20D according to ATEX

Pneumatic pressure switch system for hydraulic and allfluid technology -1 to 400 bar

Applicable in ex-zone 1 and 2 (gases) category II2G, type of protection EEx de IIC T6

Microswitch with gold plated contacts

Electrical connection: connector (M20 x 1,5)

EC design tested: TÜV (technical inspection agency) Exx

Robust metal housing in weather-resisting version



Technical Data

Medium:
Neutral and aggressive gases and liquids

Fluid Port:
G1/4 and 1/2 A

Operating pressure:
-1 ... 400 bar

Temperature:
Fluid
0°C ... +75°C max.

Operating Viscosity:
Max. 1000 mm^2/s

Repeatability:
±1% of final value (referred to pressure control)

Protection degree of (according to DIN 40050):
IP65

Mounting:
Optional
Resistance to shocks and vibrations
(if possible avoid them): 4 g max. (sinusoidal) / 5 Hz max.

Sealing:
$>10^{-7}$ mbar • l • s^{-1}

Pulsations:
Not permitted

Switching cycles:
Max. 20/min.

Material:

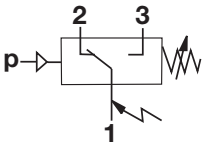
Housing: Aluminium die-cast anodised
Pressure sensor: Brass or stainless steel
Electrical connection/pressure sensor combinationen:
see selection table on page 2
Sealing: Stainless steel bellow, plastic membrane (NBR), steel piston (NBR or FKM)

Ordering Information

See page 2

Further versions with permission:

Design testing as per 97/23/EC
(DIN 3394-3/DIN EN 1854) on request



Switching function:
Microswitch SPDT
Terminals 1 - 3:
Contact close on rising pressure
Terminals 1 - 2:
Contact open on rising pressure

Pressure range for 184 (fixed switching pressure difference)

Type	Pressure range [1] pvu min. to max. (VDI 3283) bar	Over pressure [2] bar	Switching difference typ. value lower range bar	upper range bar	Fluid/Fluid contact parts	Pressure port
184 01 15	-1...0	10	0,2	0,23	Allfluid / 1,4404	G 1/2 A
184 02 15	-1...1	10	0,2	0,25	Allfluid / 1,4404	G 1/2 A
184 04 15	-1...2,5	10	0,22	0,26	Allfluid / 1,4404	G 1/2 A
184 27 15	0...0,16	0,5	0,015	0,02	Pneumatic / 1.4305/1.4301	G 1/4
184 41 15	0...0,6	15	0,06	0,15	Pneumatic / 1.4305/1.4301	G 1/4
184 11 15	0,05...1	10	0,16	0,18	Allfluid / 1,4404	G 1/2 A
184 12 15	0,05...1,6	10	0,16	0,20	Allfluid / 1,4404	G 1/2 A
184 13 15	0,1...2,5	10	0,10	0,22	Allfluid / 1,4404	G 1/2 A
184 14 15	0,5...4	20	0,50	0,55	Allfluid / 1,4404	G 1/2 A
184 15 15	0,5...6	20	0,60	0,70	Allfluid / 1,4404	G 1/2 A
184 16 15	0,5...10	20	0,70	0,90	Allfluid / 1,4404	G 1/2 A
184 17 15	1...16	50	1,00	1,40	Allfluid / 1,4404	G 1/2 A
184 18 15	1...25	50	1,30	1,80	Allfluid / 1,4404	G 1/2 A
184 19 15	5...63	150	2,00	5,00	Allfluid / 1,4404	G 1/2 A
184 65 05	5...160	300	5,0	9,00	Hydraulic / MS, Steel, NBR	G 1/4
184 67 05	10...400	550	7,00	18,00	Hydraulic / MS, Steel, FKM	G 1/4

Pressure range for 185 (adjustabel switching pressure difference)

Type	Pressure range [1] pvu min. to max. (VDI 3283) bar	Over pressure [2] bar	Switching difference typ. value lower range bar	upper range min. bar	upper range max. bar	Fluid/Fluid contact parts	Pressure port
185 01 15	-1 ... 0	10	0,25	0,20	0,80	Allfluid/1.4404	G1/2 A
185 02 15	-1 ... 1	10	0,30	0,20	1,00	Allfluid/1.4404	G1/2 A
185 04 15	-1 ... 2,5	10	0,28	0,20	2,50	Allfluid/1.4404	G1/2 A
185 27 15	0...0,16	0,5	0,025	0,007	0,12	Pneumatic / 1.4305/1.4301	G1/4
185 41 15	0...0,6	15	0,09	0,06	0,80	Pneumatic / 1.4305/1.4301	G1/4
185 12 15	0...1,6	10	0,22	0,16	1,00	Allfluid/1.4404	G1/2 A
185 11 15	0,05...1	10	0,18	0,16	0,80	Allfluid/1.4404	G1/2 A
185 13 15	0,1...2,5	10	0,22	0,18	2,00	Allfluid/1.4404	G1/2 A
185 14 15	0,5...4	20	0,60	0,50	2,50	Allfluid/1.4404	G1/2 A
185 15 15	0,5...6	20	0,70	0,60	5,00	Allfluid/1.4404	G1/2 A
185 16 15	0,5...10	20	0,90	0,70	8,00	Allfluid/1.4404	G1/2 A
185 17 15	1...16	50	1,90	1,60	12,00	Allfluid/1.4404	G1/2 A
185 18 15	1...25	50	2,20	1,60	20,00	Allfluid/1.4404	G1/2 A
185 19 15	5...63	150	5,00	2,00	20,00	Allfluid/1.4404	G1/2 A
185 65 05	5...160	300	22,00	8,00	120,00	Hydraulic / MS, Steel, FKM	G1/4
1856705	10...400	550	35,00	15,00	330,00	Hydraulic / MS, Steel, FKM	G1/4

1) Reference pressure is the atmospheric air pressure
2) Short-term pressure peaks are not allowed to exceed this limit value during operation. Operative utilization of the limit value is not permitted. The limit value corresponds to the maximum testing pressure .

Options selector

18★ ★★ ★★

Switching pressure difference	Substitute
adjustable	5
fixed	4

Pressure sensor Material	Electrical connection	Substitute
MS / NBR	M20 x 1,5; G 1/4	15
1.4404	M20 x 1,5; G 1/2 A	15
MS/1.4404	M20 x 1,5; G 1/4	05

Switching pressure range (bar)	Substitute
-1 ...0	01
-1 ...1	02
-1 ...2,5	04
0,05 ...1	11
0 ...1,6	12
0,1 ...2,5	13
0,5 ...4	14
0,5 ...6	15
0,5 ...10	16
1 ...16	17
1 ...25	18
5 ... 63	19
0 ... 0,16	27
0 ... 0,6	41
5 ... 160	65
10 ... 400	67

Ordering information

Pressure switch ATEX with fixed switching pressure difference, switching point with 4 bar, fluid port G 1/2 A
Operating fluid: Water,
Quote: **1841515**