LIONOIL
ANTWERP LION OIL WORKS N.V.
Vlaamsekaai 2-5 B-2000 Antwerpen
T.: +32 (0)3 237 00 45 F.: +32 (0)3 216 21 92

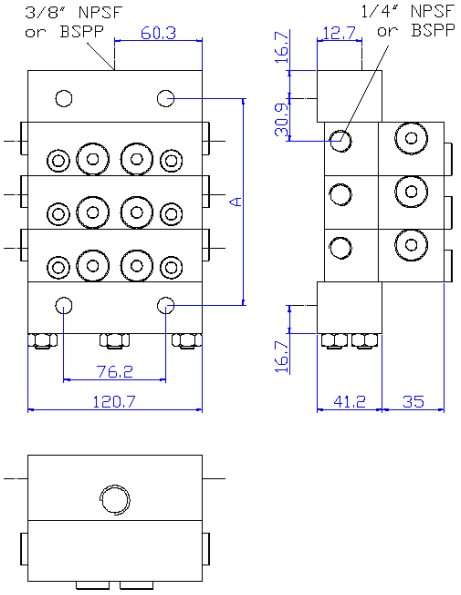
PROGRESSIVE DIVIDER VALVE

MXP MODULAR DIVDER VALVES

Maximal flexibility and reliability

The progressive divider valves form the centre of our progressive lubrication systems. In the MXP divider, the exact amount of lubricant is measured in the metering elements and dispensed to the lubrication points. The MXP divider valves enable a complete and fast fault finding, and can be used for oil and grease.

- Oil and grease lubrication
- Maximal working pressure 207 bar
- Up to 20 outlets/divider valve
- Viton O-seals
- NPSF or BSPP tread (SAE as option)
- Internal check valves
- Modular construction
- Complete monitoring possible



Specifications

Lubricant	oil or grease
P_{max}	207 bar (3000 PSI)
Max. flow-ratio	24 :1 (in 1 divider)
Max. Cycle speed	200/min
	60/min (cycle pin)
Material	
- Housing	steel (corrosion protected)
- seals	Viton
T_{max}	177°C
Torque specifications	
- Tie rod nut	8-12 Nm
- Section mounting screw	16-17 Nm
- Indicator port plug	16-20 Nm
- Enclosure plug	62-68 Nm

Dimentions and weight

	MXP3	MXP4	MXP5	MXP6	MXP7	MXP8	MXP9	MXP10
A (mm)	135.9	170.1	204.4	238.6	272.8	307.1	341.3	375.6
m (kg)	8.3	10.2	12.2	14.2	16.2	18.1	20.1	22.1

BTW BE 0457 940 562 RPR Antwerpen www.lionoil.be
Erkenningsnr. K(C11)/K3(C12) Aannemer registr. 457.940.562/022701
Fortis 220-0030562-43 IBAN BE66 2200 0305 6243 SWIFT GEBA BE BB 18A

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Cycle monitoring

Cycle indicators are mechanical or electrical elements that convert the movement of the divider pistons to a visual or electrical signal that can be used for a close monitoring of the lubrication cycles.

Cycle pin of cycle indicator

The divider sections 50 till 150 can be ordered with an indicator pin. This pin moves over and forth within one cycle.

Magnetic cycle indicator

A translucent housing carries metal balls moved over and forth during each cycle by a magnet.

Cycle switch

The cycle switch is used in conjunction with the cycle pin and converts the mechanic movement into an electrical signal for monitoring unit.

Field-sensitive proximity switch

Switch with a ceramic magnet for oil and grease lubrication systems up to 200 cycles/min and pressures up to 240bar. This cycle switch is ideal for applications with high cycle speed. In conjunction with a zener-barrier, this switch can be applied as intrinsically safe in an ATEX environment.

DNFT – ATEX cycle switch

This cycle switch has an ATEX certification for use in environments with explosion-risk, in conjunction with the appropriate connexion box.

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System protection / performance indicators

These vital safeguards react to excess lube pressure when points or lines become blocked. Installed in indicator ports on the working piston sections, they quickly identify the affected lines.

Automatic Relief-to-Atmosphere Indicator

Spring-loaded piston unseats when blockage occurs, venting lubricant to atmosphere each time the piston cycles. This allows system to lubricate unaffected points. When the blockage is cleared, the indicator reseats automatically

Manual Reset Indicator with Memory

System blockage triggers a spring-loaded piston to display an indicator. Since there is no relief, pressure backs up in the system and the system stops, allowing a controller to alarm. After correcting the problem, the indicator pin is reset manually. This creates a visual notice of a temporarily overpressure.

