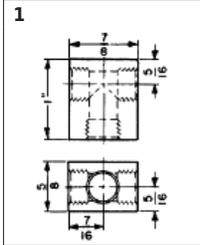
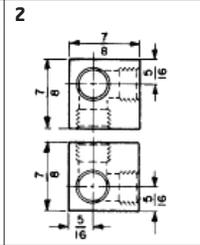
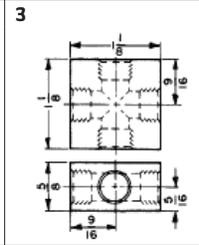
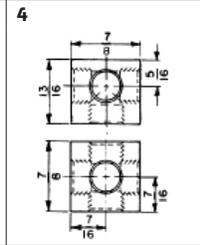
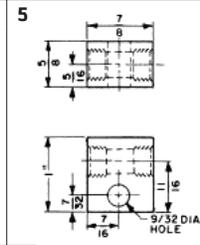
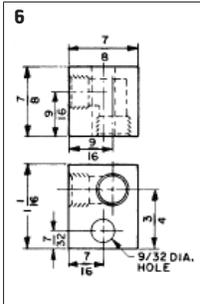
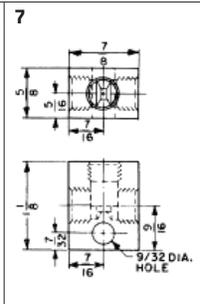
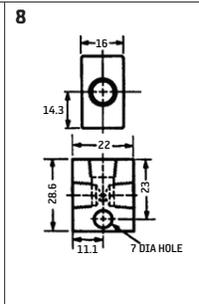
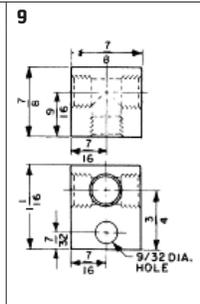
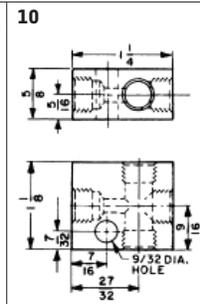
Die Cast Zinc Alloy

Inlet is for 5/32 (4mm) tube connection. Accepts compression sleeve B1061 or B8272 and compression bushing B1371 or B3783.

BDI PART #	TYPE	5/16-24 INLETS	TUBE SIZE	1/8NPTF OUTLETS	DRAWING ITEM #
B1503	TA	2	5/32 (4MM)	1	1
B1538	TC	2	5/32 (4MM)	1	2
B1539	TD	2	5/32 (4MM)	1	3
B3150	TG	3	5/32 (4MM)	1	4
B1504	TB	3	5/32 (4MM)	1	5
B4047	TK	3	5/32 (4MM)	1	6
B2810	TH	4	5/32 (4MM)	1	7
B4367	TL	4	5/32 (4MM)	1	8

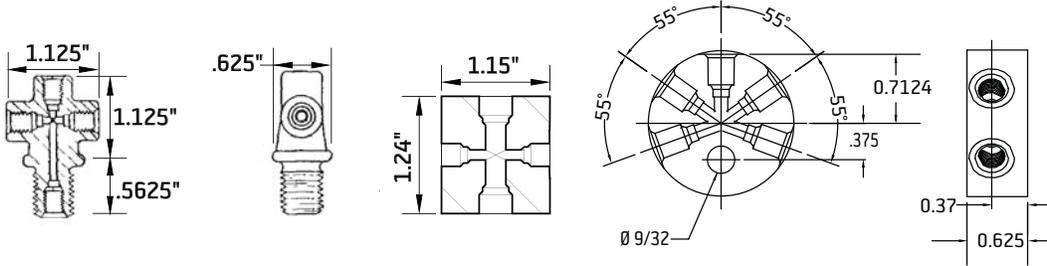
DRAWINGS

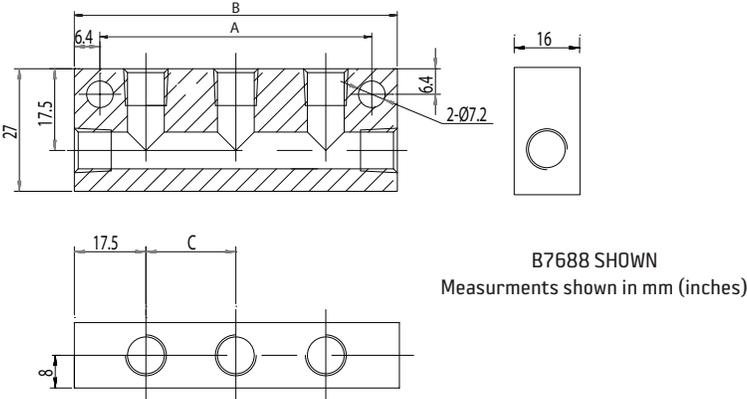


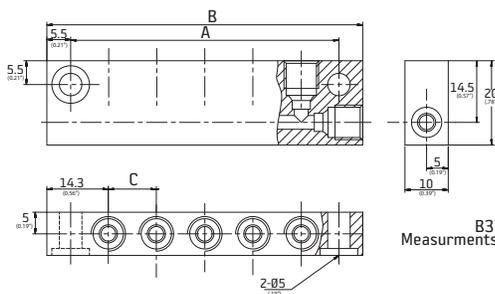
	BDI PART #	TYPE	THREADS	MOUNTING HOLE		DRAWING ITEM #
				HAS MOUNTING HOLE	SIZE	
Junction Blocks 	B7682	3 WAY	1/8 NPTF	NO	-	1
	B7683	3 WAY	1/8 NPTF	NO	-	2
	B7684	4 WAY	1/8 NPTF	NO	-	3
	B7686	5 WAY	1/8 NPTF	NO	-	4
	B7690	2 WAY	1/8 NPTF	YES	9/32"	5
	B7691	2 WAY	1/8 NPTF	YES	9/32"	6
	B7692	3 WAY	1/8 NPTF	YES	9/32"	7
	17186	3 WAY	1/8 BSPT	YES	7mm	8
	B7693	3 WAY	1/8 NPTF	YES	9/32"	9
	B7694	4 WAY	1/8 NPTF	YES	9/32"	10
DRAWINGS						
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 20%; text-align: center;"> <p>1</p>  </div> <div style="width: 20%; text-align: center;"> <p>2</p>  </div> <div style="width: 20%; text-align: center;"> <p>3</p>  </div> <div style="width: 20%; text-align: center;"> <p>4</p>  </div> <div style="width: 20%; text-align: center;"> <p>5</p>  </div> <div style="width: 20%; text-align: center;"> <p>6</p>  </div> <div style="width: 20%; text-align: center;"> <p>7</p>  </div> <div style="width: 20%; text-align: center;"> <p>8</p>  </div> <div style="width: 20%; text-align: center;"> <p>9</p>  </div> <div style="width: 20%; text-align: center;"> <p>10</p>  </div> </div>						

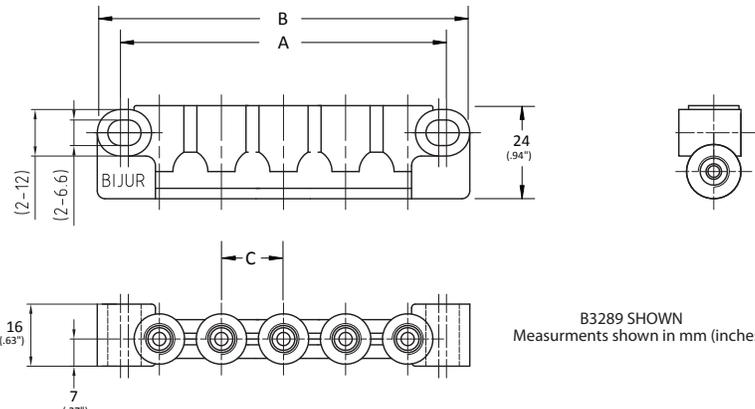
1/8" NPTF &
1/8" BSPT
Aluminum Alloy

	BDI PART #	TYPE	THREADS	TUBE SIZE	MOUNTING HOLE SIZE	DRAWING ITEM #
Junctions  5/16-24, M8X1 & M10X1 Alum Zinc Die Cast Alloy 9/32" Mounting Hole	B3288	2 WAY	5/16-24	5/32 (4MM)	9/32"	1
	B5149	2 WAY	5/16-24	5/32 (4MM)	9/32"	2
	B3065	3 WAY	5/16-24	5/32 (4MM)	9/32"	3
	B1092	3 WAY	5/16-24	5/32 (4MM)	9/32"	4
	B4231	4 WAY	5/16-24	5/32 (4MM)	9/32"	5
	31002	2 WAY	M10X1	6MM	9/32"	1
	31003	3 WAY	M10X1	6MM	9/32"	3
	31004	4 WAY	M10X1	6MM	9/32"	5
	22609	2 WAY	M8X1	4MM	7.1mm	6
	22564	3 WAY	M8X1	4MM	7.1mm	7
	73462-3443	3 WAY	M10X1	6MM	6.5mm	8
DRAWINGS						

	BDI PART #	TYPE	OUTLETS	THREADS		TUBE SIZE	INCLUDES		NOTES
				INLET	OUTLETS		MOUNTING HOLE	SIZE	
Junctions Specials  Alum Zinc Die Cast Alloy (B1096 Aluminum)	B9849	4 WAY	3	1/2-20 (1)	5/16-24 (3)	5/32 (4MM)	NO	USED ON OLD STYLE L5H D3508	
	22171	4 WAY	3	M10X1 (1)	1/8NPTF (1) 5/16-24 (2)	5/32 (4MM)	NO	USED ON L5H D3508C	
	B1096	5 WAY	4	5/16-24 (1)	5/16-24 (4)	5/32 (4MM)	YES	FLAT MOUNTED	
DRAWINGS									
									

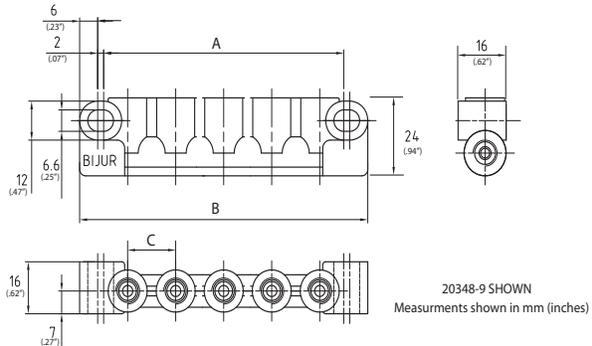
	BDI PART #	TYPE	OUTLETS	THREADS		MOUNTING HOLE		DRAWING ITEM #
				INLET	OUTLET	HAS MOUNTING HOLE	SIZE	
Junctions Bars  1/8" NPTF Aluminum Alloy Single sided 2 Mounting Holes	B7687	4 WAY	2	1/8NPTF (2)	1/8NPTF (2)	1.75"(44.5mm)	2.25"(57.3mm)	.877"(22.3mm)
	B7688	5 WAY	3	1/8NPTF (2)	1/8NPTF (3)	2.625"(66.7mm)	3.125"(79.5mm)	.877"(22.3mm)
	B7689	6 WAY	4	1/8NPTF (2)	1/8NPTF (4)	3.5"(89mm)	4.0"(102mm)	.877"(22.3mm)
	B8897	7 WAY	5	1/8NPTF (2)	1/8NPTF (5)	4.375"(111.2mm)	4.875"(124.2mm)	.877"(22.3mm)
	B8898	8 WAY	6	1/8NPTF (2)	1/8NPTF (6)	5.25"(133.4mm)	5.75"(146.5mm)	.877"(22.3mm)
	B8899	10 WAY	8	1/8NPTF (2)	1/8NPTF (8)	7.0"(177.8mm)	7.5"(191.1mm)	.877"(22.3mm)
DRAWINGS								
								

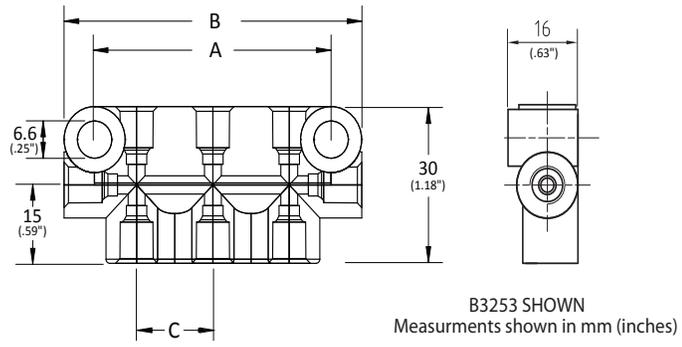
	BDI PART #	TYPE	OUTLETS	THREADS		HAS MOUNTING HOLE	MOUNTING HOLE SIZE		DRAWING ITEM #
				INLET	OUTLET				
 5/16-24 Aluminum Alloy Single sided 2 Mounting Holes FJD & CJD	B4522	2 WAY	1	5/16-24 (1)	5/16-24 (1)	-	.9375"(24mm)	.437"(11.1mm)	
	B4498	3 WAY	1	5/16-24 (2)	5/16-24 (1)	.6875"(17.5mm)	1.125"(28.6mm)	.437"(11.1mm)	
	B3764	4 WAY	2	5/16-24 (2)	5/16-24 (2)	1.125"(28.6mm)	1.562"(39.7mm)	.437"(11.1mm)	
	B3765	5 WAY	3	5/16-24 (2)	5/16-24 (3)	1.5625"(40mm)	2.0"(51mm)	.437"(11.1mm)	
	B3766	6 WAY	4	5/16-24 (2)	5/16-24 (4)	2.0"(50.8mm)	2.4375"(62mm)	.437"(11.1mm)	
	B3767	7 WAY	5	5/16-24 (2)	5/16-24 (5)	2.4375"(62mm)	2.875"(73mm)	.437"(11.1mm)	
	B3768	8 WAY	6	5/16-24 (2)	5/16-24 (6)	2.875"(73mm)	3.3125"(84mm)	.437"(11.1mm)	
	B3769	9 WAY	7	5/16-24 (2)	5/16-24 (7)	3.3125"(84.2mm)	3.75"(95.2mm)	.437"(11.1mm)	
	B3770	10 WAY	8	5/16-24 (2)	5/16-24 (8)	4.1875"(95.3mm)	4.1875"(106.3mm)	.437"(11.1mm)	
	B3771	11 WAY	9	5/16-24 (2)	5/16-24 (9)	4.1875"(106.4mm)	4.625"(117.4mm)	.437"(11.1mm)	
B3772	12 WAY	10	5/16-24 (2)	5/16-24 (10)	4.625"(117.5mm)	5.0625"(128.5mm)	.437"(11.1mm)		
DRAWINGS									
 <p style="text-align: right;">B3767 SHOWN Measurements shown in mm (inches)</p>									

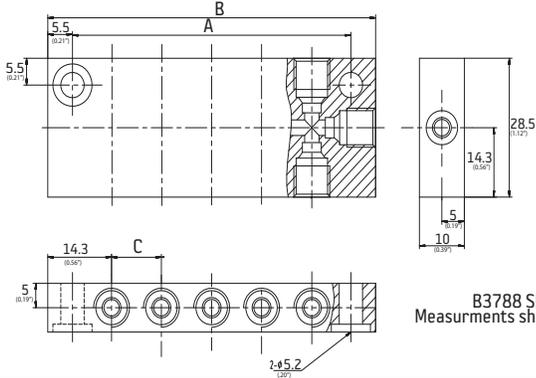
	BDI PART #	TYPE	OUTLETS	DIMENSIONS					
				INLET	OUTLETS	A	B	C	
 5/16-24 Alum Zinc Die Cast Single sided 2 Mounting Holes FJB, FJC, CJB, CJC QJB, ZJBE	B3262	4 WAY	2	5/16-24 (2)	5/16-24 (2)	36mm	48mm	16mm	
	B3263	5 WAY	3	5/16-24 (2)	5/16-24 (3)	52mm	64mm	16mm	
	B3264	6 WAY	4	5/16-24 (2)	5/16-24 (4)	68mm	80mm	16mm	
	B3289	7 WAY	5	5/16-24 (2)	5/16-24 (5)	84mm	96mm	16mm	
	B3265	8 WAY	6	5/16-24 (2)	5/16-24 (6)	100mm	112mm	16mm	
	B4508	9 WAY	7	5/16-24 (2)	5/16-24 (7)	116mm	128mm	16mm	
	B3704	10 WAY	8	5/16-24 (2)	5/16-24 (8)	132mm	144mm	16mm	
	B3471	12 WAY	10	5/16-24 (2)	5/16-24 (10)	164mm	176mm	16mm	
DRAWINGS									
 <p style="text-align: right;">B3289 SHOWN Measurements shown in mm (inches)</p>									

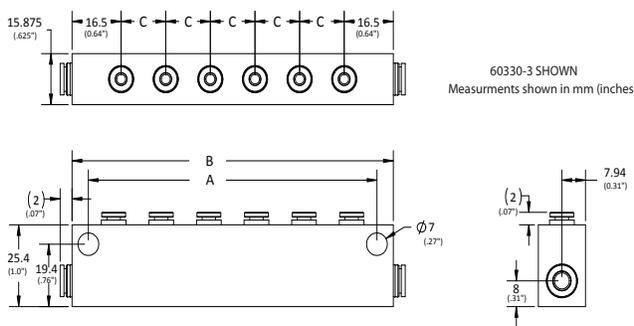
	BDI PART #	TYPE	OUTLETS	INLET	OUTLETS	DIMENSIONS		
						A	B	C
Junctions Bars  M10X1 Aluminum Alloy Single sided 2 Mounting Holes ZEE, ZEG, ZMBE, ZMBM B10164 has 1-mtg hole	B10164	4 WAY	2	M10X1 (2)	M10X1 (2)	-	57mm	18mm
	B10168-5	5 WAY	3	M10X1 (2)	M10X1 (3)	18mm	75mm	18mm
	B10168-6	6 WAY	4	M10X1 (2)	M10X1 (4)	36mm	93mm	18mm
	B10168-7	7 WAY	5	M10X1 (2)	M10X1 (5)	54mm	111mm	18mm
	B10168-8	8 WAY	6	M10X1 (2)	M10X1 (6)	72mm	129mm	18mm
	B10168-10	10 WAY	8	M10X1 (2)	M10X1 (8)	108mm	165mm	18mm
	B10168-12	12 WAY	10	M10X1 (2)	M10X1 (10)	144mm	201mm	18mm
	B10168-13	13 WAY	11	M10X1 (2)	M10X1 (11)	162mm	219mm	18mm
	B10168-14	14 WAY	12	M10X1 (2)	M10X1 (12)	180mm	237mm	18mm
	DRAWINGS							
<p style="text-align: right;">B10168-8 SHOWN Measurements shown in mm (inches)</p>								

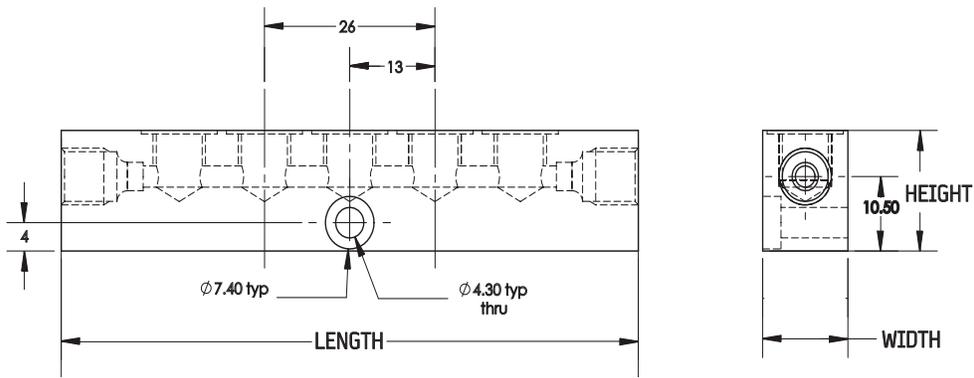
	BDI PART #	TYPE	OUTLETS	INLET	OUTLETS	DIMENSIONS			
						A	B	C	
Junctions Bars  M10X1 Alum Zinc Die Cast Single sided 2 Mounting Holes ZEE, ZEG, ZMBE, ZMBM	31000-4	4 WAY	2	M10X1 (2)	M10X1 (2)	38mm	53mm	16mm	
	31000-5	5 WAY	3	M10X1 (2)	M10X1 (3)	54mm	69mm	16mm	
	31000-6	6 WAY	4	M10X1 (2)	M10X1 (4)	70mm	85mm	16mm	
	31000-7	7 WAY	5	M10X1 (2)	M10X1 (5)	86mm	101mm	16mm	
	31000-8	8 WAY	6	M10X1 (2)	M10X1 (6)	102mm	117mm	16mm	
	31000-9	9 WAY	7	M10X1 (2)	M10X1 (7)	118mm	133mm	16mm	
	31000-10	10 WAY	8	M10X1 (2)	M10X1 (8)	134mm	149mm	16mm	
	DRAWINGS								
	<p style="text-align: right;">31000-8 SHOWN Measurements shown in mm (inches)</p>								

	BDI PART #	TYPE	OUTLETS	INLET		OUTLETS		DIMENSIONS			
								A	B	C	
 <p>Junctions Bars M8X1 Alum Zinc Die Cast Single sided 2 Mounting Holes AJB, QJM, ZJBM</p>	20348-4	4 WAY	2	M8X1 (2)	M8X1 (2)	36mm	48mm	16mm			
	20348-5	5 WAY	3	M8X1 (2)	M8X1 (3)	52mm	64mm	16mm			
	20348-6	6 WAY	4	M8X1 (2)	M8X1 (4)	68mm	80mm	16mm			
	20348-7	7 WAY	5	M8X1 (2)	M8X1 (5)	84mm	96mm	16mm			
	20348-8	8 WAY	6	M8X1 (2)	M8X1 (6)	100mm	112mm	16mm			
	20348-9	9 WAY	7	M8X1 (2)	M8X1 (7)	116mm	128mm	16mm			
	20348-10	10 WAY	8	M8X1 (2)	M8X1 (8)	132mm	144mm	16mm			
	20348-12	12 WAY	10	M8X1 (2)	M8X1 (10)	164mm	176mm	16mm			
	DRAWINGS										
											

	BDI PART #	TYPE	OUTLETS	INLET		OUTLETS		DIMENSIONS		
								A	B	C
 <p>Junctions Bars 5/16-24 Alum Zinc Die Cast Double sided 2 Mounting Holes FJB, FJC, CJB, CJC QJB, ZJBE</p>	B3109	6 WAY	4	5/16-24 (2)	5/16-24 (4)	36mm	48mm	16mm		
	B3253	8 WAY	6	5/16-24 (2)	5/16-24 (6)	50mm	62mm	16mm		
	B3254	10 WAY	8	5/16-24 (2)	5/16-24 (8)	66mm	78mm	16mm		
	B3249	12 WAY	10	5/16-24 (2)	5/16-24 (10)	81mm	93.7mm	16mm		
	B4020	14 WAY	12	5/16-24 (2)	5/16-24 (12)	96.8mm	108mm	16mm		
	B4025	16 WAY	14	5/16-24 (2)	5/16-24 (14)	112.7mm	125.4mm	16mm		
	DRAWINGS									
										

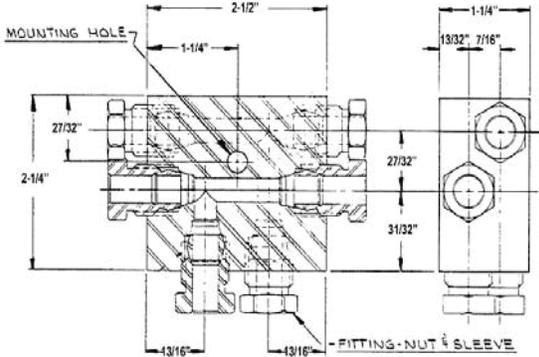
	BDI PART #	TYPE	OUTLETS	INLET		OUTLETS		DIMENSIONS		
								A	B	C
Junctions Bars  5/16-24 Aluminum Alloy Double sided 2 Mounting Holes FJD, CJD	B3785	6 WAY	4	5/16-24 (2)	5/16-24 (4)	28.6mm(1.12")	39.6mm (1.56")	11.1mm (.43")		
	B3786	8 WAY	6	5/16-24 (2)	5/16-24 (6)	40mm(1.5625")	51mm(2.0")	11.1mm (.43")		
	B3787	10 WAY	8	5/16-24 (2)	5/16-24 (8)	50.8mm(2.0")	62mm(2.43")	11.1mm (.43")		
	B3788	12 WAY	10	5/16-24 (2)	5/16-24 (10)	61.9mm (2.43")	73mm (2.87")	11.1mm (.43")		
	B3789	14 WAY	12	5/16-24 (2)	5/16-24 (12)	73mm(2.87")	84mm(3.12")	11.1mm (.43")		
DRAWINGS										
 <p style="text-align: right;">B3788 SHOWN Measurements shown in mm (inches)</p>										

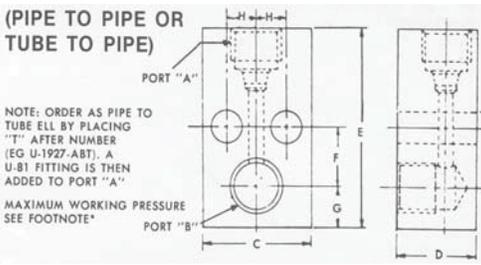
	BDI PART #	TYPE	OUTLETS	INLET		OUTLETS		DIMENSIONS		
								A	B	C
Junctions Bars  Quick Connect Aluminum Bar Single sided 2 Mounting Holes 4mm & 6mm	60330-2	2 WAY	2	6mm (2)	4mm (2)	37mm	49mm	15mm		
	60330-3	3 WAY	3	6mm (2)	4mm (3)	52mm	63mm	15mm		
	60330-4	4 WAY	4	6mm (2)	4mm (4)	67mm	78mm	15mm		
	60330-5	5 WAY	5	6mm (2)	4mm (5)	82mm	93mm	15mm		
	60330-6	6 WAY	6	6mm (2)	4mm (6)	97mm	108mm	15mm		
DRAWINGS										
 <p style="text-align: right;">60330-3 SHOWN Measurements shown in mm (inches)</p>										

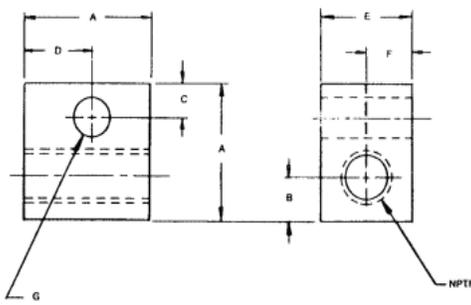
	BDI PART #	TYPE	OUTLETS	THREADS		MOUNTING HOLES			DIMENSIONS		
				INLETS	OUTLETS	#	SPACING	Ø DIA.	LENGTH	HEIGHT	WIDTH
 <p>Aluminum Alloy Single sided</p>	34547	3 WAY	1	M12X1 (2)	M14X1.5 (1)	1	-	4.3mm	40mm	35mm	25mm
	ZEM32M14	3 WAY	1	M8X1 (2)	M8X1 (1)	1	-		39mm	17mm	13mm
	ZEM32M16	3 WAY	1	M10X1 (2)	M8X1 (1)	1	-		39mm	17mm	13mm
	ZEM32M18	3 WAY	1	M14X1.5 (2)	M8X1 (1)	1	-		48mm	20mm	18mm
	34539-1	4 WAY	2	M8X1 (2)	M8X1 (2)	1	-		49mm	17mm	13mm
	34539-2	4 WAY	2	M10X1 (2)	M8X1 (2)	1	-		52mm	17mm	13mm
	ZEM32M28	4 WAY	2	M14X1.5 (2)	M8X1 (2)	1	-		61mm	20mm	18mm
	34540-1	5 WAY	3	M8X1 (2)	M8X1 (3)	1	-		62mm	17mm	13mm
	ZEM32M36	5 WAY	3	M10X1 (2)	M8X1 (3)	1	-		65mm	17mm	13mm
	ZEM32M38	5 WAY	3	M14X1.5 (2)	M8X1 (3)	1	-		74mm	20mm	18mm
	ZEM32M46	6 WAY	4	M10X1 (2)	M8X1 (4)	1	-		78mm	17mm	13mm
	ZEM32M54	7 WAY	5	M8X1 (2)	M8X1 (5)	1	-		88mm	17mm	13mm
	ZEM32M56	7 WAY	5	M10X1 (2)	M8X1 (5)	1	-		91mm	17mm	13mm
	ZEM32M58	7 WAY	5	M14X1.5 (2)	M8X1 (5)	1	-		100mm	20mm	18mm
	ZEM32M66	8 WAY	6	M10X1 (2)	M8X1 (6)	2	39mm		104mm	17mm	13mm
	ZEM32M76	9 WAY	7	M10X1 (2)	M8X1 (7)	2	39mm		117mm	17mm	13mm
	ZEM32M86	10 WAY	8	M10X1 (2)	M8X1 (8)	2	52mm		130mm	17mm	13mm
	ZEM32M96	11 WAY	9	M10X1 (2)	M8X1 (9)	2	52mm		143mm	17mm	13mm
	ZEM32M106	12 WAY	10	M10X1 (2)	M8X1 (10)	2	78mm		156mm	17mm	13mm
	DRAWINGS										
											

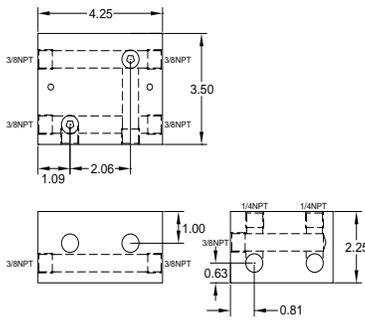
ZEM Junctions	BDI PART #	TYPE	OUTLETS	THREADS		MOUNTING HOLES			DIMENSIONS		
				INLETS	OUTLETS	#	SPACING	Ø DIA.	LENGTH	HEIGHT	WIDTH
<p>Aluminum Alloy Single sided</p>	ZEM33M26	4 WAY	2	M10X1 (2)	M10X1 (2)	1	-	4.3mm	58mm	20mm	18mm
	ZEM33M66	8 WAY	6	M10X1 (2)	M10X1 (6)	2	68mm		126mm	20mm	18mm
	ZEM33M86	10 WAY	8	M10X1 (2)	M10X1 (8)	2	102mm		160mm	20mm	18mm
	ZEM33M126	14 WAY	12	M10X1 (2)	M10X1 (10)	2	170mm		228mm	20mm	18mm
DRAWINGS											

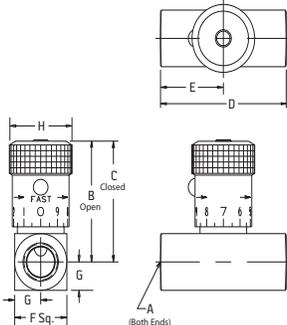
ZEM Junctions	BDI PART #	TYPE	OUTLETS	THREADS		MOUNTING HOLES			DIMENSIONS		
				INLETS	OUTLETS	#	SPACING	Ø DIA.	LENGTH	HEIGHT	WIDTH
<p>Aluminum Alloy Double sided</p>	ZEM32M54D	7 WAY	5	M8X1 (2)	M8X1 (5)	1	-	4.3mm	62mm	17mm	13mm
	34541-2	7 WAY	5	M10X1 (2)	M8X1 (5)	1	-		65mm	17mm	13mm
	ZEM32M58D	7 WAY	5	M14X1.5 (2)	M8X1 (5)	1	-		74mm	20mm	18mm
DRAWINGS											

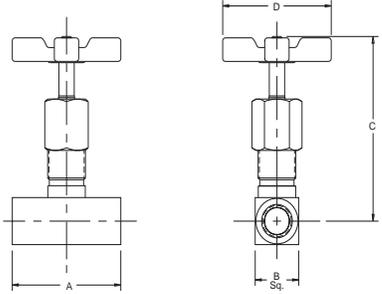
	BDI PART #	TYPE	OUTLETS (TUBE)		MOUNTING HOLES		INCLUDES
					#	Ø DIA.	
Anchor Blocks Dualine  Includes fittings and mounting screw Max 6000psi for pipe	U1008DD	6 WAY	3/8		1	9/32"	U81D3
	DRAWINGS						
							

