DFC 27 . . . W/B: Heavy-duty pressure monitor/limiter

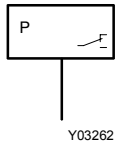
Used for the monitoring and limiting of pressure in liquid, vaporised or gaseous media. Especially suited for installations in which vibrations occur. Tested according to VdTÜV, instruction sheet 'Pressure 100/1'; conforms with the European directive (97/23/EEC, Cat. IV, Module D) on pressure equipment (pressure-equipment directive, PED).
Splash-proof housing of light metal with transparent, impact-proof, thermoplastic cover; upper switching point is variable and sealable; fixed switching difference; shake-proof snap-action switch with single-pole change-over switch, gold-plated silver contacts; stainless-steel pressure sensor, G½ male thread; screw terminals for wire of up to 2.5 mm²; cable inlet for Pg 13.5.

T03513

Type	Setting range bar	Switching difference bar	Max. sensor values bar	°C	Weight kg
Pressure monitor					
DFC 27B43W F001	0.5...6	0.3	21	110	0.9
Safety pressure limiter with locking facility on rising pressure [1]					
DFC 27B43B F001	0.5...6	0.3	21	110	0.9
DFC 27B52B F001	2.0...16	0.6	21	110	0.9

Contact rating	
as silver contacts [2] for higher loading	
max.	10(2) A, 400 V~
	25 W, 250 V=
min.	100 mA, 24 V
as gold contacts [3] for lower loading	
max.	200 mA, 50 V
min.	1 mA, 6 V
Permissible vacuum loading	–0.7 bar
DFC 27B52	–1.0 bar

Permissible ambient temp.		–40...70 °C
Degree of protection		IP 44 (EN 60529)
		IP 54 [5]
Protection class		I (IEC 60730)
TÜVdotCOM test marks		
Monitor DWFS (SDB) [4]		ID: 0000006021
Limiter SDB		ID: 0000006020
PED		Cat. IV
Wiring diagram:	monitor	A01499
	limiter	A01503
Dimension drawing		M259344
Fitting instructions		MV 2288



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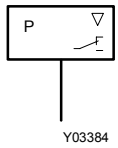

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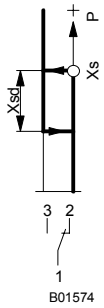

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Accessories

0044529 000 Plug spanner for the setting screws.
0214120 000 Throttling screw of stainless steel for damping pressure surges
0114467 000* 1 m of capillary tubing for damping pressure surges; steel.
0233310 000 Aluminium cover with window (with accessory 0259299 000 = IP 54)
0259189 000* Bracket for off-wall mounting.
0259409 000* Bracket (for 3-point fixing when used with 0259189).
0259299 000 Cable screw fitting Pg 13.5.
0292018 001* Damping screw of stainless steel for arresting pressure surges in low-viscosity media.
0292019 001 Setpoint setting according to customer's specification (± 3% of the setting range).
0292019 002 Setting screw sealed (with accessory 0292019/001 only)
0381141 001* Sealing ring of copper for G½"

*) Dimension drawing or wiring diagram are available under the same number

1) Reset is possible only after the pressure has fallen by the switching difference
2) If under inductive load, take RC circuit into account.
3) If the contacts are ever loaded higher than 200 mA, 50 V, the gold plating will be damaged. The contacts are then classed only as silver contacts, since they lose the properties of gold contacts.
4) As a safety pressure limiter when an external electric locking facility is connected.
5) IP 54 with 0259299 000

Operation

The monitor opens circuit 1-2 at the setpoint X_s and closes it again after the pressure has fallen by the fixed switching difference X_{Sd}. With an external electrical locking facility, it can be used as a safety limiter.
The safety limiter opens circuit 1-2 at the setpoint X_s and locks the change-over contacts mechanically. It can be switched on again by pressing the reset button after the pressure has fallen by the switching difference X_{Sd}.
The vibration-proof snap-action switch has a pre-loaded spring which prevents the change-over mechanism from operating until the switching point has been attained. This ensures that the contacts remain fully closed right up to the switching point, even if operation is very slow.

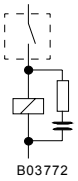
Additional details on materials

Materials which come into contact with the medium:
housing of material no. 1.4104; spring tube of material no. 1.4541.

