

Product description
Modular
progressive
distributor M2500

APPLICATION

Easy to install. Easy to modify.
Easy to maintain.

The M2500 Series valve manifolds are the principal components of a single line central lubricating system. The modular construction makes the system easy to install, and can be modified and maintained without removing any tubing. Operation of all valves in the system can be monitored by a single cycle indicator switch. Up to 20 bearings can be lubricated from one manifold assembly.

Zone control components assembled at the valve section can be used to build a system of any size and can be divided into individually controlled and monitored zones. This permits varied cycle times, rapid trouble-shooting and easy maintenance.



M2500 with 4 segments

ADVANTAGES

- Viton® O-rings standard to protect against high heat & synthetic lubricants.
- Form, fit and functionality interchangeable with all major competitive brands.
- Dual ported valves can be purchased as a single outlet type (S) and converted to twin outlet (T). This reduces your inventory by 50%.
- Easy to assemble and replace valves without removing tube.

PRODUCT CHARACTERISTICS

- Valve sections
- Manifold bases
- Zone control valves
- Accessories
- UNF straight thread, NPSF or BSPP - all standard.
- Integral or in-line solenoid valve for zone control.
- Operating pressure max. with oil 300 bar and with grease 400 bar.
- Discharge volumes 0.08 to 1.31 cm³
- Nickel-zinc plating (free from chromium VI).
- Three to ten section valve manifolds available.

DESIGN AND FUNCTION

The M2500 Series...an unbeatable combination of performance and convenience.

M2500 Valve sections

M2500 Specifications

Max. operating pressure:

Oil: 300 bar

Grease: 400 bar

Discharge per cycle: 0.8 to 1.31 cm³

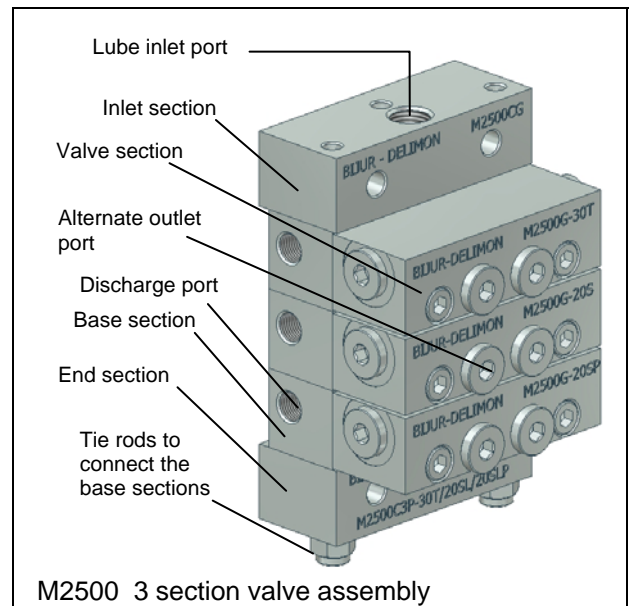
Operating temperature: - 20 to 120°C
(-20 to 70°C by using of monitoring switches or zone control valves)

Lubricants: SAE 10 oil to NLGI class 2 grease

Seals: Viton

Notes for M2500 Valves

- Discharge is in cubic inches per cycle from each outlet.
- Valve sections include O-rings and mounting screws.
- Material: Steel with nickel-zinc plating (free from chromium VI)
- Dual ported valves (single or twin outlet) are available.



Valve size	Discharge cm ³		Valve sections			
	Twin outlet	Single outlet	Twin outlet		Single outlet	
			standard	with cycle pin	standard	with cycle pin
05	0.08	0.16	MCVA250105TG	-	MCVA250105SG	-
10	0.16	0.33	MCVA250110TG	-	MCVA250110SG	-
15	0.25	0.49	MCVA250115TG	-	MCVA250115SG	-
20	0.33	0.66	MCVA250120TG	MCV250120TPG	MCVA250120SG	MCV250120SPG
25	0.41	0.82	MCVA250125TG	MCV250125TPG	MCVA250125SG	MCV250125SPG
30	0.49	0.98	MCVA250130TG	MCV250130TPG	MCVA250130SG	MCV250130SPG
35	0.57	1.15	MCVA250135TG	MCV250135TPG	MCVA250135SG	MCV250135SPG
40	0.66	1.31	MCVA250140TG	MCV250140TPG	MCVA250140SG	MCV250140SPG

DESIGN AND FUNCTION (continued)

Valve Manifold Bases

Valve manifold bases consist of an inlet section, several valve base sections (3 - 10) and an end section.