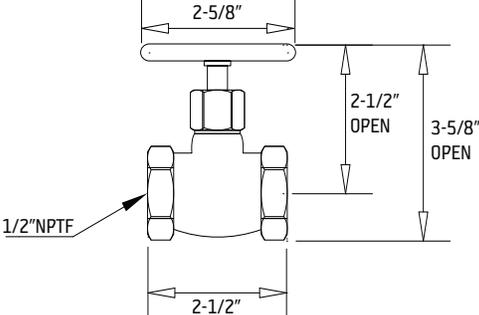
	BDI PART #	PORT A			PORT B		DIMENSIONS					MOUNTING HOLES		
		PIPE SIZE	TUBE SIZE	U-81 NO.	PIPE SIZE		C	D	E	F	G	H	#	Ø DIA.
Anchor Ell  Includes mounting screws Max 6000psi for pipe "T" Type includes U-81 fittings	U1927A	1/8	3/16	U81AA1	1/8		7/8	5/8	1-1/2	7/16	5/16	15/64	2	15/64
	U1927AB	1/4	1/4	U81B2	1/8		1-1/4	7/8	1-7/8	1/2	3/8	11/32	2	9/32
	U1927B	1/4	1/4	U81B2	1/4		1-1/4	7/8	1-7/8	1/2	3/8	11/32	2	9/32
	U1927C	3/8	3/8	U81D3	3/8		1-1/2	1-1/4	2-1/8	1/2	1/2	1/2	2	9/32
	U1927AT	1/8	3/16	U81AA1	1/8		7/8	5/8	1-1/2	7/16	5/16	15/64	2	15/64
	U1927ABT	1/4	1/4	U81B2	1/8		1-1/4	7/8	1-7/8	1/2	3/8	11/32	2	9/32
	U1927BT	1/4	1/4	U81B2	1/4		1-1/4	7/8	1-7/8	1/2	3/8	11/32	2	9/32
	U1927CT	3/8	3/8	U81D3	3/8		1-1/2	1-1/4	2-1/8	1/2	1/2	1/2	2	9/32
	DRAWINGS													
														

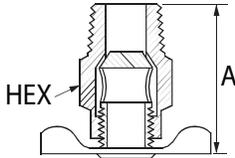
	BDI PART #	THREADS			DIMENSIONS					
		NPTF	A	B	C	D	E	F	G	
Anchor Blocks Straight  180° NPTF tapped holes	BLK11688A	1/8	1-1/2	9/16	9/32	3/4	1	1/2	9/32	
	BLK11689A	1/4	1-1/2	9/16	9/32	3/4	1	1/2	9/32	
	BLK11690A	3/8	1-1/2	9/16	9/32	3/4	1-1/4	5/8	9/32	
DRAWINGS										
										

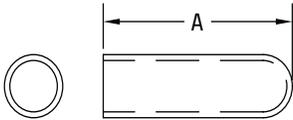
	BDI PART #	TYPE	OUTLETS (TUBE)	MOUNTING HOLES	
				#	Ø DIA.
Anchor Tee Pipe  Includes mounting screws Max 6000psi for pipe	U1022C	6 WAY	3/8NPT	2	11/32"
	DRAWINGS				
					

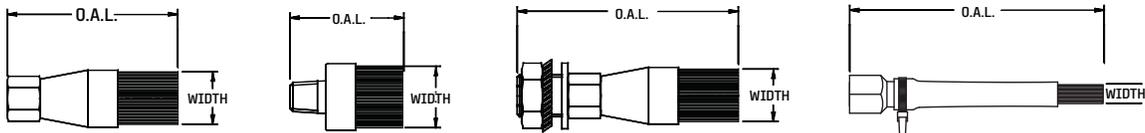
	BDI PART #	THREADS	PRESSURE	DIMENSIONS							
		NPTF	MAX PSI	A	B	C	D	E	F	G	H
Adjustable Needle Valve  Max Temp: -40° to 250°F (-40° to 121°C)	VAL14074A	1/2	5000	1/2NPTF	2.7"	2.42"	2.62"	1.31"	1.25"	0.62"	1.19"
	DRAWINGS										
											

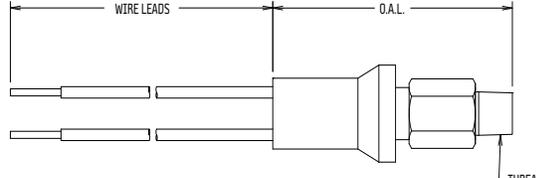
	BDI PART #	THREADS	PRESSURE	DIMENSIONS			
		NPTF	MAX PSI	A	B	C	D
Shut-off needle valve  Temp Range: 1/8 -40° to 300°F (-40° to 148°C) 1/4 -40° to 250°F (-40° to 121°C) 1/2 -40° to 500°F (-40° to 260°C)	B10233	1/8 NPT	600	1.75"	0.6"	1.875"	1.0"
	VAL13117A	1/4 NPTF	5000	2.0"	0.81"	3.21"	2.0"
	VAL11342A	3/8 NPTF	10,000	2.25"	1.37"	4.0"	2.25"
	U972D	1/2 NPTF	10,000	2.75"	1.12"	3.62"	2.50"
	DRAWINGS						
							

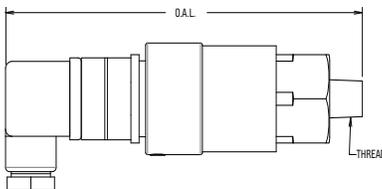
	BDI PART #	THREADS	PRESSURE	DIMENSIONS			
		NPTF	MAX PSI	A	B	C	D
Adjustable Flow Restrictor  Max Temp: 500°F (260°C)	LB9425	1/2	10,000 @70°	2.0"	0.81"	3.21"	2.0"
	DRAWINGS						
							

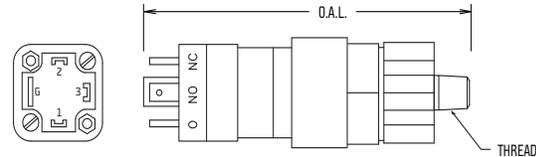
	BDI PART #	THREADS	PRESSURE	DIMENSIONS	
		NPT	MAX PSI	A	HEX
Drain Valve  Brass Max Temp: 250°F (121°C)	HP609	1/8NPT	150	0.8"	0.437"
	U127B	1/4NPT	150	1.41"	.562"
DRAWINGS					
					

	BDI PART #	USED ON PRODUCT	MATERIAL	APPLICATION	A	
					INCH	MM
Indicator Cover Caps 	U1732A	DD20	VINYL	INDICATOR STEM	1.25	31.7
	U1732D	DM30, DM40, FL-1, FL44			H.T. SILICON	1.5
	U1732E	DD50, DM50, FL11, FL45	2.0			50.8
	U1732F	DM60	VINYL	MEASURING CHAMBER	2.25	57.1
	27335	FL32, FL33, FL42, FL43			1.25	31.2
	CAP13896A	FL-1, FL44	ALUMINUM	INJECTOR BODY	3.25	82.6
	DRAWINGS					
						

	BDI PART #	THREAD		O.A.L.	BRUSH		MATERIAL	STYLE	
		TYPE	SIZE		WIDTH	TYPE			
Brushes  Temp. Range: Nylon -22° to 203° F (-30° to 95° C) Metal -22° to 572° F (-30° to 300° C)	50955	FEMALE	1/8NPTF	3.75"	0.28"	ROUND	NYLON	4	
	35905	MALE	1/8NPT	2.3125"	1.0"	ROUND	STAINLESS STEEL	2	
	B7492	FEMALE	1/8NPTF	2.75"	0.75"	FLAT	NYLON	1	
	B7490	FEMALE	1/8NPTF	2.875"	0.75"	FLAT	NYLON	1	
	B7488	FEMALE	1/8NPTF	2.25"	0.75"	FLAT	NYLON	1	
	B7488L	FEMALE	1/8NPTF	2.25"	0.75"	FLAT	BRASS	1	
	803-10	MALE	1/8NPT	1.875"	1.0"	ROUND	NYLON	2	
	AR1473	FEMALE	1/8NPTF	2.25"	1.18"	FLAT	NYLON	1	
	803-11	MALE	1/8NPT	1.875"	1.75"	FLAT	NYLON	2	
	35935	MALE	1/8NPT	2.3125"	2.0"	FLAT	NYLON	2	
	B7491	FEMALE		5/16-24	2.25"	0.75"	FLAT	NYLON	3
	45398	MALE		1/8BSPP	49MM	10MM	FLAT	NYLON	2
	73490-8283	FEMALE		M10X1	52MM	20MM	FLAT	NYLON	1
	DRAWINGS								
									

	BDI PART #	PRESSURE		PRESSURE RANGE	THREAD	CONTACT		ELECTRIC CONN.	VOLTAGE RATING		SET POINT TYPE	ENCL. RATING	DIM O.A.L.
		PSI	BAR			STATE	TYPE		VOLTAGE	AMPS			
Pressure Switch Wire Leads  Temp Range: -40° to 225°F (-40° to 107°C)	26410	11	.75	FIXED	1/8NPT	N.O.	SPST	12" LEADS	250VAC	5	FALLING	IP65	2.6"
									30VDC	5*			
	32759	24	1.6	FIXED	1/8NPT	N.O./N.C.	SPDT	12" LEADS	250VAC	5	FALLING	IP65	2.1"
									30VDC	5*			
	20562	40	2.7	FIXED	1/8NPT	N.O.	SPST	12" LEADS	120VAC	5.8	RISING	IP65	2.2"
									240VAC	2.9			
									28VDC	2			
	26772	225	15.5	FIXED	1/8NPT	N.O.	SPST	18" LEADS	250VAC	5	RISING	IP65	2.2"
									30VDC	5*			
	19032	225	15.5	FIXED	1/8NPT	N.O.	SPST	12" LEADS	120VAC	5.8	RISING	IP65	2.1"
240VAC									2.9				
28VDC									2				
24557	265	18	FIXED	1/8NPT	N.O.	SPST	12" LEADS	120VAC	5.8	RISING	IP65	2.4"	
								240VAC	2.9				
								28VDC	2				
35517-1	600	41	500-2000PSI	1/4NPT	N.O.	SPST	DEUTECH	250VAC	5	RISING	NEMA 4/13	3.6"	
								30VDC	5*				
35517-2	2000	137	1200-4500PSI	1/4NPT	N.O.	SPST	DEUTECH	250VAC	5	RISING	NEMA 4/13	3.6"	
								30VDC	5*				
DRAWINGS													
													

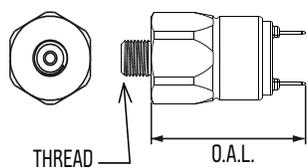
	BDI PART #	PRESSURE		PRESSURE RANGE	THREAD	CONTACT		ELECTRIC CONN.	VOLTAGE RATING		SET POINT TYPE	ENCL. RATING	DIM O.A.L.
		PSI	BAR			STATE	TYPE		VOLTAGE	AMPS			
Pressure Switch DIN style  Temp Range: -40° to 225°F (-40° to 107°C)	26641-2	45	3.1	FIXED	1/8NPT	N.O.	SPST	DIN 43650A	125/250VAC	10	FALLING	IP65	4.0"
									30VDC	5			
	26641-3	55	3.8	FIXED	1/8NPT	N.O.	SPST	DIN 43650A	125/250VAC	10	RISING	IP65	4.0"
									30VDC	5			
	26641-3	55	3.8	FIXED	1/8NPT	N.O.	SPST	DIN 43650A	125/250VAC	10	RISING	IP65	4.0"
									30VDC	5			
	26772-2	225	15.5	FIXED	1/8NPT	N.O./N.C.	SPDT	DIN 43650A	125/250VAC	10	R/F	IP65	3.7"
									30VDC	5*			
	34210	300	20	FIXED	1/8NPT	N.O./N.C.	SPDT	DIN 43650A	125/250VAC	10	R/F	IP65	3.7"
									30VDC	5*			
29171	739	51	145-1450	1/4NPT	N.O./N.C.	SPDT	DIN 43650A	250VAC	6	RISING	IP65	3.5"	
35652	3500	241	FIXED	1/4NPT	N.O./N.C.	SPDT	DIN 43650A	125/250VAC	5	RISING	IP65	5.3"	
								30VDC					
DRAWINGS													
													

Pressure Switch Form 43650A DIN	BDI PART #	PRESSURE PSI	PRESSURE BAR	PRESSURE RANGE	THREAD	CONTACT STATE	CONTACT TYPE	ELECTRIC CONN.	VOLTAGE RATINGS	SET POINT TYPE	ENCL. RATING	DIM O.A.L.
	27445-3	1000	68.9	500-4700 PSI	1/4NPT	N.O./N.C	SPDT	DIN TERM A	5A(R)-5A(I) 125/250VAC 5A(R)-3A(I) 30VDC 0.5A(R)-0.25A(I) 125VDC 5mA 6VDC 2mA 12VDC 1mA 24VDC	RISING	NEMA 4	4.4"
	27444-1	50	3.4	4-50 PSI	1/8NPT	N.O./N.C.	SPDT	DIN TERM A		RISING	NEMA 4	4.1"
	27444-2	70	4.8	15-150 PSI	1/8NPT	N.O./N.C	SPDT	DIN TERM A		RISING	NEMA 4	4.1"
	27444-3	100	6.8	30-600 PSI	1/8NPT	N.O./N.C.	SPDT	DIN TERM A		RISING	NEMA 4	4.1"
	35409	1500	103	FIXED	1/4NPT	N.O./N.C	SPDT	DIN TERM A	250VAC 30VDC	5 5*	RISING	NEMA 4
DRAWINGS												
												

Temp Range:
0° to 160°F
(-18° to 71°C)

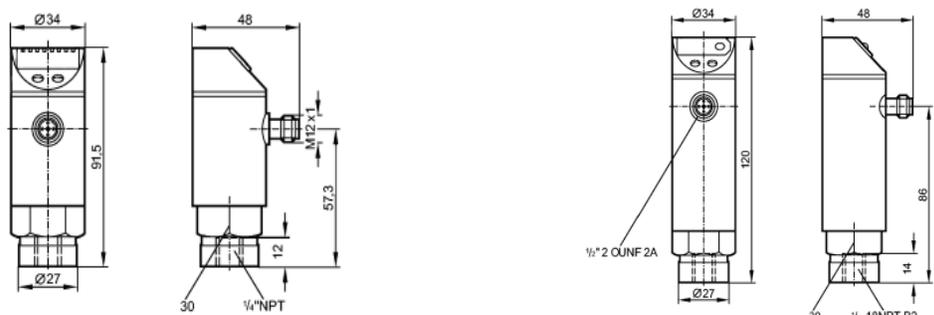
See page 72 for DIN
Connectors

*Resistive

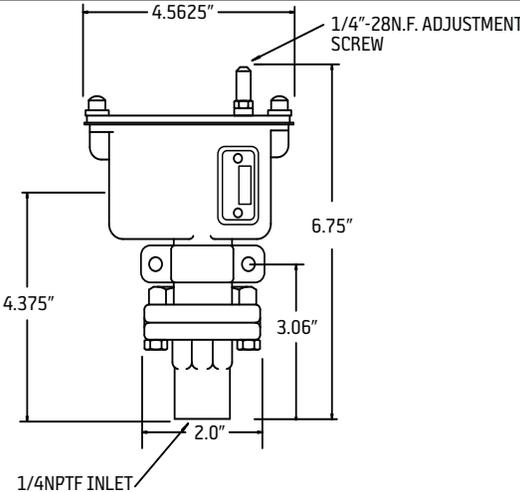
Pressure Switch Spade style	BDI PART #	PRESSURE PSI	PRESSURE BAR	PRESSURE RANGE	THREAD	CONTACT STATE	CONTACT TYPE	ELECTRIC CONN.	VOLTAGE RATINGS VOLTAGE	AMPS	SET POINT TYPE	ENCL. RATING	DIM O.A.L.
	26393	7	.48	FIXED	1/8NPT	N.C.	SPST	2 SPADES	250VAC 30VDC	5 5*	FALLING	IP65	2.6"
	A4308	8	.50	FIXED	1/8NPT	N.C.	SPST	1 SPADE	250VAC	5	RISING	-	2.0"
	HE825	10	.68	FIXED	1/8NPT	N.O.	SPST	2 SPADES	240VAC	5	RISING	-	1.9"
	HE855	10	.68	FIXED	1/8NPT	N.C.	SPST	2 SPADES	240VAC	5	RISING	-	1.9"
	23545	20	2	FIXED	1/8NPT	N.O.	SPST	2 SPADES	220VAC 42VDC	4	RISING	IP65	2.16"
	23536	230	16	FIXED	1/8NPT	N.O.	SPST	2 SPADES	42VDC	4*	RISING	IP65	2.2"
	23472	290	20	FIXED	1/8NPT	N.O.	SPST	2 SPADES	220VAC 42VDC	4	RISING	IP65	2.2"
	34241- 8823	217	15	145-725PSI	M10X1T	N.O./N.C.	SPDT	4 SPADES	250VAC	4	RISING	IP65	2.3"
	DRAWINGS												
													

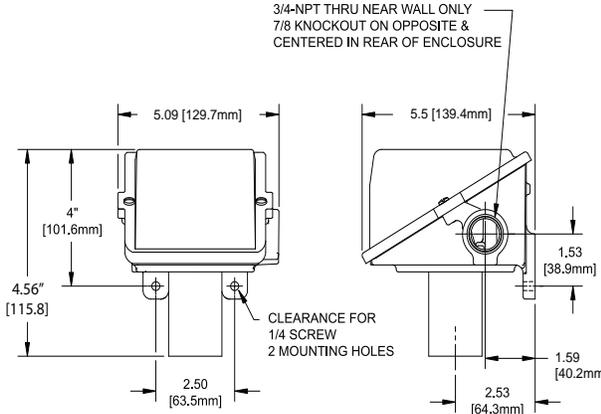
Temp Range:
-40° to 225°F
(-40° to 107°C)

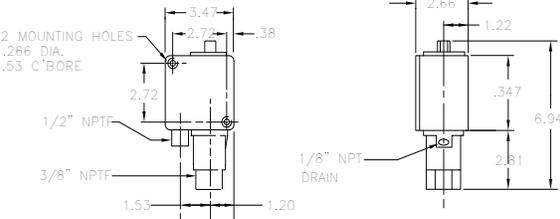
*Resistive

Pressure Switch Digital	BDI PART #	PRESSURE PSI	PRESSURE BAR	MPa	THREAD	CONTACT STATE	ELECTRIC CONN.	MAX VOLTAGE	AMPS @MAX	ENCL. RATING	DIM O.A.L.	ENCL. RATING	DIM O.A.L.
	29921	10-1440	0-100	0-10	1/4NPTF	N.O./N.C PNP	M12 4POLE	18-36VDC	250mA	IP67	3.6"	NEMA 4	4.4"
	34312	10-1440	0-100	0-10	1/4NPTF	N.O./N.C.	1/2-UNF 5PIN	90-250VAC	2.5	IP67	4.7"	NEMA 4	4.1"
DRAWINGS													
													

Temp Range:
-40° to 225°F
(-40° to 107°C)

Pressure Switch	BDI PART #	DECREASING PRESSURE		INCREASING PRESSURE		DEAD-BAND	PROOF PRES-SURE	THREAD	CONTACT		ELEC. CONN.	VOLTAGE RATING (CONTINUOUS INDUCTIVE)	
		PSI	BAR	PSI	BAR				STATE	TYPE		VOLTAGE	AMPS
												125/250/480VAC	10
	U620D1	250-2650	17-180.3	280-3000	19-204.1	30-350 PSI	7000 PSI	1/4NPTF	N.O./N.C.	SPDT	1/2NPTF	6VDC	15
<p>DRAWINGS</p> 													
<p>NEMA 3 UL & CSA</p> <p>Temp Range: -20° to 165°F (-29° to 74°C)</p>													

Pressure Switch	BDI PART #	PRESSURE		THREAD	CONTACT		ELECTRIC CONNECTION	VOLTAGE RATING (RESISTIVE)	
		PSI	BAR		STATE	TYPE		VOLTAGE	AMPS
								125/250/480VAC	15
	39669	0-100	0-6.9	1/4NPTF	N.O./N.C.	SPDT	3/4NPTF & 7/8 KNOCKOUT(2)	125/250/480VAC	15
<p>DRAWINGS</p> 									
<p>Two SPDT Outputs</p> <p>NEMA 4X UL, CSA & CE</p> <p>Temp Range: -40° to 160°F (-40° to 71°C)</p>									

Pressure Switch	BDI PART	PRESSURE		MAX SURGE	THREAD	CONTACT		ELEC.CONN.	VOLTAGE(INDUCTIVE)		
		PSI	BAR			ACTUATION DIFFERENTIAL	STATE		TYPE	VOLTAGE	AMPS
									110VAC	15	
	U6636	400-3000	27.5-206.8	210-400 PSI	10000PSI	3/8NPTF	N.O./N.C.	SPDT	1/2NPTF	220VAC	10
										440VAC	6
										115VDC	0.25
<p>DRAWINGS</p> 											
<p>NEMA 4 & 13 UL, CSA, CE</p> <p>Temp Range: 14° to 122°F (-10° to 50°C)</p>											

	BDI PART #	PRESSURE		THREAD	CONTACT		ELECTRIC CONNECTION	VOLTAGE RATING (RESISTIVE)		APPROX. DEAD-BAND
		PSI	BAR		STATE	TYPE		VOLTAGE	AMPS	
Pressure Switch	26792	3-100	0.2-6.9	1/4NPTF	N.O./N.C.	SPDT	1/2NPTF & 7/8 KNOCKOUT(2)	125/250/480VAC	15	1 TO 4PSI
	26793	9-300	0.6-20.7	1/4NPTF	N.O./N.C.	SPDT	1/2NPTF & 7/8 KNOCKOUT(2)	125/250/480VAC	15	1 TO 5PSI
DRAWINGS										



NEMA 4X
UL, CSA & CE

Temp Range:
-40° to 160°F
(-40° to 71°C)

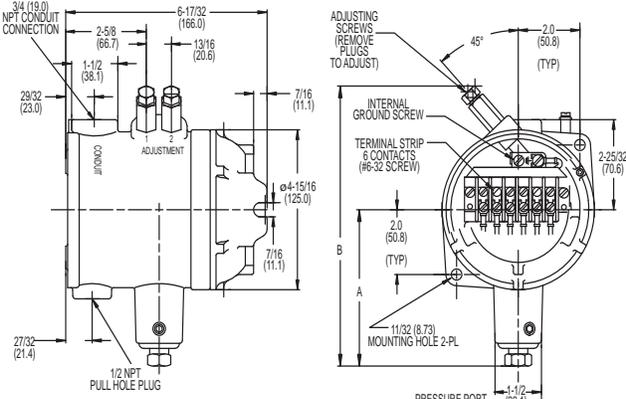
	BDI PART #	PRESSURE		PRESSURE RANGE	THREAD	CONTACT		ELEC. CONN.	VOLTAGE (RESISTIVE)		SET POINT TYPE	DIM O.A.L.
		PSI	BAR			STATE	TYPE		VOLTAGE	AMPS		
Pressure Switch Open Frame	HE829	10	.69	0-240 PSI	1/8NPT	N.O./N.C.	SPDT	3-TERM	125/250VAC	15	RISING	3.375"
DRAWINGS												



UL, cUL, CE

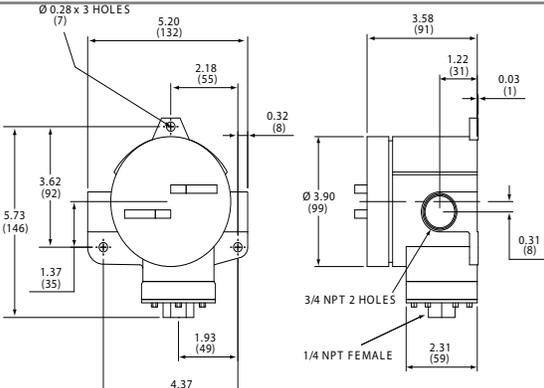
Temp Range:
-40° to 160°F
(-40° to 71°C)

BDI PART #	DECREASING PRESSURE		INCREASING PRESSURE		THREAD	CONTACT		ELEC. CONN.	VOLTAGE	AMPS	ENCL. RATING	
	PSI	BAR	PSI	BAR		STATE	TYPE					
Pressure Switch Explosion Proof Diaphragm  Dual Set Point UL/CSA Temp Range: -65° to 165°F (-54° to 74°C)	SWT13299A	1.5-144	0.1-9.8	7.5-150	0.5-102	1/4NPTF	N.O./N.C.	SPDT	3/4NPTF	125/250VAC	10	NEMA 4,7,9
		480VAC	3									



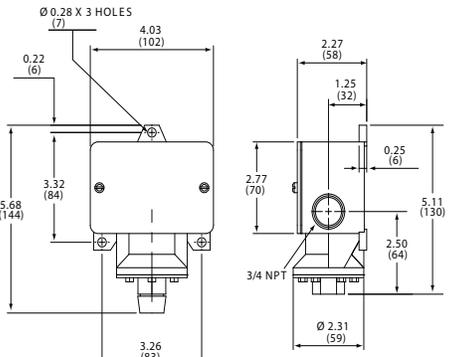
BDI PART	PRESSURE RANGE		PRESSURE RATINGS(PSI)			THREAD	CONTACT		CONNECTION	VOLTAGE	AMPS	
	PSI	BAR	STATIC	PROOF	DEADBAND		STATE	TYPE				
Pressure Switch Explosion Proof  XP Div 1&2 UL, CSA NEMA 7/9, IP66 Temp Range: 0° to 150°F (-17° to 65°C)	24383	10-100	.69-6.9	1000	4000	4-10	1/4NPTF	N.O./N.C.	SPDT	1/2NPTF (3/4NPT BUSH-ING)	125/250VAC	15

DRAWINGS



BDI PART #	PRESSURE RANGE		PRESSURE RATINGS(PSI)			THREAD	CONTACT		ELEC. CONN.	VOLTAGE	AMPS	
	PSI	BAR	STATIC	PROOF	DEADBAND		STATE	TYPE				
Pressure Switch  NEMA 3,4,4X,13, IP66 UL, CSA Temp Range: 0° to 150°F (-17° to 65°C)	26084	0-60	0-4.1	500	2000	2-4PSI	1/2NPTF	N.O./N.C.	SPDT	1/2NPTF	125/250VAC	15
	17915	40-200	2.7-13.7	1000	4000	5-15PSI	1/4NPTF	N.O./N.C.	SPDT	1/2NPTF	125/250VAC	15

DRAWINGS



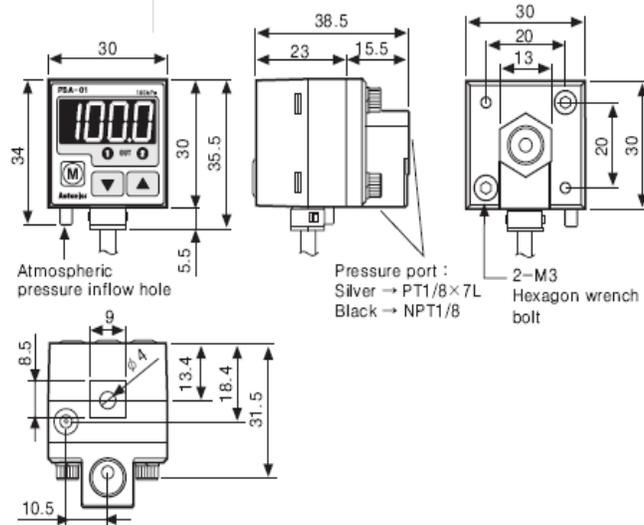
BDI PART #	PRESSURE		THREAD	CONTACT		ELECTRIC CONN.	MAX VOLTAGE	AMPS @MAX	ELEC. RATING	DIM O.A.L.	NOTES
	PSI	BAR		STATE	TYPE						
29088	0-145	0-10	1/8BSPT	N.O./N.C	NPN	CABLE GLAND(4MM)	12-24VDC	50mA	IP40	1.6"	DIGITAL
29089	0-145	0-10	1/8NPTF	N.O./N.C	NPN	CABLE GLAND(4MM)	12-24VDC	50mA	IP40	1.6"	DIGITAL

Air Pressure Switch Digital



CE
Temp Range:
14° to 122°F
(-10° to 50°C)

DRAWINGS



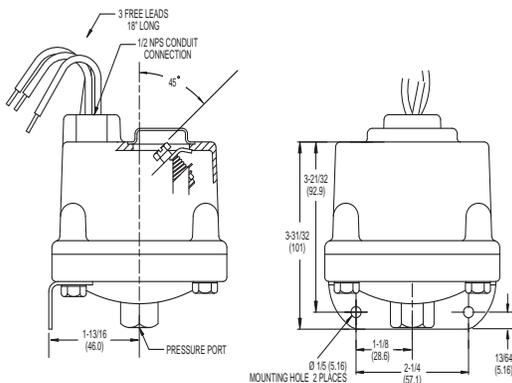
BDI PART #	PRESSURE		THREAD	CONTACT		ELEC.CONN.	VOLTAGE RATING (INDUCTIVE)		ENCL. RATING	DIM O.A.L.	WIRE CODING
	PSI	BAR		STATE	TYPE		VOLTAGE	AMPS			
U623	1.5-150	.1-10	1/4NPTF	N.O./N.C.	SPDT	1/2NPTF	125/250VAC	10	NEMA 4	4.0"	RED = N.O. BLUE = N.C. PURPLE = COMMON
							460VAC	3			
							28VDC	5			

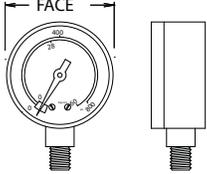
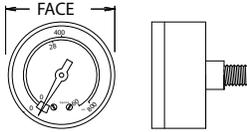
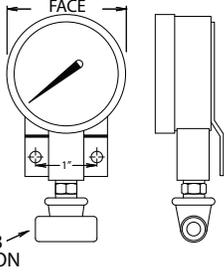
Air Pressure Switch Diaphragm



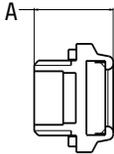
Temp Range:
-65° to 165°F
(-54° to 74°C)

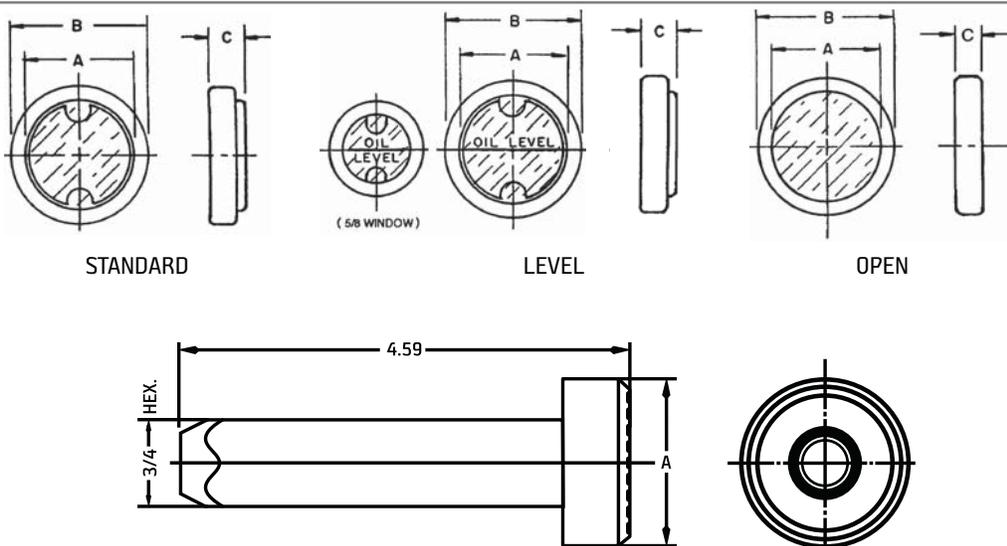
DRAWINGS

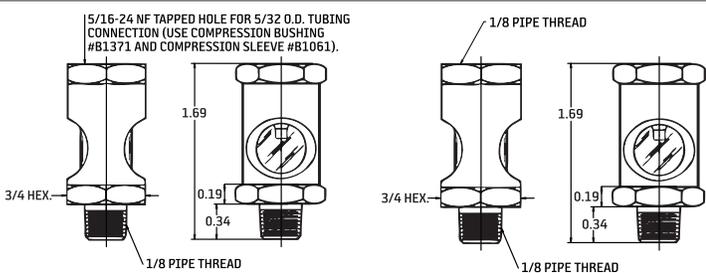


Pressure Gauges	BDI PART #	SCALE			FACE Inch	MOUNT TYPE	THREAD SIZE	PRESSURE FINGER	LIQUID FILLED	BRACKET 1" CENTER	NOTES
		psi	bar	kPa							
	B4310	30	2	-	2"	LM	1/8NPTF	NO	NO	YES	
	26367	60	-	-	2"	LM	1/8NPTF	NO	NO	YES	INCL RED-ZONE 0-15PSI
	26336	60	-	-	2"	LM	5/16-24F	NO	NO	YES	INCL RED-ZONE 0-15PSI
	32806	100	-	-	1.5"	CBM	1/8NPT	NO	NO	NO	
	B10114	100	7	-	1.75"	CBM	1/8NPT	NO	NO	NO	
	B4340	100	7	-	2"	LM	1/8NPTF	NO	NO	NO	
	B4363	100	7	-	2"	LM	1/8NPTF	NO	NO	YES	
	B5609	100	7	-	2"	LM	1/8NPTF	YES	NO	NO	
	B5610	100	7	-	2"	LM	1/8NPTF	YES	NO	YES	
	B4691	100	7	-	2.5"	CBM	1/8NPT	NO	NO	NO	PANEL MOUNT/90° FTG GAUGE
	B6920	100	7	-	2.5"	CBM	1/8NPT	NO	NO	NO	PANEL MOUNT
	B4745	100	-	-	2"	LM	5/16-24	NO	NO	YES	
	B5612	100	7	-	2"	LM	5/16-24	YES	NO	YES	
	B4364	100	7	-	2"	LM	5/16-24F	NO	NO	YES	INCL JUNCTION B1503
	B4360	100	7	-	2"	LM	5/16-24F	NO	NO	YES	
	B5613	100	7	-	2"	LM	5/16-24F	YES	NO	YES	INCL JUNCTION B1503
	B5611	100	7	-	2"	LM	5/16-24F	YES	NO	YES	
	32657	160	11	-	1.5"	CBM	1/8NPT	NO	NO	NO	INCL SCALE: Hg 0-30"
	27228	160	-	-	1.5"	CBM	1/8NPT	NO	NO	NO	
	F275Y160M	160	-	-	2"	CBM	1/4NPT	NO	NO	NO	
	23522	160	11	-	2"	LM	1/8NPT	NO	NO	NO	
	U902H	160	-	1100	2.62"	LM	1/8NPT	NO	YES	NO	
	23572	160	11	-	38MM	CBM	1/8NPT	NO	NO	NO	
	B3839	200	14	-	2"	LM	1/8NPTF	NO	NO	NO	
	B4581	200	14	-	2"	LM	1/8NPTF	YES	NO	NO	
	B4583	200	14	-	2"	LM	1/8NPTF	YES	NO	YES	INCL JUNCTION B1503
	B5614	200	14	-	2"	LM	1/8NPTF	YES	NO	YES	
	B4895	200	14	-	2"	LM	5/16-24	YES	NO	YES	
	B4582	200	14	-	2"	LM	5/16-24F	YES	NO	YES	
DRAWINGS											
LM - LOWER MOUNT			CBM - CENTER BACK MOUNT			LM - GAUGE WITH BRACKET					
											

