



MDV-M MDV-L MONOBLOC DIVIDER VALVES

MDV-M MDV-L

Monobloc divider valves MDV-M and MDV-L are full made of iridescent white zinc steel: lapped holes and pistons are hardened and ground steel to guarantee a seals-less working.

Actuated pump pistons dispense a set lubricant quantity each working cycle. Due to piston's action lubricant flows to a delivering step to the next one, so the lubrication action goes on. Each divider valve is placed in series with the others, therefore malfunctioning of just one causes blocking of all the others. Dispensed lubricant quantity is set by the adjusting screws of each piston. Lubricant oils with up to 40cSt viscosity and greases with up to NLGI 2 viscosity may be used.



TECHNICAL CHARACTERISTICS

Min.pressure	20 bar oil - 20 bar grease
Max. pressure	150 bar oil - 250 bar grease
Delivery MDV-M	0,025 - 0,050 - 0,075 cm ³ /cycle
Delivery MDV-L	0,1 - 0,2 - 0,4 cm ³ /cycle
Material	Galvanized steel
Working temperature	- 25 °C / + 60 °C

Divider valves only	Divider valves with cycle indicator			Abbr.	Delivery	Inlet	Outlet
	visual	micro	proximity				
3141420	31414201	31414202	31414203	MDV-M6	6	1/8" G	5/16" UNF
3141500	31415001	31415002	31415003	MDV-M8	8	1/8" G	5/16" UNF
3141580	31415801	31415802	31415803	MDV-M10	10	1/8" G	5/16" UNF
3141660	31416601	31416602	31416603	MDV-M12	12	1/8" G	5/16" UNF
3141740	31417401	31417402	31417403	MDV-M14	14	1/8" G	5/16" UNF

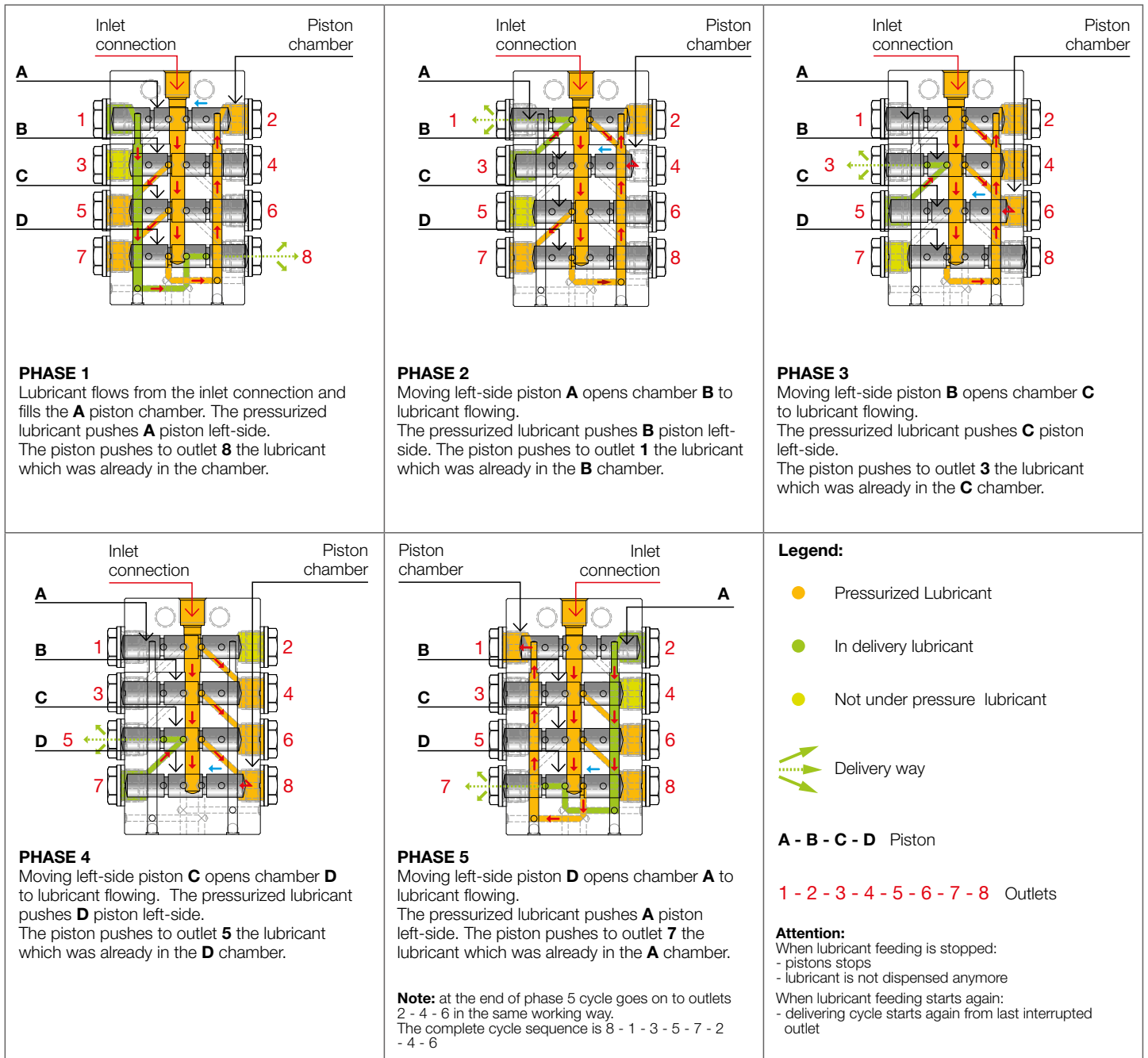
Standard dispensing plugs MDV-M 0,050 cm³/min.