Inlet section: refer to chart at right.

Valve base sections with includes integral check valves and Viton O-ring.

MCBA2502AG: 7/16-20 UNF discharge ports

MCBA2502BG: 1/8-27 NPSF discharge ports

MCBA2502CG: G 1/4 discharge ports

End section:

MCEA2503G: includes Viton O-ring.

Inlet type*	Port style		
	7/16-20 UNF	1/4-18 NPSF	G 1/4
standard	MCI2504A	MCI2504B	MCI2504C
Zone – oil	MCI2504ZA	MCI2504ZB	MCI2504ZC
Zone – grease	MCI2506ZA	MCI2506ZB	MCI2506ZC

* Select applicable control valve (MCZ2501 or MCZ2503) from page 6.

Tie rod kit

Includes 3 tie rods and locknuts.- (refer to chart at right).

Number of sections	Tie rod kit number
3	MCRK25053G
4	MCRK25054G
5	MCRK25055G
6	MCRK25056G
7	MCRK25057G
8	MCRK25058G
9	MCRK25059G
10	MCRK250510G

Complete ordering instructions on page 8.

Zone control valves

BIJUR DELIMON International offers a full range of zone control valves to satisfy a variety of requirements:

Type:

MCZ2501F series for oil systems operating up to 100 bar

MCZ2501A series for oil systems operating between 100 and 200 bar

MCZ2503B series for all grease systems operating up to 200 bar

Installation:

- in the inlet section of the valve manifold (see page 3 for zone inlets)

Electrical data:

115 V (50 or 60 Hz)

24 V DC

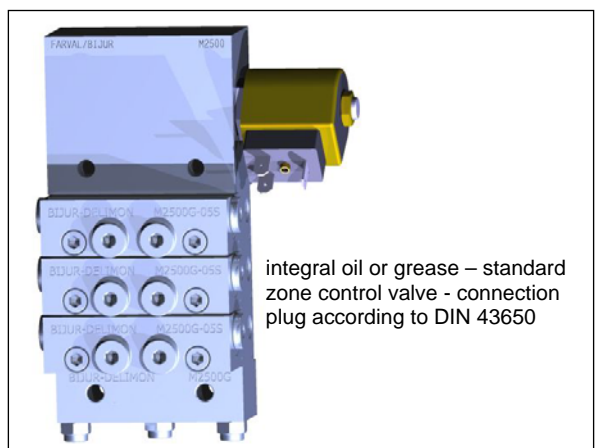
Class H coils

Connectors:

Hirschmann GDM series connector for grease service according to DIN 43650

Port types:

Integral valves: 7/16-20 UNF, 1/4-18 NPTF or G 1/4 on inlet



Electrical data			
Series	MCZ2501F	MCZ2501A	MCZ2503B
Inrush current	0.21 A	0.21 A	0.17 A
Power	20 Watt	20 Watt	20 Watt
Lead Length	610 mm	610 mm	460 mm

Notes: 1. Inrush current rating at 115 V AC 60 Hertz.
2. All AC-coils contain full wave rectifiers.

DESIGN AND FUNCTION (continued)

Zone control valve selection chart

		1	2	3	4
Seal material OO – nitrile VO – Viton					
Electrical connection: HC – Hirschmann according to DIN 43650					
Voltage: 11 – 115 V 50/60Hz 24 – 24 V DC					
Mounting and port style: (Use this code for remote valves only, not for integral valves). N – 1/4-18 NPTF inlet and discharge S – 9/16-18 UNF (3/8 OD tube) inlet and discharge					
For oil systems below 100 bar	MCZ2501F	-- --	-- --	-- --	--
For oil systems above 100 bar	MCZ2501A	-- --	-- --	-- --	--
For all grease systems	MCZ2503B	-- --	-- --	-- --	--

Example:

- For an integral zone control in a 30 bar oil system, nitrile seals, an automotive connector, operating on 120 V, 60 Hz current, and with UNF ports, order MCZ2501F00BH11.