	BDI PART #	SCALE				FACE Inch	MOUNT TYPE	THREAD SIZE	PRESSURE FINGER	LIQUID FILLED	BRACKET 1" CENTER	NOTES
		psi	bar	kPa	kg-cm ²							
Pressure Gauges (Continued) 	B7311	200	-	-	-	2.5"	CBM	1/8NPT	NO	NO	NO	PANEL MOUNT
	A4297	300	-	-	-	1.5"	LM	1/8NPT	NO	NO	NO	
	60528	300	20	-	-	1.5"	LM	1/8NPT	NO	YES	NO	
	23821	-	25	-	-	40MM	CBM	1/8NPT	NO	NO	NO	
	75111M015	360	25	-	-	63MM	CBM	1/4BSPP	NO	YES	NO	
	24693	400	-	-	28	1.5"	CBM	1/8NPT	NO	NO	NO	
	B9971	400	28	-	-	1.5"	LM	1/8NPT	NO	NO	NO	
	75111-2323	-	40	-	-	40MM	LM	6MM-T	NO	NO	NO	6MM STANDPIPE CONNECTION
	23814	580	40	-	-	40MM	CBM	1/8NPT	NO	NO	NO	
	19721	600	40	-	-	1.5"	LM	1/8NPT	NO	NO	NO	
	21807	800	-	-	60	2"	LM	1/8NPT	NO	NO	NO	
	27620	800	-	-	60	2"	LM	1/8NPT	NO	NO	NO	
	23411	870	60	-	-	2"	LM	1/8NPT	NO	NO	NO	
	24541	1000	69	-	-	1.5"	CBM	1/8NPT	NO	NO	NO	
	23795	1000	69	-	-	1.5"	CBM	1/8NPT	NO	NO	NO	3PH KIT FOR SF PDI
	20134	1000	-	-	70	2"	LM	1/8NPT	NO	NO	NO	
	U902J	2000	-	14000	-	2.12"	LM	1/8NPT	NO	YES	NO	
	B10085	3000	207	-	-	2.5"	LM	1/4NPT	NO	YES	NO	
	U902D	3000	-	21000	-	2.62"	LM	1/4NPT	NO	YES	NO	
	U902DB	3000	-	21000	-	2.62"	CBM	1/4NPT	NO	NO	NO	
	U902F	5000	-	35000	-	2.62"	LM	1/4NPT	NO	YES	NO	
	U902FB	5000	-	35000	-	2.62"	CBM	1/4NPT	NO	YES	NO	
	GAG13347A	5000	-	34000	-	4"	LM	1/4NPT	NO	YES	NO	
751119463	-	400	-	-	62MM	LM	1/4BSPP	NO	YES	NO		

	BDI PART #	THREADS	PRESSURE MAX PSI	HEX SIZE	LENS DIAMETER	DIMENSION A	LENS MATERIAL	PLUG MATERIAL
Oil Level Sight Plugs  Max temp: LSPB 500°F (260°C) AX 266°F (130°C)	LSPB 38	3/8NPT	400	3/4"	7/16"		GLASS	COLD ROLLED STEEL
	LSPB 50	1/2NPT	250	7/8"	5/8"			
	LSPB 75	3/4NPT	200	1-1/8"	3/4"			
	LSPB 100	1NPT	100	1-3/8"	1"			
	LSPB 125	1-1/4NPT	60	1-3/4"	1-3/16"			
	AX21145	1/4BSPP	58	17mm	8mm	15mm	PLEXI-GLASS	ALUMINUM
	AX21150	3/8BSPP		22mm	11mm	16mm		
	AX21155	1/2BSPP		27mm	15mm	17mm		
	AX21160	3/4BSPP		32mm	20mm	20mm		
	AX21165	1BSPP		40mm	25mm	24mm		
	AX21170	1/4BSPP		50mm	33mm	24mm		
	AX21175	1/2BSPP		55mm	38mm	24mm		
	DRAWINGS							
								

	BDI PART #	DIMENSIONS			TYPE	ASSEMBLY PUNCH #	NOTES (Previous Plastic Style BIJUR Part Number:)
		I.D.(A)	O.D.(B)	W.(C)			
Window Units  Material: Glass window Chrome plated brass Max Temperature: 300°F (148°C) Installation Punch: 	B5184	5/8"	7/8"	19/64"	Standard	B5026 (0.875" Hole Dia. +.002/-0)	B4900
	B5944	5/8"	7/8"	19/64"	Level		B5095
	B5602	5/8"	7/8"	19/64"	Open		B5104
	B5108	1"	1-1/4"	11/32"	Standard	B5049 (1.250" Hole Dia. +.002/-0)	B4904
	B5631	1"	1-1/4"	11/32"	Level		B5093
	B5603	1"	1-1/4"	11/32"	Open		B5102
	B5145	1-1/4"	1-1/2"	3/8"	Standard	B5051 (1.500" Hole Dia. +.002/-0)	B4908
	B5734	1-1/4"	1-1/2"	3/8"	Level		B5091
	B5604	1-1/4"	1-1/2"	3/8"	Open		B5100
	B5582	1-3/4"	2"	3/8"	Standard	B5179 (2.000" Hole Dia. +.002/-0)	B5171
	B5191	1-3/4"	2"	3/8"	Level		B5175
	B5605	1-3/4"	2"	3/8"	Open		B5177
20233	1-3/4"	2"	3/8"	Level	Marked "LUBRIPOINT"		
B8265	1-3/4"	2"	3/8"	Open	Marked "LUBRIPOINT"		
DRAWINGS							
							

	BDI PART #	THREADS		TYPE
		INLET	OUTLET	
Sight Feeds 	B3491	5/16-24	1/8NPT	VENTED
	B1930	1/8NPTF	1/8NPT	VENTED
	B5730	1/8NPTF	1/8NPT	NON-VENTED
DRAWINGS				
 <p>5/16-24 NF TAPPED HOLE FOR 5/32 O.D. TUBING CONNECTION (USE COMPRESSION BUSHING #B1371 AND COMPRESSION SLEEVE #B1061).</p> <p>1/8 PIPE THREAD</p> <p>3/4 HEX.</p> <p>1.69</p> <p>0.19</p> <p>0.34</p> <p>1/8 PIPE THREAD</p> <p>1/8 PIPE THREAD</p> <p>1/8 PIPE THREAD</p> <p>Measurements shown in inches.</p>				
	B3491		B1930/B5730	

Nozzles	BDI PART #	INLETS		TYPE	SPRAY PATTERN	ORIFICE SIZE	FIGURE	NOTES
		AIR	OIL					
	AR1758	1/4BSPP	1/4BSPP	GREASE	ROUND		1	BRASS, MAX 500PSI
	U922C	1/4NPTF	1/4NPTF	GREASE	ROUND		1	BRASS, MAX 500PSI
	U922D	1/4NPTF	1/4NPTF	GREASE	ROUND		1	CLEAN OUT TYPE, MAX 500PSI
	U987	-	-	-	-	-	-	WALL MOUNT ADAPTER FOR U922 (3/4"NPT)
	U943C	-	-	GREASE	ROUND		1	REPLACEMENT NOZZLE FOR U922C
	U943F	-	-	GREASE	FLAT		1	ALTERNATE NOZZLE FOR U922C
	SDU01A00000	10mm	10mm	GRS/OIL	FLAT / STR		2	SDU Also available with monitoring &/or heating
	SDU03A00000	10mm	10mm	GRS/OIL	FLAT / 90°		2	
	SDU02A00000	10mm	10mm	GRS/OIL	ROUND / STR		2	
	SDU04A00000	10mm	10mm	GRS/OIL	ROUND / 90°		2	
	27107-1	-	5/16-24(F)	OIL	ROUND	2.5MM	3	AIR/OIL
	27107-2	-	5/16-24(F)	OIL	ROUND	1.5MM	3	AIR/OIL
	27107-3	-	5/16-24(F)	OIL	ROUND	2.0MM	3	AIR/OIL
	B5384	-	1/8NPT	OIL	ROUND	0.0145"	4	
	73654-2151	-	4MM TUBE	OIL	ROUND	1.0MM	5	250MM OAL
	73654-2141	-	4MM TUBE	OIL	ROUND	1.0MM	5	150MM OAL

DRAWINGS

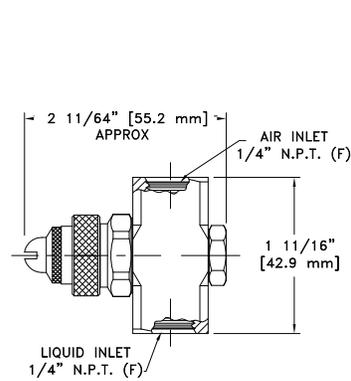
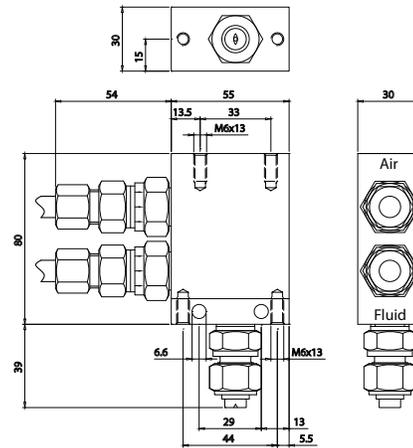


FIGURE 1



SDU measurements shown in mm.

FIGURE 2

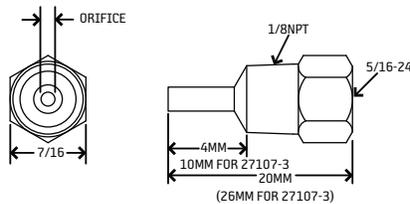


FIGURE 3

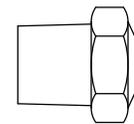


FIGURE 4

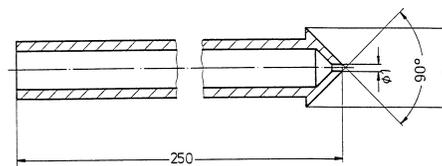
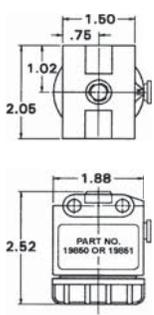
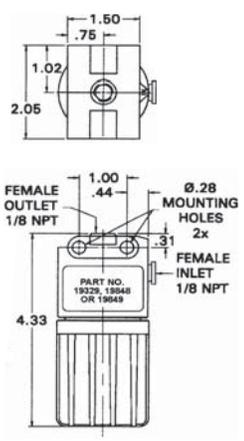
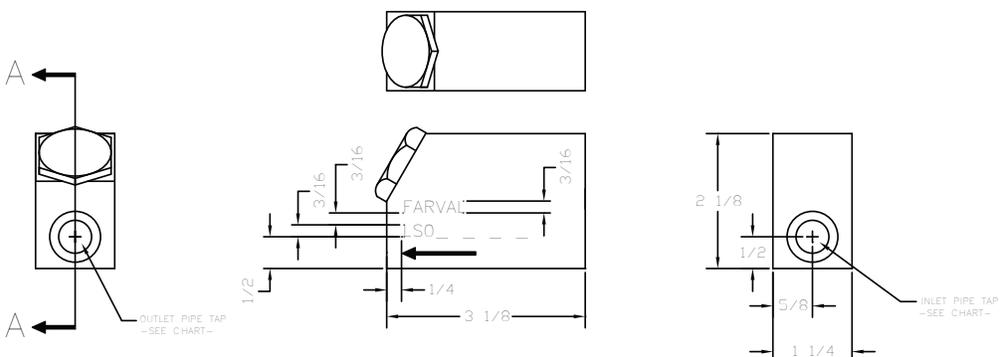


FIGURE 5

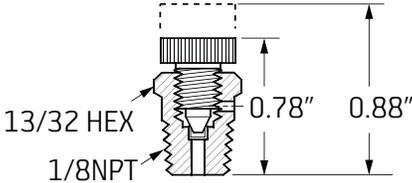
	BDI PART #	MICRON	SIZE	THREADS		REPLACEMENT ELEMENT	REPLACES OLD BIJUR FILTER PART NUMBER:
				INLET	OUTLET		
Inline Filters High Pressure  Max Pressure: 500 psi	43252	5	1"	1/8NPTF	1/8NPTF	43254	-
	19850	25	1"	1/8NPTF	1/8NPTF	B6527	B7239
	19851	125	1"	1/8NPTF	1/8NPTF	B6530	B7243
	19329	10	3"	1/8NPTF	1/8NPTF	19325	-
	19848	25	3"	1/8NPTF	1/8NPTF	B6890	B7254
	19849	125	3"	1/8NPTF	1/8NPTF	B6889	B7257
DRAWINGS							
1" Filter Assembly				3" Filter Assembly			
							

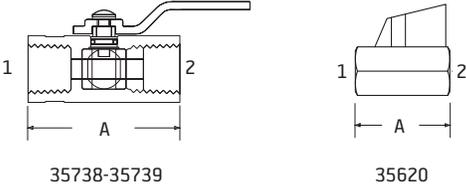
	BDI PART #	MICRON	THREADS		MEDIA	INDICATOR	SWITCH	REPLACEMENT SCREEN
			INLET	OUTLET				
Strainers  Max Pressure: 5000 psi Flow Value: 2 gpm	LS02103	25	1/4NPTF	1/4NPTF	OIL UP TO 500SSU	NO	NO	LS0205103
	LS02203	25	1/4NPTF	1/4NPTF	OIL UP TO 500SSU	YES	NO	LS0205103
	LS03103	25	3/8NPTF	3/8NPTF	OIL UP TO 500SSU	NO	NO	LS0205103
	LS03203	25	3/8NPTF	3/8NPTF	OIL UP TO 500SSU	YES	NO	LS0205103
	LS032035	25	3/8NPTF	3/8NPTF	OIL UP TO 500SSU	YES	YES	LS0205103
	LS02106	150	1/4NPTF	1/4NPTF	OIL UP TO 2000SSU	NO	NO	LS0205106
	LS022065	150	1/4NPTF	1/4NPTF	OIL UP TO 2000SSU	YES	YES	LS0205106
	LS03106	150	3/8NPTF	3/8NPTF	OIL UP TO 2000SSU	NO	NO	LS0205106
	LS03206	150	3/8NPTF	3/8NPTF	OIL UP TO 2000SSU	YES	NO	LS0205106
	LS02120	500	1/4NPTF	1/4NPTF	OIL OVER 2000SSU & ALL GREASE	NO	NO	LS0205120
	LS022205	500	1/4NPTF	1/4NPTF	OIL OVER 2000SSU & ALL GREASE	YES	YES	LS0205120
	LS03120	500	3/8NPTF	3/8NPTF	OIL OVER 2000SSU & ALL GREASE	NO	NO	LS0205120
	LS03220	500	3/8NPTF	3/8NPTF	OIL OVER 2000SSU & ALL GREASE	YES	NO	LS0205120
	LS032205	500	3/8NPTF	3/8NPTF	OIL OVER 2000SSU & ALL GREASE	YES	YES	LS0205120
DRAWINGS								
								

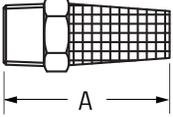
	BDI PART #	MICRON	SIZE	THREADS		FLOW VALUE (Φ)	REPLACEMENT ELEMENT
				INLET	OUTLET		
Inline Filters  Max Pressure: 300 psi	D3489	3	7.375"	1/2NPTF	1/2NPTF	400,000	B9830
	D3527	12	7.375"	1/2NPTF	1/2NPTF	1,000,000	B9832
	D3467	25	7.375"	1/2NPTF	1/2NPTF	1,200,000	B9765
DRAWINGS							

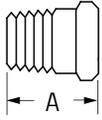
	BDI PART #	MICRON	MAX FLOW	THREADS		OIL VISCOSITY	MAX PRESSURE
				INLET	OUTLET		
Inline Filters Stainless Steel  Max Temperature: -320°F TO 800°F (-196°C TO 427°C)	26487	5	5 GPM	1/8NPT	1/8NPTF	100-2000 SSU	6000 PSI
DRAWINGS							

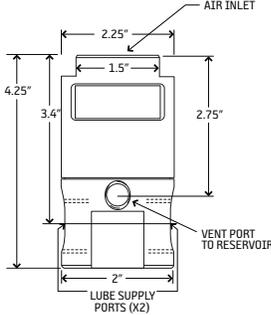
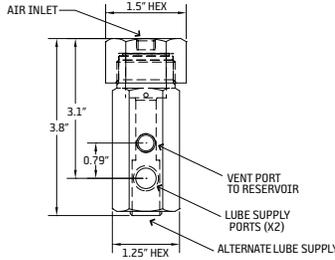
	BDI PART #	DIMENSIONS			NOTES
		A	B	C	
Fill Strainers    	32116	37mm	34mm	35.5mm	USED WITH CAP 32114
	19030	1.10"	0.86"	2.0"	USED WITH HF705C
	19148	1.10"	0.86"	1.25"	USED WITH HF705C
	B9840	1.875"	1.625"	6.625"	USED WITH D3027, D3031 RESERVOIRS
	35150	49mm	27mm	127mm	ASSEMBLY USED ON SUREFIRE (Includes fill cap, gaskets & screws)
	23915	41.5mm	37.5mm	124mm	ASSEMBLY USE ON SUREFIRE 3 PHASE (Includes fill cap)
	27073	82.7mm	46.5mm	126.5mm	ASSEMBLY USED ON LARGE SIZE RESERVOIRS
DRAWINGS					

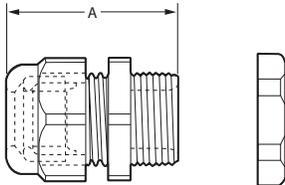
	BDI PART #	MAX PSI	THREADS	NOTES
Air Vent Valve  Max Temperature: -65°F TO 250°F (-53°C TO 121°C)	U129	150	1/8NPT	
	DRAWINGS			
				

	BDI PART #	THREADS		DIMENSION "A"	MAX PSI	MATERIAL
		Female (1)	Female (2)			
Ball Valves  Max Temperature: -40°F TO 300°F (-40°C TO 150°C) (Max 200°F/35620)	35738	1/4NPTF	1/4NPTF	1.75"	600	BRASS
	35739	1/8NPTF	1/8NPTF	1.875"	1000	BRASS
	35620	1/4NPTF	1/4NPTF	1.61"	150	NI-PLATE BRASS
	37161	3/8NPTF	3/8NPTF	2.87"	7000	STEEL
DRAWINGS						
						

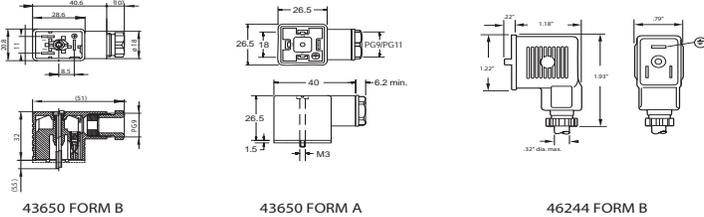
	BDI PART #	MAX PSI	THREADS	DIMENSIONS		NOTES
				A	HEX	
Muffler Filter  Max Temperature: 40°F TO 300°F (4°C TO 148°C)	A4239-M	300	1/8NPT	1-1/8"	7/16"	
	A4239-1	300	1/4NPT	1-3/8"	9/16"	
	A4239-2	300	3/8NPT	1-1/2"	11/16"	
	A4239-3	300	1/2NPT	1-7/8"	7/8"	
	33007	300	1/8BSPP	27MM	12MM	
DRAWINGS						
						

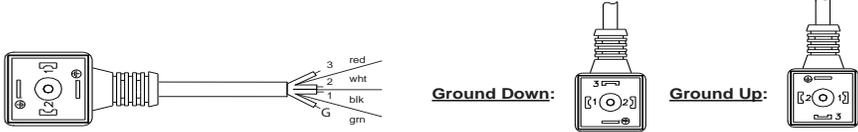
	BDI PART #	MAX PSI	THREADS	DIMENSIONS		NOTES
				A	HEX	
Breather Filter Vents  Max Temperature: 40°F TO 300°F (4°C TO 148°C)	A4256	150	1/8NPT	7/16"	7/16"	
	A4256-1	150	1/4NPT	5/8"	9/16"	
	A4256-2	150	3/8NPT	3/4"	11/16"	
	31875	150	1/4BSPP	14.5MM	16MM	
DRAWINGS						
						

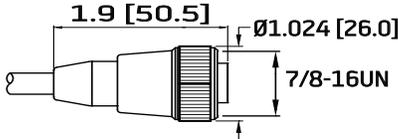
	BDI PART #	THREADS				RECOMMENDED LUBRICANTS
		AIR INLET	VENT PORT	LUBE SUPPLY(X2)	ALT LUBE SUPPLY	
 Maximum Lubricant Pressure: 3800psi (262bar) Maximum Air Pressure: 120psi (8bar) Minimum Air Pressure: 40psi (3bar)	13850	1/4NPTF	1/4NPTF	3/4NPTF	-	OIL TO NLGI # 2 GREASE
	27708	1/8NPTF	1/8NPTF	1/4NPTF	3/8NPTF	OIL TO NLGI # 1 GREASE
	27926	1/8BSPP	1/8BSPP	1/4BSPP	3/8NPTF	OIL TO NLGI # 1 GREASE
	32087	1/4NPTF	1/4NPTF	3/4NPTF	-	13850 VALVE WITH HOSE ASSEMBLIES FOR DRUM PUMPS
DRAWINGS						
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>VENT VALVE</p> </div> <div style="text-align: center;">  <p>MINI VENT VALVE</p> </div> </div>						

	BDI PART #	THREADS	"A"	NOTES
 Max Temperature: -40°F TO 239°F (-40°C TO 115°C)	19360-4	LTF16	42.2mm	
	19360-5	LTF1/2	43.7mm	
	34681	M20X1.5P	35mm	Used on Surefire
DRAWINGS				
				

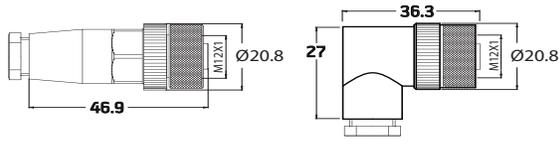
	BDI PART #	TYPE	STYLE	TYPE	CONNECTION	CABLE O.D.	MAX CURRENT	WIRES
 Temp. Range: -67° to 257° F (-55° to 125° C)	35559	DEUTSCH 2-WAY PLUG	STR	2 POLE	25'-FT.	0.198"	13 AMPS	RED/BLK
	35597	DEUTSCH 2-WAY PLUG	STR	2 POLE	25'-FT.	0.365"	13 AMPS	RED/BLK
DRAWINGS								
								

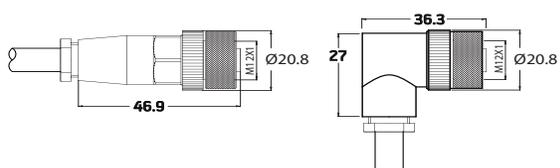
	BDI PART #	DIN	FORM	TYPE	CONNECTION	MAX WIRE DIA.	MAX VOLTAGE	MAX CURRENT	CONTACTS
DIN Connectors  Temp. Range: -13° to 194° F (-25° to 90° C) Protection: NEMA 4/IP65	MCC2509A	43650	B	GROUND UP	PG9	0.18"-0.275"	300VDC/250VAC 50/60Hz	10 AMPS	2 + GROUND
	MCC2510A	43650	A	GROUND UP	PG-11	0.31"-0.39"	300VDC/250VAC 50/60Hz	10 AMPS	3 + GROUND
	35621	46244	B	GROUND DOWN	Pg9P	0.32"	300VDC/250VAC 50/60Hz	10 AMPS	2 + GROUND
DRAWINGS									
									

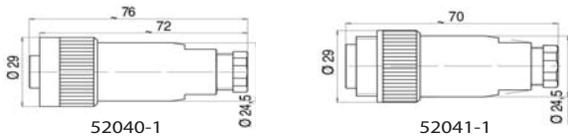
	BDI PART #	DIN	FORM	TYPE	WIRE	WIRE LENGTH	MAX VOLTAGE	MAX CURRENT	CONTACTS
DIN Connectors With Cables  Temp. Range: -13° to 194° F (-25° to 90° C) Protection: NEMA 4/IP65 NEMA 6/IP67(35732)	35732-1	43650	A	GROUND UP	AWG 18/4	15'-FT.	300VDC/250VAC 50/60Hz	10 AMPS	3 + GROUND
	35732-2	43650	A	GROUND DOWN	AWG 18/4	15'-FT.	300VDC/250VAC 50/60Hz	10 AMPS	3 + GROUND
	DIN14538-2	43650	A	GROUND DOWN	AWG 18/3	3'-FT.	300VDC/250VAC 50/60Hz	10 AMPS	2 + GROUND
	35623	46244	B	GROUND DOWN	AWG 18/2	10'-FT.	300VDC/250VAC 50/60Hz	10 AMPS	2 + GROUND
	35623-22	46244	B	GROUND DOWN	AWG 18/2	22'-FT.	300VDC/250VAC 50/60Hz	10 AMPS	2 + GROUND
	32847	43650	A	GROUND DOWN		6.5'-FT.	300VDC/250VAC 50/60Hz	10 AMPS	3 + GROUND
DRAWINGS									
									

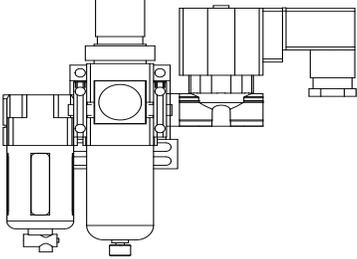
	BDI PART #	TYPE	LENGTH	CONNECTION	WIRE	MAX VOLTAGE	MAX CURRENT	NOTES
Automotive Type Connectors with Cable - BH/CH  Temp. Range: -4° to 221° F (-20° to 105° C) Protection: NEMA 6/IP68	MCC2505A	FEMALE	6'-FT.	3 PIN	AWG 18/3	300VDC/250VAC 50/60Hz	9 AMPS	
	MCC2505B	FEMALE	12'-FT.	3 PIN	AWG 18/3	300VDC/250VAC 50/60Hz	9 AMPS	
	MCC2506A	FEMALE	6'-FT.	3 PIN	AWG 18/4	120VAC 50/60Hz	6 AMPS	NEON LAMP
DRAWINGS								
								

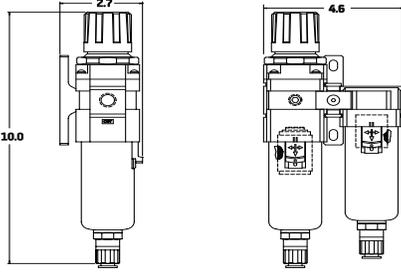
	BDI PART #	AWG	CONDUCTORS	UL/CSA TYPE	VOLTAGE	O.D.	WIRE COLORS
Electric Cables  Temp. Range: -40° to 194° F (-40° to 90° C)	15117-1	18	3	SJO	300V	0.320"	GREEN/WHITE/BLACK
	15117-2	18	2	SVO	300V	0.238"	WHITE/BLACK
	15117-5	16	4	SJO	300V	0.365"	RED/GREEN/WHITE/BLACK
	35563	16	2	UL-CL3R	300V	0.198"	RED/BLACK
	HE973	18	1	AWM/TEW	600V	0.112"	RED

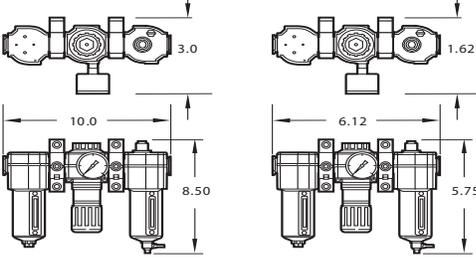
	BDI PART #	TYPE	STYLE	M12 TYPE	CONNECTION	MAX VOLTAGE	MAX CURRENT	NOTES
M12 Connectors Field Attachable 	23694	FEMALE	STR	5 POLE	PG11	60V AC/DC	4 AMPS	
	23694-1	FEMALE	90°	5 POLE	PG11	60V AC/DC	4 AMPS	
	23837	FEMALE	STR	8 POLE	PG11	30V AC/DC	2 AMPS	
	23842	FEMALE	90°	8 POLE	PG11	30V AC/DC	2 AMPS	
DRAWINGS								
								
Temp. Range: -13° to 194° F (-25° to 90° C)								
Protection: IP67								

	BDI PART #	TYPE	STYLE	M12 TYPE	LENGTH	MAX VOLTAGE	MAX CURRENT	NOTES
M12 Connectors with Cable 	M124S02U34	FEMALE	STR	4 POLE	2 METERS	250V AC/DC	4 AMPS	UN SHIELDED
	M124S05U34	FEMALE	STR	4 POLE	5 METERS	250V AC/DC	4 AMPS	UN SHIELDED
	M124S10U34	FEMALE	STR	4 POLE	10 METERS	250V AC/DC	4 AMPS	UN SHIELDED
	76928-2833	FEMALE	90°	3 POLE	10 METERS	300VDC	4 AMPS	UN SHIELDED
	769282813	FEMALE	STR	4 POLE	2 METERS	250V AC/DC	4 AMPS	UN SHIELDED
	76928-2853	FEMALE	STR	4 POLE	5 METERS	250V AC/DC	4 AMPS	UN SHIELDED
	76928-2863	FEMALE	STR	4 POLE	10 METERS	250V AC/DC	4 AMPS	UN SHIELDED
	M125A03U75	FEMALE	90°	5 POLE	3 METERS	60V AC/DC	4 AMPS	UN SHIELDED
	M125S03U75	FEMALE	STR	5 POLE	3 METERS	60V AC/DC	4 AMPS	UN SHIELDED
	M128A03U25	FEMALE	90°	8 POLE	3 METERS	30V AC/DC	2 AMPS	UN SHIELDED
	M128S03U25	FEMALE	STR	8 POLE	3 METERS	30V AC/DC	2 AMPS	UN SHIELDED
	M128A10U25	FEMALE	90°	8 POLE	10 METERS	30V AC/DC	2 AMPS	UN SHIELDED
	M128S10S25	FEMALE	STR	8 POLE	10 METERS	30V AC/DC	2 AMPS	SHIELDED
DRAWINGS								
								
Temp. Range: -13° to 158° F (-25° to 70° C)								
Protection: IP69K								

	BDI PART #	TYPE	STYLE	TYPE	CONNECTION	MAX VOLTAGE	MAX CURRENT	NOTES
Bayonet Conn. Field Attachable 	52040-1	FEMALE	STR	4 POLE	PG9	400V	12 AMPS	Max 6-9.5mm Cable Dia.
	52041-1	MALE	STR	4 POLE	PG9	400V	12 AMPS	Max 6-9.5mm Cable Dia.
DRAWINGS								
								
Temp. Range: -40° to 212° F (-40° to 100° C)								
Protection: IP67 IP65(for cable 6-7mm)								