Divider valves only	Divider valves with cycle indicator			Abbr.	Delivery	Inlet	Outlet
	visual	micro	proximity				
3150380	31503801	31503802	31503803	MDV-L6	6	1/4" G	1/8" G
3150460	31504601	31504602	31504603	MDV-L8	8	1/4" G	1/8" G
3150540	31505401	31505402	31505403	MDV-L10	10	1/4" G	1/8" G
3150620	31506201	31506202	31506203	MDV-L12	12	1/4" G	1/8" G
3150700	31507001	31507002	31507003	MDV-L14	14	1/4" G	1/8" G

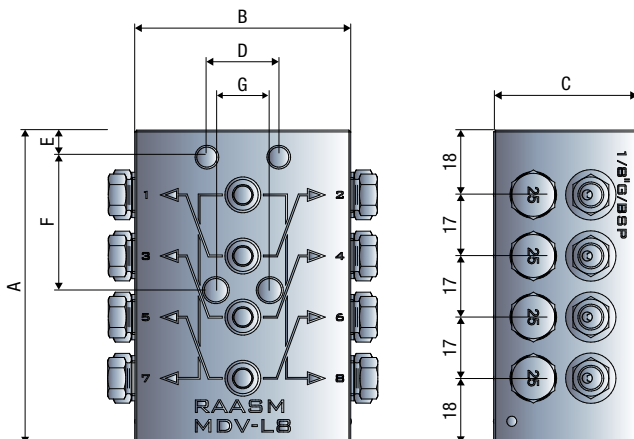
Standard dispensing plugs MDV-L 0,20 cm³/min.

HOW IT WORKS

The following scheme shows how the monobloc divider valve works. In this example lubricant flows from outlets following the sequence **8 - 1 - 3 - 5 - 7**.



OVERALL DIMENSIONS (mm)



Abbr.	A	B	C	D	E	F	G
MDV-M6	70	40	30	20	5,5	38	12
MDV-M8	88	40	30	20	5,5	38	12
MDV-M10	104	40	30	20	5,5	38	12
MDV-M12	122	40	30	20	5,5	38	12
MDV-M14	138	40	30	20	5,5	38	12

Abbr.	A	B	C	D	E	F	G
MDV-L6	70	60	40	20	7,5	37	15
MDV-L8	88	60	40	20	7,5	37	15
MDV-L10	104	60	40	20	7,5	37	15
MDV-L12	122	60	40	20	7,5	37	15
MDV-L14	138	60	40	20	7,5	37	15



TECHNICAL CHARACTERISTICS

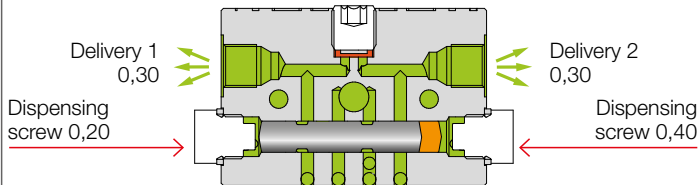
MDV-M and MDV-L

OUTLETS AND FLOW RATES

Lubricant outlets are side placed and can work independently or bined.

