

Product overview

ZEM Series Injectors

P_2018_2_GB_ZEM



ZEM Series Injectors

The ZEM Series injectors are positive displacement injectors (PDIs) that deliver precise and controlled lubrication outputs, meeting exact requirements for diverse applications. They are pre-fixed volumetric injectors that ensure each lubrication point receives the proper amount of lubricant. Which means you won't have to worry about over- or under- lubrication.

Benefits

ZEM Series injectors are built to effectively function with the SureFire PDI lubricator, as well as other pumps that can support a PDI system.

- + Handles oil and fluid greases
- + Injector endcaps that can be quickly replaced within a manifold to change discharge settings
- + Ten output volumes available for diverse application types and points (0.01 cm³ bis 1.5 cm³/cycle)
- + Flexible design allows you to choose from output volumes for each outlet
- + Can be used in the same system with other ZEM Series injectors
- + Optional push-to-connect fittings help lower installation labor costs

At a Glance

Name	Description	Discharge volumes (cm ³)
Series 32	Screw-in injector (requires manifold bar)	0.01; 0.03; 0.06; 0.1; 0.16
Series 33	Screw-in injector (requires manifold bar)	0.01; 0.03; 0.06; 0.1; 0.16
Series 34	Built-in cast manifold construction (2, 3 and 5-fold)	0.01; 0.03; 0.06; 0.1; 0.16; 0.0 (plug)
Series 35	Built-in cast manifold construction (1, 2, 3 and 5-fold)	0.06; 0.1; 0.2; 0.4; 0.6; 0.0 (plug)
Series 39	Built-in cast manifold construction (1, 2 and 3-fold)	0.2; 0.4; 0.6; 1.0; 1.5; 0.0 (plug)

Function

ZEM Series injectors are classic PDIs. Reliable. Accurate. As pressure builds in the manifold, the piston in the injector fires forward, discharging a set amount of lubricant to the application point.

As the pressure is relieved, a compression spring returns the piston to its original position. This movement recharges the injector with more lubricant. The injector is now ready to be fired again.

ZEM COMPRESSION OUTLETS



ZEM PUSH-TO-CONNECT OUTLETS



System Requirements

It is important to note that the lubricating pump used in the ZEM Series injectors system must build pressure to 15 bar at the injector in order to actuate injector discharge. The recommended operating pressure is 21 bar. Also, a pressure relief valve is required to quickly drop the line pressure to the 0.3 - 0.7 bar range between lubrication cycles. This allows the injectors to be fully recharged.

ZEM 32 and 33 Series injectors are used in conjunction with manifolds or tee fittings (see page 8). Other ZEM Series injectors are manufactured with multiple outlet manifolds. All ZEM injectors are available with either a compression style or push-to-connect outlet fitting.

Technical Data

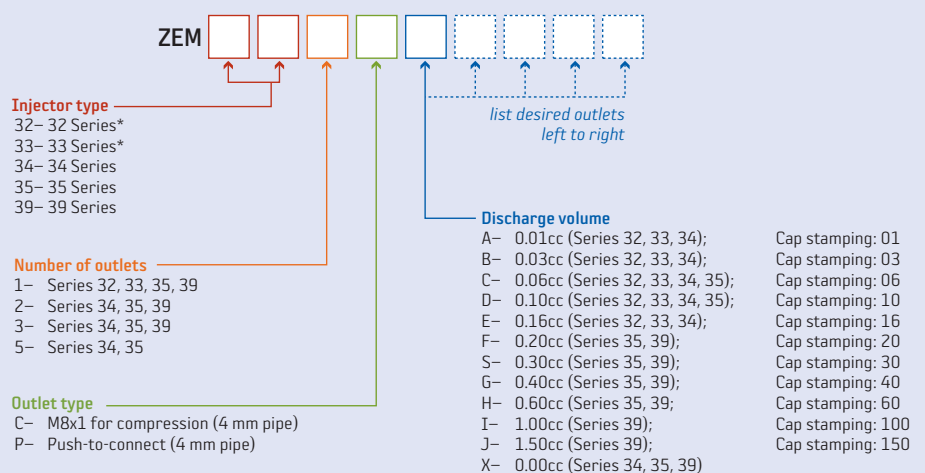
Lubricants	Oil viscosity range	20 to 1500 cSt at operating temperature
	Soft grease ¹	NLGI 000, 00
Pressure	Operating max.	45 bar
	Operating min.	15 bar
	Relieving	0.7 bar
	Seals	Viton
Threads	Inlet	M8x1 (ZEM 32), M10x1 (ZEM 33, 34, 35), M12x1 (ZEM 39)
	Outlet	M8x1, push-to-connect pipe 4 mm

¹ Please contact a BIJUR DELIMON representative for applications using soft grease.