	BDI PART #	FILTER REGULATOR	COALESCING FILTER	SOLENOID VOLTAGE	CONNECTION THREADS	REPLACEMENT ELEMENTS FILTER REGULATOR	REPLACEMENT ELEMENTS COALESCING FILTER
Air Preparation:	60195-5	5 µm	0.01 µm	110VAC	1/4NPTF	60200	60201
	60195-7			24VDC			
	60195-9			220VAC			
Filter Regulator Coalescing Filter Solenoid Valve	DRAWINGS						
						<i>*Individual Filter/Regulator P.N. 60193-5</i>	
Temp. Range: 23° to 140° F (-5° to 60° C)							
Max psi: 145							

	BDI PART #	FILTER REGULATOR	COALESCING FILTER	NOTES	CONNECTION THREADS	REPLACEMENT ELEMENTS FILTER REGULATOR	REPLACEMENT ELEMENTS COALESCING FILTER
Air Preparation:	27159	5 µm	0.3 µm	REG ON LEFT	1/4NPTF	27161	27160
	27159-1			REG ON RIGHT			
Filter Regulator Coalescing Filter	DRAWINGS						
							
Temp. Range: 23° to 140° F (-5° to 60° C)							
Max psi: 145							
SCFM: 11.6							

	BDI FRL PART #	THREADS	REGULATOR WITH GAUGE	LUBRICATOR	FILTER	BRACKET	NOTES
Air Preparation:	F6282	1/4NPTF					FILTER ELEM #35729
	F995	1/4NPTF	F991	F992	F993	F996	MINI
	F984	3/8NPTF	F973	F974	F975	F989	
	F985	1/2NPTF	F976	F977	F978		
	F986	3/4NPTF	F980	F981	F982		
Filter Regulator Lubricator - FRL	DRAWINGS						
							
Temp. Range: 23° to 140° F (-5° to 60° C)							
Max psi: 145							

	BDI PART #	THREADS	GAUGE	MAX PSI	MAX AIR FLOW	REDUCED PRESSURE	NOTES
Air Preparation:	B9779	1/8NPTF	NO	300			
	F1192	1/4NPTF	NO	400	100 SCFM	0 - 125 PSI	
	F1192G	1/4NPTF	YES	400	100 SCFM	0 - 125 PSI	
	F1194	1/2NPTF	NO	400	150 SCFM	0 - 125 PSI	
	F1194G	1/2NPTF	YES	400	150 SCFM	0 - 125 PSI	
Regulators	DRAWINGS						

Temp. Range:
-40° to 180° F
(-40° to 82° C)

B9779
32° to 150° F
(0° to 65.6° C)

	BDI PART #	THREADS		VOLTAGE	SOLENOID CONNECTION	PANEL SIZE	NOTES
		INLET	OUTLET				
Air Preparation:	LD7767CA1	1/4NPT	1/2NPTF	120VAC	1/2NPTF	16" X 11"	F6282 + U10626A1
	LD7767CA2	1/4NPT	1/2NPTF	240VAC	1/2NPTF	16" X 11"	F6282 + U10626A2
	LD7767CA5	1/4NPT	1/2NPTF	24VDC	1/2NPTF	16" X 11"	F6282 + U10626A5
Air Control Panel Remote	DRAWINGS						

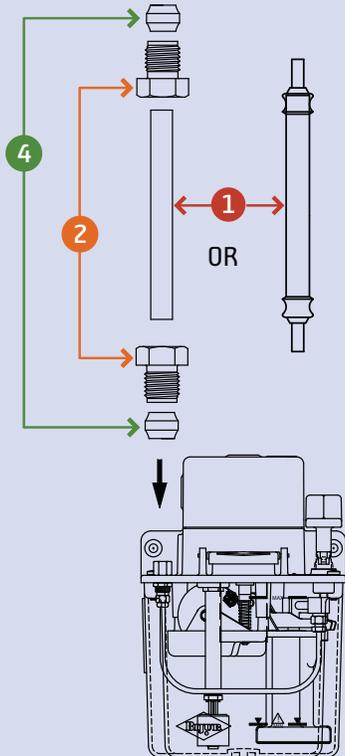
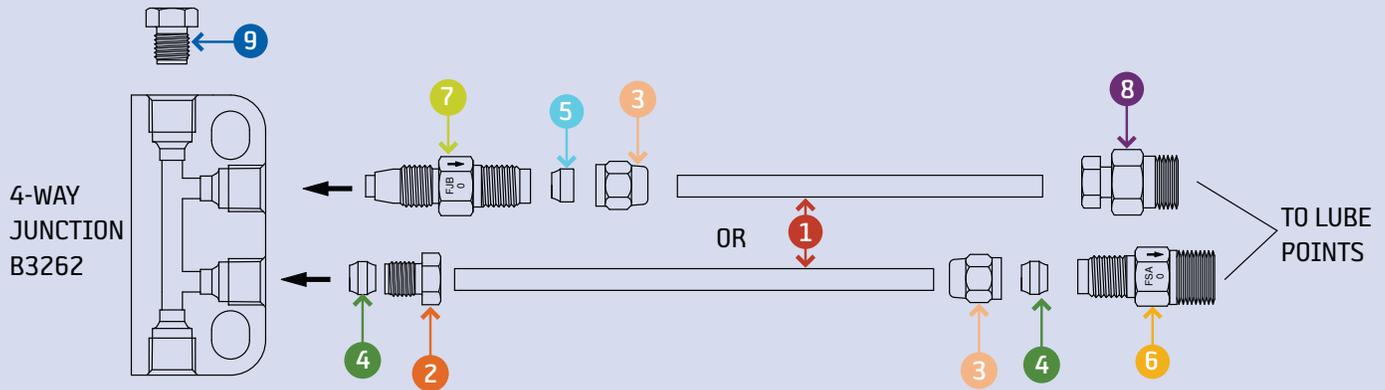
Temp. Range:
-40° to 180° F
(-40° to 82° C)

	BDI PART #	VOLTAGE 50/60 Hz	AMPS	COIL RESISTANCE	DECIBELS @ 10 FT'	REDUCED PRESSURE	NOTES
Horn	U914A1	120VAC	0.13	150 OHMS	103		
	DRAWINGS						

UL LISTED
PLC COMPATIBLE
NEMA 1

SLR Typical Compression Layout

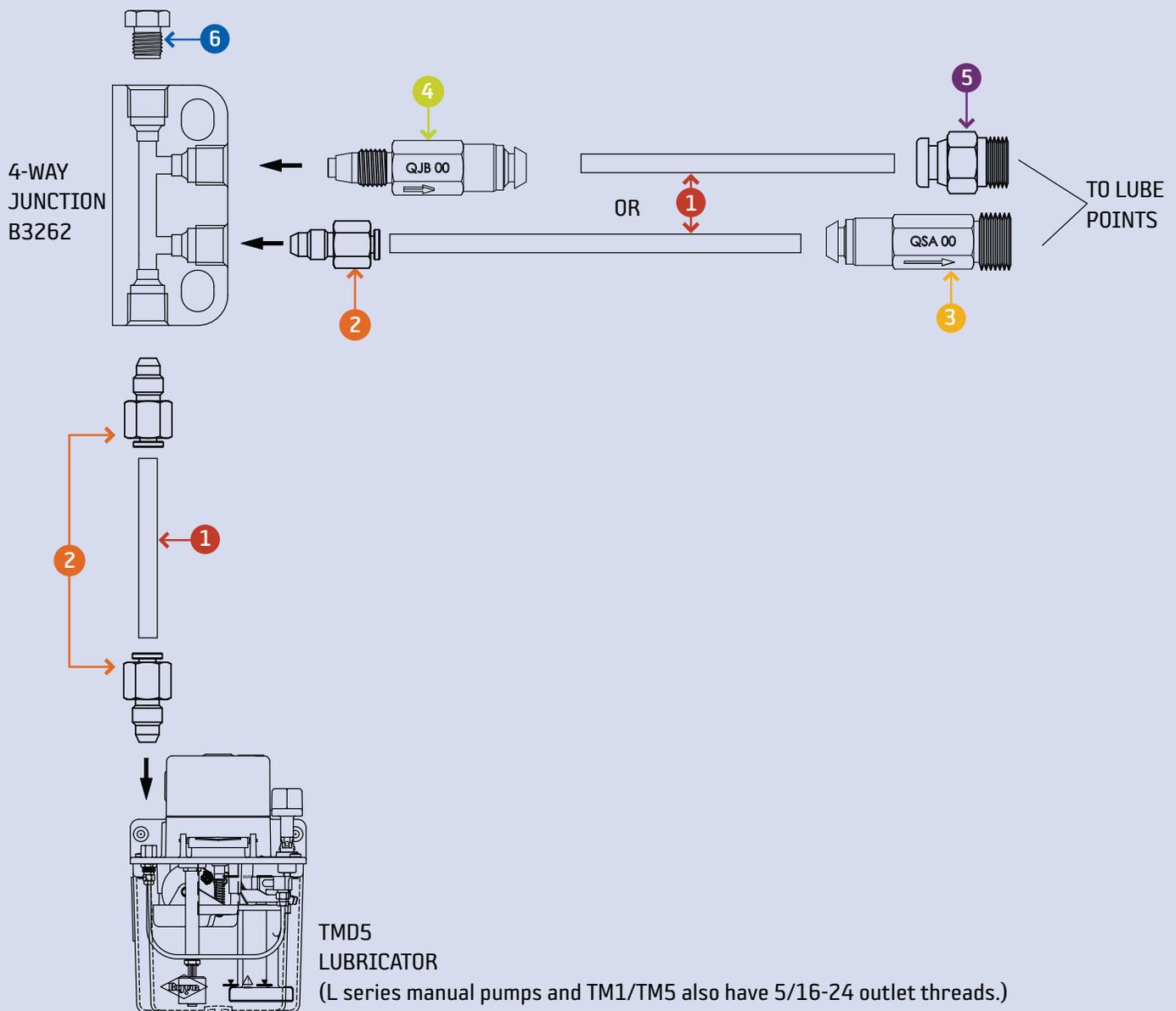
	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES
1	Tubing - Metal	5/32" O.D. TUBING	5C25	Page 31
	Tubing - Nylon	5/32" O.D. nylon tubing	5N25	Page 30
	Hose Assemblies	5/16 or 7/16 O.D. hose assemblies with 5/32" stand-pipe ends	B4588	Page 22
2	Compression Bushings	5/32" male compression bushing	B1371	Page 18
3	Compression Nuts	5/32" female compression nut	B1095	
4	Compression Sleeves-Double side	5/32" sleeve for metal tubing	B1061	Page 19
5	Compression Sleeves-Single side	5/32" sleeve for plastic tubing	B8272	
6	Meter Units	Lube point mount meter unit for 5/32" tubing	B1083	Page 34-35
7		Junction mounted meter unit for 5/32" tubing	B2495	
8	Tubing Adapters Assemblies	5/32" tube X 1/8NPT male str. assembly	B3297	Page 10-11
9	Plugs	5/16-24 Plug	B3784	Page 20



TMD5 LUBRICATOR
(L series manual pumps and TM1/TM5 also have 5/16-24 outlet threads.)

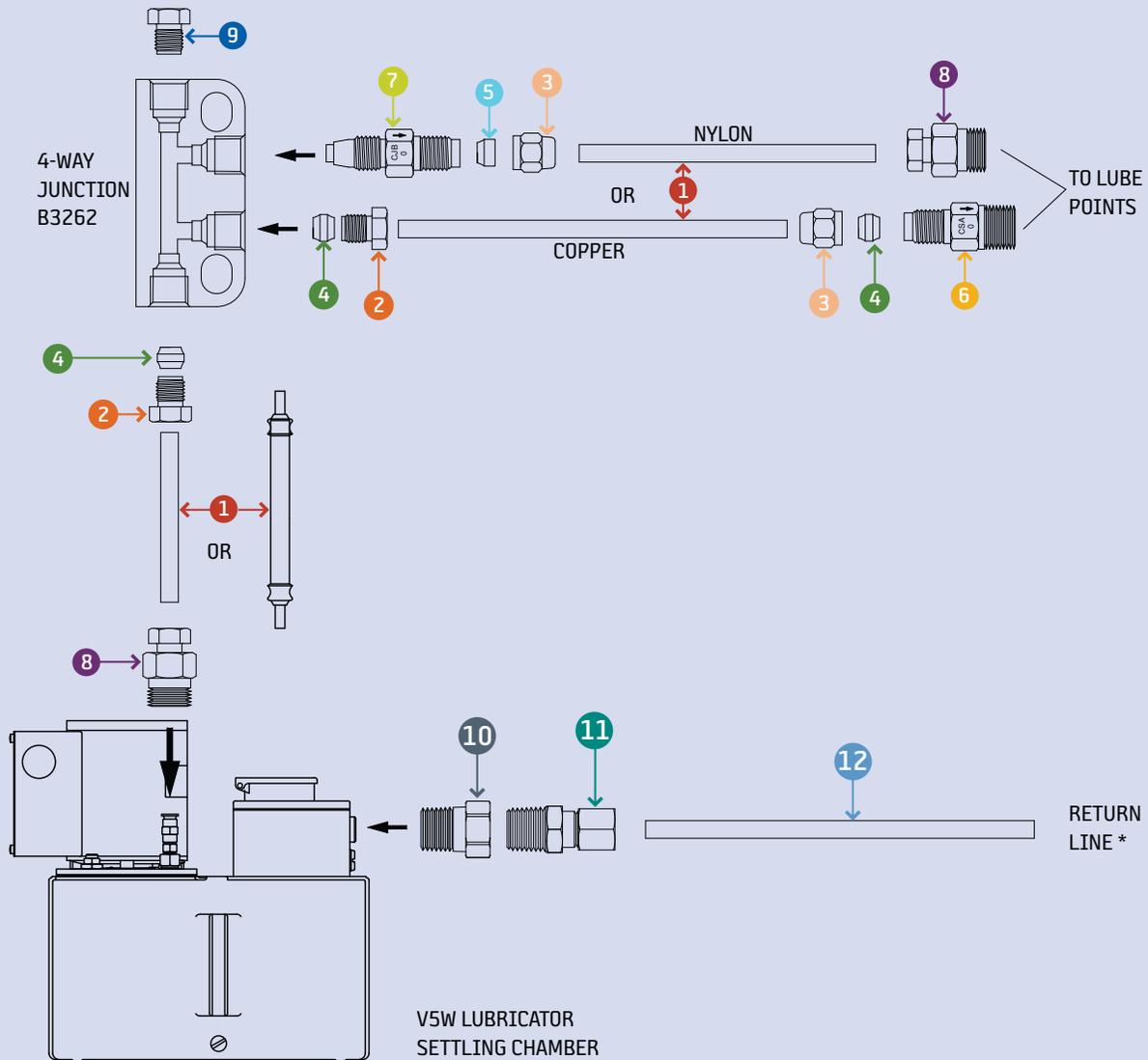
SLR Typical Push-to-Connect Layout

NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES
1	Tubing - Nylon	5/32" or 4mm O.D. nylon tubing	5N25 Page 30
2	PTC Adapter	5/32" Tube X 5/16-24 male adapter	AR5005 Page 16
3	Meter Units	PTC Junction mount meter unit for 5/32" tubing	QSA-00 Page 34-35
4		PTC lube point mounted meter unit for 5/32" tubing	QJB-00
5	PTC Tubing Adapters	5/32" tube X 1/8NPT male str. assembly	20101-1 Page 16
6	Plugs	5/16-24 Plug	B3784 Page 20



SLR Typical Continuous Layout

	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES
1	Tubing - Metal	5/32" O.D. TUBING	5C25	Page 31
	Tubing - Nylon	5/32" O.D. nylon tubing	5N25	Page 30
	Hose Assemblies	5/16 or 7/16 O.D. hose assemblies with 5/32" stand-pipe ends	B4588	Page 22
2	Compression Bushings	5/32" male compression bushing	B1371	Page 18
3	Compression Nuts	5/32" female compression nut	B1095	
4	Compression Sleeves-Double side	5/32" sleeve for metal tubing	B1061	Page 19
5	Compression Sleeves-Single side	5/32" sleeve for plastic tubing	B8272	
6	Control Units	Junction mount control unit for 5/32" tubing	B7038	Page 36-37
7		Lube point mounted control unit for 5/32" tubing	B7026	
8	Tubing Adapters Assemblies	5/32" tube X 1/8NPT str. assy	B3297	Page 10-11
9	Plugs	5/16-24 Plug	B3784	Page 20
10	Reducer Bushing	1/2NPT x 1/4NPTF	B9953	Page 8
11	Tubing Adapter	1/4" Tube x 1/4NPT str assy	B6533	Page 10-11
12	Tubing	1/4" Steel Tube	8S28	Page 31

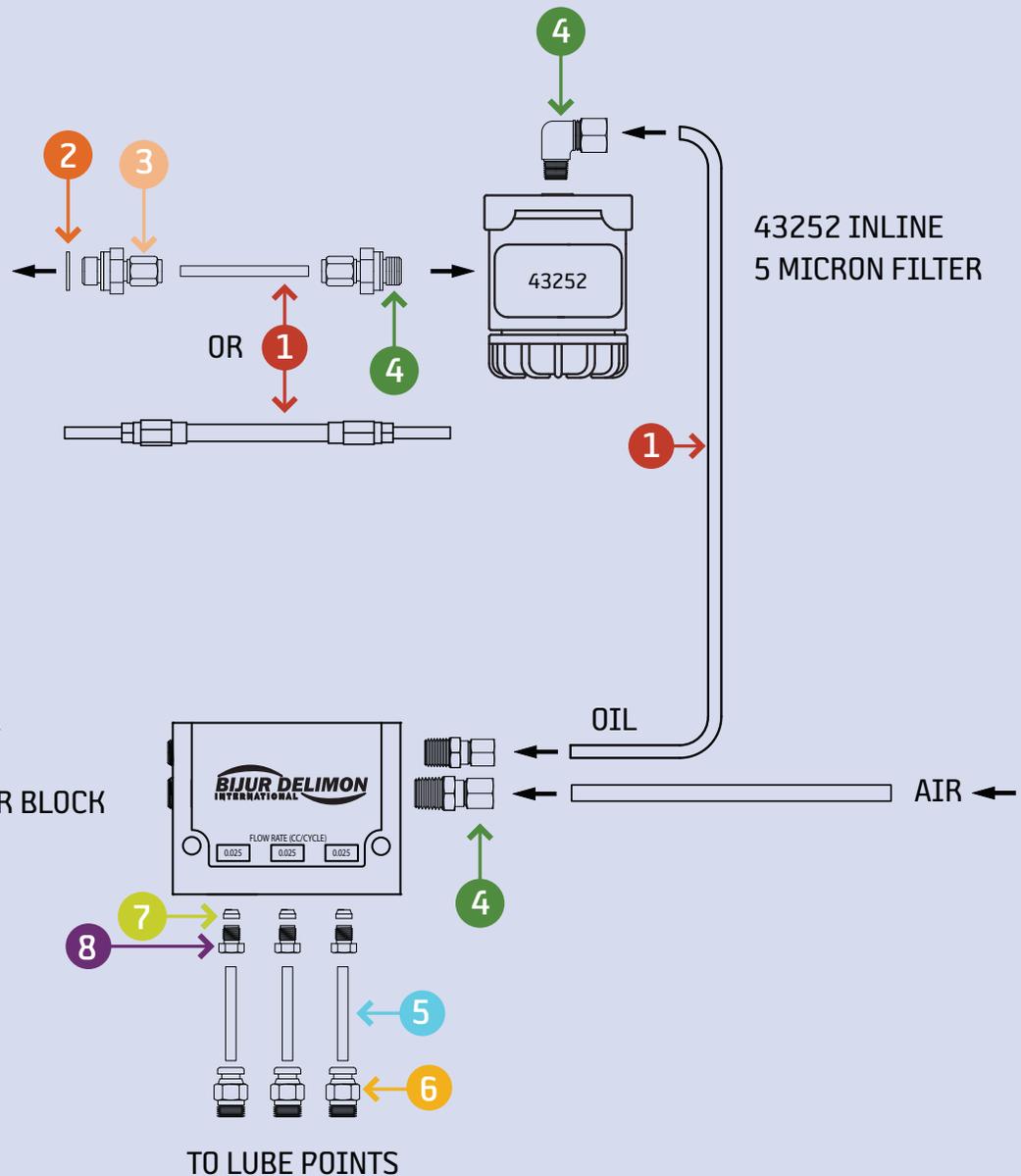
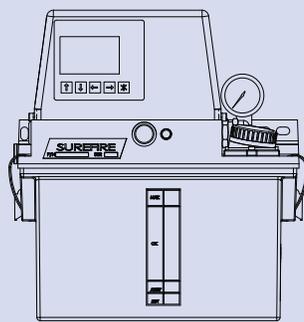


* Note: Return line filter recommended.

PDI Typical Air-Oil Layout

	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES
1	Supply Line Tubing - Nylon	6mm O.D. TUBING	B10437C	Page 30
	Hose Assemblies	PDI hose assy with 6mm stand-pipe ends	34971-10	Page 23
2	Copper Washer	1/4BSPP copper washer	35010	Page 21
3	Pump Outlet Fitting	6mm tube X 1/4BSPP	AR397	Page 10
4	Tubing Adapters	6mm tube X 1/8NPT comp str	24361-1	Page 10-11
		6mm tube X 1/8NPT 90 degree comp str	AR139	
		5/16" tube x 1/4NPT comp str	15920-4	
5	Tubing	5/32" (4mm) tube Poly-Clear	4N25W	Page 30
6	Tube Adapters	Tubing adapter assemblies PTC	20101-1	Page 16
7	Compression Bushing	5/32"(4mm) male bushing	B1371	Page 18
8	Compression Sleeve	5/32"(4mm) sleeve	B8272	Page 19

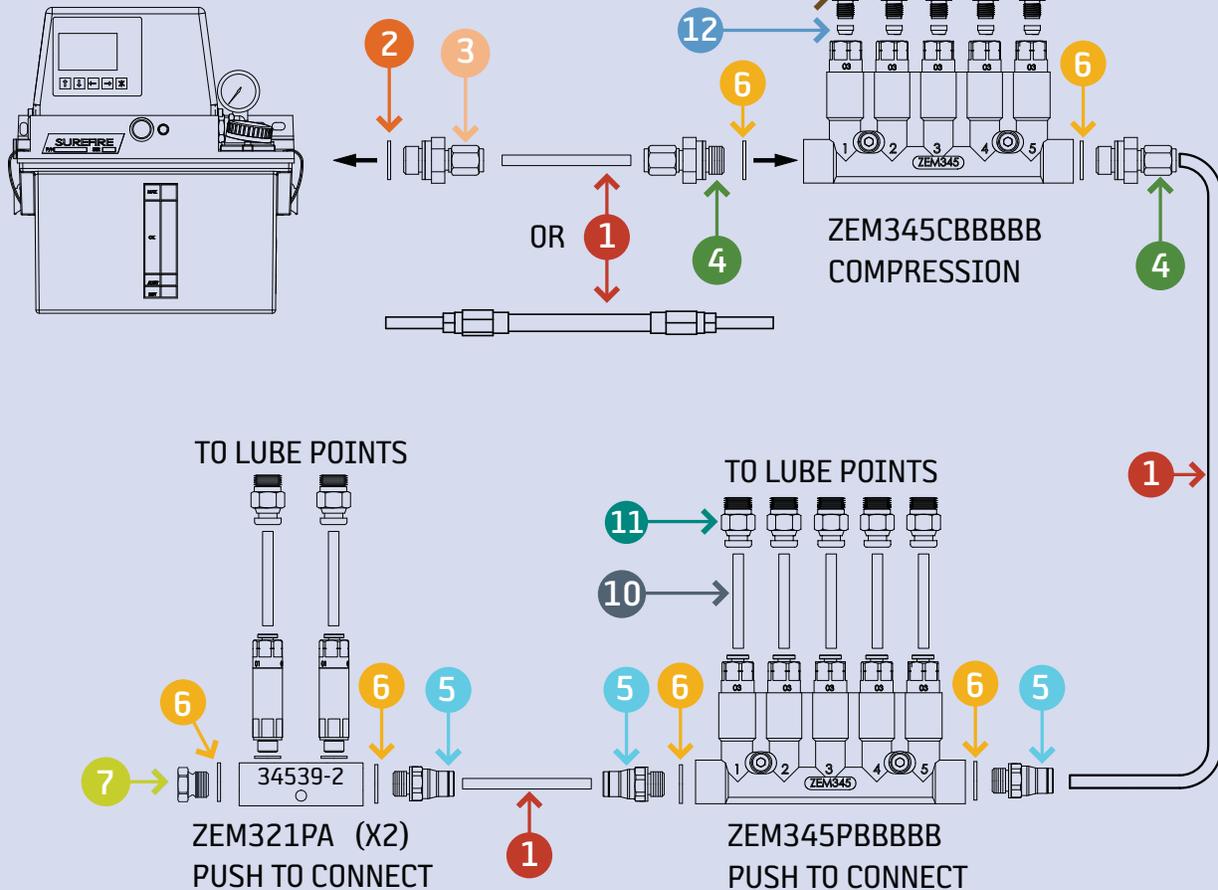
SUREFIRE PDI LUBRICATOR



PDI ZEM Typical Layout

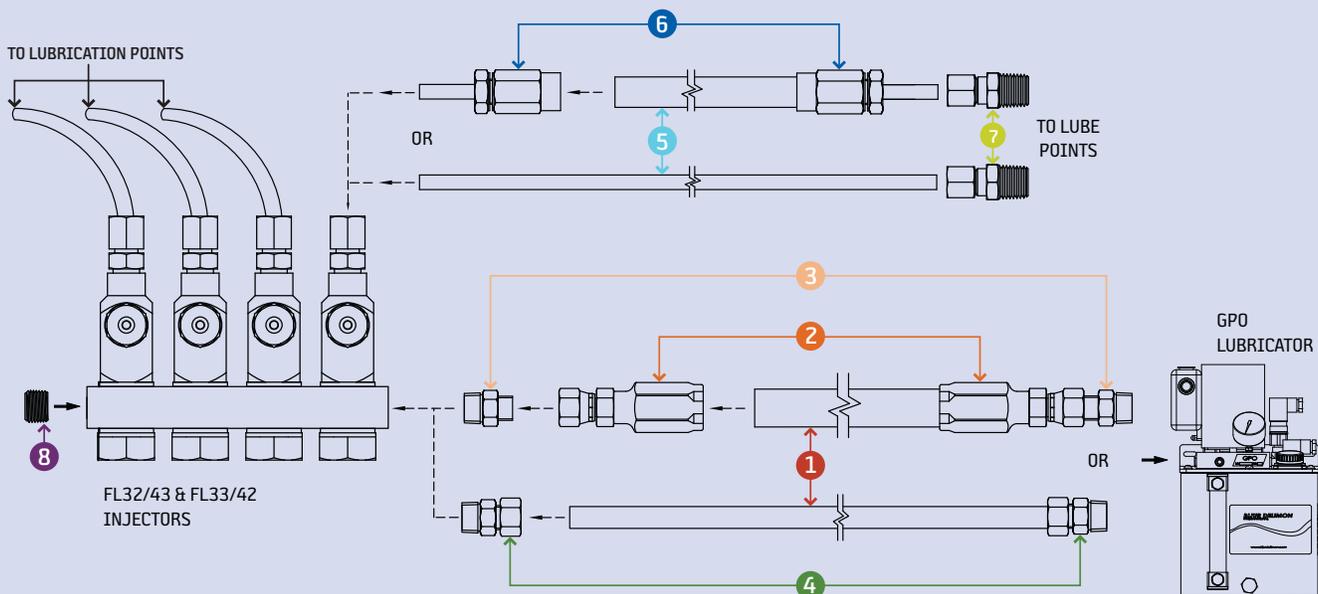
	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES										
1	Supply Line Tubing - Nylon	6mm O.D. TUBING	B10437C	Page 30										
	Hose Assemblies	PDI hose assy with 6mm stand-pipe ends	34971-10	Page 23										
2	Copper Washer	1/4BSPP copper washer	35010	Page 21										
3	Pump outlet fitting	6mm tube X 1/4BSPP	AR397	Page 10										
4	Str adpt tube fittings	6mm tube X M10X1 compression str	AR426	Page 10										
5	Str adpt tube fittings PTC	6mm tube X M10X1 push to connect str	AR1995	Page 16										
6	Copper washer	M10 copper washer	20913-1	Page 21										
7	Plug	M10X1 plug	27450	Page 20										
8	Feed Line Tubing - Copper	4mm (5/32") copper tubing	5C25	Page 31										
9	Lube point fittings	4mm (5/32") X 1/8NPT	B3297	Page 10										
10	Feed Line Tubing - Nylon	4mm (5/32") nylon tubing	5N25	Page 30										
11	Lube point fittings PTC	4mm (5/32") X 1/8NPT	B3297	Page 16 </tr <tr> <td>12</td> <td>Compression Sleeve</td> <td>4mm (5/32") sleeve (ferrile/olive)</td> <td>35001</td> <td>Page 18</td> </tr> <tr> <td>13</td> <td>Compression Bushing</td> <td>4mm (5/32") male bushing</td> <td>15326</td> <td>Page 19</td> </tr>	12	Compression Sleeve	4mm (5/32") sleeve (ferrile/olive)	35001	Page 18	13	Compression Bushing	4mm (5/32") male bushing	15326	Page 19
12	Compression Sleeve	4mm (5/32") sleeve (ferrile/olive)	35001	Page 18										
13	Compression Bushing	4mm (5/32") male bushing	15326	Page 19										

SUREFIRE PDI LUBRICATOR



PDI FL-33/FL-42 & FL-32/FL-43 Typical Layout

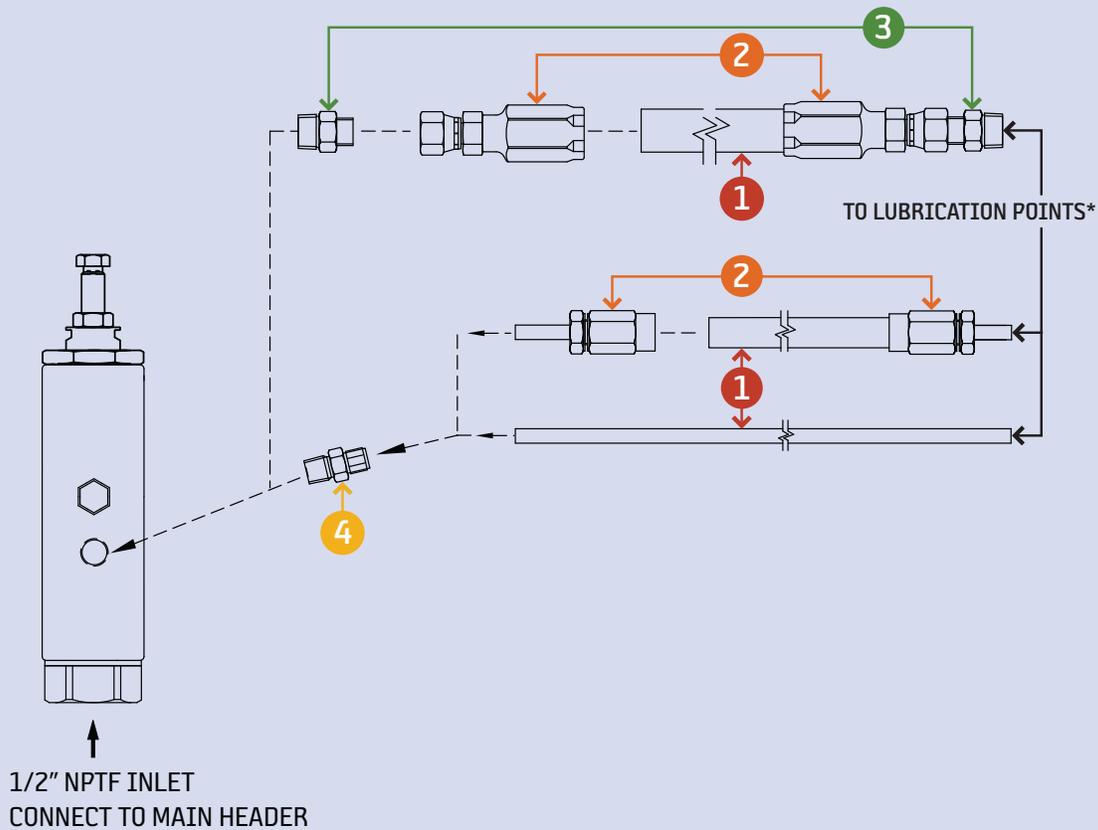
	NAME	DESCRIPTION	EXAMPLE PART # FL33 - FL42 (1/8 NPT)	EXAMPLE PART # FL32 - FL43 (1/4 NPT)	DETAIL PART PAGES	
SUPPLY LINE	1	Hose*	1/4" I.D. Hose	U7184	Page 26	
			3/8" I.D. Hose	U7186		
	2	Hose Ends	1/4" I.D. Hose X Female JIC Swivel 7/16-20	U43844	Page 26	
			3/8" I.D. Hose X Female JIC Swivel 9/16-18	U43866		
	3	Hose Adapters	JIC 7/16-20 STR adapter	U43124	U43144	Page 27
			JIC 7/16-20 90 degree elbow	35528-5	35528-1	
			JIC 9/16-18 STR adapter	35575-1	U43146	
			JIC 9/16-18 90 degree adapter	35528-8	35528-2	
	4	Tubing adapters	1/4" OD Tube adapter straight	U83B1	U83B2	Page 10-11
			1/4" OD Tube adapter 90 degree	U87B1	U87B2	
3/8" OD Tube adapter straight			U83D1	U83D2		
3/8" OD Tube adapter 90 degree			U87D1	U87D2		
FEED LINES & LUBE POINT FITTINGS	5	Hose	3/16" ID Hose	27730	Page 26	
		Tubing	1/8" O.D. Nylon Tubing	27722		Page 30
			1/8" O.D. Steel Tubing	27388	Page 31	
	6	Hose Ends	1/8" O.D. Standpipe X 1/4-28 male hose stud	27712	Page 23	
			1/8" NPT male X 1/4-28 male hose stud	27713		
			1/4-28 female coupling nut	27714		
	7	Tubing Adapters	1/8" O.D. Tube X 1/4-28 STR adapter	27727	Page 10-11	
			1/8" O.D. Tube X 1/8NPT STR adapter	27726		
1/8" O.D. Tube X 1/4-28 90 degree adapter			27728			
1/8" O.D. Tube X 1/8NPT 90 degree adapter			27725			
8	Manifold Plug	Plugs end of line	U119AC	U119BC	Page 20	



* Note: 3/8" O.D. tubing and 1/4" I.D. hose are to be used for NLGI #1 grease or lighter and a maximum supply line length of 25 feet. If a supply line of longer than 25 feet is needed or NLGI #2 grease is to be used consult factory for proper supply line size.