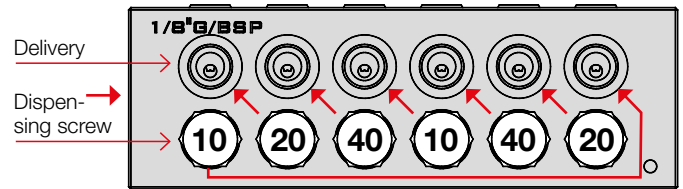
Flow rate may be set by adjusting screws from 0,025 - 0,050 - 0,075 cm³/cycle for MDV-M dividers to 0,1 - 0,2 - 0,4 cm³/cycle for MDV-L dividers.

DELIVERY EXAMPLE



Total lubricant flow rate is equal to the sum of the flow rate indicated on each adjusting screw ($0,20 + 0,40 = 0,60$), divided by 2 ($0,60/2=0,30$).

LUBRICANT PATH



This picture shows lubricant path depending on each adjusting screw's flow rate.

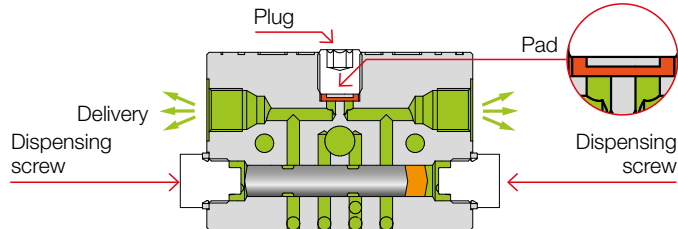
Dispensing sequence is represented on top side of the divider (see example in **BYPASS ELEMENTS** section).

SINGLE OR DOUBLE DELIVERY

Each section of the device can dispense lubricant through a single or double delivery.

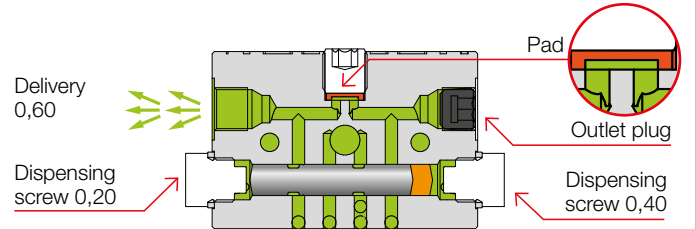
This is possible thanks to the screw plug's pin orientation, which is placed onto the frontal side of the divider.

SINGLE DELIVERY



The hollow of screw plug's pin is facing upwards: lubricant dispensing takes place from one side to the other progressively.

DOUBLE DELIVERY



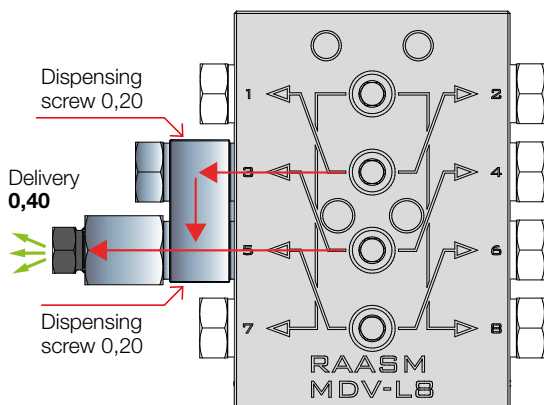
The hollow of screw plug's pin is facing downwards: lubricant dispensing takes place both sides at the same time. Placing the screw plug to an opposite outlet the lubricant flow rate will be the sum of each inlet quantity ($0,20 + 0,40 = 0,60$).

BYPASS ELEMENTS

Using a hollow screws bypass element, different flow rates may be available for each outlet (single, double, triple ecc.)

