

33D

Pneumatic electronic pressure switch

- -1 ... 16 bar
Port size: G1/4 or flange
- Display of system pressure (unit bar, psi, mpa programmable)
- Easy programming of switchpoints and extra functions
- Economic solution for industrial applications
- Electronic lock
- Switching status indicated by LED
- With digital and analogue output
- UL-Approval



Technical features

Medium:

For filtered, lubricated or non lubricated compressed air and neutral gases

Pressure range:

-1 ... 1 bar (-14.5 ... 14.5) or
0 ... 16 bar (0 ... 232)

Switching pressure difference:
Programmable

Switching point:

Adjustable between
0 ... 100% of full scale (FS)

Reset point:

Adjustable between 0 ... 100% of full scale (FS)
(smallest adjustable pressure switching difference between switching point and reset point $\geq 0,5\%$ of full scale (FS))

Display:

LCD 4 digits, illuminated, pressure unit programmable bar, psi, mpa (customer specific pressure unit available on request)

Mounting position:
Optional

Total accuracy:
 $\pm 1,5\%$ of full scale (FS) - without temperature sensitivity

Linearity:

$\pm 0,2\% + 1$ Display step size

Shockproof:

30 g, xyz, DIN EN 60068-2-27

Vibrationproof:

3 g, 5 ... 500 Hz, xyz,
DIN EN 60068-2-6

Degree of protection acc. to DIN 40050:
IP65 (with plug mounted)

Weight:

0,09 kg (0.19 lbs)

Temperature sensitivity:

Zero point: $\pm 0,4\%$ of final value (FS) pro 10° Kelvin
Range: $\pm 0,4\%$ of final value

(FS) pro 10° Kelvin

Ambient/Media temperature:

Ambient:

-10 ... $+60^\circ\text{C}$ (14 ... $+140^\circ\text{F}$)

Media:

-10 ... $+80^\circ\text{C}$ (14 ... $+176^\circ\text{F}$)

Air supply must be dry enough to avoid ice formation at temperature below $+2^\circ\text{C}$ ($+35^\circ\text{F}$)
FS = full scale

Materials:

Housing:

Aluminium/Stainless steel

Sensor (fluid-affected parts):

Silizium/Aluminium

Electronical parameters

Electrical connection:
M12 x 1

Power supply:

UB = 10 ... 32 V d.c.
15 ... 32 V d.c. (analogue)
polarity safe

Permissible residual ripple:
10% (within UB)

Current consumption:
< 50 mA

Switching mode:

PNP, potential-bound open collector switching to + UB

Output signal:

Digital: UB minus 1.5 V
Analogue: 4 ... 20 mA

Contact rating:

I_{max} = 500 mA (short circuit proof)

Switching time:

< 10 ms

Signal delay:

On/off 0 ... 20 s

Service life:

Min. 100 million switching cycles

Switching logic:

NO/NC programmable

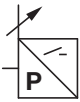
Operating mode:

Standard, hysteresis and window mode separately selectable for each output

Electromagnetic compatibility:

According to EN 61326-1

Technical data


Symbol	Port size	Switching pressure range (bar)	Switching pressure range (psi)	Over pressure *1 (bar)	Over pressure *1 (psi)	Output signal	Model *1)
	G 1/4	- 1 ... 1	-14.5 ... 14.5	10	145	1 x PNP	0863012 *2)
	Flange	- 1 ... 1	-14.5 ... 14.5	10	145	1 x PNP	0863016
	G 1/4	0 ... 16	0 ... 232	30	435	1 x PNP	0863212 *2)
	Flange	0 ... 16	0 ... 232	30	435	1 x PNP	0863216
	G 1/4	- 1 ... 1	-14.5 ... 14.5	10	145	2 x PNP	0863022
	Flange	- 1 ... 1	-14.5 ... 14.5	10	145	2 x PNP	0863026
	G 1/4	0 ... 16	0 ... 232	30	435	2 x PNP	0863222 *2)
	Flange	0 ... 16	0 ... 232	30	435	2 x PNP	0863226
	G 1/4	- 1 ... 1	-14.5 ... 14.5	10	145	1 x PNP/4 ... 20 mA	0863042
	G 1/4	0 ... 16	0 ... 232	30	435	1 x PNP/4 ... 20 mA	0863242 *2)
	Flange	0 ... 16	0 ... 232	30	435	1 x PNP/4 ... 20 mA	0863246

*1) 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

*2) Preference type

Accessories


Pressure port reducing nipple



see below

0574767 (brass)
0550083 (stainless steel)

Surge damper



see below

0574773 (brass)
0553258 (stainless steel)

Connector M12 x 1
4- or 5-pin, 90°



0523058
(2 m cable, 4-core)

4-pin, 90°



0523056
(without cable)

4-pin, straight



0523057
(2 m cable, 4-core)

4-pin, straight



0523055 (without cable)


0523053
(5 m cable, 4-core)

0523052
(5 m cable, 4-core)

0250081 (5 m cable, 5-core,
on PE-requirement *1)

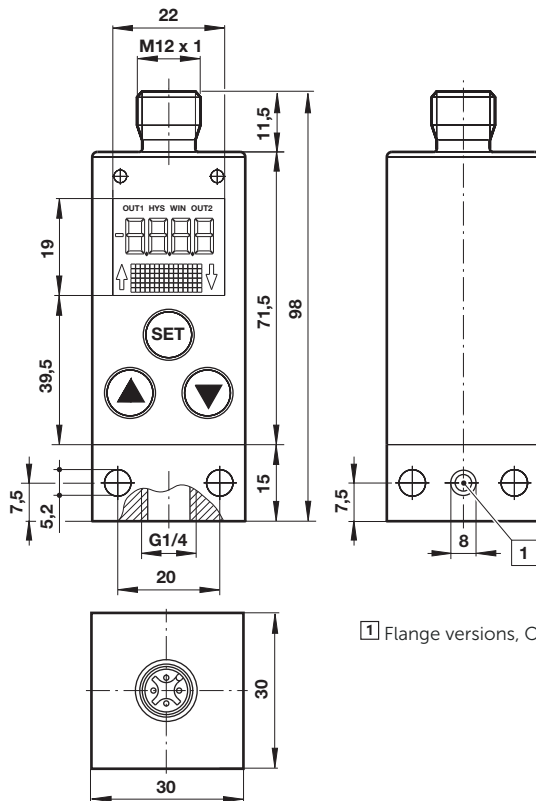
*1) Cable with screening

Electrical connection M12 x 1

	PIN-No.	Signal	Cable
	1	+ UB	brown
	2	Out 2 (PNP) / analogue 4 ... 20 mA	white
	3	0 Volt	blue
	4	Out 1 (PNP)	black
	5	PE (Protected Earth)	grey

Dimensions G1/4 and Flange Versions

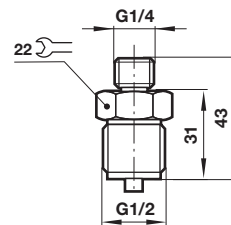
Dimensions in mm
Projection/First angle



1 Flange versions, O-ring Ø5 x 1,5 (NBR 70)

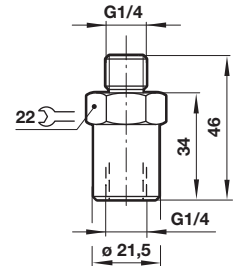
Pressure port reducing nipple

Model: 0574767 (brass)
0550083 (stainless steel)



Surge damper

Model: 0574773 (brass)
0553258 (stainless steel)



Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.