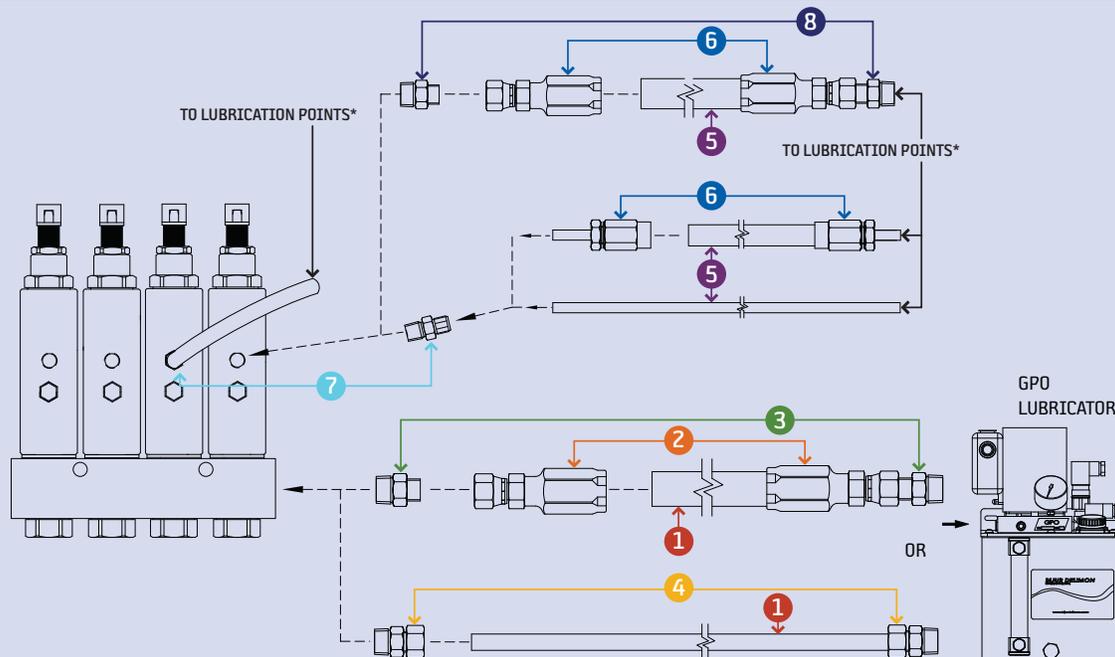
PDI FL-11 / FL-45 Typical Layout

	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES	
FEED LINES & LUBE POINTS	1	Hose	5/32"(4mm) I.D. flexible hose	34962	
		Hose	1/4" I.D. hose	35546	Page 23
	2	Tubing	1/4" O.D. nylon tubing x .050 wall	21672	Page 30
			1/4" O.D. steel	U424E4	Page 31
	3	Hose Adapters	5/32" I.D.(4mm) hose coupling x 1/4" stand pipe	29117	Page 26
			1/4" I.D. hose x female JIC swivel 7/16-20	201188	
	JIC 7/16-20 x 1/4" NPT, straight adapter		U43144	Page 27	
	JIC 7/16-20 x 1/4" NPT, 90° elbow adapter		35528-1		
	4	Tubing Adapters	JIC 7/16-20 x 1/8" NPT, straight adapter	U43124	Page 10-11
			JIC 7/16-20 x 1/8" NPT, 90° elbow adapter	35528-5	
			1/4" O.D. tube x 1/4NPT, straight tubing adapter	U83B2	
			1/4" O.D. tube x 1/4NPT, 90° elbow tubing adapter	U87B2	
		3/8" O.D. tube x 1/4NPT, straight tubing adapter	U83D2		
		3/8" O.D. tube x 1/4NPT, 90° elbow tubing adapter	U87D2		



PDI FL1 / FL-44 Typical Layout

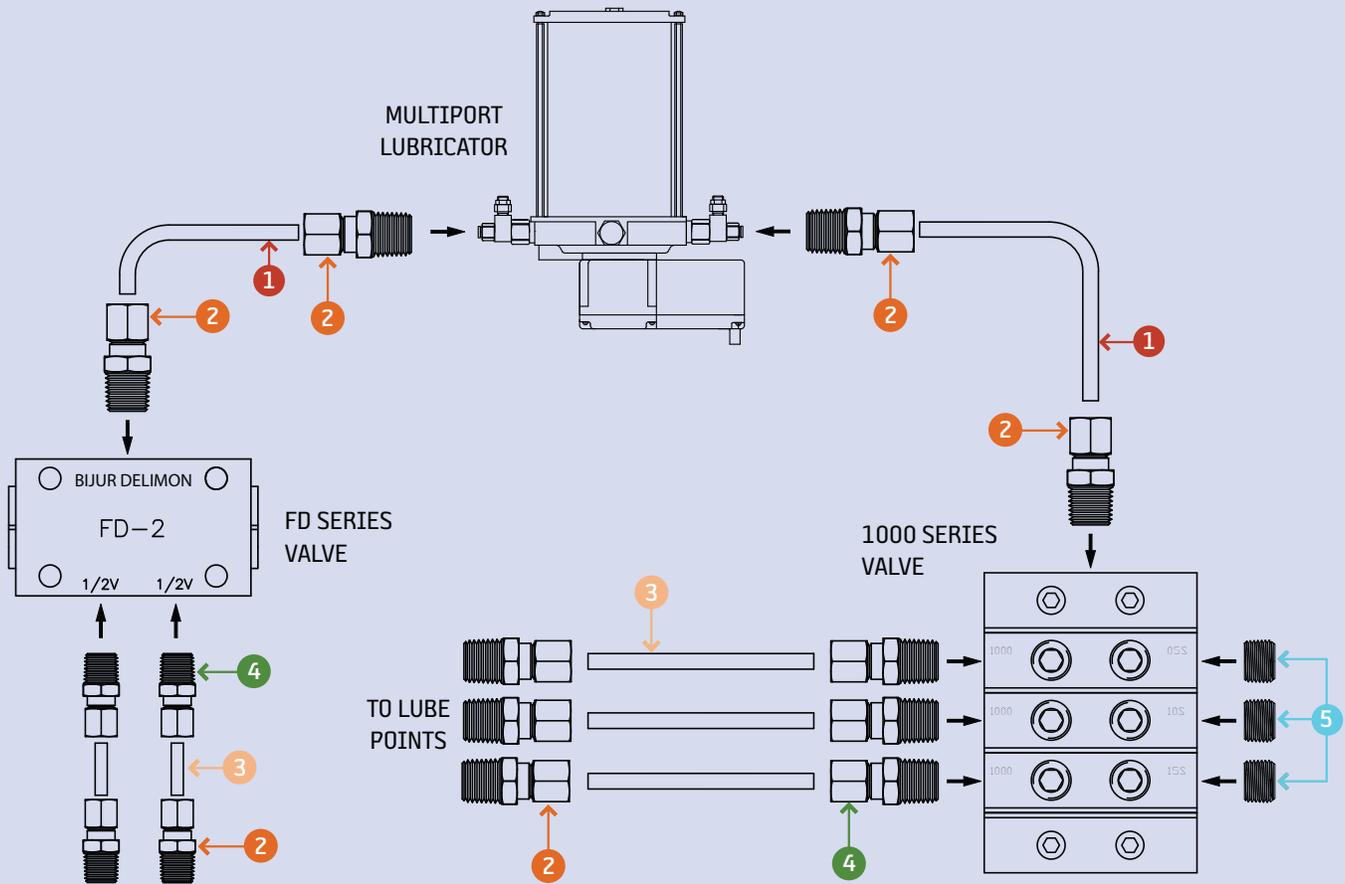
	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES	
SUPPLY LINE	1	Hose*	1/4" I.D. hose (SAE 100R2) 5800 psi wp 3/8" I.D. hose (SAE 100R2) 4750 psi wp	U7184 U7186	Page 26
		Tubing*	1/4" O.D. steel 3/8" O.D. steel tubing	U424E4 U424E6	
	2		Hose Ends	1/4" I.D. hose x female JIC swivel 7/16-20 3/8" I.D. hose x female JIC swivel 9/16-18	U43844 U43866
		3		Hose Adapters	JIC ADAPTERS
	JIC x 1/4" NPT, straight adapter		U43144 U43146		
	JIC x 3/8" NPT, straight adapter		35575 U43166		
	JIC x 1/4" NPT, 90° elbow adapter		35528-1 35528-2		
	JIC x 3/8" NPT, 90° elbow adapter		35528-3 35528-4		
	4	Tubing Adapters	NPT SIZES	1/4 NPT 3/8NPT	Page 10-11
			1/4" O.D. tube x NPT, straight tubing adapter	U83B2 U83B3	
1/4" O.D. tube x NPT, 90° elbow tubing adapter			U87B2 U87B3		
3/8" O.D. tube x NPT, straight tubing adapter			U83D2 U83D3		
3/8" O.D. tube x NPT, 90° elbow tubing adapter			U87D2 U87D3		
FEED LINES & LUBE POINTS	5	Hose	5/32"(4mm) I.D. flexible hose 1/4" I.D. hose	34962 35546	Page 23 Page 26
			Tubing	1/4" O.D. nylon tubing x .050 wall	
	6	Hose Ends		5/32" I.D.(4mm) hose coupling x 1/4" stand pipe 1/4" I.D. hose x female JIC swivel 7/16-20	29117 201188
			7	Tubing Adapters	1/4" O.D. tube x 1/8" NPT, straight tubing adapter 1/4" O.D. tube x 1/8" NPT, 90° tubing adapter
	8	Hose Adapters			JIC 7/16-20 x 1/8" NPT, straight adapter JIC 7/16-20 x 1/8" NPT, 90° elbow adapter



* Note: 3/8" O.D. tubing and 1/4" I.D. hose are to be used for NLGI #1 grease or lighter and a maximum supply line length of 25 feet. If a supply line of longer than 25 feet is needed or NLGI #2 grease is to be used consult factory for proper supply line size.

Progressive 1000/FD Typical Layout

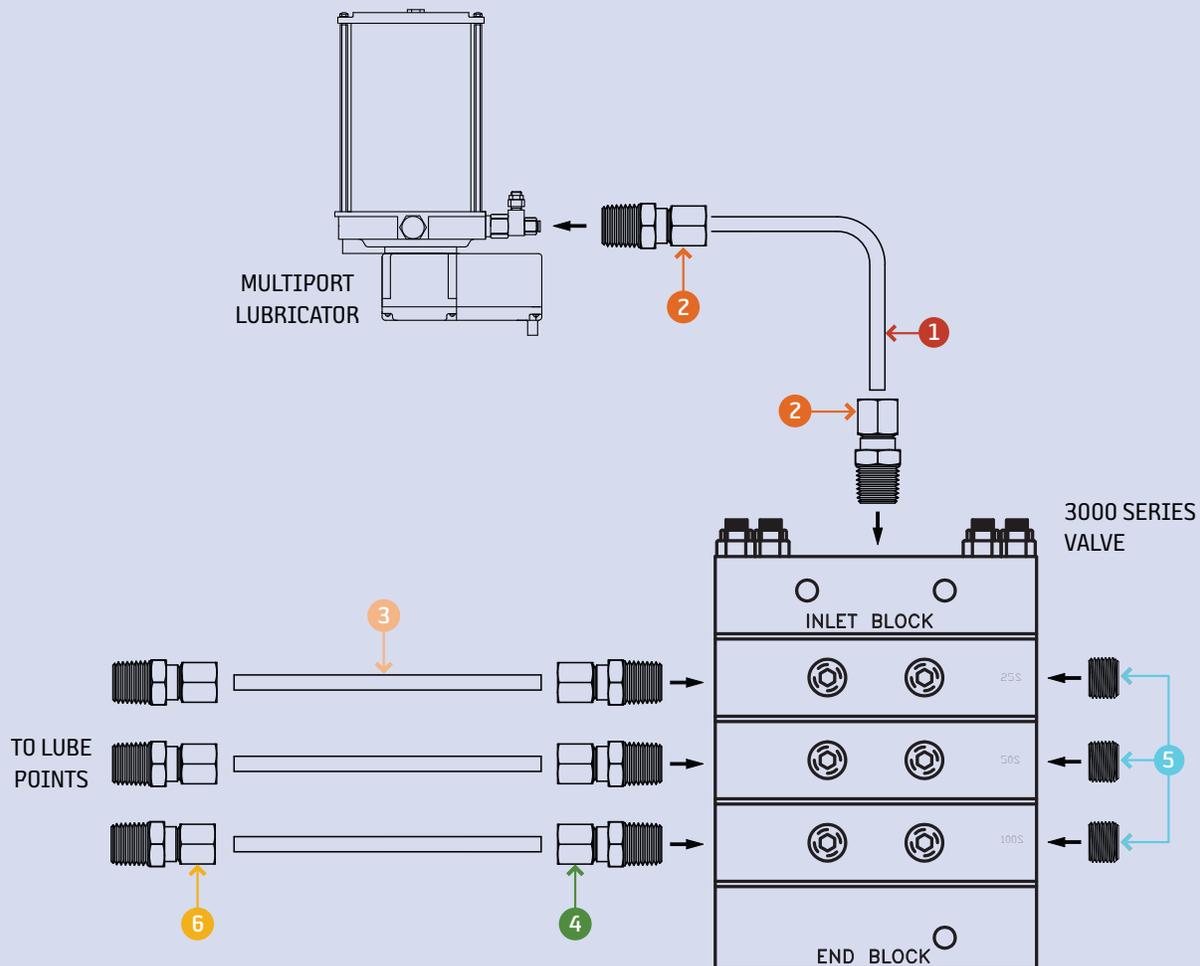
	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES
SUPPLY LINE	1 Tubing Steel	1/4" O.D. Steel Tubing	U424E4	Page 31
		3/8" O.D. Steel Tubing	U424E6	
		1/4" O.D. Tube X 1/8"NPT straight adapter	U83B1	
2 Tubing Adapters	2 Tubing Adapters	3/8" O.D. Tube X 1/8"NPT straight adapter	U83D1	Page 10-11
		1/4" O.D. Tube X 1/8"NPT 90 degree adapter	U87B1	
		3/8" O.D. Tube X 1/8"NPT 90 degree adapter	U87D1	
3 Tubing	3 Tubing	1/4" O.D. Steel Tubing	U424E4	Page 31
		1/4" O.D. Nylon Tubing	21672	Page 30
4 Tubing Adapters	4 Tubing Adapters	1/4" O.D. Tube X 1/8"NPT straight adapter	U83B1	Page 10-11
		1/4" O.D. Tube X 1/8"NPT straight adapter	B6534	
		1/4" O.D. Tube X 1/8"NPT 90 degree adapter	U87B1	
		1/4" O.D. Tube X 1/8"NPT 90 degree adapter	B6536	
5 Plugs	5 Plugs	1/8"NPT	U119AC	Page 20



* Note: 1/4" O.D. tubing is to be used with oil only and 3/8" O.D. tubing is to be used for NLGI #2 grease or lighter. If a supply line of longer than 25 feet is needed consult factory for proper supply line size.

Progressive 3000 Typical Layout

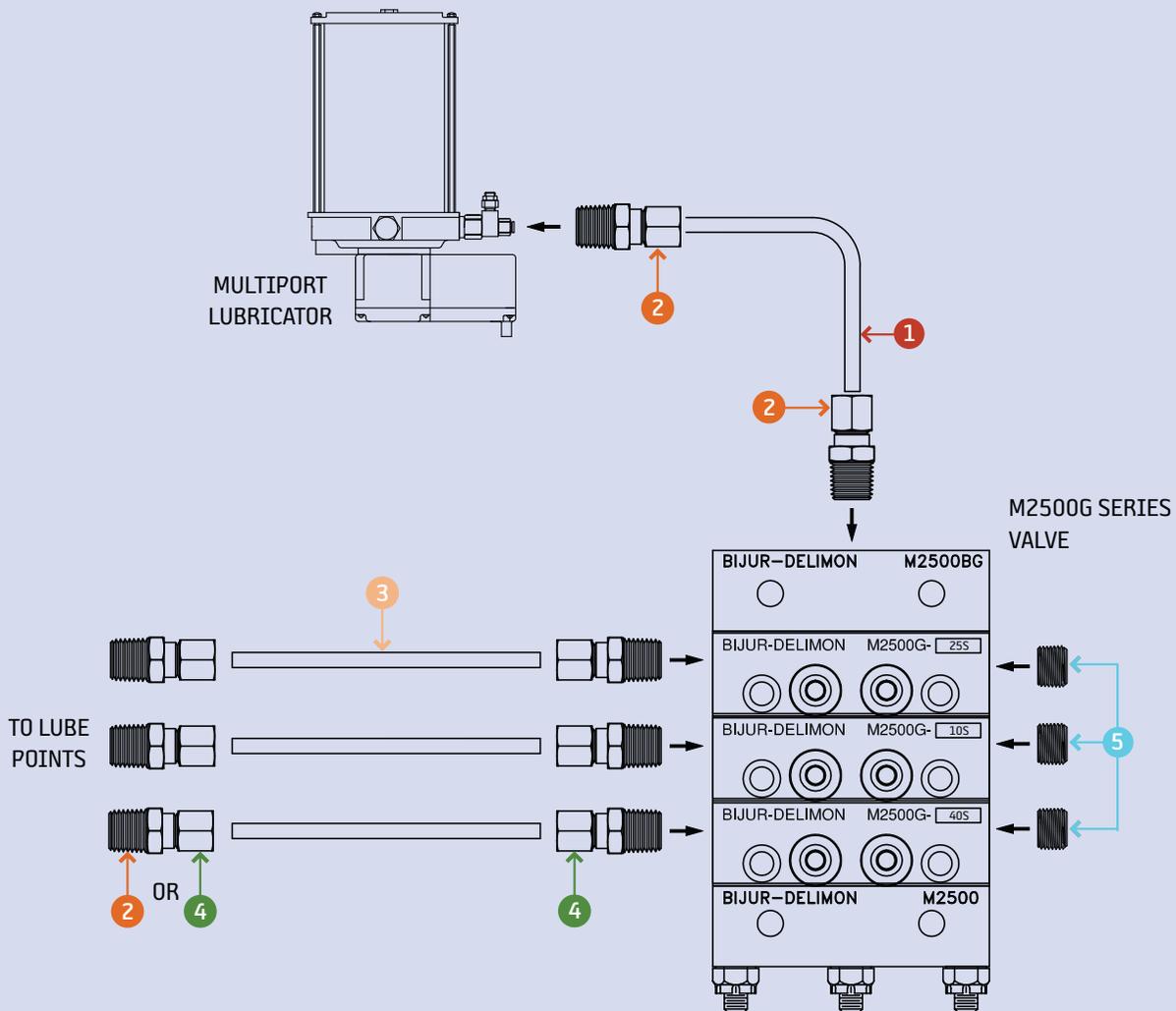
	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES
SUPPLY LINE	1 Tubing Steel	3/8" O.D. Steel Tubing	U424E6	Page 31
		1/2" O.D. Steel Tubing	U424E8	
	2 Tubing Adapters	3/8" O.D. Tube X 3/8"NPT straight adapter	U83D3	Page 10-11
		1/2" O.D. Tube X 3/8"NPT straight adapter	U53EM3	
		3/8" O.D. Tube X 3/8"NPT 90 degree adapter	U87D3	
FEED LINE & LUBE POINT FTGS	3 Tubing	1/4" O.D. Steel Tubing	U424E4	Page 31
		3/8" O.D. Steel Tubing	U424E6	
	4 Tubing Adapters	1/4" O.D. Tube X 1/4"NPT straight adapter	U83B2	Page 10-11
		3/8" O.D. Tube X 1/4"NPT straight adapter	U83D2	
		1/4" O.D. Tube X 1/4"NPT 90 degree adapter	U87B2	
	5 Plugs	1/4"NPT	U119BC	Page 20
6 Tubing Adapter	1/4" O.D. Tube X 1/8"NPT straight adapter	U83B1	Page 10-11	
	3/8" O.D. Tube X 1/8"NPT straight adapter	U83D1		



* Note: 1/4" O.D. tubing is to be used with oil or grease runs of 10 feet or less. 3/8" O.D. tubing is to be used for NLGI #2 grease or lighter and if used to supply a secondary valve. If a supply line of longer than 25 feet is needed consult factory for proper supply line size.

Progressive M2500G Typical Layout

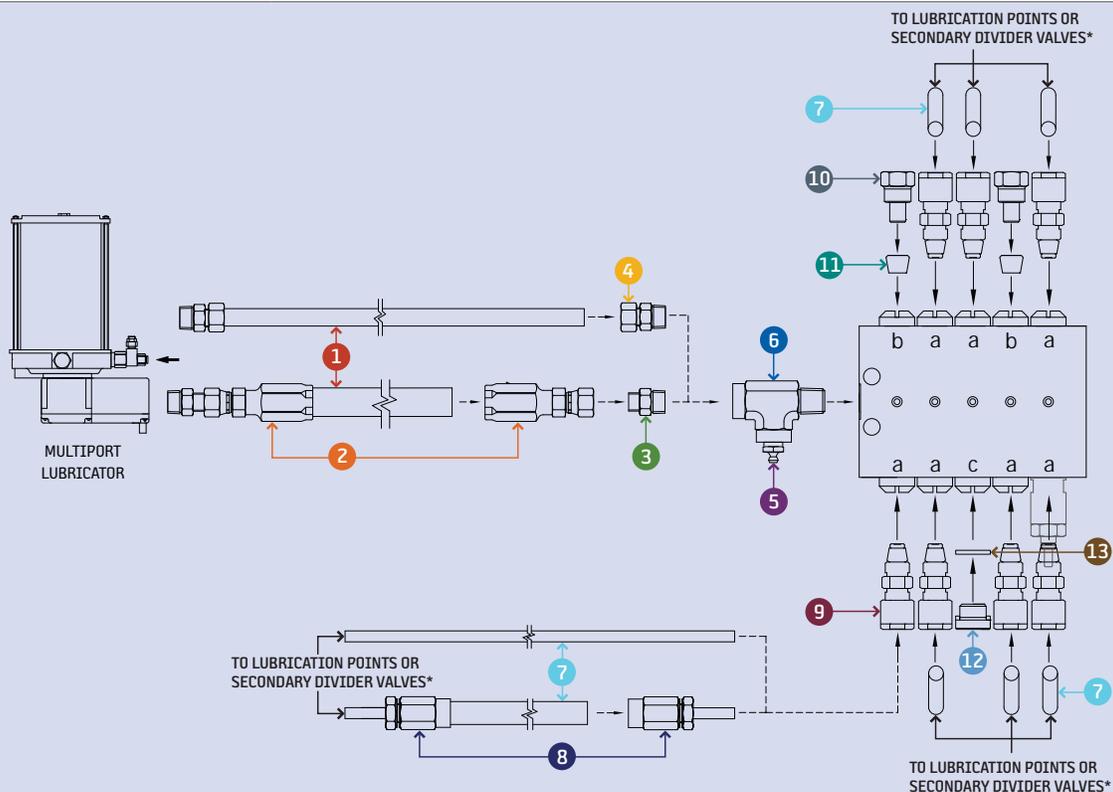
	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES
SUPPLY LINE	1	Tubing*	1/4" O.D. Steel Tubing U424E4	Page 31
			3/8" O.D. Steel Tubing U424E6	
	2	Tubing Adapters	1/4" O.D. Tube X 1/4"NPT straight adapter U83B2	Page 10-11
			3/8" O.D. Tube X 1/4"NPT straight adapter U83D2	
			1/4" O.D. Tube X 1/4"NPT 90 degree adapter U87B2	
FEED LINE & LUBE POINT FTGS	3	Tubing	1/4" O.D. Steel Tubing U424E4	Page 31
			1/4" O.D. Nylon Tubing 21672	Page 30
	4	Tubing Adapters	1/4" O.D. Tube X 1/8"NPT straight adapter U83B1	Page 10-11
			1/4" O.D. Tube X 1/8"NPT straight adapter B6534	
			1/4" O.D. Tube X 1/8"NPT 90 degree adapter U87B1	
			1/4" O.D. Tube X 1/8"NPT 90 degree adapter B6536	
	5	Plugs	1/8"NPT U119AC	Page 20



* Note: 1/4" O.D. tubing is to be used with oil only and 3/8" O.D. tubing is to be used for NLGI #2 grease or lighter. If a supply line of longer than 25 feet is needed consult factory for proper supply line size.

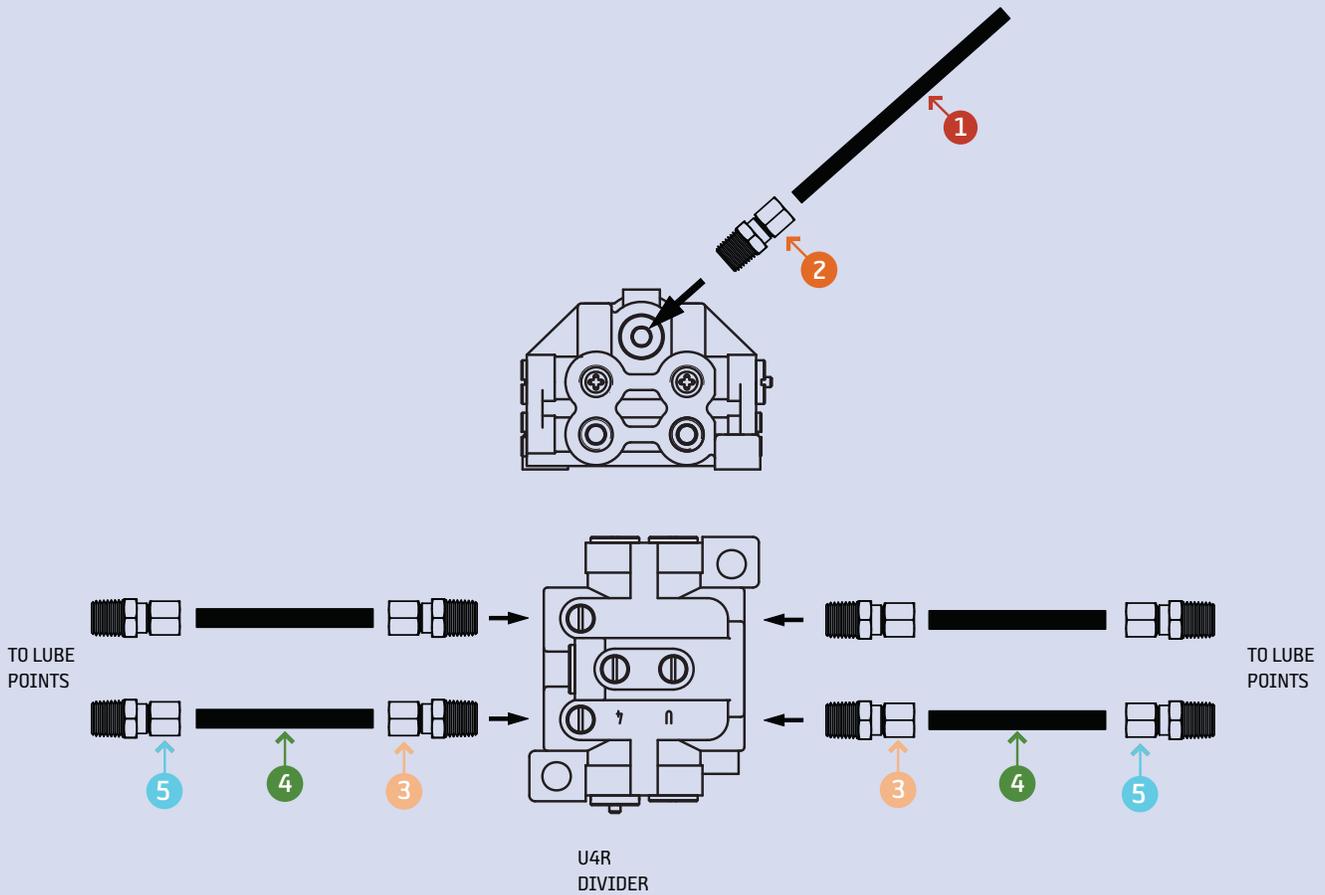
Progressive PVB/PVBM Typical Layout

	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES
SUPPLY LINE	1 Hose	1/4" I.D. hose (SAE 100R2) 5800psi wp	U7184	Page 26
		3/8" I.D. hose (SAE 100R2) 4750psi wp	U7186	
	2 Tubing	3/8" O.D. steel tubing	U424E6	Page 31
2	Hose Ends	1/4" I.D. hose x female JIC swivel 7/16-20	U43844	Page 26
		3/8" I.D. hose x female JIC swivel 9/16-18	U43866	
3	Hose Adapters	JIC SIZES	7/16-20 9/16-18	Page 27
		JIC x 1/4"NPT straight adapter	U43144 U43146	
		JIC x 1/4"NPT 90° elbow tubing adapter	35528-1 35528-2	
		JIC x 1/8"NPT straight tubing adapter	U43124 35575-1	
4	Tubing Adapters	NPT SIZES	1/8NPT 1/4NPT	Page 10-11
		1/4" O.D. tube x NPT, straight tubing adapter	U83B1 U83B2	
		1/4" O.D. tube x NPT, 90° elbow tubing adapter	U87B1 U87B2	
		3/8" O.D. tube x NPT, straight tubing adapter	U83D1 U83D2	
5	Manual Override Fitting	1/8" NPT grease fitting, straight	F674	Page 28
6	Tee	1/8" NPT(M) x 1/8"NPT(F) x 1/8" NPT(F) male run tee	26978	Page 7
7	Hose	5/32"(4mm) I.D. flexible hose	34962	Page 23
		1/4" O.D. nylon tubing x .050 wall	21672	Page 30
8	Hose Ends	5/32"(4mm) I.D. hose coupling x 1/4" stand pipe	29117	Page 23
9	PVB Outlet Fittings	1/4" O.D. TBG outlet fitting with check valve	35166	
10	Outlet Plug "B"	Closure plug - "b" porting (singling)	74161-1851	
11	Clamping Ring "B"	Clamping ring - Required for "b" porting (singling)	73511-3223	Page 38
12	Outlet Plug "C"	Closure plug - "c" porting	74161-5741	
13	Copper Seal "C"	Copper seal - Required for "c" porting	72712-1094	



Progressive U-BLOCK Typical Layout

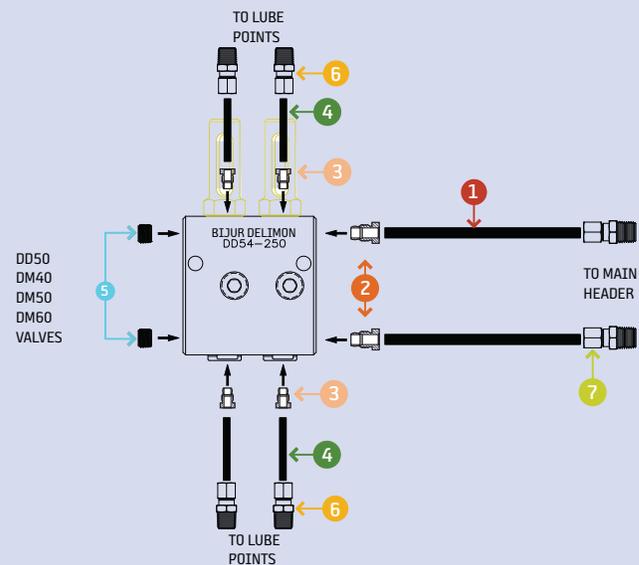
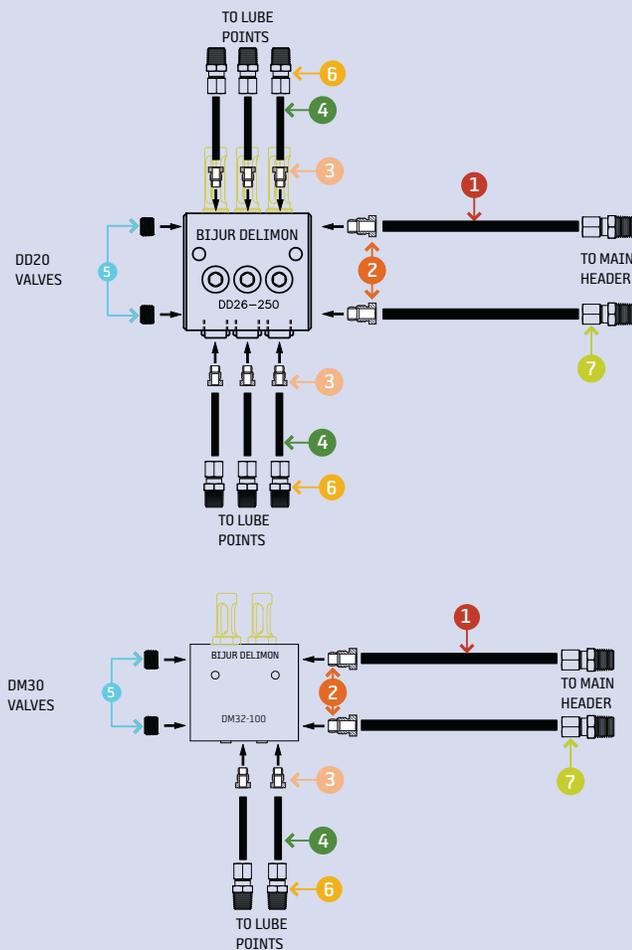
	NAME	DESCRIPTION	EXAMPLE PART #	DETAIL PART PAGES
SUPPLY	1 Tubing	1/4" O.D. Steel	U424E4	Page 31
	2 Tubing Connectors	1/4"BSPT x 1/4" Tube	20806	Page 10-11
FEED LINE	3 Tubing Connectors	1/8"BSPT X 1/4" Tube	15578	Page 10-11
	4 Tubing	1/4" O.D. Nylon	B10437	Page 30
	5 Tubing Connectors	1/8"NPT X 1/4" Tube	B6534	Page 10-11



* Note: U-Block outlets cannot use standard plugs, use crossport kits.