Rupture indicator

The high pressure from lube line blockage causes a disc to rupture. They are available as reset- or relieve-indicator. The high pressure backs up through the system and can be a trigger for the controls. When the fault is corrected, the disc must be replaced. Rupture indicators, as the rupture-disks in different pressure-ranges, are only available on special

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Order-references MXP-divider

Base	NPSF	BSPP
Inlet	527-300-000	527-300-760
Subplate	527-300-100	527-300-740
End-section	527-300-090	
Crossport right	527-300-980	
Crossport left	527-300-970	

Elements	Flow/ outlet (cm^3)	Orderref.	Orderref. Cycluspin (right)
25T	0.410	106-300-010	-
25S	0.820	106-300-070	-
50T	0.820	106-300-020	106-300.130
50S	1.639	106-300-080	106-300-180
75T	1.230	106-300-030	106-300-140
75S	2.459	106-300-090	106-300-190
100T	1.639	106-300-040	106-300-150
100S	3.278	106-300-100	106-300-200
125T	2.049	106-300-050	106-300-160
125S	4.098	106-300-110	106-300-210
150T	2.459	106-300-060	106-300-170
150S	4.917	106-300-120	106-300-220
BYPASS	0.000	106-300-410	-

Acc. MXP divider	Orderref.
Tierod + nut MXP3	527-300-270
Tierod + nut MXP4	527-300-280
Tierod + nut MXP5	527-300-290
Tierod + nut MXP6	527-300-300
Tierod + nut MXP7	527-300-310
Tierod + nut MXP8	527-300-320
Tierod + nut MXP9	527-300-330
Tierod + nut MXP10	527-300-340
Nut tie rod	410-440-020
Piston enclosure plug	419-160-080
Piston enclosure O-seal	
Indicator port plug	422-240-080
Indicator port O-seal	527-300-840
MXP O-seal BUNA-N	422-210-030
MXP O-seal VITON	527-300-510
Mounting screw section + crossport	419-160-090

Order-referentces control-options

Description	Orderref.
Cycle pin	See table above
Cycle switch	510-599-000
Magnetic cycle indicator	509-932-720
***** Field sensitive proximity switches *****	
Field sensitive proximity switches 3 pin	527-005-520
Field sensitive proximity switches 3 pin + LED 24VDC	-
Connection cable 3 pin length = 1.9 m	570-999-080
Connection cable 3 pin length = 3.7 m	570-999-090
Field sensitive proximity switches 5 pin	527-005-190
Field sensitive proximity switches 5 pin + LED 24VDC	-
Connection cable 5 pin length = 1.9 m	570-999-160
***** DNFT – ATEX cycle switches *****	
DNFT + led cycle indicator	dnft-led
DNFT + led cycle indicator – programmable	dnft-led-ps
DNFT + led cycle indicator + counter	dnft-prg
DNFT + led cycle indicator + counter - programmable	dnft-prg-ps

Description	Orderref.
***** Relief-indicators *****	
50 bar (750 psi)	508-310-415
70 bar (1000 psi)	508-310-425
85 bar (1250 psi)	508-310-435
105 bar (1500 psi)	508-310-445
140 bar (2000 psi)	508-310-455
170 bar (2500 psi)	508-310-465
205 bar (3000 psi)	508-310-475
***** Reset-indicators *****	
15 bar (250 psi)	509-932-590
35 bar (500 psi)	509-932-600
50 bar (750 psi)	509-932-610
70 bar (1000 psi)	509-932-620
105 bar (1500 psi)	509-932-630
140 bar (2000 psi)	509-932-640
170 bar (2500 psi)	509-932-650

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Order-references complete dividers

XXX – XXX – X – XX – XXX – X – XX

Series of divider
MXP Standard divider

Inlet / Outlet connection type
NPT Dryseal Pipe Thread
BSP British Parallel met O-ring

Accessories
X Non
P Performance indicators on each outlet

Sections

3	Three	7	Seven
4	Four	8	Eight
5	Five	9	Nine
6	Six	10	Ten

Metering sections

BP	Bypass	
25	.025 cu.in	(.410 cm^3)
50	.050 cu.in	(.820 cm^3)
75	.075 cu.in	(1.230 cm^3)
100	.100 cu.in	(1.639 cm^3)
125	.125 cu.in	(2.049 cm^3)
150	.150 cu.in	(2.459 cm^3)

Type valve block
T Double outlet
S Single outlet (right)
L Single outlet (left)
B Double outlet + cycle pin right
C Single outlet right + cycle pin right
D Single outlet left + cycle pin right

Crossport options
CR Crossport right
CL Crossport left
CB Crossport both
* omit when not required

Nota's

- • Right/Left Hand determined when viewing front of divider valve assembly. (Divider valve assembly placed on flat surface with inlet at top.)
- Valves are specified starting from inlet section.
- When a valve is crossported, its outlet is plugged and diverted to the next valve away from inlet.
- The last valve in a divider assembly, farthest from inlet, cannot be crossported.
- Single valves can be crossported on one side only.
- When a valve is a single, only one outlet in its subplate can be used, the other outlet must be plugged.
- Cycle pins are available on MX (50, 75, 100, 125, and 150) valves only.
- All divider valve assemblies must have a minimum of 3 working valves.
- A bypass block cannot be supplied on a divider valve with 3 subplates.
- A bypass block is not a working valve.
- For ATEX applications, contact us.