

# Electro-mechanical hydraulic pressure switches

ATEX certified

18D 5 ... 420 bar  
G 1/4 & Flange



For Ex applications conforming to ATEX 100a:  
Zone 2 category ATEX 3G (gases)  
Zone 22 category ATEX 3D (dusts)  
TÜV approval: EX 8 03 01 11122 007  
Microswitch with gold plated contacts  
High number of switching cycles  
Vibration resistant to 15 g  
Microswitch approved by UL and CSA  
Intrinsically safe operation

**Degree of protection:**

IP65 for DIN EN 175301-803  
IP67 for M12 x 1 connection

**Mounting position:**

Optional

**Electrical connection:**

DIN EN 175301-803 (DIN 43650) form A  
M12 x 1 IEC 947-5-2

**MATERIALS**

Housing: aluminium/steel  
Sealing: teflon/perbunan

**TECHNICAL DATA**

**Medium:**

For neutral, self lubricating fluids,  
hydraulic oil, lube oil, light fuel oil

**Operation:**

Softseal piston

**Approvals:**

TÜV (technical inspection agency): EX 8 03 01 11122 007

Zone 2 category: Ex II 3 G EEx NA / C IIC T6

Zone 22 category: EX II 3 D IP 65 T 80°C

**Temperature:**

Fluid/Ambient

-25\* ... +80°C

\*Please contact our technical service for use below +2°C

**Media viscosity:**

Up to 1000 mm<sup>2</sup>/s

**Switching pressure difference/hysteresis:**

Fixed

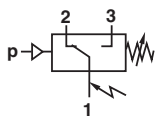
**Repeatability:**

±3%, for vacuum ±4% of final value

(depending on regulating pressure)

**Switching element:**

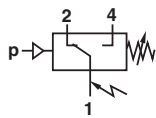
Microswitch with gold plated contacts



Switching function conforming to  
DIN EN 175301-803, form A:  
Microswitch SPDT  
(commutator)

Terminals 1 - 3:  
Contacts close on rising pressure

Terminals 1 - 2:  
Contacts open on rising pressure



Switching function conforming to  
IEC 947-5-2, M12 x 1:  
Microswitch SPDT  
(commutator)

Terminals 1 - 4:  
Contacts close on rising pressure

Terminals 1 - 2:  
Contacts open on rising pressure

## 18D Hydraulic ATEX

DIN plug connection - plug included in scope of supply

The Ex approval refers to the pressure switch in combination with the plug supplied

Pressure range *1) (bar)	Switching pressure difference		Max. over pressure *2) (bar)	Switching cycles (1/min)	Materials pressure sensor		Port size	Weight (kg)	Dimension no.	MODELS
	Lower range (bar)	Upper range (bar)			Body	Seals				
5 ... 70	10,5	15	400	100	AL/Steel	PTFE/NBR	G1/4	0,2	2	0882180
10 ... 160	11	17	400	100	AL/Steel	PTFE/NBR	G1/4	0,2	2	0882280
25 ... 250	13	21	400	100	AL/Steel	PTFE/NBR	G1/4	0,2	2	0882380
40 ... 420	17	38	600	100	AL/Steel	PTFE/NBR	G1/4	0,2	2	0882480
5 ... 70	10,5	15	400	100	AL/Steel	PTFE/NBR	Flange	0,2	3	0883180
10 ... 160	11	17	400	100	AL/Steel	PTFE/NBR	Flange	0,2	3	0883280
25 ... 250	13	21	400	100	AL/Steel	PTFE/NBR	Flange	0,2	3	0883380
40 ... 420	17	38	600	100	AL/Steel	PTFE/NBR	Flange	0,2	3	0883480

\*1) Setpoints should be ideally in the middle of the switching pressure range. Reference pressure = atmospheric pressure.  
The switching pressure must not exceed the listed values.

\*2) Max. values.

For further information



www.norgren.com/info/en5-012

## 18D Hydraulic ATEX

M12 x 1 Connection - plug not included

Max. allowable voltage 30 V

The pressure switch will loose its Ex approval if used with plugs and leads other than those listed below.