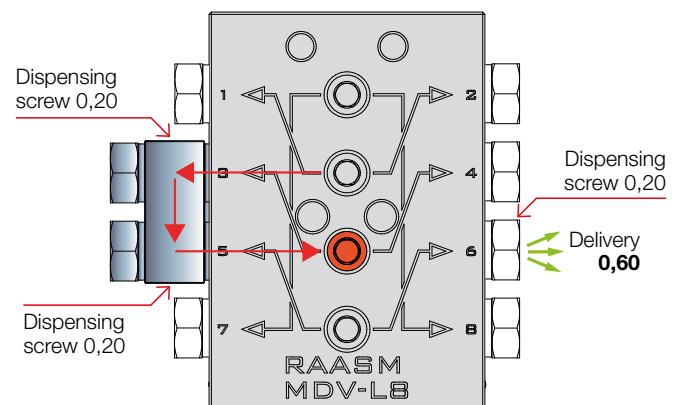
Double delivery

Delivery $0,20 + 0,20 = 0,40$

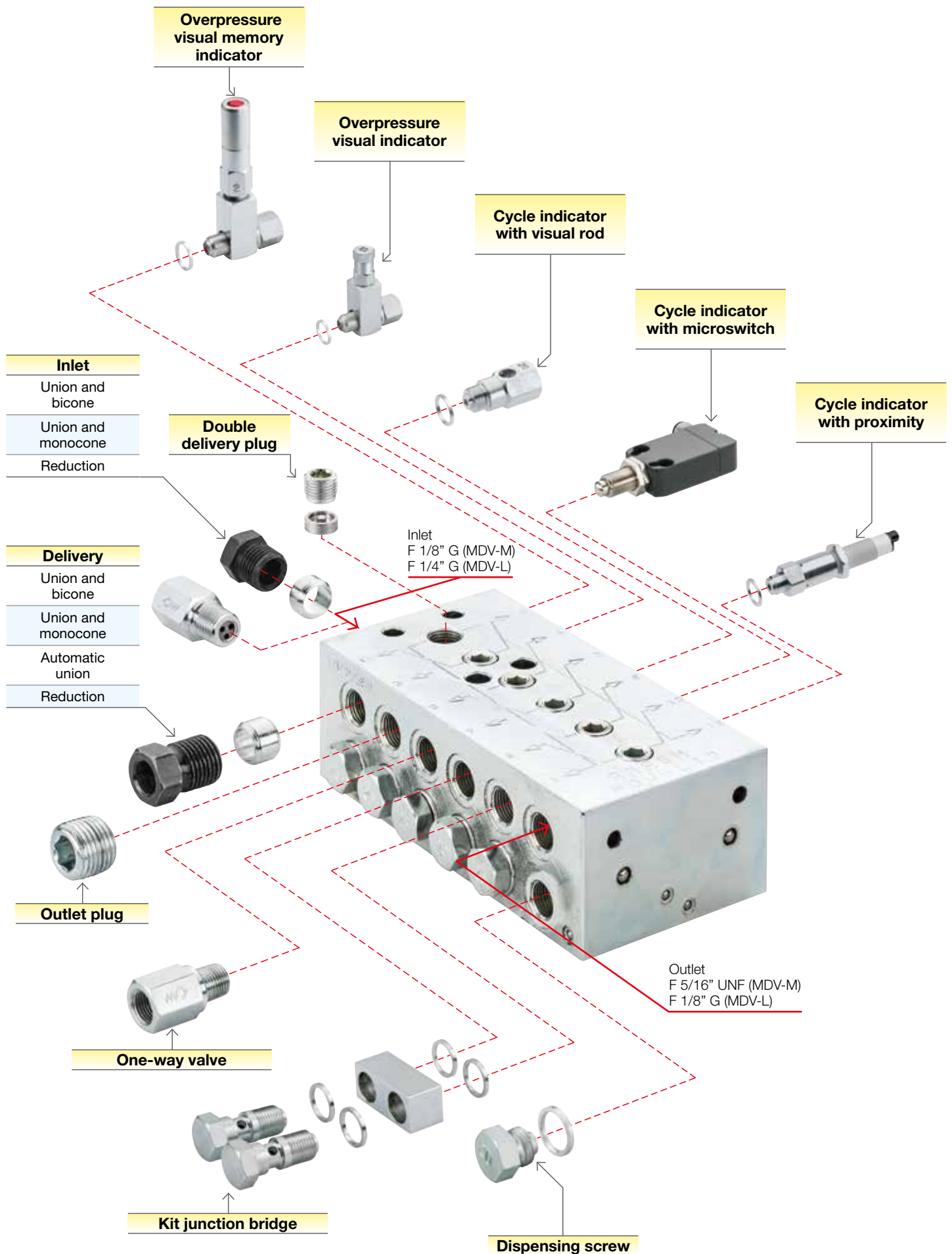


Triple delivery

Delivery $0,20 + 0,20 + 0,20 = 0,60$




ACCESSORIES MDV-M and MDV-L




OVERPRESSURE VISUAL MEMORY INDICATOR

This indicator has a colored rod that raises and remains in position when there is an abnormal pressure rise in the system. This allows* to locate the discharge involved.

	M 5/16" UNF outlet F 5/16" UNF		M 5/16"UNF outlet F 1/8" G		M 1/8"G outlet F 1/8" G		M 1/8"G outlet F 1/4" G		Pressure
	Divider valves	P/N	Divider valves	P/N	Divider valves	P/N	Divider valves	P/N	
	MDV-M	3081539	MDV-M	3081549	MDV-L	3081559	MDV-L	3081569	20 bar
		3081540		3081550		3081560		3081570	
		3081541		3081551		3081561		3081571	
		3081542		3081552		3081562		3081572	
		3081543		3081553		3081563		3081573	
		3081544		3081554		3081564		3081574	
		3081545		3081555		3081565		3081575	250 bar

OVERPRESSURE VISUAL INDICATOR

This indicator has a rod that is raised when it reaches the set pressure and falls when the pressure falls below this value. *

	M 5/16" UNF outlet F 5/16" UNF		M 5/16"UNF outlet F 1/8" G		M 1/8"G outlet F 1/8" G		M 1/8"G outlet F 1/4" G		Pressure