How to Order

The ZEM injectors use a smart part numbering system that allows you to tailor the injector to meet your needs. First, choose the injector type, number of outlets, outlet type and the discharge volume for each outlet. Then, put the numbers into the corresponding squares in the easy-to-use grid.

Example: To order a three outlet, 35 Series injector, with push-to-connect fittings, where the discharge volumes are 0.1 cm³, 0.2 cm³ and 0.6 cm³, you would use Part no.: **ZEM353PDFH**.



* Requires a manifold or tee fitting (sold separately).

Spare Parts overview

Kit Description	Push-to-connect		Compression	
	Discharge	Part #	Discharge	Part #
Series 32, 33, 34 ZEM 32, 33, 34 replacement kit	0.01 cm ³	23332	0.01 cm ³	23353
	0.03 cm ³	23333	0.03 cm ³	23354
	0.06 cm ³	23334	0.06 cm ³	23355
	0.10 cm ³	23335	0.10 cm ³	23356
	0.16 cm ³	23336	0.16 cm ³	23357
	0.00 cm ³ (plug)	23388	0.00 cm ³ (plug)	23388
Series 35 ZEM 35 replacement kit	0.06 cm ³	23934	0.06 cm ³	23933
	0.10 cm ³	23342	0.10 cm ³	23363
	0.20 cm ³	23343	0.20 cm ³	23364
	0.40 cm ³	23344	0.40 cm ³	23365
	0.60 cm ³	23345	0.60 cm ³	23366
	0.00 cm ³ (plug)	23389	0.00 cm ³ (plug)	23389
Series 39 ZEM 39 replacement kit	0.40 cm ³	23347	0.20 cm ³	23367
	0.60 cm ³	23348	0.40 cm ³	23368
	1.00 cm ³	23349	0.60 cm ³	23369
	1.50 cm ³	23350	0.00 cm ³ (plug)	23390
	0.00 cm ³ (plug)	23390	1.00 cm ³	23370
	--	--	1.50 cm ³	23371

Note: Each replacement kit comes with (1) end cap, (1) o-ring and (1) spring.

REPLACEMENT KIT WITH
PUSH-TO-CONNECT



REPLACEMENT KIT WITH COMPRESSION



Lubricator Fittings

The third part of the SureFire PDI system is the fittings. Whether you choose the flexibility of push-to-connect fittings or the traditional route with compression fittings, you can be sure everything works together. Bijur Delimon stands behind the quality of its fittings and accessories.

Compression Fittings

The SureFire PDI centralized lubrication system also features many compression fittings and accessories that let you maximize the effectiveness of the system. From straight connectors to bushings, these options also meet the highest manufacturing standards. If compression is your fitting of choice, just choose the appropriate part number from the chart on this page.

Technical Data

Operating pressure max.	207 bar at 20°C
Seals	Metal
Recommended piping	Metal or Nylon

Note: Each fitting requires 1 copper sealing washer to complete connection.

