

Modular dual line valves modules and base manifolds

DDM and SDM modular valves

Measuring valves are the essence of dual-line lubrication systems. They are mounted close to the lubrication points and 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.

The modular valves have many advantages over traditional line mounted models. All working parts are in the module. The 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

- Each module can be individually adjusted within its capacity to suit the bearing requirements.
- All moving points are contained in the module.
- 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.



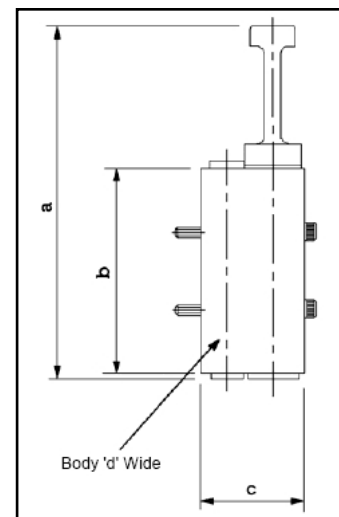
Technical specifications

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 (No. 3 NLGI max)
Materials	Body	Steel - Electrophoretically painted
	Pistons	Hardened steel
	Packing gland	DDM1/SDM1 - Brass DDM5/SDM5 - Brass DDM15/SDM15 - Steel
	Seals	DDM1/SDM1 - Viton DDM5/SDM5 - Viton DDM15/SDM15 - Nitrile
Indicator stem		Stainless steel

Valve size	Discharge per outlet per double cycle, cu. in. (cc)	
	Maximum	Minimum
DDM1	0.06 (1.0)	0.006 (0.1)
SDM1	0.12 (2.0)	0.012 (0.2)
DDM5	0.31 (5.0)	0.031 (0.5)
SDM5	0.61 (10.0)	0.061 (1.0)
DDM15	0.92 (15.0)	0.183 (3.0)
SDM15	1.83 (30.0)	0.366 (6.0)

Mounting

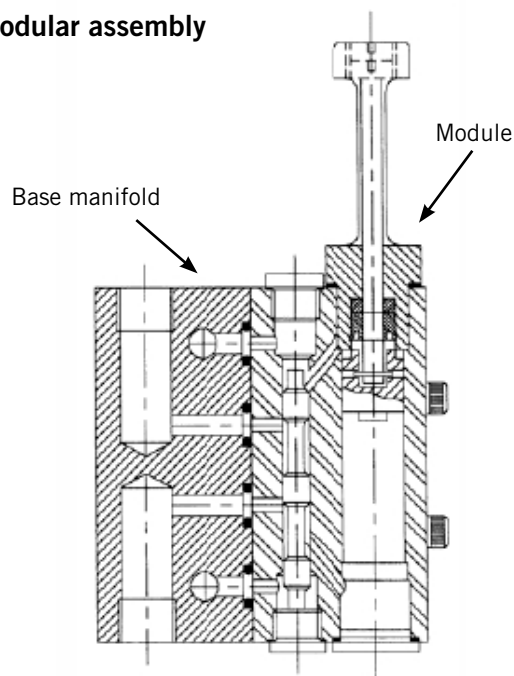
Each module can be supplied with four Viton O-rings and four M4 socket headed cap screws to enable it to be fitted to the selected manifold base. See optional accessories chart on page 4.



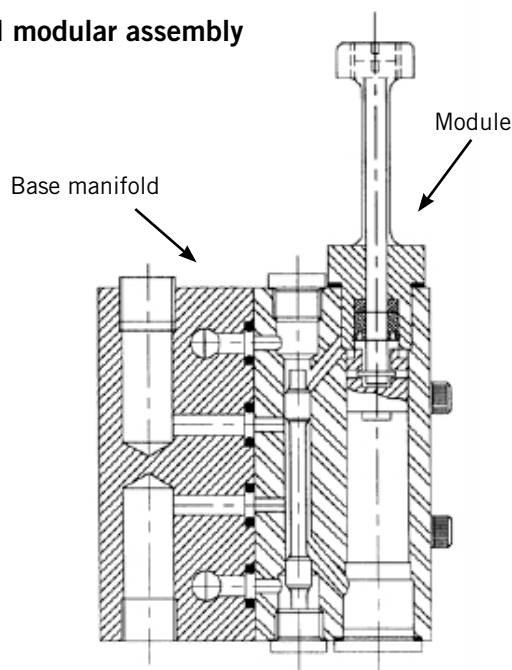
Dimensions

Model	Dimensions (mm)			
	a	b	c	d
DDM1	91	57	29	25
SDM1	91	57	29	25
DDM5	140	80	42	31.7
SDM5	140	80	42	31.7
DDM15	157	88.9	39.7	76.2
SDM15	157	88.9	39.7	76.2

DDM modular assembly



SDM modular assembly



Modular valve base manifolds — models MA1, MA5 and MA15

Description

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 pipework 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 the 'O' rings when he is fitting the module.
- Manifolds are available in various sizes for multiple module configurations.