Control valves and cycle switches

Hirschmann-type electrical connectors

These connectors, made to DIN 43650 specifications, are used with Type HC zone control valves. They include all hardware including gaskets. they are rated at 250 V AC and 16 A.

MCC2509A: for MCZ2501 series zone control valves. DIN 43650 Form B 11.

MCC2510A: for MCZ2503 series zone control valves. DIN 43650 Form A.

- MCC2505
- MCC2509A
- MCC2510A



A. DISTRIBUTOR TYPE

Code

M25

B. NUMBER OF SECTIONS

Code

3 sections	03
4 sections	04
5 sections	05
6 sections	06
7 sections	07
8 sections	08
9 sections	09
10 sections	10

C. REVISION	Code
Status	A

D. MONITORING	Code
without electrical monitoring	00
cycle switch AC470 (needs indicator pin) left hand	01
cycle switch AC470 (needs indicator pin) right hand	02
cycle switch AC473 (needs indicator pin) left hand	03
cycle switch AC473 (needs indicator pin) right hand	04
optical cycle indicato left hand	05
optical cycle indicato right hand	06

E. THREAD TYPE	Code
BSPP thread	Z
UNF thread	U
NPSF thread	N

F. VERSION OF VALVE BOOK	Code
without valve block	00
with valve block for oil	01
with valve block for grease	02

G. CODING OF THE OUTLETS	Code
A section	*
M section	*
E or M section	*

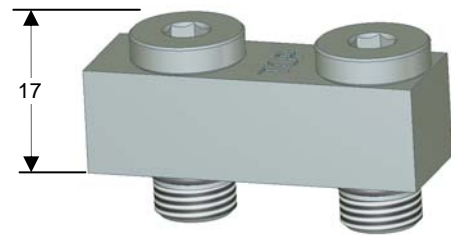
* is determined by segment selection of the price list

H. ACCESSORIES	Code
without	00
Overpressure indicator, non-relieving type, 35 bar (for selected number of outlets)	01
Overpressure indicator, non-relieving type, 70 bar (for selected number of outlets)	02
Overpressure indicator, non-relieving type, 105 bar (for selected number of outlets)	03
Overpressure indicator, non-relieving type, 140 bar (for selected number of outlets)	04
Overpressure indicator, non-relieving type, 210 bar (for selected number of outlets)	05
Overpressure indicator, relieving type, 35 bar (for selected number of outlets)	06
Overpressure indicator, relieving type, 70 bar (for selected number of outlets)	07
Overpressure indicator, relieving type, 105 bar (for selected number of outlets)	08
Overpressure indicator, relieving type, 140 bar (for selected number of outlets)	09
Rapture disc indicator, color yellow, burst pressure 100 bar (for selected number of outlets)	10
Rapture disc indicator, color red, burst pressure 120 bar (for selected number of outlets)	11
Rapture disc indicator, color purple, burst pressure 220 bar (for selected number of outlets)	12
Rapture disc indicator, color yellow/neutral, burst pressure 250 bar (for selected number of outlets)	13

ACCESSORIES FOR VALVE M2500

Crossport bars MCCA2501G

The crossport can be used to combine the outlets from two valve segments which are positioned one after another. The crossport is not integrated in the coding for the basic distributor and must therefore be ordered separately, specifying its future position on the distributor, whereby a distinction must be made between the left and the right side. When ordering, specify which valve segment is closest to the inlet segment. The outlet on this segment is closed because the outlet is always on the following valve segment.



Pressure indicators

These indicators are spring-loaded and can only be reset when system pressure decreases. The indicator's memory pin remains extended until manually reset. They are installed in the alternate outlet port. The pressure indicator is not part of the scope of supply for the basic distributor and therefore it must be ordered separately, specifying its future position on the distributor. The pressure indicators cannot be combined with a crossport.