COMPRESSION FITTINGS



Part Numbers

	Type and Description	Part #	ZEM 32	ZEM 33	ZEM 34	ZEM 35	ZEM 39	Sure-Fire
Pipe fittings ³	4 mm double tapered ring ¹	735112624	X	X	X	X	X	
	4 mm sleeve ¹	735115133	X	X	X	X	X	
	4 mm tapered ring ²	735112711	X	X	X	X	X	
	4 mm sleeve ²	735115781	X	X	X	X	X	
	4 mm compression bushing ²	AR629	X	X	X	X	X	
	6 mm double tapered ring ¹	735112644	X	X	X	X	X	X
	6 mm sleeve ¹	735115153	X	X	X	X	X	X
	6 mm tapered ring ²	735112721	X	X	X	X	X	X
	6 mm sleeve ²	735115781	X	X	X	X	X	X
	6 mm compression bushing ²	AR1094	X	X	X	X	X	X
	8 mm double tapered ring ¹	735112654	X	X	X	X	X	X
	8 mm sleeve ²	735115163	X	X	X	X	X	X
	8 mm tapered ring ²	AR548	X	X	X	X	X	X
	8 mm compression bushing ²	34837	X	X	X	X	X	X
8 mm sleeve ²	735115223	X	X	X	X	X	X	
M10x1	6 mm pipe - straight	AR426	X	X	X			
	6 mm pipe - 90°	AR904	X	X	X			
	6 mm pipe - 90° swivel	AR1021	X	X	X			
	8 mm pipe - straight	AR1028	X	X	X			
	8 mm pipe - 90°	AR617	X	X	X			
M12x1	8 mm pipe - 90° schwenbar	AR1029	X	X	X			
	6 mm pipe - straight	FB1098				X	X	
	8 mm pipe - straight	AR5004				X	X	
M 14x1,5	8 mm pipe - 90° swivel	AR1023				X	X	
	8 mm pipe - straight	AR1280	X					
	8 mm pipe - 90° swivel	AR1033	X					
M 14x1,5	10 mm pipe - straight	AR1417	X					
	10 mm pipe - 90° swivel	AR553	X					
	6 mm pipe - straight (G1/4)	AR397						X
Pump outlet G1/4"	6 mm pipe - 90° (R1/4)	AR961						X
	6 mm pipe - 90° swivel	AR1032						X
	8 mm pipe - straight (G1/4)	AR384						X
	8 mm pipe - 90° (R1/4)	AR794						X
	8 mm pipe - 90° swivel	AR982						X
	10 mm pipe - straight (G1/4)	AR385						X
	10 mm pipe - 90° (R1/4)	AR157						X
	10 mm pipe - 90° swivel	AR983						X
CU-sealing	M 8	20913-9	X					
	M10	20913-1	X	X	X			
	M12	20913-3				X	X	
	M14 and G1/4	35010	X					X
T piece	6x6x6 pipe	35004						
	8x8x8 pipe	35005						
	10x10x10 pipe	AR181						
Lube point connection 4mm	M6x1 - straight	73442V258	X	X	X	X	X	
	M6x1 - 90° swivel	73443V107	X	X	X	X	X	
	M8x1 - straight	734421084	X	X	X	X	X	
	M8x1 - 90° swivel	73443V108	X	X	X	X	X	
	M10x1 - straight	73442V259	X	X	X	X	X	
	M10x1 - 90° swivel	73443V109	X	X	X	X	X	
	R1/8 - straight	734421114	X	X	X	X	X	
	G1/8 - 90° swivel	734427113	X	X	X	X	X	

¹ for steel pipe, ² for plastics pipe, ³ max. 45 bar

Push-to-connect Fittings

When you need to install or change a piece of tubing, push-to-connect fittings let you do it quickly and easily. Push-to-connect fittings let you remove tubing with a simple click. Then, just push the new tubing into the fitting. The new tubing stays securely in the fitting. If push-to-connect is your fitting of choice, just choose the appropriate part number from the chart on this page.

Technical Data

Operating pressure max.	31 bar at 20°C ¹
Seals	Viton
Recommended piping	Nylon

¹ Push-to-connect fittings are supplied with tubing support inserts. They must be used to achieve the rated maximum pressure.

Note: Each fitting requires 1 copper sealing washer to complete connection (see chart on page 5 for appropriate part #).

ATTENTION: When using steel tubes the pipe ends have to be equipped with grooves to avoid dismantling of the quick-connection fittings.