	Divider valves	P/N	Divider valves	P/N	Divider valves	P/N	Divider valves	P/N	
	MDV-M	3081579	MDV-M	3081586	MDV-L	3081593	MDV-L	3081532	20 bar
		3081580		3081587		3081594		3081533	
		3081581		3081588		3081595		3081534	
		3081582		3081589		3081596		3081535	
		3081583		3081590		3081597		3081536	
		3081584		3081591		3081598		3081537	
		3081585		3081592		3081599		3081538	250 bar

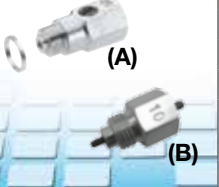
Attention: overpressure indicators have to be installed on lubricant outlets which need to be checked.

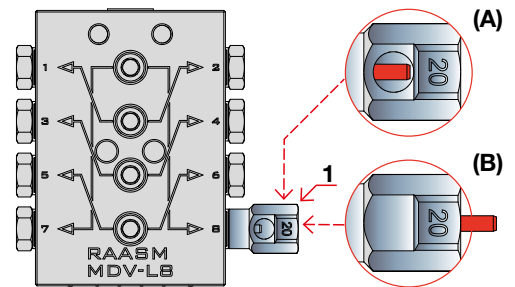
CYCLE INDICATOR

Three different cycle indicator may be installed on the "Master" divider to check system status:

Visual rod indicator


A rod is directly connected to divider's piston. The 1 rod comes out when the piston is working.

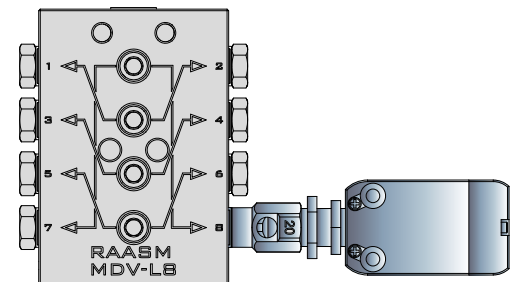
	Divider valves	Dispensing screw		
		P/N (A) *	P/N (B)	Delivery (cm ³ /cycle)
	MDV-M	3081401	3081404	0,025
	MDV-M	3081402	3081405	0,050
	MDV-M	3081403	3081406	0,075
	MDV-L	3081421	3081424	0,100
	MDV-L	3081422	3081425	0,200
	MDV-L	3081423	3081426	0,400



Microswitch indicator *


A rod is directly connected to the piston and activates a microswitch which produces an electrical signal when piston is working.