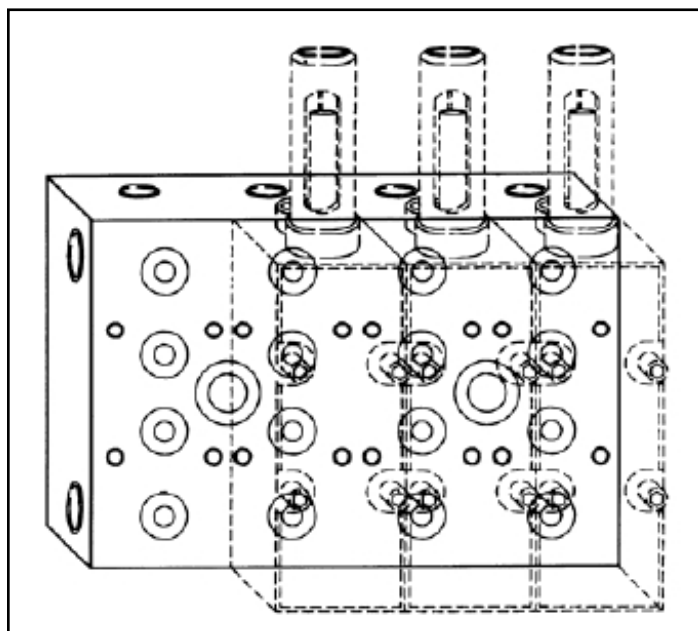
Installation

Each manifold requires two mounting screws, except the two-module unit which requires one central mounting screw. (See accessories list on page 5 for ordering information.)

The manifold should be mounted onto a flat surface on the machine in any aspect before the modules are fitted. This is necessary because the mounting screws are fitted into counterbores which are partially covered by the module.

All ports are suitable for use with standard BSP fittings (parallel or taper). The O-rings are supplied with each module and will be retained in their recesses after being pressed into position.

The manifold bases are supplied with two outlet ports for each module section. If a single outlet port is required, either to suit the installation or to give up to twice the maximum discharge, a single discharge valve module model SDM must be used. The outlet port not required under that module must be plugged.



Technical specifications

Maximum working pressure	5075 PSI (350 bar)
Material (body)	Steel zinc plated

Module ordering information

Choose from the list of options below to customize your product.

Type of module

DDM
SDM

Valve size

DDM1
DDM1 (w/ double indicator)
DDM5
DDM15
SDM1
SDM5
SDM15

Revision level

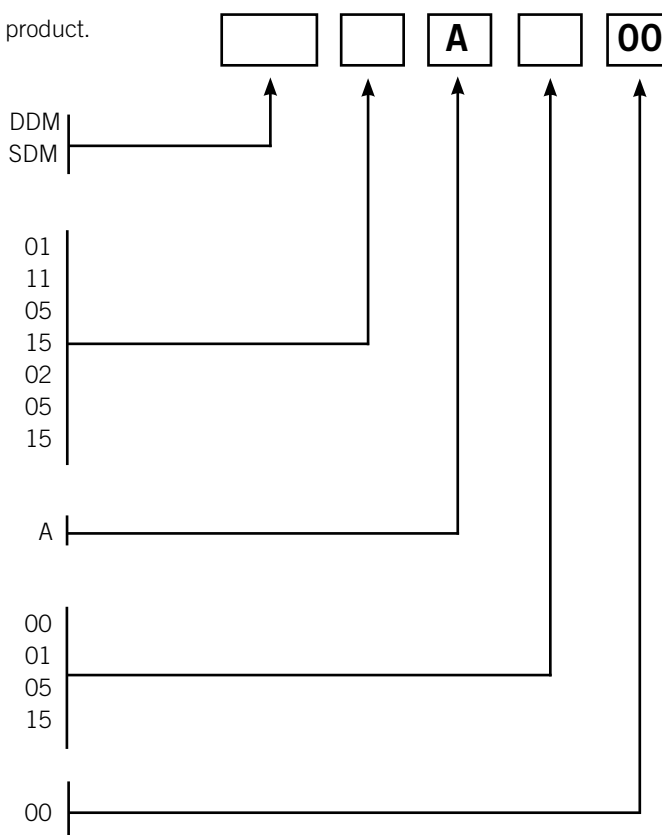
Revision A

Visual indicator

Without
Visual indicator with cover DDM1/SDM1
Visual indicator with cover DDM5/SDM5
Visual indicator with cover DDM15/SDM15

Accessories

Without



MA1/MA15 manifold ordering information

Choose from the list of options below to customize your product.