Part Numbers

	Type and Description	Part #	ZEM 32	ZEM 33	ZEM 34	ZEM 35	ZEM 39	Sure-Fire
Divider inlet M10x1	6 mm pipe - straight	AR1995	X	X	X			
	6 mm pipe - 90° swivel	AR2113	X	X	X			
	6 mm pipe - 90° swivel	AR2141	X	X	X			
	8 mm pipe - straight	AR2158	X	X	X			
	8 mm pipe - 90° swivel	AR2114	X	X	X			
	8 mm pipe - 90° swivel	AR2145	X	X	X			
Divider outlet M12x1	6 mm pipe - straight	AR2052				X	X	
	6 mm pipe - 90°	AR1988				X	X	
	6 mm pipe - 90° swivel	AR2142				X	X	
	8 mm pipe - straight	AR2019				X	X	
	8 mm pipe - 90°	AR2115				X	X	
	8 mm pipe - 90° swivel	AR2146				X	X	
	10 mm pipe - 90°	AR2117				X	X	
Pump outlet G1/4"	6 mm pipe - straight	AR1983						X
	6 mm pipe - 90° swivel	AR2089						X
	8 mm pipe - straight	AR2013						X
	8 mm pipe - 90° swivel	AR2091						X
	10 mm pipe - straight	AR1725						X
	10 mm pipe - 90° swivel	AR2093						X
	T piece	6x6x6 pipe	AR2134	X	X	X	X	X
8x8x8 pipe		AR2135	X	X	X	X	X	
10x10x10 pipe		AR2136	X	X	X	X	X	
Pipe connection	4x4	AR2059						
	6x6	AR2061						
	8x8	AR2062						
	10x10	AR2063						
Lube point connection 4mm	M6x1 - straight*	AR1849	X	X	X	X	X	
	M6x1 - 90° swivel*	AR2120	X	X	X	X	X	
	M8x1 - straight*	AR1851	X	X	X	X	X	
	M8x1 - 90° swivel*	AR2121	X	X	X	X	X	
	M10x1 - straight*	AR1995	X	X	X	X	X	
	M10x1 - 90° swivel*	AR2113	X	X	X	X	X	
	G1/8 - straight*	AR1854	X	X	X	X	X	
	G1/8 - 90° swivel*	AR2099	X	X	X	X	X	
	*with O-ring							

PUSH-TO-CONNECT FITTINGS



Tubing & Accessories

	Fitting Size and Type	Part #	ZEM 32	ZEM 33	ZEM 34	ZEM 35	ZEM 39	SureFire
Nylon piping	4x0.65 mm, 21 bar working pressure at 20°C	5N25	X	X	X	X	X	X
	6x1 mm, 35 bar working pressure at 20°C	6N4	X	X	X	X	X	X
	8x1.5; 35 bar working pressure at 20°C	8N5	X	X	X	X	X	X
	10x1.25; 28 bar working pressure at 20°C	34825	X	X	X	X	X	X
Copper piping	4x1 mm	5C25	X					
	6x1 mm	21431-6	X	X	X	X	X	X
	8x1 mm	10C8	X	X	X	X	X	X
	10x1 mm	21431-10	X	X	X	X	X	X
Closure plug	M8x1 ¹	15322	X					
	M10x1 ¹	27450	X	X	X			
	M12x1 ¹	35008				X	X	
	M14x1.5 ¹	34773	X					
	1/4 BSPP ¹	35009						X
Piping clip	4 mm pipe - 1 pipe	A2435	X	X	X	X	X	X
	4 mm pipe - 2 pipes	B3539	X	X	X	X	X	X
	4 mm pipe - 3-5 pipes	B7535	X	X	X	X	X	X
	6 mm pipe - 1 pipe	B6537	X	X	X	X	X	X
	8 mm pipe - 1 pipe	35011	X	X	X	X	X	X
	10 mm pipe - 1 pipe	B6508	X	X	X	X	X	X
	12 mm pipe - 1 pipe	U301E1	X	X	X	X	X	X
Piping inserts	4x0.65 mm Plastic pipe	19268	X	X	X	X	X	
	6x1 mm Plastic pipe	34836	X	X	X	X	X	
	8x1.5 mm Plastic pipe	34837	X	X	X	X	X	
	10x1.25 mm Plastic pipe	34838	X	X	X	X	X	
	12x1.5 mm Plastic pipe	34839	X	X	X	X	X	
Straight nipple	M10x1 conical - close with inside hex.	60414-1	X	X	X			
	M12x1 conical - close with inside hex.	60414-2				X	X	

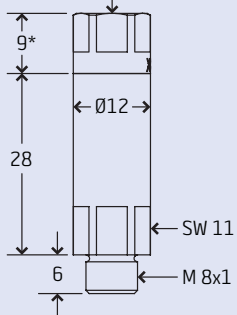
¹ Requires copper washer - see page 5

All dimensions shown in millimeters.