Dualine DD/DM Typical Layout

	NAME	DESCRIPTION	EXAMPLE PART # DD20	EXAMPLE PART # DM30	EXAMPLE PART # DD50 DM40/50/60	DETAIL PART PAGES
SUPPLY LINE	1 Tubing	Steel Tubing 1/4" O.D.	U424E4	-	-	Page 31
		Steel tubing 3/8" O.D.	-	U424E6	U424E6	
2	Tubing Connectors	One piece nut & sleeve 1/4" tube	U81B1	-	-	Page 18
		One piece nut & sleeve 3/8" tube	-	U81D3	U81D3	
3	Tubing Connectors	One piece nut & sleeve 3/16" tube	U81AA1	-	-	Page 18
		One piece nut & sleeve 1/4" tube	-	U81B1	U81B2	
4	Tubing	3/16" O.D. tubing	U424C3	-	-	Page 31
		1/4" O.D. tubing	-	U424E4	U424E4	
5	Plugs	1/4"NPT	U119AC	-	-	Page 20
		3/8"NPT	-	U119CC	U119CC	
6	Tubing Adapter	3/16" O.D. Tube X 1/8"NPT str adapter	U83A1	-	-	Page 10
		1/4" O.D. Tube X 1/8"NPT str adapter	-	U83B1	U83B1	
7	Tubing Adapter	1/4" O.D. Tube X 1/8"NPT str adapter	-	U83B1	-	Page 10
		1/4" O.D. Tube X 1/4"NPT str adapter	-	U83B2	-	
		3/8" O.D. Tube X 1/8"NPT str adapter	-	U83D1	-	
		3/8" O.D. Tube X 1/4"NPT str adapter	-	U83D2	-	



Innovators of engineered lubrication technology since 1872

Bijur Delimon International has ISO 9001:2008 and ISO 14000 quality certified manufacturing facilities around the world, so your centralized lubrication system meets the highest industry quality standards. It's all part of our commitment to quality and customer service.



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LUBESITE[®]
SYSTEMS

*The full line of cost reducing,
single-point lubrication
solutions.*



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Overview

LubeSite—the Systematic Approach to Single-Point Lubrication

Grease and oil lubrication are critical parts of maintenance in any industrial operation. Proper lubrication saves a tremendous amount of money by reducing equipment downtime and lost labor hours, as well as giving equipment longer life. Why take chances with lubrication? LubeSite by Bijur Delimon eliminates the guesswork. Your local distributor can show you how.

Environmentally-minded manufacturers will appreciate the refillable feature of these single-point lubricators, since the unit can remain mounted on a bearing, with just pennies of oil or grease to top off the reservoir. Oil and grease used in other applications on the plant floor are suitable for these units.



LubeSite Grease Feeders

Applications

LubeSite automatic lubricators can be used on any equipment that has:

- + Anti-friction oscillating, ball or roller bearings
- + Shielded bearings with seals
- + Bronze, oilite or open bearings
- + Requires bearing flushing action
- + Uses NLGI grade 0 to grade 4 non-separating grease
- + Operates in an ambient temperature from -10°F to 450°F (-23°C to 232°C)

LubeSite 404: 0°F to 200°F (-17°C to 93°C)

LubeSite Series 200, 300, 500: -10°F to 250°F (-23°C to 121°C)

LubeSite 704: 0°F to 450°F (-17°C to 232°C)

Benefits

- + Refillable/reusable
- + On-demand operating principle
- + Activation is immediate
- + No cumbersome dip switch/activator plug settings
- + No battery or gas
- + No hazardous battery/gas units to dispose of
- + Low pressure operation
- + See thru reservoir
- + Can use with any NLGI grade 0 to grade 4 non-separating grease
- + Models available to operate in harsh conditions
- + Can be mounted in any position
- + Can be used in any hazardous area
- + Reservoirs available in 1, 2 and 6 oz capacity



Save Money

Almost half of all bearing failures are due to improper lubrication. Over- and/or under-greasing cause the majority of problems. Here are the major advantages of using a LubeSite product:

- + Fewer replacement bearings
- + Less downtime for bearing replacement
- + Less grease used
- + Fewer man-hours spent relubricating

Prevent Over- and Under-lubrication

Manual greasing with a grease gun is a method of lubrication determined by an estimate of the amount of grease used. The fact is, there is no accurate way to know when a bearing is getting too little or too much grease. The variables are endless.

Protect Personnel

Because LubeSite units often permit longer periods between greasing, your personnel can avoid lubricating while equipment is operating. Normal shutdown periods may be used.

The transparent reservoir permits a visual inspection of grease level from a safe distance whenever lubrication is required in a hazardous or hard-to-reach location. The LubeLine refill kit can be used to refill LubeSite units in hard-to-reach areas (see page 15).



Installation

Operation

LubeSite automatic grease feeders have only two moving parts (spring, piston with metering rod and piston seal ring). The design combines foolproof simplicity with rugged component strength for dependable, controlled lubrication.

The graduated channels in the meter rod allow the bearing to use grease as required. Once the reservoir is filled and the unit is connected to a bearing, the single-point lubricator uses Venturi action to discharge lubricant only when the bearing is in motion. Thus, grease is never packed into the bearing. This benefits manufacturers that will have some planned machine downtime, because over-lubrication is eliminated. Because the single-point lubricator only generates 1-5 psi it will not blow bearing seals. When the bearing stops, so does the grease flow.

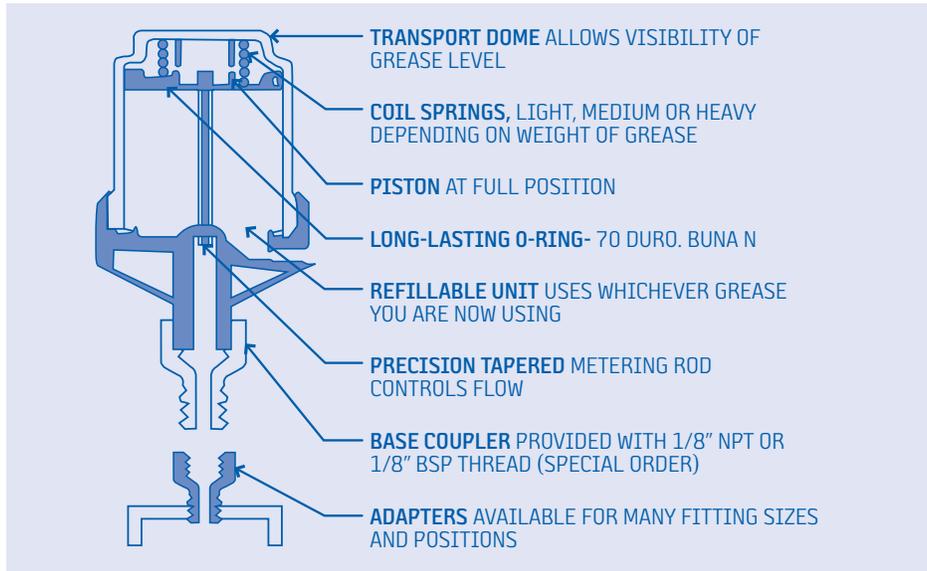
Start Up Instructions

1. Use proper spring.
2. Remove grease fitting from equipment or bearing housing.
3. Fill with grease.
4. Screw the LubeSite assembly directly into the grease fitting hole. Turn hand tight only.
5. LubeSite can be refilled while mounted on equipment.

For more detailed installation and mounting instructions see Service Sheet #32854: LubeSite Grease Feeders 200-700 Series Installation Instructions.



LubeSite Grease Feeder (cut-away)



Maintenance and Cleaning

LubeSite units are made from high-quality, heavy-duty engineered materials and are manufactured to meet rigid standards. These units require only minimum care to provide long, trouble-free service under normal operating conditions.

The transparent dome should be kept free of exterior dirt, so that the interior grease level can always be seen. Most dirt can easily be removed with mild detergents (never use solvents). Grease fittings should be wiped clean before and after filling and the protective cap replaced.

We recommend that the LubeSite unit be thoroughly cleaned inside and out about once a year as a routine, or whenever the grease has separated or solidified. More cleaning may be required in extremely dirty or dusty environments



Size and Spring

Static and Dynamic Bearing Conditions

LubeSite 200 Series is specifically designed for bearing housings that operate under static conditions. These units should not be specified for dynamic conditions. Specify the 300 Series (metal base) units for dynamic, impact, high torque or vibrating applications. LubeSite 404 disposable unit is for use on static operations with minimal shock or vibration.

Harsh Atmospheres

LubeSite 500 Series is designed for corrosive atmospheres while the 704 unit is designed for high temperature (up to 450°F) applications.

Grease Types

Almost all grade 0 to grade 4 non-separating grease will work.

Selecting the Proper Unit Size and Spring

To determine the LubeSite unit size, you need to know the bearing shaft diameter and speed, as well as the bearing class. For example, if the shaft diameter is 2", the bearing is sealed and the shaft speed is a continuous 2000 rpm, you will need an extra large unit. See the size selection guide on page 9.

To determine the proper spring, you need to know the operating temperature and the grease weight. For example, if the operating temperature of the bearing ranges from 60°F to 80°F, and you're using grade 2 grease, then you will need a medium (silver) spring. See the spring selection guide on page 9. If mounting on an extension, use of an extra heavy (orange) spring may be required (spring effectiveness will vary with application).



LubeSite Size Selection Guide

Bearing Shaft Diameter	Up to 1-1/2"			
Operating Condition	Intermittent		Continuous	
Class of Bearing	Open	Sealed	Open	Sealed
Under 2500 rpm	1 oz	1 oz	1 oz	1 oz
Over 2500 rpm	2 oz	2 oz	2 oz	2 oz

Bearing Shaft Diameter	Over 1-1/2"			
Under 1000 rpm	2 oz	2 oz	2 oz	2 oz
1000-2500 rpm	2 oz	2 oz	6 oz	6 oz
Over 2500 rpm	6 oz	6 oz	6 oz	6 oz

Note: Bigger isn't always better. Don't intentionally oversize LubeSite units.

LubeSite Spring Selection Guide

Operating Temperature	Grease (Grade)				
	0	1	2	3	4
-10°F to 40°F (-23°C to 4°C)	Blue	Silver	Red	---	---
40°F to 110°F (4°C to 43°C)	Blue	Silver	Silver	Red	---
110°F to 200°F (43°C to 93°C)	---	Blue	Silver	Silver	Red
200°F to 250°F (93°C to 121°C)	---	---	Blue	Silver	Red

How to Order Springs

Color	Strength	Part #		
		For use with the following units		
		202/302/502	205/305/505	260/360/560
Blue	Light	202-7	205-7	360-7
Silver	Medium	202-8	205-8	360-8
Red	Heavy	202-9	205-9	360-9
Orange ¹	Extra heavy	202-15	205-15	360-15
		704		
Green	Medium	7107408		
Yellow	Heavy	7107409		

¹ Available for 1 oz, 2 oz and 6 oz grease feeders to be used on extension and where greater pressure is desired for flushing action.

LubeSite 200 Series

Polycarbonate Base

LubeSite 200 Series feature a clear, polycarbonate reservoir and base. This design allows for a visual inspection of the units' internal workings. The 200 Series units should be specified for applications with minimal vibration, impact, shock, high-torque or centrifugal forces. Units are assembled with medium springs (three additional light and heavy springs are included in each box of ten). An extra heavy (orange) spring is available for applications requiring the use of an extension or for higher pressure flushing applications. LubeSite unit 260 is individually boxed with a light (blue) and heavy (red) spring.

Technical Data

Material	Polycarbonate domes and bases
Thread Size	1/8" NPT
Operating Temperature	-10°F to 250°F (-23°C to 121°C)

How to Order

Reservoir Capacity	Dimensions	Part #
1 oz (28.3 g)	1-3/4" diameter (44.5mm) 3-5/8" height(92.1mm)	202
2 oz (56.7 g)	2-3/8" diameter (60.3mm) 4-5/8" height(117.5mm)	205
6 oz (170.1 g)	3" diameter (75mm) 6" height (152.4mm)	260



LubeSite 300 Series

Metal Base

LubeSite 300 Series are designed for applications subject to vibration, impact, shock, high-torque or centrifugal forces. Units are assembled with medium springs (three additional light and heavy springs are included in each box of ten). An extra heavy (orange) spring is available for applications requiring the use of an extension or for higher pressure flushing applications. LubeSite unit 360 is individually boxed with a light (blue) and heavy (red) spring.

Technical Data

Material	Domes	Polycarbonate
	Bases	Lightweight anodized aluminum
Thread Size	1/8" NPT	
Operating Temperature	-10°F to 250°F (-23°C to 121°C)	

How to Order

Reservoir Capacity	Dimensions	Part #
1 oz (28.3 g)	1-3/4" diameter (44.5mm) 3-5/8" height (92.1mm)	302
2 oz (56.7 g)	2-3/8" diameter (60.3mm) 4-5/8" height (117.5mm)	305
6 oz (170.1 g)	3" diameter (75mm) 6" height (152.4mm)	360

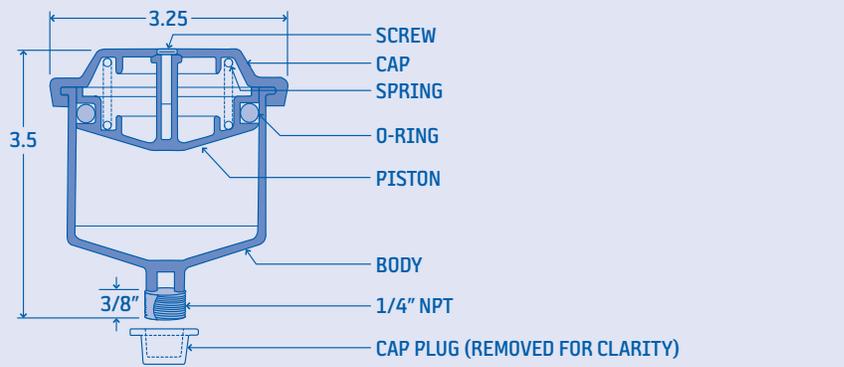


LubeSite 404

Pre-filled Polycarbonate Unit

LubeSite 404 should be specified for applications with minimal vibration, impact, shock, high-torque or centrifugal forces. It has a transparent Lexan® polycarbonate reservoir. It is filled with 4 oz of high-quality, multipurpose, Lithium-based NLGI grade 2 grease. Grease is USDA, class H-2. The LubeSite 404 unit is not refillable.

Dimensional Schematics



Technical Data

Material	Polycarbonate reservoir
Thread Size	See page 34 for available couplers.
Operating Temperature	-10°F to 250°F (-23°C to 121°C)

How to Order

Reservoir Capacity	Dimensions	Part #
4 oz (113.4 g)	3-1/4" diameter (82.5 mm)	404 ¹

¹ NLGI Grade 2 grease



LubeSite 500 Series

Corrosion Resistant, Metal Base

LubeSite 500 Series are nickel-chrome, double-plated for applications where corrosive resistance is required, such as chemical and food processing applications. Units are assembled with medium springs (three additional light and heavy springs are included in each box of ten). An extra heavy (orange) spring is available for applications requiring the use of an extension or for higher pressure flushing applications. LubeSite unit 560 is individually boxed with a light (blue) and heavy (red) spring. The piston seal ring in the 500 Series is fabricated from chemical-resistant Viton®.

Technical Data

Material	Domes	Polycarbonate
	Bases	Nickel-chrome plated lightweight aluminum
Thread Size	1/8" NPT	
Operating Temperature	-10°F to 250°F (-23°C to 121°C)	

How to Order

Reservoir Capacity	Dimensions	Part #
1 oz (28.3 g)	1-3/4" diameter (44.5mm) 3-5/8" height (92.1mm)	502
2 oz (56.7 g)	2-3/8" diameter (60.3mm) 4-5/8" height (117.5mm)	505
6 oz (170.1 g)	3" diameter (75mm) 6" height (152.4mm)	560



LubeSite 704

High Temperature, Metal Base

LubeSite 704 allows precise dispensing of grease to a bearing in ambient temperatures up to 450°F (232°C). It's ideal for applications in steel mills, foundries, lumber drying kilns, glass plants, nuclear environments and metal heat-treating facilities.

The refillable, transparent reservoir permits a visual inspection of grease level at a safe distance. This feature is especially important in high temperature applications.

Technical Data

Material	Domes	Tempered borosilicate, glass
	Bases	Lightweight, anodized aluminum
	Cap	Stainless steel
Thread Size	1/8" NPT	

Note: These units are assembled with a medium (green) stainless steel spring. Units are packed individually and include an additional heavy (yellow) spring. The piston seal ring and gaskets are fabricated from temperature-resistant Viton.

How to Order

Reservoir Capacity	Dimensions	Part #
4 oz (113.4 g)	3-1/4" diameter (82.5mm) 7-1/8" height (181mm)	704

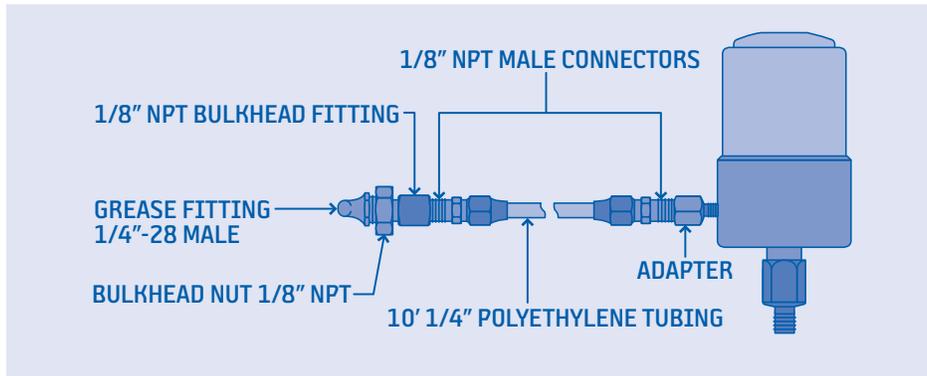


LubeLine™ Refill Kit

Remote Grease Refill Kit

The great majority of plants have hard to reach lubrication sites. The LubeLine Refill Kit allows refilling from distances up to 10 feet, and will fit all grease units.

The LubeLine Refill Kit comes complete with all of the required fittings and 10 feet of high pressure tube. Remember, this product is specifically designed to refill a LubeSite unit, not replace it. LubeLine units should be prefilled prior to hook-up to the LubeSite unit. Be certain the LubeLine Refill Kit is free of all air bubbles.



How to Order

Description	Hose	Part #
LubeLine Refill Kit	10' high pressure	LubeLine



LubeSite Oil Feeders

Overview

To dependably fill the need for automatic oil lubrication, we offer a full line of LubeSite single-point oilers, which include:

- + Drip Oilers
- + Gravity Feed Oilers
- + Wick Oilers
- + Chain Oilers
- + SAVER Oilers
- + Constant Level Oiler

Our popular standard oiler offers the flexibility of a 4 oz or an 8 oz capacity reservoir set in a metal base. This base will withstand the punishment of extreme vibration or industry's worst environments. The SAVER line of economical oilers provide a low-cost alternative for those who require performance at a low price and don't need the security of a metal base.

These automatic oilers provide precise oil lubrication for machine tools, oil-lubricated bearings, gear boxes, motors, drives and chains. LubeSite oil lubricators feature a poke-through cap allowing refill by standard oil can. The hole then closes to prevent contamination.

Features

- + A clear reservoir which tells the maintenance worker, at a glance, when refilling is required.
- + Automatic lubrication service while machinery is running, providing improved worker safety.
- + Polycarbonate domes rated for 200°F (93°C) maximum temperature.



LubeSite Drip Oilers

Drip feed oilers are perhaps the most popular method of automatic oil lubrication. The lubricant feed rate can be set by the operator by merely turning the needle valve and viewing the drip rate in the flow sight. Oil flow can be stopped simply by shutting the valve.

A cam-lock valve flow sight (see page 33) is also available with drip oilers as an alternative method for precise metering applications. They have a durable polycarbonate flow sight which is a major improvement over the breakable glass sights currently used in other drip oilers. These valves may be purchased separately.

Technical Data

Material	Domes	Polycarbonate
	Bases	Lightweight, anodized aluminum
Thread Size	1/8" NPT	

How to Order

Reservoir Capacity	Dimensions	Part #
4 oz (120 mL)	2-1/4" diameter (57 mm)	D-4
	7" height (177.8 mm)	D-4 cam
8 oz (240 mL)	2-1/4" diameter (57 mm)	D-8
	10" height (254 mm)	D-8 cam



LubeSite Gravity Feed Oilers

These single-point lubricators maintain a constant flow to oil-lubricated bearings. The durable polycarbonate reservoir makes these oilers desirable in applications such as food processing plants where there would be the danger of broken glass from oil-style oilers. These units can also be used as an oil level indicator, reserve reservoir or for back-pressure relief on machine start-up.

Technical Data

Material	Domes	Polycarbonate
	Bases	Lightweight, anodized aluminum
Thread Size	1/8" NPT	

How to Order

Reservoir Capacity	Dimensions	Part #
4 oz (120 mL)	2-1/4" diameter (57 mm) 4-3/4" height (120 mm)	G-4
8 oz (240 mL)	2-1/4" diameter (57 mm) 7-3/4" height (197 mm)	G-8



LubeSite Wick Oilers

Wick oilers are used in applications where precise oiling is required. The foam wick material used in a LubeSite wick oiler replaces old-style felt or woven cotton wicks. The wick material provides easily controlled oiling rates.

Oil Weight	RW-2 (Fast Wick)	RW-3 (Medium Wick)	RW-4 (Slow Wick)
SAE 10	480 drops/hr	250 drops/hr	180 drops/hr
SAE 20	300 drops/hr	180 drops/hr	60 drops/hr
SAE 30	122 drops/hr	81 drops/hr	46 drops/hr
SAE 50	66 drops/hr	43 drops/hr	20 drops/hr
SAE 60	62 drops/hr	29 drops/hr	16 drops/hr
SAE 70	33 drops/hr	18 drops/hr	9 drops/hr
APG 90	43 drops/hr	25 drops/hr	14 drops/hr

Note: The wick provides a predetermined flow based on oil grade. Wicks should be changed every three months (less if flow rate is diminished).

Technical Data

Material	Domes	Polycarbonate
	Bases	Lightweight, anodized aluminum
Thread Size	1/4" NPT (1/8" NPT coupler supplied)	

Note: Supplied with all three wicks.

How to Order

Reservoir Capacity	Dimensions	Part #
4 oz (120 mL)	2-1/4" diameter (57 mm) 4-3/4" height (120 mm)	W-4
8 oz (240 mL)	2-1/4" diameter (57 mm) 7-3/4" height (197 mm)	W-8



LubeSite Chain Oilers

By adding a properly selected and applied chain oiler to your drive chain, you can greatly improve a drive's performance, operating life and efficiency.

As a chain moves in a sprocket, there is relative movement between the pin and bushing surfaces. Wear at these points creates elongation, decreasing both chain life and efficiency. By maintaining an oil film between the pin and bushing, you can greatly reduce this wear.

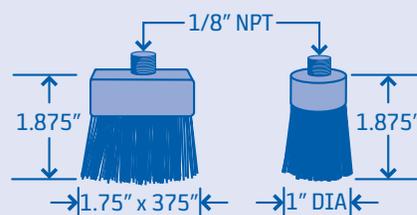
Proper lubrication can also help to prevent chain failure by providing protection against rust and corrosion. Rusting allows pits to form, causing stress concentration points which can result in premature chain failure, even at reduced loads. The brush's bristles will also help to clean the chain by removing dirt and other contaminants while replacing them with clean oil.

LubeSite chain oilers automatically function at predetermined rates to prevent over- and under-lubrication. Downtime is eliminated in applications where equipment must be shut down to get to the chain.

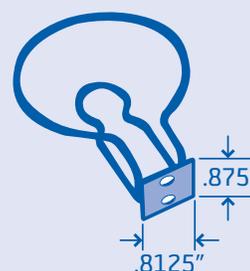
The most ideal positioning of LubeSite chain oilers is directly in front of the drive sprocket.

Dimensional Schematics

Brushes



*Mounting Bracket**



** Mounting bracket is included with all LubeSite chain oilers or can be used with any of the other oilers. Bracket p.n. 803-7.*

Technical Data

Material	Domes	Polycarbonate
	Bases	Lightweight, anodized aluminum
Thread Size	1/8" NPT	

How to Order

Reservoir Capacity	Dimensions	Part #
4 oz (120 mL)	2-1/4" diameter (57 mm) 8-1/2" height (215.9 mm)	FB-4
		FB-4 cam
		RB-4
		RB-4 cam
8 oz (240 mL)	2-1/4" diameter (57 mm) 11-3/8" height (288.9 mm)	FB-8
		FB-8 cam
		RB-8
		RB-8 cam

FB= Flat brush RB= Round brush

Replacement Brushes

	Brush Type	Part #
	Round	803-10
	Flat	803-11

Note: Brushes are designed with a feature that prevents oil from dripping off the ends of the brush tip under normal conditions. Oil is normally pulled off by the moving parts.



LubeSite SAVER Oilers

SAVER G-5 Gravity Oiler

This single-point lubricator is ideal for those applications which require a constant “as needed” supply of oil. These units may also be used as an oil level indicator, reserve reservoir or for back-pressure relief on machine start-up.

SAVER W-5 Wick Oiler

Wick oilers are used in applications where precise oiling is required and are adaptable to all classes of machinery. The foam material used in the LubeSite wick oilers replaces the old-fashioned “pipe cleaner”, felt or woven cotton wicks. The wick material provides easily controlled oiling rates.

The wick operates through capillary action, providing a predetermined flow of oil based on the grade of oil used. For most applications, the medium rate wick will suffice. Each unit is also supplied with both a slow and a fast rate wick, allowing the user to choose the oil feed rate or to change feed rates as required. The material also acts as a filter, keeping dust, dirt and metal filings outside the equipment. See wick selection chart on page 21 for more information.

SAVER D-5 Drip Oiler

The drip feed oiler is the most popular method of lubrication because it allows the operator to adjust the rate of oil flow. Adjustments are made by turning the valve to any point between the open and fully closed position. Needle point and cam-lock valves are available.



SAVER FB-5 and RB-5 Chain Oilers

As a chain enters and leaves a sprocket, there is relative movement between the pin and bushing surfaces. Wear at these points creates elongation, decreasing both chain life and efficiency. By maintaining an oil film between the pin and bushing, you can greatly reduce this wear. Needle point and cam-lock valves are available.

Technical Data

Thread Size	G-5, D-5	1/4" NPT
	FB-5, RB-5	1/8" NPT
	W-5	1/8" NPT coupler

How to Order

Reservoir Capacity	Description	Dimensions	Part #
5 oz (150 mL)	Gravity Oiler	3-1/4" diameter (79.4 mm) 3-3/4" height (95.3 mm)	G-5
	Wick Oiler	3-1/4" diameter (79.4 mm) 4-5/16" height (109.5 mm)	W-5
	Drip Oiler	3-1/4" diameter (79.4 mm) 6-1/2" height (164.1 mm)	D-5
	Chain Oiler	3-1/4" diameter (79.4 mm) 5-1/4" height (209.5 mm)	FB-5 RB-5

FB= Flat brush RB= Round brush



Denco Constant Level Oiler

The Denco Constant Level Oiler maintains a constant lubricant level in a bearing housing or gearbox automatically making up lubricant usage from its back-up reservoir.

Operation

The Denco Constant Level Oiler is based on the simple air compensation principal. As the oil level in the bearing falls, the level in the body of the oiler also falls. This fall in level uncovers the bottom of the chamfered feed tube of the oiler and air is admitted into the oil reservoir. An equivalent amount of oil is permitted to escape from the reservoir down the oil feed tube to the body of the oiler, restoring the pre-set oil level and sealing off the air feed tube. This sequence is repeated whenever the level of the oil in the bearing or sump fall and will continue until the reservoir is empty.

Features

- + Adjustable to allow fine tuning of the ultimate lubricant level.
- + The transparent reservoir shows immediately the back-up volume available at any time.
- + Reduces maintenance costs by increasing the periods between inspection and replenishments.
- + Prevents overfilling which could cause overheating or mechanical damage to bearings/gears.

Technical Data

Material	Bases	Brass (standard)
	Reservoirs	Glass, polythene
Reservoir Capacity	100 mL, 200 mL, 500 mL	
Lubricant	Suitable for use with any petroleum based oil with a viscosity that will flow through the feed tube and allow air bubbles to rise.	
Entry Ports	1/4" BSP (bottom and side)	
Operating Temperature	14°F to 140°F (-10°C to 60°C)	

Note: Alternative designs of oilers are available with API threads, steel bodies, dust/moisture skirts, balance tubes for sub-atmospheric environments and with a top entry plug for direct mounting into a reservoir or sump. (Reservoirs sold separately.)

How to Order

Standard Oilers for Use in Clean or Dry Conditions

Model	Description	Part #
Series N	Brass body and adapter with 1/4" BSP threads	38010
Series R	Brass body and adapter with 1/4" NPT threads	38011

Note: The standard models are for use in all applications where normal atmospheric pressure exists within the plant or machinery. Connection to the bearing housing or gearbox can be made via the side or bottom ports. Reservoirs sold separately.

Oilers for Use in Dirty or Wet Environments

Model	Description	Part #
Series L ¹	Brass body and adapter as series N but fitted with PVC skirt to protect the breather holes.	38120
Series P ²	Brass body and adapter fitted with PVC skirt, no breather hole but includes an overflow tube.	38127

¹ Extensively used in adverse environmental conditions but where normal atmospheric pressures exist. Reservoirs sold separately.

² Used as a back-up device to maintain a constant level in an oil bath on equipment on which the primary lubrication is oil mist or air/oil systems and where a rise in oil level would cause a problem. Reservoirs sold separately.

Reservoirs

Reservoir Material	Reservoir Capacity	Part #
Glass	100 mL	38180
	200 mL	38190
Polythene	500 mL	38225

Note: Reservoirs sold separately from oilers.