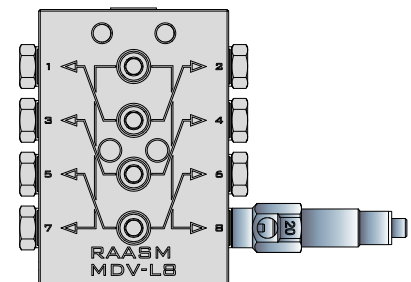
	Divider valves	Dispensing screw	
		P/N *	Delivery (cm ³ /cycle)
	MDV-M	3081451	0,025
	MDV-M	3081452	0,050
	MDV-M	3081453	0,075
	MDV-L	3081471	0,100
	MDV-L	3081472	0,200
	MDV-L	3081473	0,400



"Proximity" sensor indicator *

A "proximity" capacity sensor detects if piston if working and produces an electrical signal each working cycle.

	Divider valves	Dispensing screw	
		P/N *	Delivery (cm ³ /cycle)
	MDV-M	3081501	0,025
	MDV-M	3081502	0,050
	MDV-M	3081503	0,075
	MDV-L	3081521	0,100
	MDV-L	3081522	0,200
	MDV-L	3081523	0,400




Attention:


The cycle indicators are installed in the standard version in correspondence of the pumping piston placed near the largest delivery of the distributor (bottom right). For non-standard installation please call the technical department.

* Cable for microswitch and "proximity" non included (sold separately)
* Items to be used only for configuring the distributor before ordering


MICROSWITCH CABLE

	Divider valves	P/N	Description
	MDV-M	3081524	With connector cable M12 - 5 poles - 5 m
MDV-L	3081525	With connector cable M12 - 5 poles - 10 m	


DISPENSING SCREW

	Divider valves	P/N	Delivery (cm ³ /cycle)	Union	Dispensing screw Abbr.
	MDV-M	3081650	0,025	M7 x 1	25
		3081651	0,050	M7 x 1	50
		3081652	0,075	M7 x 1	75
	MDV-L	3081600	0,100	M10 x 1	10
		3081601	0,200	M10 x 1	20
		3081602	0,400	M10 x 1	40


ONE-WAY VALVE

	Divider valves	P/N	For delivery	For inlet
			Union	Union
	MDV-M	3200081	M 5/16" UNF - outlet F 5/16" UNF	-
		3200082	M 5/16" UNF - outlet F 1/8" G	-
		3200085	-	M 1/8" G - inlet F 1/8" G
		3200087	-	M 1/8" G - inlet F 1/4" G
	MDV-L	3200083	M 1/8" G - outlet F 1/8" G	-
3200084		M 1/8" G - outlet F 1/4" G	-	
3200086		-	M 1/4" G - inlet F 1/4" G	


BYPASS ELEMENT KIT (without outlet)

	Divider valves	P/N	Union
	MDV-M	3080050	M 5/16" UNF
	MDV-L	3080070	M 1/8" G


BYPASS ELEMENT KIT (with outlet)

	Divider valves	P/N	Union
	MDV-M	3080051	M 5/16" UNF - outlet F 5/16" UNF
		3080052	M 5/16" UNF - outlet F 1/8" G
	MDV-L	3080071	M 1/8" G - outlet F 1/8" G
		3080072	M 1/8" G - outlet F 1/4" G


OUTLET PLUG

	Divider valves	P/N	Union
	MDV-M	3200091	M 5/16" UNF
	MDV-L	3200095	M 1/8" G

CLOSED HOLLOW SCREW

	Divider valves	P/N (without one-way valve)	P/N (with one-way valve)	Union
	MDV-M	3080055	3080054	M 5/16" UNF
	MDV-L	3080075	3080074	M 1/8" G

OPEN HOLLOW SCREW

	Divider valves	P/N (without one-way valve)	P/N (with one-way valve)	Union
	MDV-M	3080058	3080056	M 5/16" UNF - outlet F 5/16" UNF
	MDV-M	3080059	3080057	M 5/16" UNF - outlet F 1/8" G
	MDV-L	3080078	3080076	M 1/8" G - outlet F 1/8" G
	MDV-L	3080079	3080077	M 1/8" G - outlet F 1/4" G