ZEM 32 Serie Injectors

Note: ZEM 32 Serie injectors can be used with manifolds (see page 10) or tee fittings (part # 22564).

Outlet M 8x1 or push-to-connect

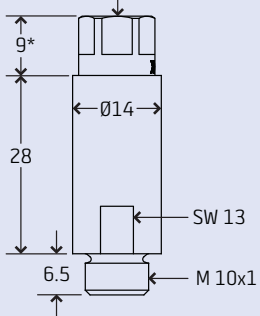


* 13 for push-to-connect outlets

ZEM 33 Serie Injectors

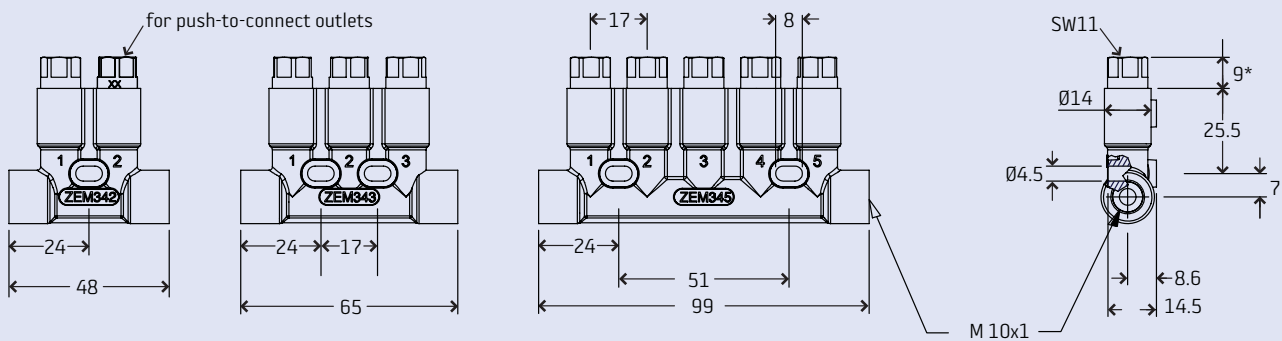
Note: ZEM 33 Serie injectors can be used with manifolds (see page 11) or tee fittings (part # 73462-3443).

Outlet M 8x1 or push-to-connect



* 13 for push-to-connect outlets

ZEM 34 Serie Injectors

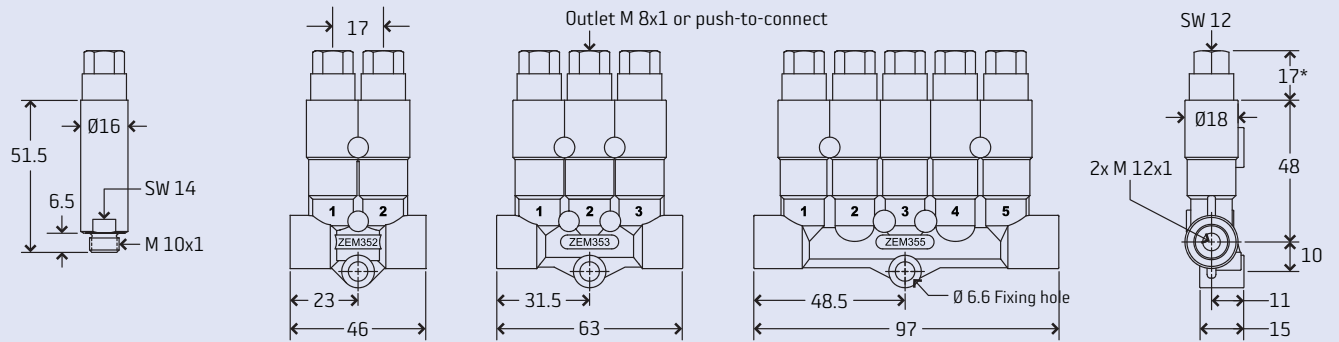


* 13 for push-to-connect outlets

All dimensions shown in millimeters.