Accessories and Kits

Metering Kits for 4, 6 and 8 Points

Resistance-type meter unit selection, complete with all necessary tubing and fittings.

- + Easily adapts to various machine configurations
- + Closure plugs provided to handle smaller systems
- + All kit components individually bagged and identified

Tubing Repair Kit

Offers selection of 5/32" O.D. (4mm) tubing, couplers, fittings and adapters to facilitate repairs or additions to the system.

Pressure Gauge Kit

Panel mounted gauge, complete with 'tee' junction and fittings for main feed line connection to indicate auto-cyclic pressures.

Extension Kit

LubeSite Extension Kit features a bracket to connect to your LubeSite Grease Feeder, nylon tubing and fittings. Up to 6 feet.

Electrical Shut-Off Valve

- + 110-120 volt
- + Used on all LubeSite oilers except wick oilers

How to Order

Description	Part #
Electrical shut-off valve	37654
Metering kit	4 lubrication points 32567
	6 lubrication points 32568
	8 lubrication points 32569
Tubing repair kit	K1079
Pressure gauge kit	32566
Extension kit (for series 200, 300, & 500)	37704



Oil Level Sight Plugs

The specially designed “bulls eye” prism glass lenses are molded during the hermetic sealing process. The reflective “bulls eye” surfaces reflect light in the absence of any liquid, allowing liquid levels to be seen easily.

The one-piece design is compact and leakproof at high temperatures and pressures. LubeSite oil level sight plugs may be easily installed using pipe thread sealant or left unsealed.

ATTENTION

Tapered pipe-thread sight glasses may be damaged by improper installation. Use socket wrench and high quality thread sealant. Tighten only enough to seal threads against leaks. If cracks appear in lens after installation, do not use.

Technical Data

Material	Cold rolled steel
Maximum Operating Temperature	500°F (260°C)

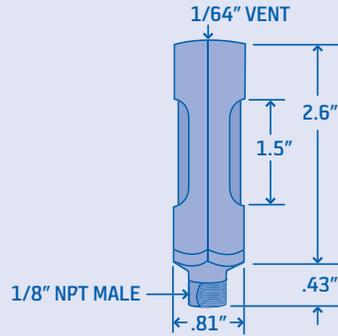
How to Order

Maximum Pressure	Thread Size	Hex size	Lens Diameter	Part #
400 psi	3/8" NPT	3/4"	7/16"	LSPB 38
250 psi	1/2" NPT	7/8"	5/8"	LSPB 50
200 psi	3/4" NPT	1 1/8"	3/4"	LSPB 75
100 psi	1" NPT	1 3/8"	1"	LSPB 100
60 psi	1-1/4" NPT	1 3/4"	1 3/16"	LSPB 125



LubeSite Vented Liquid Level Sight

LubeSite's accurate way to check liquid level in a closed tank. Both male and female models feature a large window on two sides for easy visual inspection, top venting for vertical mounting and a sight tube which is designed for easy cleaning.



Sights are sized to fit existing or readily available fittings. Heavy duty material is used through (black oxide steel). Sights measure .81" wide by 2.6" high (male) or 2.17" high (female).

Technical Data

Operating Temperature	-10°F to 250°F (-23°C to 121°C)
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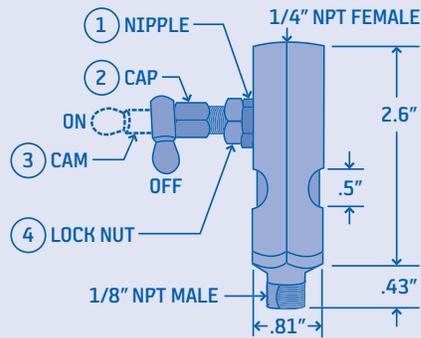
How to Order

Description	Part #
Male	LLS-3M
Female	LLS-3F



LubeSite Adjustable Valve Flow Sight

This cam makes small flow adjustments easier. The lock nut resists vibrations and maintains a preset flow. It has an easy to see lock on/lock off action with spring action to positively control the needle.



To set or change rate of flow, push cam (3) to horizontal position. Loosen lock nut (4). Turn cap (2) counter clockwise until oil is feeding properly. Lock setting with lock nut (4).

Technical Data

Operating Temperature	-10°F to 250°F (-23°C to 121°C)
-----------------------	---------------------------------

How to Order

Description	Part #
Adjustable valve/flow sight assembly 1/4" NPT(F) x 1/8" NPT(M)	824-3
Cam valve/flow sight assembly 1/4" NPT(F) x 1/8" NPT(M)	824-5
Cam valve/flow sight assembly 1/4" NPT(F) x 1/8" NPT(F)	824-6



Adapters and Couplers

How to Order

	Description	Material	Part #
	Straight adapter 1/8" NPT (F) x 1/4"-28 (M)	Zinc plated steel Nickel chrome plated	20-1 50-1
	Bushing adapter 1/8" NPT (F) x 1/4" NPT(M)	Zinc plated steel Nickel chrome plated	20-2 50-2
	45° adapter 1/8" NPT (F) x 1/8" NPT(M)	Zinc plated steel Nickel chrome plated	20-3 50-3
	90° adapter 1/8" NPT (F) x 1/4"-28 (M)	Zinc plated steel Nickel chrome plated	20-4 50-4
	90° adapter 1/8" NPT (F) x 1/8" NPT(M)	Zinc plated steel Nickel chrome plated	20-5 50-5
	45° adapter 1/8" NPT (F) x 1/4"-28 (M)	Zinc plated steel Nickel chrome plated	20-6 50-6
	Base coupler 1/4" NPT (F) x 1/8" NPT(M)	Zinc plated steel Nickel chrome plated	202-2 502-2
	Coupler 1/4" NPT (F) x 1/4"-28 (M)	Zinc plated steel	202-2A



Industries

LubeSite is Used in the Following Industries:

- + Air conditioning & refrigeration (commercial)
- + Amusement parks
- + Automotive
- + Aviation and aerospace
- + Baking (commercial)
- + Bottling
- + Bowling lanes equipment
- + Brewing
- + Car wash equipment
- + Chemical processing
- + Compressed air
- + Construction equipment
- + Conveyor equipment
- + Dairy
- + Elevators
- + Farming
- + Fertilizing plants
- + Food processing
- + Grain processing
- + Hospitals
- + Hotels
- + HVAC
- + Laundries (commercial)
- + Lumber
- + Machine tools
- + Maintenance and repair operations (MRO)
- + Marine
- + Mining (coal, iron, copper, silver, sulfur & quarry)
- + Motors
- + Oil (drilling and refining)
- + Optical grinding
- + Packaging
- + Port facilities
- + Printing
- + Pulp and paper
- + Pumps
- + Public utilities
- + Robots
- + Textiles
- + Tobacco
- + Waste treatment (sewage and solid)



Innovators of engineered lubrication technology since 1872

Bijur Delimon International operates engineering, sales, manufacturing and logistical service centers in nine strategic locations around the globe while constantly striving for improvement in everything we do. Our customers, internal and external, expect nothing less!



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FARVAL[®] DUALINE[™] SYSTEMS

- + Ideally suited for heavy industry
- + Continuous duty operation
- + Over 80 years of excellence

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INSURES LUBRICATION
OF EVERY BEARING
AND SLIDE · PREVENTS
OVER AND UNDER
LUBRICATION · SAVES
LUBRICATION TIME ·
ELIMINATES LUBRICANT
CONTAMINATION ·
PREVENTS PERSONAL
INJURY HAZARDS ·
PROMOTES CONTINUOUS
HIGH SPEED MACHINE
OPERATION · REDUCES
REPAIRS AND
DOWNTIME · PROLONGS
MACHINE LIFE ·
INCREASES
PRODUCTION OUTPUT ·
REDUCES
OPERATING COST

Introduction

Dualine lubricating systems are found in virtually every industry in which continuous duty operation is required. From steel production to pulp and paper, from mining equipment to machine tools, automatic application of the lubricant provides significant benefits to the equipment user. There are several components that are used in designing a Dualine system:

- + Valves
- + Lubricators
- + Reversing Valves
- + Central Stations
- + Controllers
- + Spray Systems

Valves

Measuring valves are the heart of Dualine lubrication systems. They are mounted close to the lubrication points and are hydraulically operated by pressure from the first and then the second of the two supply lines. On each pressurization cycle, they indirectly discharge fixed volumes of lubricant to the bearing or lubrication point.

Lubricators

Manual, electric and pneumatic lubricators store and pump lubricant to Dualine valves throughout the system.

Reversing Valves

These valves change the flow and direction of pressure, which causes divider valves in the system to cycle.

Central Stations

Central stations include lubricator, cycle switch and reversing valve. Some versions are mounted on a plate for easier installation.

Controllers

Programmable controllers give you access to key system functions, such as system on and off, and can control what happens when there is a problem in the system.

Spray Systems

Used to lubricate large gears and pinion sets.

Advantages of Dualine Systems

- + They are economical for a system having more than 20 bearing points.
- + Lubrication points can be added easily without redesigning the total system.
- + A blockage between main line and bearing will not shut the system down; remaining bearings will continue to be lubricated.
- + There are positive lubrication indicators for each bearing point.
- + They have the ability to positively displace a broad range of lubricants from light oil to grade 2 grease.
- + Lubrication discharge volume at each bearing is fully adjustable even after start-up.

Dualine Systems

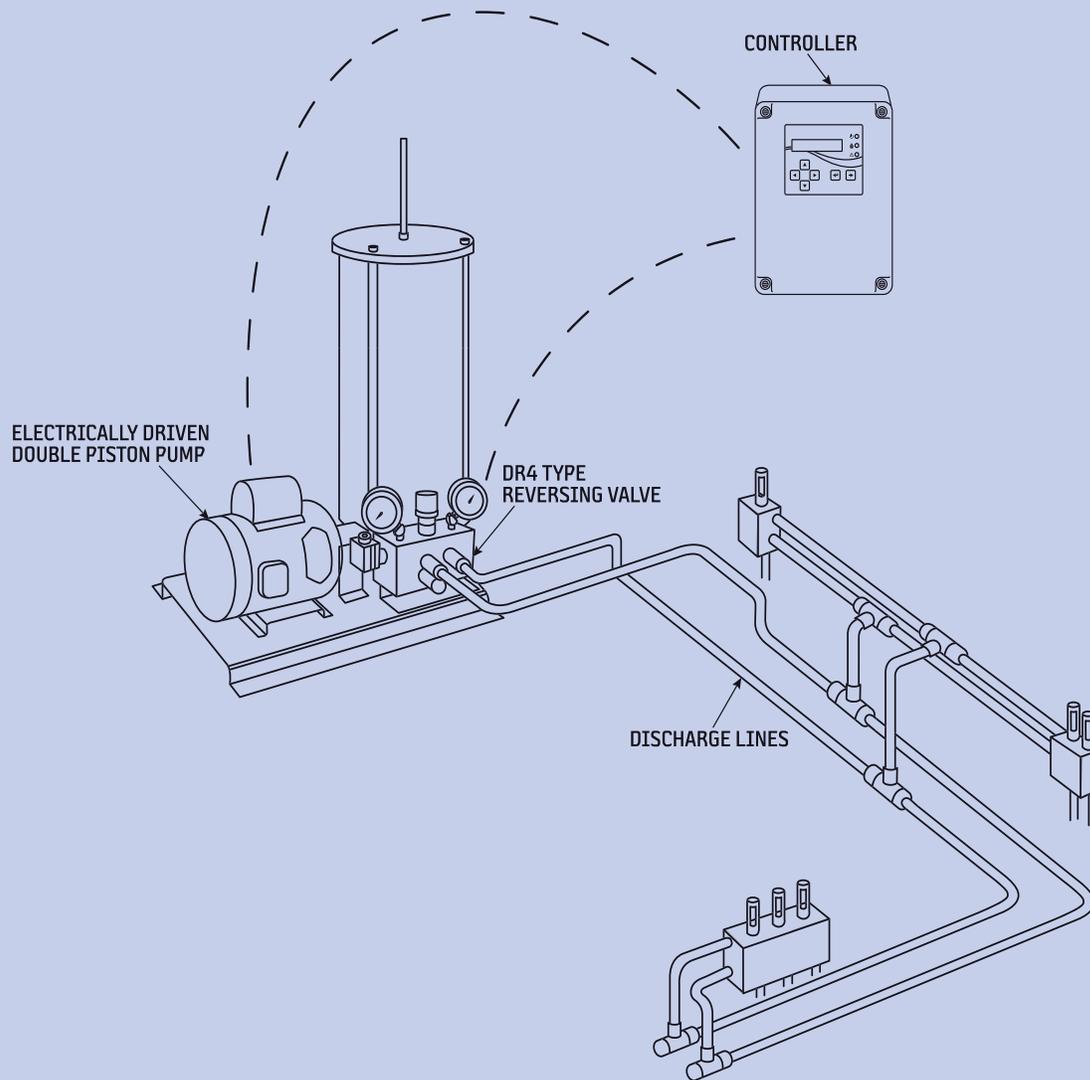
There are several various types of Dualine systems that can be designed using Bijur Delimon components featured in this brochure. Flexibility is a key part of the Bijur Delimon product family. The following represent typical system layouts.

Motor Driven Piston Pump System

One of the most popular Dualine systems features Dualine valves, a central station (pump, cycle switch and reversing valve) and a controller.

Relevant products include:

- + DD Valves, DM Valves or DDM/SDM Modular Valves (pages 6-9)
- + Central Stations (pages 16-19)
- + Controllers (pages 20-21)

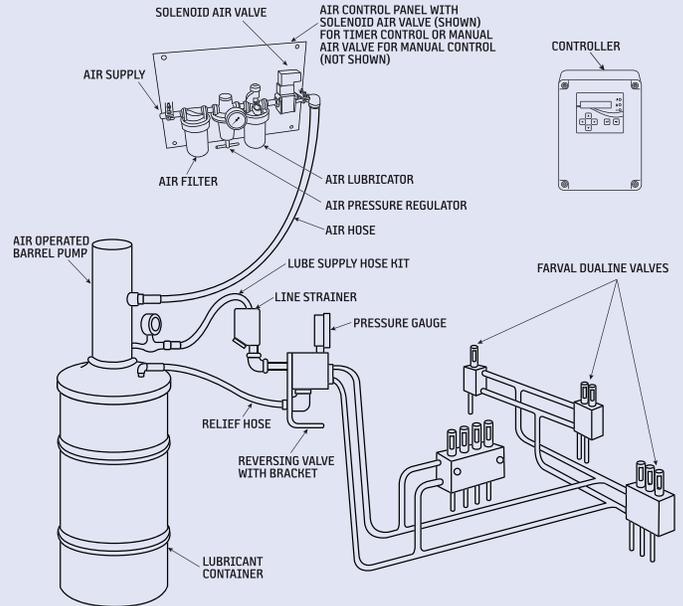


Air Powered System

Another popular Dualine system utilizes an air-operated barrel pump providing lubricant to Dualine valves in the system. A reversing valve with a pressure gauge is utilized to reverse the lubrication flow in the system. A controller is also used to monitor system functionality. (See a variation of this system layout, *Spray Systems*, on pages 22-23.)

Relevant products include:

- + DD Valves, DM Valves or DDM/SDM Modular Valves (pages 6-9)
- + Air Operated Barrel Pump (page 12-13)
- + Air Control Panel (see components on page 13)
- + Reversing Valve (pages 14-15)
- + Controllers (pages 20-21)

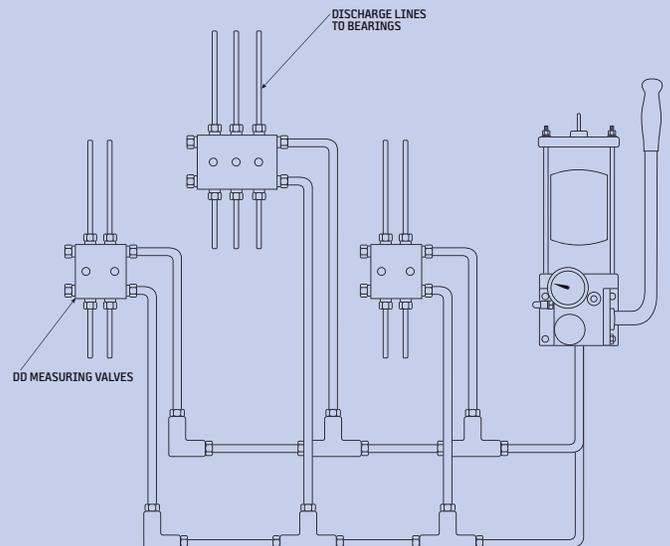


Manual Lubricator System

Bijur Delimon has a complete line of manual lubricators that can be affixed to DD, DM or DDM/SDM Dualine valves. The lubricators have a built-in reversing valve so that pressure can be applied and released on each handle stroke.

Relevant products include:

- + DD Valves, DM Valves or DDM/SDM Modular Valves (pages 6-9)
- + Manual Lubricators (page 11)

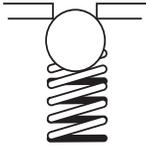
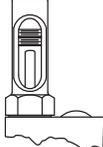
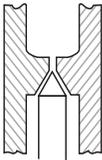
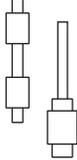
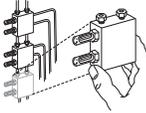


Dualine Valves

DD & DM Valves

Dualine DD and DM lubricating valves are completely hydraulic in operation and will deliver either oil or grease. They are also fully and individually adjustable in regard to discharge quantity and are equipped with operational indicators. Each DD valve serves two bearings; however, by a simple method of cross-porting, it will serve one. Therefore, a four valve block, as an example, can actually serve anywhere between four and eight bearings. DM series valves always have one discharge port per valve section located on the bottom of the valve. DD and DM valves can be supplied in several basic discharge capacities and are available in blocks consisting of one, two, three or four valves.

Benefits

<p>No springs or check valves.</p> 	<p>Positive indication at every bearing.</p> 
<p>No small ports.</p> 	<p>Has only two moving parts.</p> 
<p>No system redesign when adding or subtracting points.</p> 	<p>Individually adjustable.</p> 



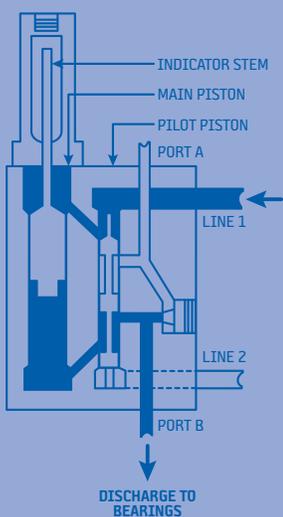
Prox Switch Kits

Description	Part #
DM60 series	37291
DD50 series	37290

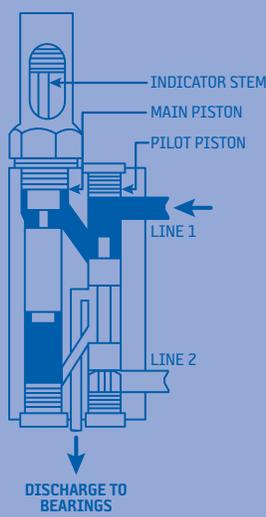
*Note: Need one kit for each indicator pin.
See datasheet 35965 for additional information.*

See Datasheet #35513 for additional information on DD/DM valves.

DD Valves



DM Valves



How it Works

Pressurized lubricant entering the valve forces the pilot piston down, allowing pressure to be applied to top of the main piston. The main piston begins to move down under pressure, forcing lubricant from its chamber, past the lower land of the pilot piston and out the discharge line to the bearing. When pressure in the supply line is reversed, lubricant then enters valve and forces the pilot piston up, allowing pressure to be applied to bottom of main piston, which begins to move up, forcing lubricant from its chamber, past the upper land of the pilot piston and out the second discharge line to the bearing.

Valve Output

Model	Discharge per piston stroke		Discharge change per adj. screw revolution	Total adj. range
	Minimum	Maximum		
DD-2X	0.09cc (0.006 cu. in.)	0.59cc (0.036 cu. in.)	0.03cc (0.002 cu. in.)	0.45" (11mm)
DD-5X	0.18cc (0.011 cu. in.)	4.74cc (0.289 cu. in.)	0.18cc (0.011 cu. in.)	1.21" (30mm)
DM-3X	0.19cc (0.012 cu. in.)	1.18cc (0.072 cu. in.)	0.08cc (0.005 cu. in.)	0.56" (14mm)
DM-4X	0.59cc (0.036 cu. in.)	2.21cc (0.135 cu. in.)	0.11cc (0.007 cu. in.)	0.69" (17mm)
DM-5X	1.23cc (0.075 cu. in.)	5.02cc (0.306 cu. in.)	0.16cc (0.010 cu. in.)	1.12" (28mm)
DM-6X	2.95cc (0.180 cu. in.)	13.11cc (0.800 cu. in.)	0.64cc (0.039 cu. in.)	0.97" (24mm)

Note: All DD & DM valves are rated to 3500 psi (240 bar) max.

How to Order

Name	Lube points (#)	Basic valve without connectors	Basic valve with U-81-XX connectors	Basic valve without indicator stem	Basic valve without indicator tower for harsh environments
DD Valve	2	DD22-250	DD22-250T ¹	DD22-251	---
	4	DD24-250	DD24-250T ¹	DD24-251	---
	6	DD26-250	DD26-250T ¹	DD26-251	---
	8	DD28-250	DD28-250T ¹	DD28-251	---
	2	DD52-250	DD52-250T ²	DD52-251	DD52250206 ⁴
	4	DD54-250	DD54-250T ²	DD54-251	DD54250206 ⁴
	6	DD56-250	DD56-250T ²	DD56-251	DD56250206 ⁴
	8	DD58-250	DD58-250T ²	DD58-251	DD58250206 ⁴
	10	DD510-250	DD510-250T ²		---
	12	DD512-250	DD512-250T ²		---
	12	DD512C-250 (BSPP)	---		---
	DM Valve	1	DM31-100	DM31-100T ²	
2		DM32-100	DM32-100T ²		---
3		DM33-100	DM33-100T ²		---
4		DM34-100	DM34-100T ²		---
1		DM41-100	DM41-100T ²		---
2		DM42-100	DM42-100T ²		---
3		DM43-100	DM43-100T ²		---
4		DM44-100	DM44-100T ²		---
1		DM51-100	DM51-100T ²		---
2		DM52-100	DM52-100T ²		---
3		DM53-100	DM53-100T ²		---
4		DM54-100	DM54-100T ²		---
1		DM61-100A	DM61-100AT ²		---
2		DM62-100A	DM62-100AT ²		---
1		DM62-101A ³	DM62-101AT ²		---

¹ Supply 1/4" tube; discharge 3/16" tube ² Supply 3/8" tube; discharge 1/4" tube ³ Discharge supply 2 x DM61

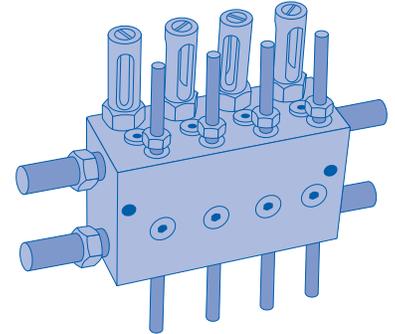
⁴ Output volume is not adjustable and fixed at maximum

When ordering, specify by name, lube points and part number, e.g. DM Valve without connectors, 3 lube points, Part #DM33-100.

Typical Layout

DD Valve

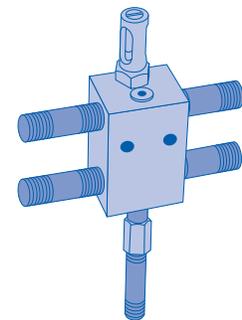
A typical four valve DD block with eight discharge ports. The valves can easily be converted from dual to single discharge by a cross porting kit. Valve can be reconverted later to dual discharge.



1. Brass indicator housing standard
2. Solid copper crush washers for superior sealing
3. Viton seals standard 350°F (163°C)
4. Easy ID if using single or dual outlet plugs
5. Stainless steel indicator pins standard
6. NPT or BSP outlets available will accept all standard fittings and U81 fittings
7. 10,000 psi rated Koenig plugs used to seal machining ports
8. Solid pin connection to main piston
9. Available in 1-12 lubrication outlets

DM Valve

A typical one valve DM block. Valve has a discharge port on the bottom. A four valve block would have four discharge ports.



1. Supply ports from pump
2. Adjustment screw (varies valve output)
3. Indicator stem (shows that valve is operating)
4. Check valve (required in discharge port of some oil systems)

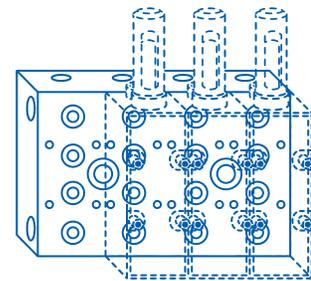
DDM & SDM Modular Valves

Dualine DDM and SDM lubricating valves have many advantages over traditional line mounted models. All working parts are in the module and these modules are fitted to base manifolds which are permanently fitted to the centralized lubrication system. The double discharge module DDM feeds two lubrication points on alternative system cycles while the single discharge module SDM feeds a single lubrication point on each cycle.

A mixture of double and single discharge modules can be fitted to each manifold either for assembly to serve an odd number of bearings or to give a greater lubricant quantity to selected points. Three sizes of modules can be supplied to cover a wide range of metered application volumes.

Benefits

- + Modules can be individually adjusted within its capacity to suit bearing requirements.
- + A malfunctioning module can be changed in seconds, reducing maintenance time and costs.
- + Positive hydraulic operation – Within design limitations, these valve assemblies can be mounted long distances from the central pumping station.
- + Visual indicator showing operation of each module.
- + Body protected by corrosion resistant electrophoretic paint.



Technical Data

Maximum Supply Pressure	5075 psi (350 bar)		
Temperature Range	-5°F to 248°F (-20°C to 120°C)		
	-5°F to 194°F (-20°C to 90°C)		
Lubricant	Oil or grease (NLGI grade 3 max)		
Materials	Body	Steel - Electrophoretically painted	
	Pistons	Hardened steel	
	Packing gland	DDM1/SDM1, DDM5/SDM5 - Brass	
		DDM15/SDM15 - Steel	
	Seals	DDM1/SDM1; DDM5/SDM5 - Viton	
		DDM15/SDM15 - Nitrile	
	Indicator stem	Stainless steel	
Discharge per Outlet per Double Cycle	Valve size	Maximum	Minimum
	DDM1	1.0cc (0.06 cu. in.)	0.1cc (0.006 cu. in.)
	SDM1	2.0cc (0.12 cu. in.)	0.2cc (0.012 cu. in.)
	DDM5	5.0cc (0.31 cu. in.)	0.5cc (0.031 cu. in.)
	SDM5	10.0cc (0.61 cu. in.)	1.0cc (0.061 cu. in.)
	DDM15	15.0cc (0.92 cu. in.)	3.0cc (0.183 cu. in.)
	SDM15	30.0cc (1.83 cu. in.)	6.0cc (0.366 cu. in.)

Manifolds

Three ranges of base manifolds suitable for mounting the modular measuring valves, DDM1, SDM1, DDM5, SDM5, DDM15 and SDM15.

Benefits

- + Manifolds can be permanently fixed to the lubrication system pipe work before valves are fitted, reducing possibility of contamination during installation period.
- + O-ring recesses are fitted into the top of the adapter so that the fitter can observe the condition of O-rings when he is fitting the module.
- + Manifolds are available in various sizes for multiple module configurations.

How to Order

DDM/SDM modular valves and manifolds feature a smart part number ordering system, where you can tailor the modular valves and manifold to meet your needs.

For modular valves:

First, choose the module type, valve size and visual indicator you need. Then, put the numbers into the corresponding squares in the easy-to-use grid.

Example: To order a DDM1 modular valve with double indicator and a visual indicator with cover, you would use Part #DDM11A0100.

For manifolds:

First, choose the manifold type and number of outlets. Then, put the numbers into the corresponding squares in the easy-to-use grid.

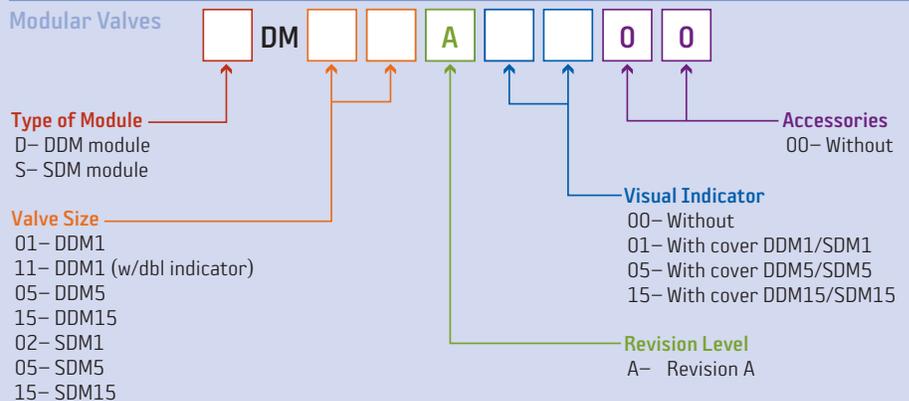
Example: To order a MA1 manifold with 8 outlets, you would use Part #MA108A00.

You now have the customized part numbers for both your modular valve and manifold.

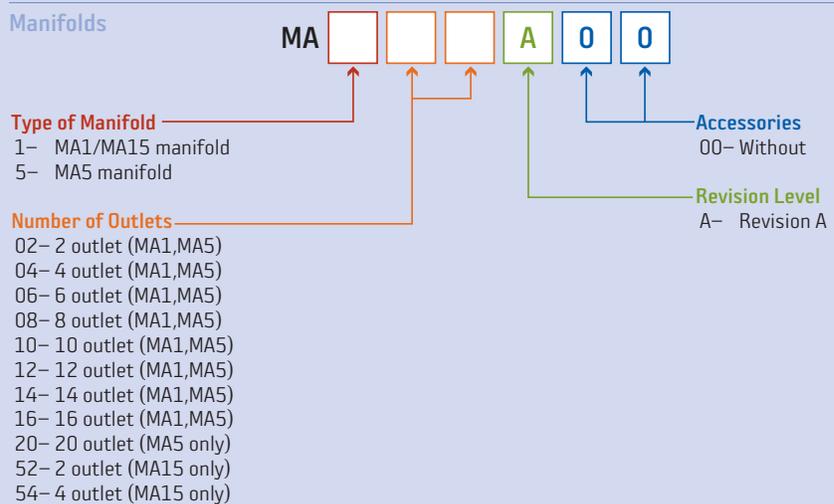
For mounting kits:

When ordering mounting kits, specify by description, name and part number listed in the table, e.g. DDM1 Mounting Kit, Part #DDM500001E.

Modular Valves



Manifolds



Mounting Kits

Name	Type	Description	Part #
Mounting Kits	Valve ¹	DDM1/SDM1	DDM100050
		DDM5/SDM5	DDM500050
		DDM15/SDM15	DDM150050
	Manifold ²	MA1	MA1022204E
		MA5/MA15	MA515022003E

¹ One kit is required per valve. Each kit includes 4 screws and 4 O-rings.

² One kit is required per manifold. Each kit includes 2 screws and plugs.

Lube Point Monitor

General

The 55105 Lube Point Monitor is an accurate oval gear mechanism that incorporates two magnets into one of the nylon oval gears. The body incorporates a reed switch which senses the magnet passing. Lubricant entering the 55105 causes the gears to rotate. Each pulse equates to an approximate displacement of 0.040 cu. in. (.65cc). The monitoring of the 55105 is done with any PLC. The feedback from the 55105 will assure that lubricant has reached the inlet of critical lubrication points.

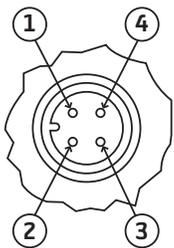
Application

The 55105 Lube Point Monitor is intended to be mounted at or near the lubrication point inlet. It can be used with any type of grease or oil system (Dualine/Progressive/PDI). Due to the nature of the internals, proper filtration is required to keep contaminants out of the monitor body.

Technical Data

Flow	0-2500cc/min.	
Maximum Pressure	10153 psi (700 bar)	
Accuracy	±3%	
Vibrations	20 g (10-20000 Hz)	
Life Time	10 ⁹ pulses	
Temperature	-4°F to 158°F (-20°C to 70°C)	
Connections	1/8" NPT	
Material	Aluminum	
Weight	0.186 kg	
Lubricant	ISO VG 32 Oil to NLGI Grade 2 Grease	
IP Enclosure Rating	IP-67	
Connection	4-pole M12 x 1 (male)	
Switch Rating	Maximum Voltage	0-24 VDC
	Maximum Current	0.20 amp

Wiring



PIN #	Description	Wire Color
1	Common	Brown
4	Signal	Black



See Datasheet #35978 for additional information.