NON-RELIEFING TYPE		RELIEFING TYPE	
Part no.	Pressure (bar)	Part no.	Pressure (bar)
2035A-5	35	2135-5	35
2035A-10	70	2135-10	70
2035A-15	105	2135-15	105
2035A-20	140	2135-20	140
2035A-30	210		



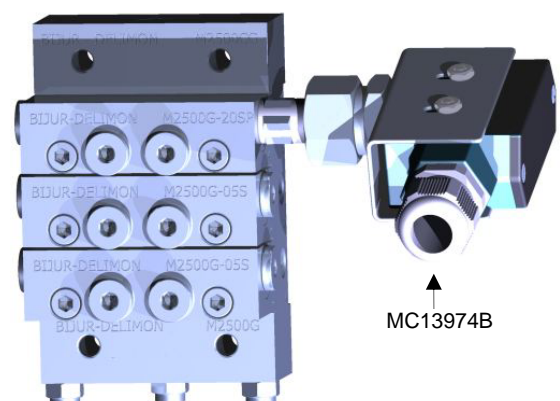
Visual cycle indicators

MCSA2502 visual cycle indicators provide a simple method of monitoring system operation. The cycle indicator functions without contact and indicates the position of the valve piston by means of a magnet. MCSA2502 visual cycle indicators may be installed in the end of any M2500 valve without indicator pin.

Electrical cycle switches

MC13974B with 1/2-14 NPSM conduit connector

Couples to any M2500 metering valve having a indicator pin and provides an electrical signal each time the divider valve operates. SPDT switch is rated 125 / 250 V, 15 A, 125 V DC, 0.5 A.



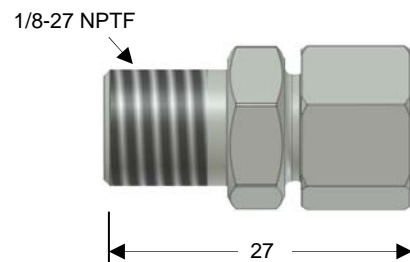
ACCESSORIES FOR VALVE M2500 (continued)

Rupture disc indicators

Instead of the screw plug, the burst disc indicator is screwed into the alternative outlet opening on the required valve segment. The integrated burst plates burst if the pressure in the system is too high. The burst disc indicator is not included in the scope of supply for the basic distributor and it must therefore be ordered separately, specifying its future position on the distributor. The burst disc indicator cannot be combined with a crossport.

Part no.	Burst pressure	Disc color	Replacement disc kit *
1041-2YW	100 bar	yellow	FT15423YWK
1041-2RD	120 bar	red	FT15423RDK
1041-2PR	220 bar	purple	FT15423PRK
1041-2YN	250 bar	yellow/neutral	FT15423YNK

* discs are sold in packs of 10 pieces.



HOW TO ORDER

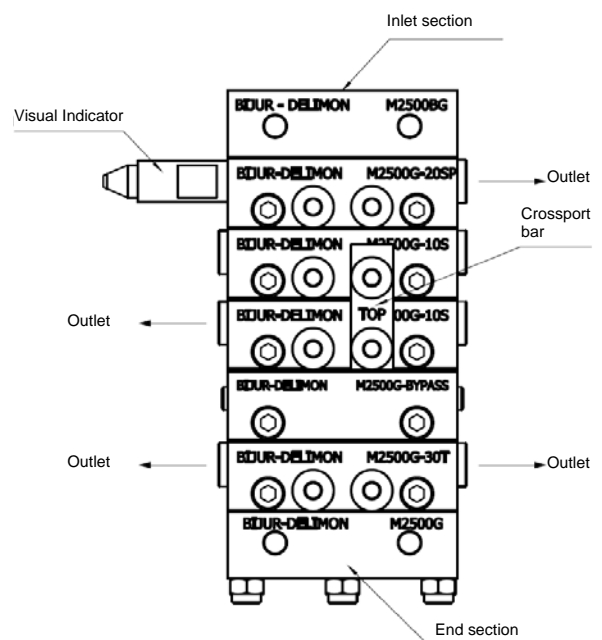
An M2500 distributor consists of a basic distributor and the fitted accessories. When ordering the basic distributor, use the following coding. The required accessories must be selected then.

In the 15-digit code, select the inlet threading and the corresponding inlet segment first. Then select the quantity of the valve segments that are required, whereby the "3" stands for 3 segments and the "0" for 10. The minimum quantity is therefore three and the maximum number of valve segments is ten. Now, select the valve segment or the bypass segment for each segment place. Whether the first valve segment is to be equipped with an indicator pin or with an electric MC13974B cycle switch is entered into the last place in the code. Remember to specify here which side it is to be mounted on. It should also be noted that only the valve segments intended for that purpose can be equipped with an indicator pin or with an electric cycle switch.