ZEM 35 Series Injectors & Dividers

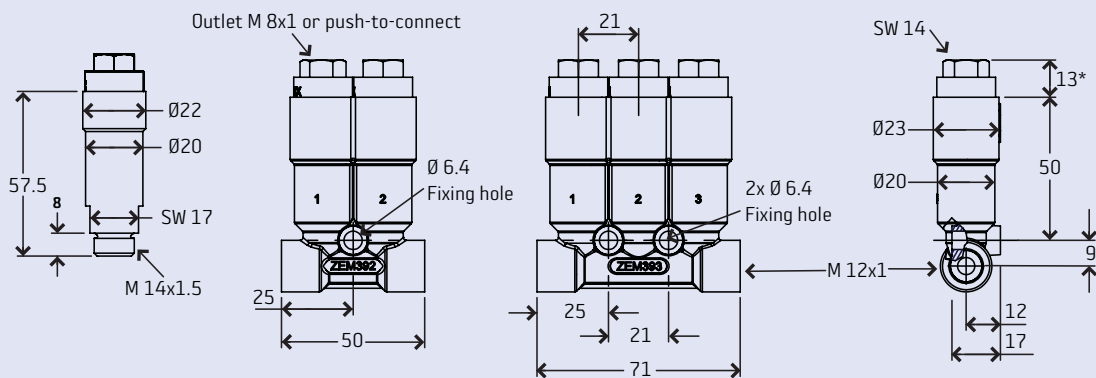
NOTE: ZEM 35 Series injectors with one outlet can be used with tee fittings (part #73462-3443).



* 21 for push-to-connect outlets

ZEM 39 Series Injectors & Dividers

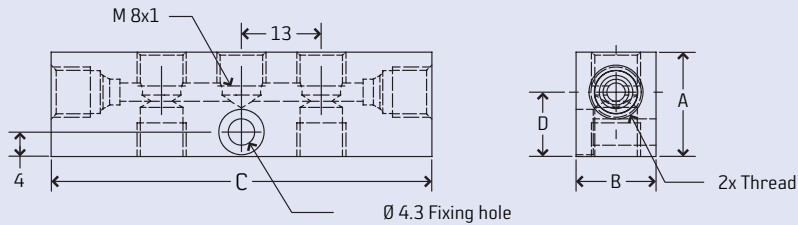
NOTE: ZEM 39 Series injectors with one outlet can be used with tee fittings (part #34547).



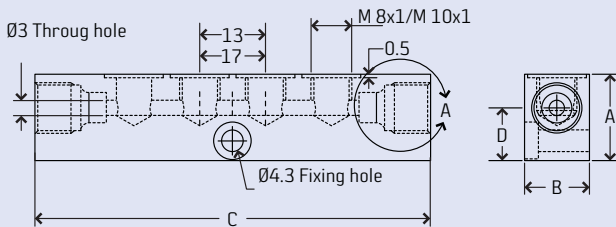
* 17 for push-to-connect outlets

ZEM 32 & 33 Series Manifolds

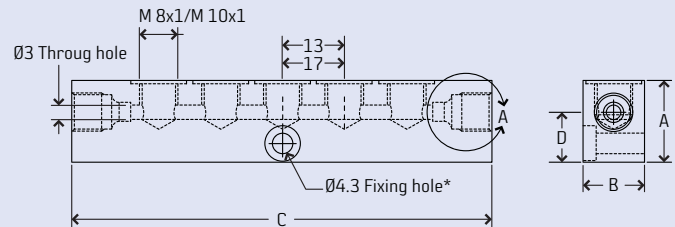
ZEM32: 5-Way Double Manifold



ZEM32 & 33: 4-Way Inline Manifold - single



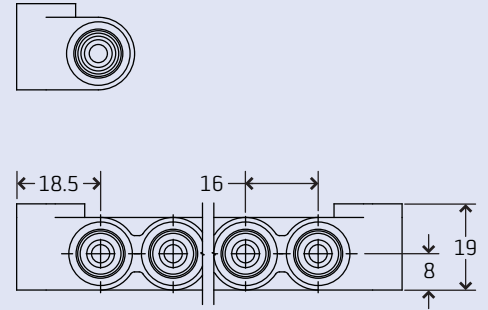
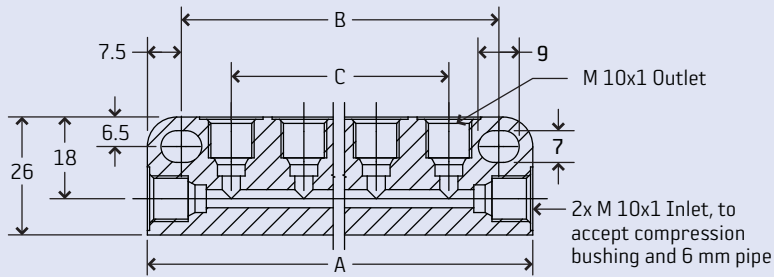
ZEM32 & 33: 5-Way Inline Manifold - single