Lubricators

DA Series Manual Lubricators

To support the successful operation of Dualine measuring valves and to ensure their performance, Bijur Delimon has designed equally rugged pumping units which provide a dependable high-pressure source of lubricant supply.

For bearings that require an application of lubricant once or twice per shift, a manually-operated central pumping unit is used. These units consist of a double-acting piston pump, reciprocated by a hand lever through a rack-and-gear segment. A quick-fill connection provides a convenient means of filling the reservoir, and an inlet filter screen gives added protection against the entry of dirt. They may be located on the machine being lubricated or at any convenient point nearby. When the lubricant is oil, a float with oil level rod replaces the grease follower plate. Three sizes of reservoirs provide a supply of lubricant adequate for the number of bearings being lubricated.

Technical Data

Reservoir Capacity	Grease	2 kg (4.5 lb), 4 kg (8.25 lb), 6 kg (12.5 lb)
	Oil	2.4 liter (2.5 qt)
Discharge		7.4cc (0.45 cu. in.)
Viscosity Range	Grease	NLGI grade 000-2
	Oil	ISO-32 and greater
Internal Filter		Available on all models
Pressure Gauge		Available on all models
Cycle Indicator		Available on some models
Max Pressure		3500 psi (241 bar)



See Datasheet #35495 for additional information.

How To Order

When ordering, specify by name, lubricant, reservoir capacity and part number, e.g. DA manual lubricator, grease, 12.5 lb reservoir, **Part #DA6101AC**.

Name	Lubricant	Reservoir Capacity	Part #
DA Manual Lubricator	Grease	2 kg (4.5 lb)	DA4101AC
		4 kg (8.25 lb)	DA5101AC
		6 kg (12.5 lb)	DA6101AC
	Oil	2.4 liter (2.5 qt)	DA4101BC

Air-operated Barrel Pumps

Air-operated barrel pumps are used where medium to heavy duty service conditions exist and rapid build-up of lubricating system pressure is desired in air-operated central stations.

Notes

- + Built-in air exhaust muffler is standard on all pumps.
- + Grease pumps incorporate an inlet strainer.
- + Bung adapter is included with all pumps.
- + Part #9035, #9120 and #9400 all include return tube (hose on #9035) to bottom of drum.
- + Part #9035 includes a drum cover and follower plate.
- + Part #9120 includes a drum cover.
- + See *Catalog #27539: Industrial Lubrication* for complete pump offering.



Technical Data

	9035	9120	9400
Max. Delivery*	650cc (40 cu. in.)	650cc (40 cu. in.)	650cc (40 cu. in.)
Air Inlet	1/4" NPT	1/4" NPT	1/4" NPT
Lube Outlet	3/8" NPT	3/8" NPT	3/8" NPT
Height	24" (610mm)	36.5" (925mm)	44" (1120mm)
Weight	24 lb	27 lb	21 lb

* Maximum delivery for grease pumps, free delivery with NLGI grade 2 grease @ 70 °F (20 °C) with 100 psi (7bar) air pressure.

How to Order

When ordering, specify name, type, ratio, drum size and part number, e.g.

Air-operated Barrel Pump, Grease, 55:1 Ratio, 35lb Drum, Part #9035.

Name	Pump Type	Ratio	Drum Size	Part #
Air-operated Barrel Pump	Grease	55:1	35 lb	9035
			120 lb	9120
			400 lb	9400



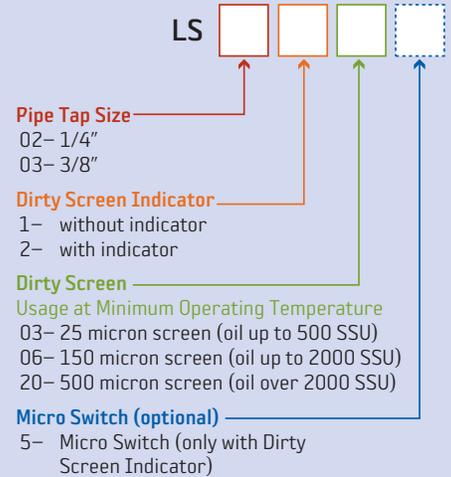
Line Strainers

Line Strainers remove foreign particles from grease and oil lines in lubricating systems.

How to Order

Line strainers feature a smart part number ordering system. First, choose the pipe tap size, dirty screen indicator, usage and micro switch option. Then, put the numbers into the corresponding squares in the easy-to-use grid. You now have the customized part numbers for your line strainer.

Example: To order a Line Strainer with 1/4" NPT, with dirty screen indicator and 25 micron screen, you would use Part #LS02203.



Accessories

Name	Description	Part #
Steel follower plates	Follower for 35 lb pail	F962
	Follower for 120 lb drum	F964
	Follower for 400 lb drum	F966
Drum covers	Heavy duty cover for 35 lb pail	F1934
	Heavy duty cover for 120 lb drum	F1936
	Heavy duty cover for 400 lb drum	F1938
Low level switch kit*	Low level switch for 120 lb drum	LC10243
	Low level switch for 400 lb drum	LC11036
Air regulators and gauges	1/2" regulator (0-250 psi range) 2" (0-160 psi) pressure gauge	F976
	3/8" regulator (0-250 psi range) 2" (0-160 psi) pressure gauge	F973
Filters	1/2" filter	F978
	3/8" filter	F975
Lubricators	1/2" lubricator	F977
	3/8" lubricator	F974
Quick coupler and nipples	1/4" NPT(F) coupler	F930
	1/4" NPT(M) nipple	F931
	3/8" NPT(M) nipple	F941
	1/2" NPT(F) coupler	F940
Filter/Regulator/Lubricator Combination	1/2" filter, 1/2" regulator (0-250 psi), 2" gauge (0-160 psi) and lubricator	F985
	3/8" filter, 3/8" regulator (0-250 psi), 2" gauge (0-160 psi) and lubricator	F984
Line strainers screens	25 micron screen (Oil only up to 500 SSU)	LS0205103
	150 micron screen (Oil only up to 2000 SSU)	LS0205106
	500 micron screen (Oil over 2000 SSU & all grease)	LS0205120
Drum Heater Insulated Blankets	Fits 120 lb. drum (15 gal/57 liter)	37506
	Fits 400 lb. drum (55 gal/208 liter)	55286

* Requires cover and follower plate, customer/user to provide 15/16" hole in cover, can be used with any style pump.



Drum Cover



Follower



Filter/Regulator/Lubricator Combination

Reversing Valves

In a Dualine lubricating system, the reversing valve directs pump flow to one of the two main supply lines while the second supply line is in relief to the pump reservoir. At the completion of each half lubrication cycle, the reversing valve redirects the pump and relief flow. Thus, on each succeeding half lubrication cycle, pressure and relief flow are alternated in the two main supply lines. This action causes the measuring valves to stroke and discharge lubricant to their respective bearings. In an automatic system, the reversing valve also controls maximum system pressure and pump shut down.

FR20

These reversing valves operate in conjunction with pressure switches. They control end-of-line systems (DC41 central stations and air powered systems).

Technical Data

Maximum Flow Rate	12 gpm (Oil)	
Maximum Allowable Pressure (Non-Shock)	5000 psi (3000 psi @ relief port)	
Spool Configuration	2 position, 4 way	
Solenoid	Push type epoxy covered coil	
Inrush / Holding Current	115VAC	0.49 amp
	230VAC	0.24 amp
	24VDC	1.5 amp
Seals	Buna "N" rubber	



FR20

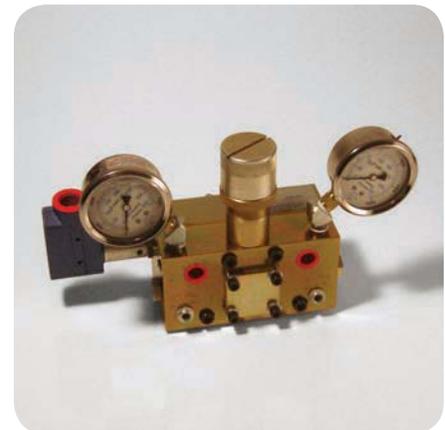
See Datasheet #35585 for additional information.

DR4-5

These reversing valves are activated by system pressure and are adjustable between 500 and 3500 psi. They control non-return and return systems using CS2000, DC36 and DC42 central stations. They are also used with air barrel pumps for spray and medium and large dualine systems.

Technical Data

Lubricant	SAE 10 oil to NLGI grade 2 grease	
Materials	Housing	Zinc with yellow chromate
	Piston	Low carbon steel
Pressure Range	500-3500 psi	
Seals	Buna "N" rubber	



DR4-5

See Datasheet #DL1200 for additional information.

SA-V

This reversing valve is designed for use in hydraulic Dualine systems. It can be used as a 4/2 or a 3/2 valve and is driven by a direct current geared motor.

Technical Data

Maximum Operating Pressure	5800 psi (400 bar)
Temperature Range	-4°F to 176°F (-20°C to 80°C)
Maximum Power Consumption	42 W
IP Enclosure Rating	IP-65

SG-A Switching Device

The switching device SG-A must be used in conjunction with the SA-V reversing valve. It is used as a differential pressure switch. When the differential pressure is 50 bar and/or 100 bar, the SA-V releases a pulse for the reversion of the directional control valve or for the monitoring of the system.



SA-V



SG-A Switching Device

How to Order

When ordering, specify name, description and part number, e.g. DR4-5 Reversing Valve with limit switch, pressure gauges and mounting bracket, **Part #DR459**.

Name	Description	Part #
FR20 ^{1&5}	115 VAC (50-60 Hz), Not supplied with mounting kit.	37149115N1
	115 VAC (50-60 Hz), Supplied on DC41 w/ mounting brackets and hardware.	37149115N2
	230 VAC (50-60 Hz), Not supplied with mounting kit.	37149230N1
	24 VDC, Not supplied with mounting kit.	3714924N1
DR4-5	Basic valve.	DR45
	Valve with limit switch, pressure gauges and mounting bracket.	DR459
	Valve with limit switch, pressure gauges and line connecting hardware.	DR45K
	Valve with limit switch, pressure gauges, mounting brackets and line strainer.	DR460A ³
	Valve with limit switch, pressure gauges, mounting brackets and line strainer.	DR460B ⁴
SA-V ²	110-127 VAC and 200-240 VAC	SAV11A00
	24 VDC	SAV24A00
SG-A	50 Bar	SGA05A00
	100 Bar	SGA10A00

¹ Refer to Datasheet #35585: FR20 Reversing Valve, for all available versions.

² SGA-A switching device is required for SA-V.

³ Grease only

⁴ Oil only

⁵ Operates in conjunction with pressure switches(2), p.n. U620D1

Central Stations

Central stations store, control and supply the lubricant to Dualine systems. The major components are a motor, pump, reservoir and reversing valve.

Central stations are available in 7 series: DPG, CS2000, DC36, DC41, DC42, BM-B and BS-B. Each series offers a different capability in terms of type and quantity of lubricant which can be handled and type of system that can be served. Each is available with motor and reservoir options and optional high or low level switches as indicated.

DPG

The DPG Pneumatic Lubricator is an air-operated reciprocating lubricator that discharges a fixed amount of lubricant into systems during a lubrication cycle. It includes a transparent reservoir with low level and spring loaded follower, reversing valve, grease strainer, FRL, air solenoid valve and a filler fitting for refilling of reservoir.

CS2000

CS2000 stations store, control, and supply the lubricant to systems. Depending on reservoir size, they can be used in systems that service anything from small machine tools to large machinery in steel mills, or from small to large off road machinery such as power drills, power shovel, and drag lines.

Standard items on these stations include a switch arrangement for automatic level warning systems, visual level indication, an adjustable relief valve and an electrically driven pump. A variety of reservoir types and sizes and a high level warning switch are offered. Kits are also available for mounting controls and NEMA 4 applications.

DC36

DC36 stations store, control, and supply lubricant to systems. The lubricant must be oil with a viscosity of not greater than 1900 SSU at 100°F. DC36 stations can be used in systems that service equipment requiring oil lubrication such as machine tools and transfer equipment.

Standard items on these stations include a low level warning switch for connection to lights or horns, oil level sight gauge, a 30 mesh oil filter and an air breather cap in the oil filler port.

DC41 & DC42

DC41 and DC42 stations can supply either oil or grease to such installations as bar mills, billet mills, blast furnaces, and sintering machines. The two systems differ in the way they alternately pressurize and relieve (reverse) the two supply lines as well as in the way they control maximum system pressure and end the lubrication cycle. On DC41 systems, pressure is controlled by a pressure switch (one is installed in each line) that actuates the reversing valve (FR20) and stops the pump motor when system pressure rises to its setting. On DC42 systems, pressure is controlled by the reversing valve (DR45). The valve opens a micro switch, which stops the pump motor when system pressure rises to its setting. Timer controls for each type tailored to meet its specific requirements are available.



DPG Lubricator



CS2000 Station



DC36 Station



DC41 Station

Technical Data

	DPG	CS2000	DC36	DC41	DC42
Pump Output	6.0 in ³ /min	6.0 in ³ /min	69.0 in ³ /min	33.6 in ³ /min	33.6 in ³ /min
Pump Type	Air-reciprocating	Double Piston	Gear	Double Piston	Double Piston
Max. Work Pressure	3000 psi	3500 psi	1500 psi	3000 psi	3000 psi
Relief Pressure	N.A.	3000 psi	1000 psi	2500 psi	2500 psi
Gear Ratio-Std.	30:1 (air)	10:1	N.A.	10:1	10:1
Pump #	33457	DJ-2000	U-985-9W	DJ4-5	DJ4-5
Reversing Valve	DR45	DR4-5	DR4-5	FR20 (SOL type)	DR4-5
Rev. Press-Factory Setting	1500 psi	1500 psi	700 psi	N.A. ²	1500 psi
Rev. Press-Range	1200-1500 psi	500-3500 psi	500-1000 psi	N.A. ²	500-3500 psi
Motor	N.A.	Optional	Optional	Optional	Optional
Motor HP	N.A.	1/3	1/3	1	1
Motor Enclosure	N.A.	TEFC	TEFC	TEFC	TEFC
Motor Frame Size	N.A.	48	56	143/145T	143/145T
Low Level Switch	Yes	Yes	Yes	Optional	Optional
High Level Switch	No	Optional	Optional	Optional	Optional
Rev. Valve Limit Switch	Yes	Yes	Yes	No	Yes
Lubricant	Oil/Grease	Oil/Grease	Oil	Oil/Grease	Oil/Grease
System Type	Non-Return ¹	Non-Return ¹	Loop	EOL	Non-Return ¹

¹ Field Conversion for Loop Operation ² Controlled by end of line pressure switches (see Catalog #1800G: Fittings, Accessories, Regulators and Lubricators)

How to Order

When ordering, specify by model, voltage, reservoir and part number, e.g. Central Station CS2000, 230/460 VAC (50/60 Hz), 10 lb steel reservoir, **Part #CS2212**.

For other available voltages consult Bijur Delimon customer service.

Model	Voltage	Reservoir	Level Switches		Part #	
			Low	High	With Motor	Without Motor
DPG	120 VAC (50/60 Hz)	10 lb Plastic (Grease)	X		39948	---
		5 Liter Plastic (Oil)	X		37629	
CS2000	Three Phase 230/460 VAC (50/60 Hz)	6 gallon steel	X		CS2206	---
			X	X	CS2207	---
		10 lb plastic	X		CS2210	CS2410*
			X	X	CS2211	---
		10 lb steel	X		CS2212	---
		24 lb steel	X		CS2224	CS2424*
			X	X	CS2225	CS2425*
	X	X	CS22101	CS24101*		
DC36	Three Phase 230/460 VAC (50/60 Hz)	30 gallon steel	X		DC36M-30B	DC36-30B
DC41	Three Phase 230/460 VAC (50/60 Hz)	100 lb steel	X	X	DC41M-31C	---
		200 lb steel			---	DC41-32A
			X	X	DC41M-32C	DC41-32C
DC42	Three Phase 230/460 VAC (50/60 Hz)	30 gallon steel	X	X	DC42M-33D	DC42-33D
		100 lb steel	X	X	DC42M-31C	---
		200 lb steel			DC42M-32A	---
			X	X	DC42M-32C	DC42-32C

* Motor Mounting Kit is required for CS2000 without motor: 48 FR use Part #LC10705, 56 FR use Part #LC10706.

BM-B & BS-B

In applications where electricity is available to power the lubricator, our BM-B and BS-B models are ideally suited to be the heart of a lubrication system. These pumps are robust for harsh and severe applications and their compact construction of high-grade steel gives them a long service life. They are ideally suited to service medium- and large-sized machinery. They can also be used for refilling and mobile greasing systems.

BM-B and BS-B lubricators do not ship with a reversing valve. See pages 14-15 for a selection of Bijur Delimon reversing valves. The lubricators are valveless, positive displacement pumps consisting of a series of pistons actuated in a controlled sequence by an eccentric cam. The motion develops a controlled suction and discharge action, producing a rugged, trouble-free lubricator.

A pressure relief valve is standard on both versions. This device can be adjusted to control operating pressure to the rest of the lubrication system. A grease agitator and wedge plate assembly are also standard on the BM-B and BS-B, working the reservoir grease and assisting in lubricator performance. An ultrasonic level switch and pressure gauge are available as optional accessories.

Technical Data

Maximum Working Pressure	5800 psi (400 bar)	
Grease	NLGI grade 000-2	
Other Greases and Oils (Includes synthetic types)	Consult Bijur Delimon	
Reservoir Capacity	BM-B	8 liter (16.5 lb), 15 liter (31.5 lb) and 30 liter (63 lb)
	BS-B	60 liter (126 lb), 100 liter (210 lb)
Discharge	BM-B	2 & 4 liter/h, dependant upon driving speed
	BS-B	7, 4 & 22 liter/h, dependant upon driving speed
Maximum Outputs, Nominal (Ref. motor sizes)	BM-B	63 rpm 40cc/min. (2.44 cu. in./min.)
		125 rpm 80cc/min. (4.88 cu. in./min.)
	BS-B	80 rpm 120cc/min. (7.3 cu. in./min.)
		160 rpm 235cc/min. (14.3 cu. in./min.)
		250 rpm 365cc/min. (22.2 cu. in./min.)
Temperature Range (Ambient)	-5°F to 176°F (-20°C to 80°C)	
Built-in Pressure Relief Value	0 to 5800 psi (0 to 40 bar)	



BM-B

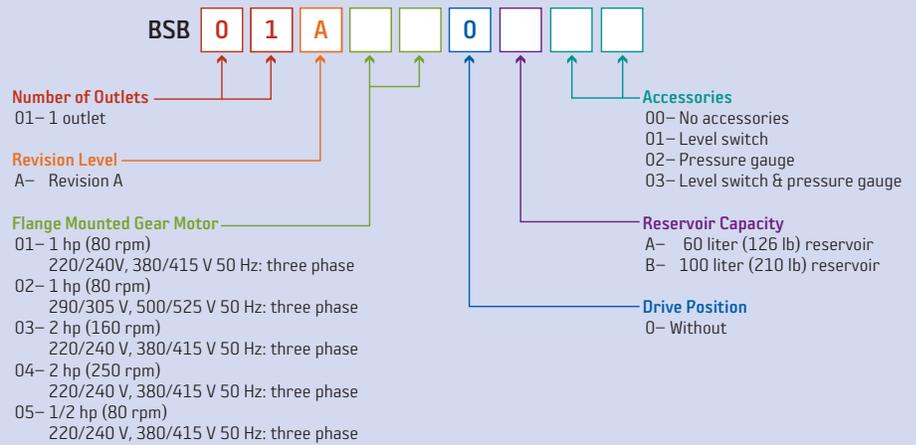
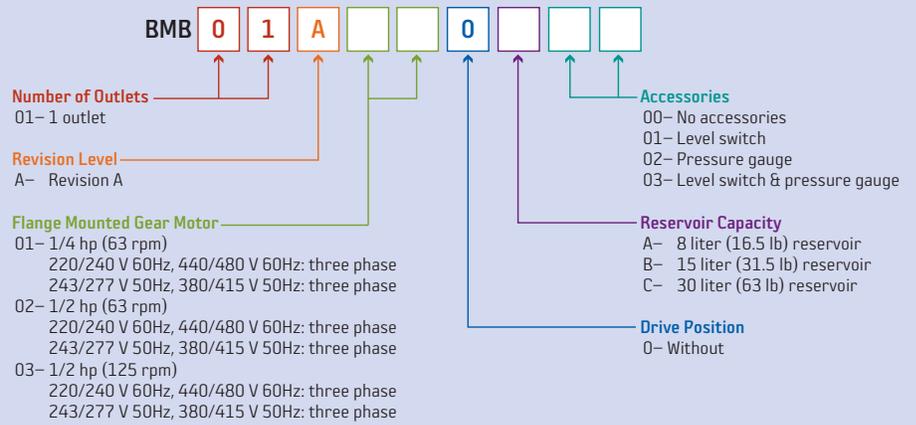


BS-B

How to Order

BM-B and BS-B Lubricators feature a smart part number ordering system, where you can tailor the lubricator to meet your needs. First, choose the gear motor, reservoir capacity and accessories you need. Then, put the numbers into the corresponding squares in the easy-to-use grid. You now have the customized part numbers for your lubricator.

Example: To order a BS-B Lubricator with a 2 hp (160 rpm) three phase flange mounted gear motor, 60 liter reservoir and a level switch, you would use Part #BSB01A030A01.



Controllers

SC400

The SC400 Multi-Function Controller/Monitor is designed to operate, control and monitor all types of Dualine systems, including those having an electric or hydraulic reversing valve. The unit is easily programmed by the customer via the controller's set up mode.

The SC400 also allows customers to operate a two zone system with a single control. The SC400 has the ability to operate a pump and two zone valves. Each zone operates independently. "Two zone" feature is not available for Dualine electric reversing valve systems or for systems that require "air purge" (afterblow).

The SC400 also incorporates an automatic fill feature. The SC400 activates a fill pump (as needed) to maintain proper fluid levels.

Features

- + IP-56 Enclosure Rating, constructed of molded polyester fiberglass.
- + Chemical and temperature resistant and water tight to dripping and sprayed fluid.
- + Manual lubrication button.
- + Easy-to-use push button program review feature.
- + Automatic Fill Control: Capable of monitoring and controlling reservoir fluid level.
- + Four supported languages (English, French, Spanish, German).
- + Machine watchdog and cycle monitoring.
- + Pause (standby), jog (manual operation).
- + Critical Inputs accept PNP, NPN, or mechanical switches.
- + Accepts all BDI electric reversing valves and cycle/pressure/"end-of-line" switches.
- + CE Approved



See Datasheet #35979 for additional information.

SS2200

The SS2200 is a microprocessor-based programmable controller designed to operate single line and Dualine central lubrication systems. The SS2200 is housed in a NEMA 4X polycarbonate enclosure with a transparent cover. Visible through the cover are LED indicators for Idle, Lube and Fault modes, and a three-digit numerical display used for programming and monitoring lubrication system operation.

Features

- + Simple three key programming.
- + Controls both single line and dual line lubrication systems.
- + Operates electric or air driven pumps.
- + Time or machine cycle based operation.
- + Programmable for remote fault indication and emergency machine shutdown.
- + LED indicators and numerical displays monitor system operation.
- + EEPROM permanently stores programming without battery backup.



See Datasheet #24735 for additional information.

Technical Data

	SC400	SS2200
Input Voltage	85 to 265 VAC, 50/60 Hz	115 VAC, 50/60 Hz
Current Consumption	80 mA at 115 VAC (less load) 40 mA at 230 VAC (less load)	---
Pump Output Rating	8 amp (85 to 265 VAC)	Pulsed or continuous, Form A, 115 VAC, 5 amp inrush, 2 amp continuous
Line A Output Rating	8 amp (90 to 250 VAC)	---
Line B Output Rating	8 amp (90 to 250 VAC)	---
Enclosure Rating	IP-56	NEMA 4X, polycarbonate
Ambient Temp. Range	14°F to 131°F (-10°C to 55°C)	20°F to 120°F (-7°C to 49°C)
Storage Temp. Range	-40°F to 185°F (-40°C to 85°C)	---
Vibration	2 g at resonant (3 axis)	1.5 g
Idle Time Range	1 second to 100 days	1-999 min, 1-999 hour, 1-999 or 10-9990 machine counts
Machine Cycle Counts	1 to 999,999 Counts (30 counts/second at 50% duty cycle)	---
Watchdog Timer	1 second to 60 minutes	---
Monitor Time	1 second to 24 hours	---
Timing Accuracy	0.01% (crystal controlled)	---
Cycle Counts On	1 to 999 counts	1 to 99 counts
Over Counts	0 to 9	---
Net Weight	5 lb	---
Length x Width x Height	12.3" x 9.2" x 5"	---
Permanent Memory	FLASH	EEPROM (no battery)
Fault Relay Contacts	5 amp	2 amp, 125 VAC

How to Order

When ordering, specify by name, voltage and part number, e.g. SC400 Controller, 85-265 VAC, Part #SC400.

Name	Voltage	Part #
SC400 Controller	85-265 VAC	SC400
SS2200 Controller	115 VAC	SS2200

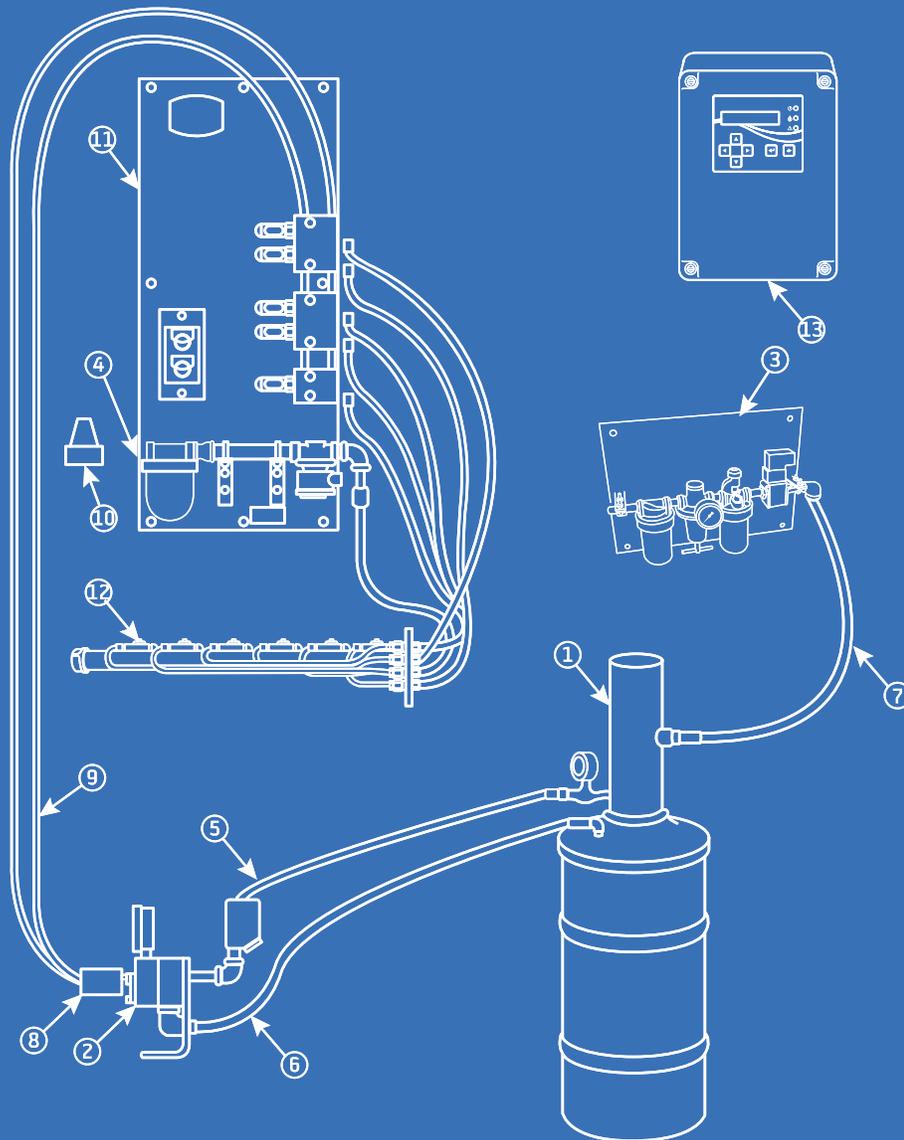
Spray Systems

Spray systems are used to lubricate large gears and pinion sets such as those found on ball mills, rod mills, kilns, etc. Each system includes an air operated pumping station (items 1 through 10 below), a measuring valve panel (item 11), a spray nozzle lance (item 12) and electrical controls (item 13).

Gear face widths of 2" to 42" can be lubricated by nozzles with appropriate spacing on the spray lance. Since gear spray systems operate intermittently, they can be thought of as film maintaining devices. The electrical controls provide broad cycling flexibility as well as fault monitoring and afterblow to purge the nozzles.

Thirteen items are required to complete a Dualine spray system. Items 1 through 10 are listed below. The Spray Lance (item 12) should be selected based on gear face width. The Valve Panel (item 11) should be selected based on the number of spray nozzles required. The SC400 controller is described in detail on pages 20-21.

Typical Layout



Item	Description	Part #
1	120 lb Air-operated barrel pump	9120
2	Reversing valve	DR4-60A
3	Air control panel	LD-7767C-A1
4	Air pressure switch (not shown)	U-623
5	Lube supply hose kit (72")	200275
6	Relief hose kit (72")	200324
7	Air hose kit (72")	200325
8	2 way line checks	U-1929D
9	Supply line pipe or hose to panel	BY USER
10	Air regulator	F119-4G
11	Valve panel	LD-12361-VX
12	Spray lance	LD-9327-XXXXX
13	Timer control	SC400

The 9120 pump for 120 pound drums is recommended where solvent cut-back lubricants are used. This will intentionally require frequent drum changes to prevent drying and hardening of the lubricant. The 9400 pump for 400 pound drums is available if drying and hardening of the lubricant is not a problem.

A U-623 pressure switch (item 4) is used to give warning of low pressure and is an optional feature.

All Central Pumping Stations are for 120 Volts, 60 Cycle, but other voltages and frequencies are available.

The U-1929D two way checks are needed only if the lubricants have fluid characteristics.

How to Order

Spray Panels

Spray Nozzles	Part #
1	LD-12361-V1
2	LD-12361-V2
3	LD-12361-V3
4	LD-12361-V4
5	LD-12361-V5
6	LD-12361-V6
7	LD-12361-V7

Spray Lance

Gear Face Width	Guard Width	Spray Nozzles	Part #
2"	4.5"	1	LD-9327-1020S
3"	5.5"	1	LD-9327-1030S
4"	6.5"	1	LD-9327-1040S
5"	7.5"	1	LD-9327-1050S
6"	8.5"	1	LD-9327-1060S
7"	9.5"	2	LD-9327-2070S
8"	10.5"	2	LD-9327-2080S
9"	11.5"	2	LD-9327-2090S
10"	12.5"	2	LD-9327-2100S
11"	13.5"	2	LD-9327-2110S
12"	14.5"	3	LD-9327-3120S
13"	15.5"	3	LD-9327-3130S
14"	16.5"	3	LD-9327-3140S
15"	17.5"	3	LD-9327-3150S
16"	18.5"	3	LD-9327-3160S
17"	19.5"	4	LD-9327-4170S
18"	20.5"	4	LD-9327-4180S
19"	21.5"	4	LD-9327-4190S
20"	22.5"	4	LD-9327-4200S
21"	23.5"	4	LD-9327-4210S
22"	24.5"	5	LD-9327-5220S
23"	25.5"	5	LD-9327-5230S
24"	26.6"	5	LD-9327-5240S
25"	27.5"	5	LD-9327-5250S
26"	28.5"	6	LD-9327-6260S
27"	29.5"	6	LD-9327-6270S
28"	30.5"	6	LD-9327-6280S
29"	31.5"	6	LD-9327-6290S

Gear Face Width	Guard Width	Spray Nozzles	Part #
30"	32.5"	6	LD-9327-6300S
31"	33.5"	6	LD-9327-6310S
32"	34.5"	7	LD-9327-7320S
33"	35.5"	7	LD-9327-7330S
34"	36.5"	7	LD-9327-7340S
35"	37.5"	7	LD-9327-7350S
36"	38.5"	7	LD-9327-7360S
37"	39.5"	7	LD-9327-7370S
38"	40.5"	8	LD-9327-8380S
39"	41.5"	8	LD-9327-8390S
40"	42.5"	8	LD-9327-8400S
41"	43.5"	8	LD-9327-8410S
42"	44.5"	8	LD-9327-8420S

When ordering Spray Panels, specify by name, number of spray nozzles and part number, e.g. Spray Panel, 3 Spray Nozzles, **Part #LD-12361-V3**.

When ordering Spray Lance, specify by name, gear face width and part number, e.g. Spray Lance, 8" Gear Face Width, **Part #LD-9327-2080S**.

See Operators Manual #DL3100 for additional information.



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