Pressure range * <sup>1)</sup> (bar)	Switching pressure difference		Max. over pressure * <sup>2)</sup> (bar)	Switching cycles (1/min)	Materials pressure sensor		Port size	Weight (kg)	Dimension no.	MODELS
	Lower range (bar)	Upper range (bar)			Housing	Seals				
5 ... 70	10,5	15	400	100	AL/Steel	PTFE/NBR	G1/4	0,2	2	0882181
10 ... 160	11	17	400	100	AL/Steel	PTFE/NBR	G1/4	0,2	2	0882281
25 ... 250	13	21	400	100	AL/Steel	PTFE/NBR	G1/4	0,2	2	0882381
40 ... 420	17	38	600	100	AL/Steel	PTFE/NBR	G1/4	0,2	2	0882481
5 ... 70	10,5	15	400	100	AL/Steel	PTFE/NBR	Flange	0,2	3	0883181
10 ... 160	11	17	400	100	AL/Steel	PTFE/NBR	Flange	0,2	3	0883281
25 ... 250	13	21	400	100	AL/Steel	PTFE/NBR	Flange	0,2	3	0883381
40 ... 420	17	38	600	100	AL/Steel	PTFE/NBR	Flange	0,2	3	0883481

\*<sup>1)</sup> Reference pressure is the atmospheric air pressure

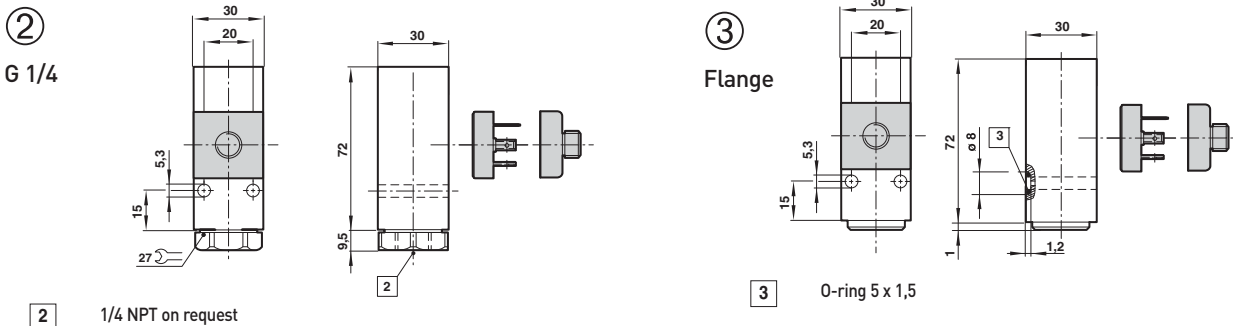
\*<sup>2)</sup> Setpoints should be ideally in the middle of the switching pressure range. Reference pressure = atmospheric pressure. Switching pressure must not exceed the indicated values.

## ACCESSORIES

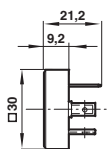
Pressure port reducing nipple	Surge damper	Cover (via adjustment screw)	Connector M12 x 1 90°	Connector M12 x 1 90°
0574767 (brass) 0550083 (stainless steel)	0574773 (brass) 0553258 (stainless steel)	0554737	0523058 (2 m cable, 4-pin) 0523053 (5 m cable, 4-pin)	0523056 (without cable)

Switching capacity, spark quenching / intrinsically safe with d.c. voltage see page 5-007

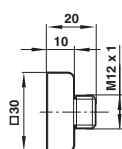
## DIMENSIONS



Electrical connection conforming to DIN EN 175301-803, form A

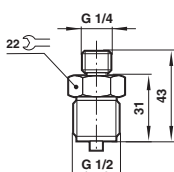


Electrical connection M12 x 1

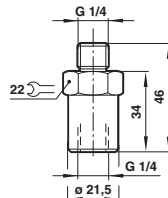


## ACCESSORIES

Pressure port/Reducing nipple  
Material: brass  
Model: 0574767



Surge damper  
Material: brass  
Model: 0574773



Cover  
Model: 0554737