Assembly position for accessories has to signify by means of additional information.

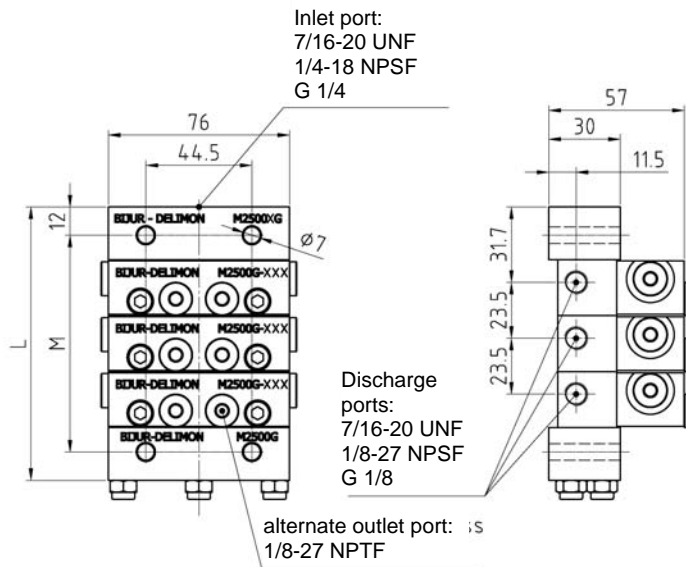
Example:

The M2500_Codierung_20120202.xls file (M2500_Coding_20120202.xls) must be used for this purpose!



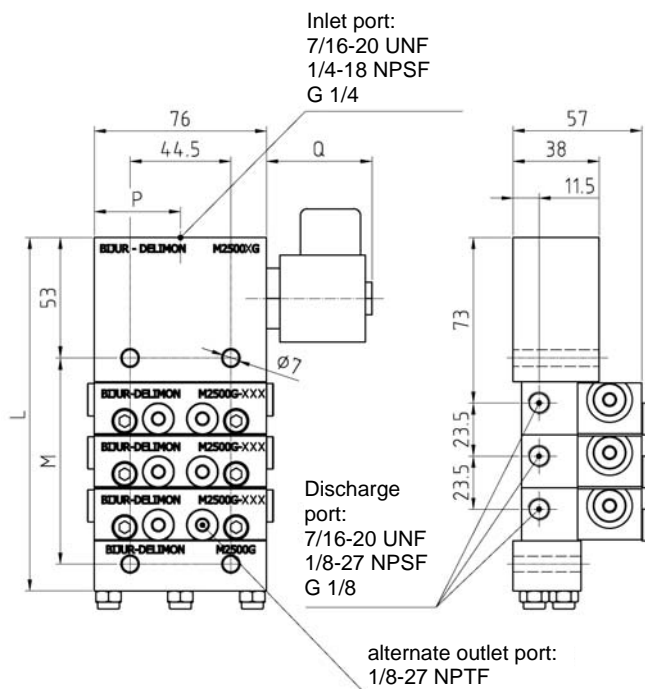
DIMENSIONS (mm)

Valve manifolds with standard inlet



Number of sections	M	L
3	91	115
4	114.5	138.5
5	138	162
6	161.5	185.5
7	185	209
8	208.5	232.5
9	232	256
10	255.5	279.5

Valve manifolds with integral zone control Plug



Number of section	M	L
3	91	156
4	114.5	179.5
5	138	203
6	161.5	226.5
7	185	250
8	208.5	273.5
9	232	297
10	255.5	320.5

Lubricant	P	Q
Oil (MCZ2501 Serie)	38	46
Grease (MCZ2503 Serie)	57	60

EXAMPLE OF ORDER

		Code									
		M25	03	A	00	Z	00	C6	A0	A0	06
Distributor type M2500	Code: M25										
Number of sections 3 sections	Code: 03										
Revision Status A	Code: A										
Monitoring without electrical monitoring	Code: 00										
Thread BSP thread	Code: Z										
Version of valve block without valve block	Code: 00										
Coding of the outlets											
A section 20SL + Pin	Code: C6										
M section 05 T	Code: A0										
E section 05 T	Code: A0										
Accessories											
Overpressure indicator, non-relieving type, 35 bar (for selected number of outlets)	Code: 06										

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For smooth motion*