

Electro-mechanical hydraulic pressure switches

20D 3 ... 420 bar
G1/4



High accuracy
Microswitch with gold plated contacts
Intrinsically safe operation
Electrical connection:
DIN EN 175 301-803, (DIN 43650)
form A or M20x1,5 (DIN 46320)
Robust metal housing

TECHNICAL DATA

Medium:
Hydraulic oil, lubricated compressed air and other non-inflammable fluids with sliding properties

Operation:
Piston

Temperature:
Fluid Ambient
0°C ... +80°C 0°C ... +80°C
at switching element
+80°C max.

Media viscosity:
Up to 1000 mm²/s

Switching pressure difference/hysteresis:
Fixed - option
Adjustable - option

Repeatability:
±1% of final value
(depending on regulating pressure)

Degree of protection:
IP65 (conforming to DIN 40050)

Mounting position:
Vertical down

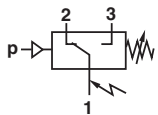
Allowable vibrations (avoid if possible):
Max. 4 g (sinusoidal), 5 Hz max.

Sealing:
≤ 10⁻⁷ mbar • l • s⁻¹

Switching cycles:
Max. 20/min.

MATERIALS

Housing: aluminium die cast (standard)
Sensor: brass and stainless steel
Electrical connection/sensor combinations: see below
Sealing: steel piston with perbunan, lip seal or o-ring



Switching function:
microswitch SPDT
(commutator)

Terminals 1 - 3:
contacts close on
rising pressure

Terminals 1 - 2:
contacts open on
rising pressure

20D Hydraulic - fixed switching pressure difference

Switching pressure range * ¹	Over pressure * ²	Switching pressure difference (typical)		MODELS
[bar]	[bar]	Lower range [bar]	Upper range [bar]	
3 ... 40	300	5	9	1816200
5 ... 63	300	6	13	1816300
5 ... 100	300	6	16	1816400
5 ... 160	300	7	19	1816500
10 ... 220	300	10	25	1816600 0000 001 00
10 ... 420	550	18	42	1816700 0000 002 00

20D Hydraulic - adjustable switching pressure difference

Switching pressure range * ¹	Over pressure * ²	Switching pressure difference (typical)			MODELS
[bar]	[bar]	Lower range [bar]	Upper range Min. [bar]	Max. [bar]	
3 ... 40	300	8	13	25	1806200
5 ... 63	300	10	16	40	1806300
5 ... 100	300	11	16	80	1806400
5 ... 160	300	13	22	120	1806500
10 ... 220	300	14	28	120	1806600 0000 001 00
10 ... 420	550	20	40	330	1806700 0000 002 00

*¹ Atmospheric air pressure

*² Short term pressure peaks should not exceed this value. Normal operation should be within switching pressure range. Final value/over pressure equals maximum test pressure. In applications where vibration is present install a surge damper.

For further information



www.norgren.com/info/en5-032

OPTIONS SELECTOR

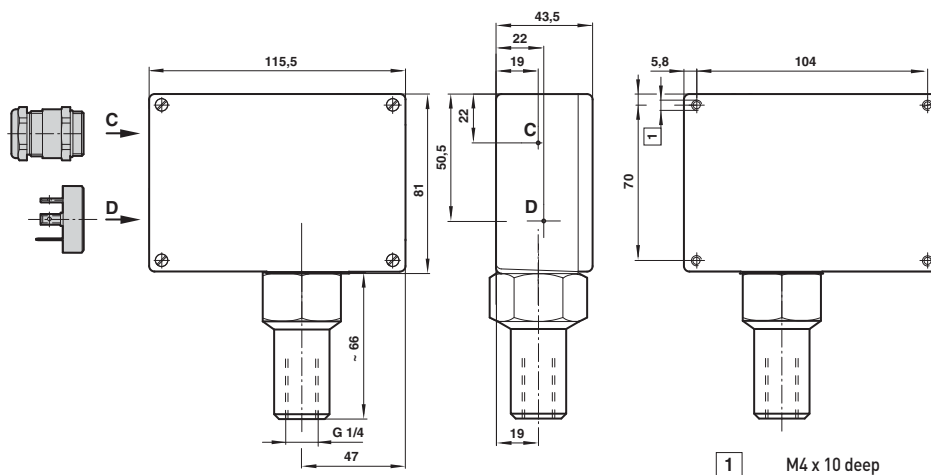
Switching pressure difference		Substitute	18★ ★★ 00	Electrical connection	Substitute
Adjustable		0		DIN EN 175 301-803, form A	00
Fixed		1		M20 x 1,5	05
Switching pressure range (bar)		Substitute			
3 ... 40		62			
5 ... 63		63			
5 ... 100		64			
5 ... 160		65			
10 ... 220		66			
10 ... 420		67			

ACCESSORIES

Connector	Connector	Brackets	Surge damper	Pressure port reducing nipple
0585418 (with LED)	0570110	0574772 (steel) 0553908 (stainless steel)	0553258 (stainless steel G1/4) 0574773 (brass/steel) G1/4)	0550083 (G1/4 ... G1/2) 0574764 (G1/4 ... G3/8) 0574765 (G1/4 ... 1/4 NPT)

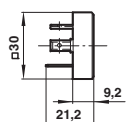
Accessories dimensional drawings - see standard 20D on page 5-033

BASIC DIMENSIONS



Electrical connection

Connector conforming to DIN EN 175301-803 (form A)



Connector M20 x 1,5 conforming to DIN 46320