Manifold

MA1/MA15

Manifold type/number of outlets

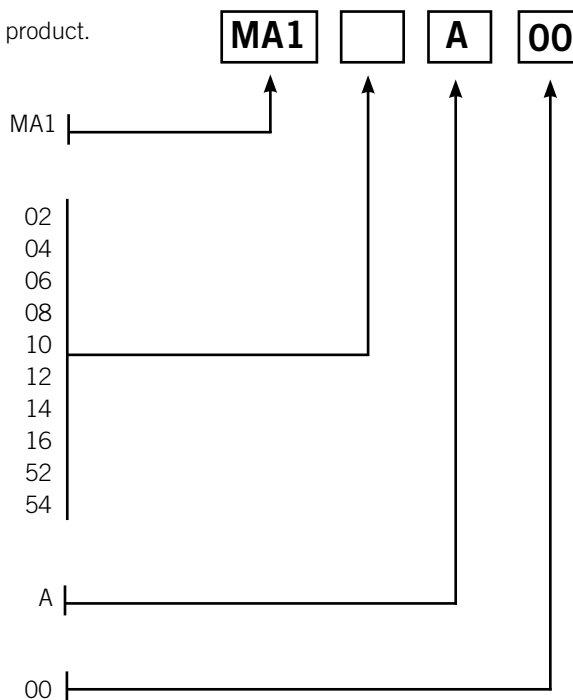
MA1-2
MA1-4
MA1-6
MA1-8
MA1-10
MA1-12
MA1-14
MA1-16
MA15-2
MA15-4

Revision level

Revision A

Accessories

Without



MA5 manifold ordering information

Choose from the list of options below to customize your product.

Manifold

MA5

Manifold type/number of outlets

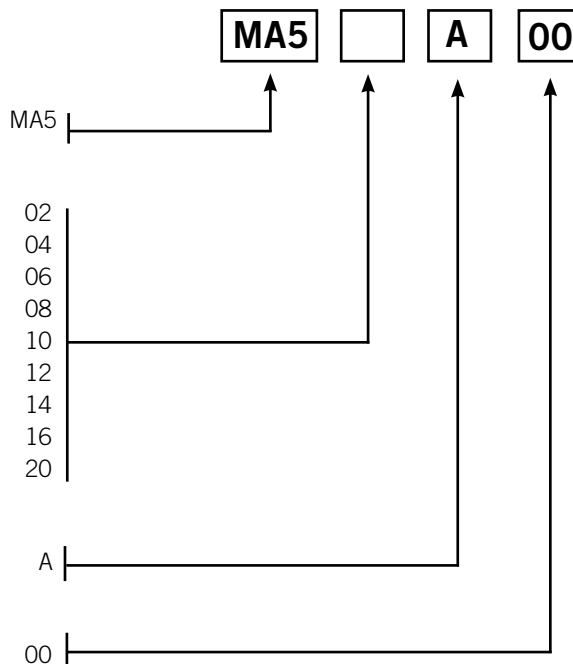
MA5-2
MA5-4
MA5-6
MA5-8
MA5-10
MA5-12
MA5-14
MA5-16
MA5-20

Revision level

Revision A

Accessories

Without



Accessories

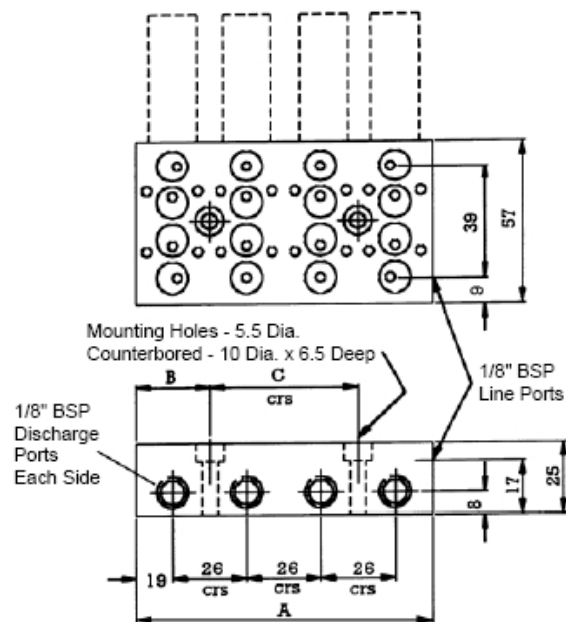
Mounting kit (DDM1/SDM1)	DDM500001E
Mounting kit (DDM5/SDM5/DDM15/SDM15)	DDM150012
Mounting kit (MA1 screws and plugs)	MA1022204E
Mounting kit (MA5/MA15 screws and plugs)	MA515022003E