# of Lube Points	Main line Pipe Diameter	Inlet Thread	Outlet Thread	A (mm)	B (mm)	C (mm)	D (mm)	Part #
1 - single	6 mm	M10x1	M8x1	17,0	13,0	39,0	10,5	ZEM32M16
1 - single	8 mm	M14x1,5	M8x1	20,0	18,0	48,0	11,0	ZEM32M18
2 - single	6 mm	M10x1	M8x1	17,0	13,0	52,0	10,5	ZEM32M26
2 - single	8 mm	M14x1,5	M8x1	20,0	18,0	61,0	11,0	ZEM32M28
3 - single	6 mm	M10x1	M8x1	17,0	13,0	65,0	10,5	ZEM32M36
3 - single	8 mm	M14x1,5	M8x1	20,0	18,0	74,0	11,0	ZEM32M38
4 - single	6 mm	M10x1	M8x1	17,0	13,0	78,0	10,5	ZEM32M46
4 - single	8 mm	M14x1,5	M8x1	20,0	18,0	87,0	11,0	ZEM32M48
5 - single	6 mm	M10x1	M8x1	17,0	13,0	91,0	10,5	ZEM32M56
5 - single	8 mm	M14x1,5	M8x1	20,0	18,0	100,0	11,0	ZEM32M58
5 - double	6 mm	M10x1	M8x1	17,0	13,0	91,0	10,5	34541-2
5 - double	8 mm	M14x1,5	M8x1	20,0	18,0	100,0	11,0	ZEM32M58D
6 - single	6 mm	M10x1	M8x1	17,0	13,0	104,0	10,5	ZEM32M66
7 - single	6 mm	M10x1	M8x1	17,0	13,0	117,0	10,5	ZEM32M76
8 - single	6 mm	M10x1	M8x1	17,0	13,0	130,0	10,5	ZEM32M86
9 - single	6 mm	M10x1	M8x1	17,0	13,0	143,0	10,5	ZEM32M96
10 - single	6 mm	M10x1	M8x1	17,0	13,0	156,0	10,5	ZEM32M106
1 - single	6 mm	M10x1	M10x1	20,0	18,0	41,0	11,0	ZEM33M16
2 - single	6 mm	M10x1	M10x1	20,0	18,0	58,0	11,0	ZEM33M26
3 - single	6 mm	M10x1	M10x1	20,0	18,0	75,0	11,0	ZEM33M36
4 - single	6 mm	M10x1	M10x1	20,0	18,0	92,0	11,0	ZEM33M46
6 - single	6 mm	M10x1	M10x1	20,0	18,0	126,0	11,0	ZEM33M66
8 - single	6 mm	M10x1	M10x1	20,0	18,0	160,0	11,0	ZEM33M86

Note: manifolds with more than 6 outlets have two fixing holes.

ZEM 33 Series Manifolds



Note: Manifolds rated at 34.5 bar max.

# of Lube Points	Main line Pipe Diameter	Inlet Thread	Outlet Thread	A (mm)	B ± 0.3 (mm)	C ± 0.3 (mm)	Part #
2	6 mm	M10x1	M10x1	53	38	16	31000-4
3	6 mm	M10x1	M10x1	69	54	32	31000-5
4	6 mm	M10x1	M10x1	85	70	48	31000-6
5	6 mm	M10x1	M10x1	101	86	64	31000-7
6	6 mm	M10x1	M10x1	117	102	80	31000-8
7	6 mm	M10x1	M10x1	133	118	96	31000-9
8	6 mm	M10x1	M10x1	149	134	112	31000-10

Since 1872 an innovator in lubrication technology

BIJUR DELIMON International has production facilities throughout the world, and these are certified to ISO 9001:2008 and ISO 14000. You can be confident that your centralised lubrication system satisfies the highest industrial quality standards. We are committed to quality and customer service!



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