Additional technical data

Complies with:-	
Directive 73/23/EEC	EN 60730-1/ EN 60730-2-6
EMC directive 89/336/EEC	EN 61000-6-1/ EN 61000-6-2 EN 61000-6-3/ EN 61000-6-4
PED 97/23/EEC, Cat. IV	Pressure 100/1 DIN 3398 T4

Technical notes

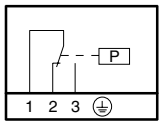


RC circuit under inductive load

For the optimum RC circuitry, refer to the specifications supplied by the manufacturers of the relays, contactors etc. If these are not available, the following rule of thumb can be applied in order to reduce the inductive load:-

- Capacitance of the RC circuit (μF) is equal to or greater than the operating current (A).
- Resistance of the RC circuit (Ω) is approx. equal to the resistance of the coil (Ω).

Wiring diagram



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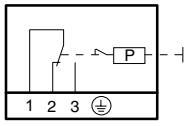

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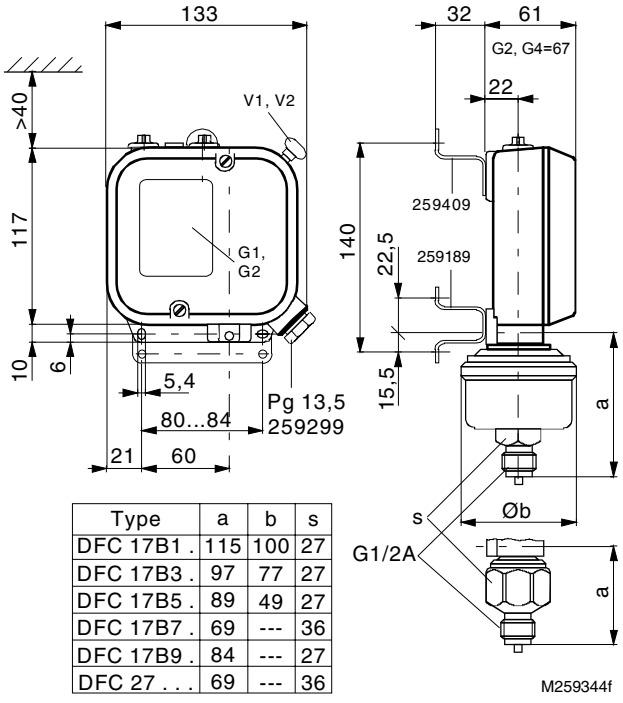
Dimension drawing



Type	a	b	s
DFC 17B1 .	115	100	27
DFC 17B3 .	97	77	27
DFC 17B5 .	89	49	27
DFC 17B7 .	69	---	36
DFC 17B9 .	84	---	27
DFC 27 . . .	69	---	36

Accessories

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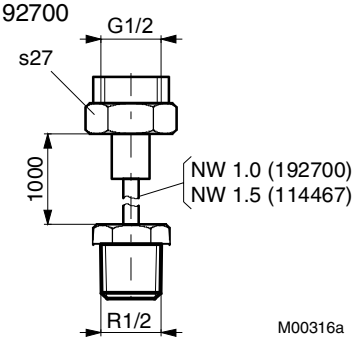
192700



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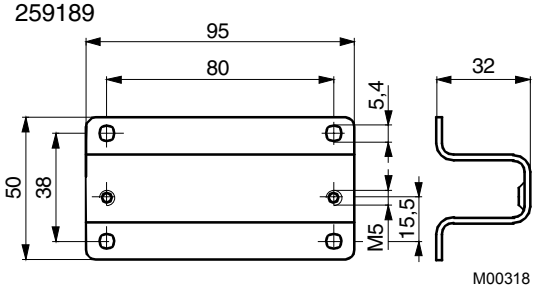

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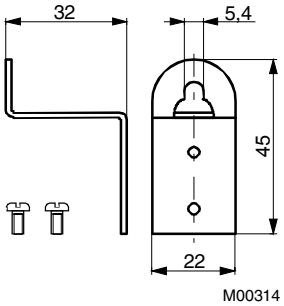

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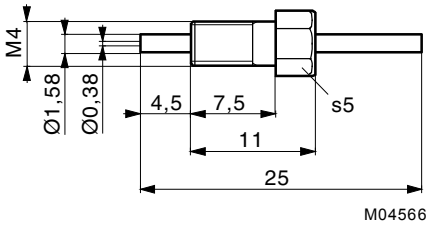

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