Spare parts

Visual indicator with cover (DDM1/SDM1)	DDMETA0101
Visual indicator with cover (DDM5/SDM5)	DDMETA0501
Visual indicator with cover (DDM15/SDM15)	DDMETA1501

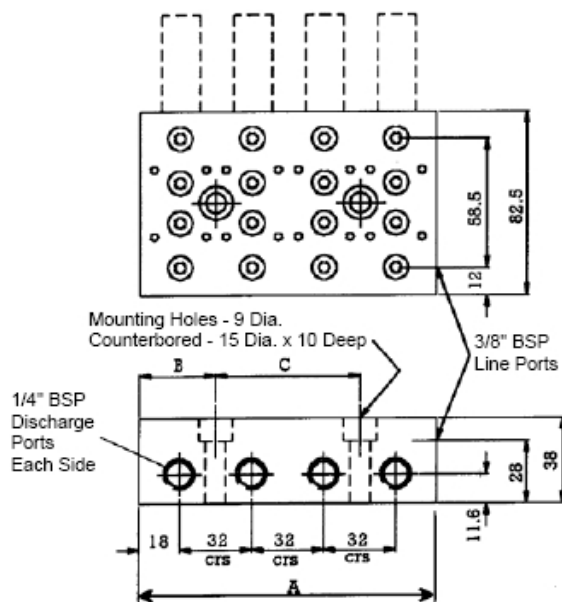
Dimensions

MA1 manifold adapter



Model	No. of modules	No. of outlets	Dimensions (mm)			Weight (lb)
			a	b	c	
MA1-2	1	2	36	7	22	0.88
MA1-4	2	4	64	32	--	1.26
MA1-6	3	6	90	32	26	1.90
MA1-8	4	8	116	32	52	2.51
MA1-10	5	10	142	32	78	3.12
MA1-12	6	12	168	32	104	3.73
MA1-14	7	14	194	32	130	4.34
MA1-16	8	16	220	32	156	4.95

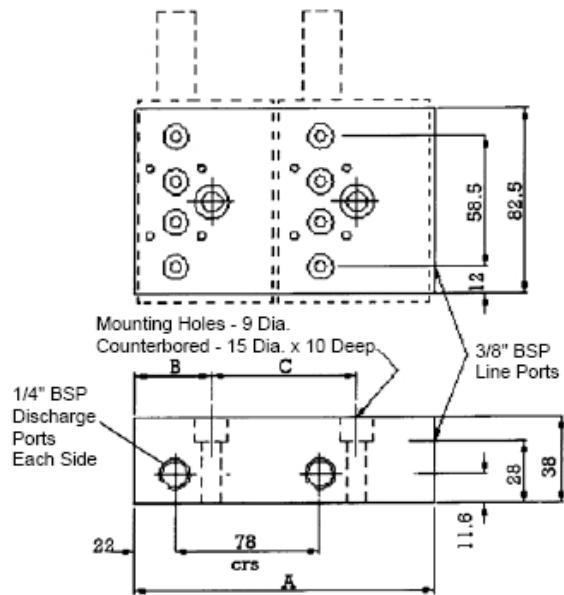
MA5 manifold adapter



Model	No. of modules	No. of outlets	Dimensions (mm)			Weight (lb)
			a	b	c	
MA5-2	1	2	46	9	28	2.43
MA5-4	2	4	68	34	--	3.31
MA5-6	3	6	100	34	32	5.29
MA5-8	4	8	132	34	64	7.05
MA5-10	5	10	164	34	96	8.81
MA5-12	6	12	196	34	128	10.57
MA5-14	7	14	228	34	160	12.33
MA5-16	8	16	260	34	192	14.09
MA5-20	10	20	324	34	256	15.85

Dimensions

MA15 manifold adapter



Model	No. of modules	No. of outlets	Dimensions (mm)			Weight (lb)
			a	b	c	
MA15-2	1	2	77	38	--	3.75
MA15-4	2	4	155	38	78	8.38