

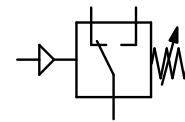
PRESSURE SWITCHES

	DESCRIPTION	PRESSURE RANGE			CONNECTION	SERIES	PAGE
		bar			thread		
PRESSURE	many variations	0,1	... 1	/ 200	G $\frac{1}{8}$ m u. G $\frac{1}{4}$ m	DS16...DS18	12.02
	low pressure, handwheel	0.005	... 0.02	/ 12	G $\frac{1}{8}$ m u. G $\frac{1}{4}$ m	DSP	12.03
	low pressure, plastic	0.003	... 0.03	/ 7	$\frac{1}{8}$ "NPTm	F4200	12.04
	small hysteresis	0.014	... 0.14	/ 7	$\frac{1}{8}$ "NPTm	F4300	12.05
VACUUM	mit Handrad	-0.005	... -0.02	/ -0,7	G $\frac{1}{8}$ m a. G $\frac{1}{4}$ a	DSP-V	12.03
	Kunststoff	-0.001	... -0.01	/ -1	$\frac{1}{8}$ "NPTm	F4200-X	12.04
	auch flanschbar	-0.007	... -0.17	/ -1	$\frac{1}{8}$ "NPTm	F4300-X	12.05
DIFFERENTIAL PRESS.	with handwheel	5	... 20	/ 50 mbar	nipple	DSP-W	12.03
ATEX	gas, EXII 2G Ex ia T4	0.005	... 0.02	/ 12	G $\frac{1}{8}$ m a. G $\frac{1}{4}$ m	DSP-EX	12.03
PNEUM. SIGNAL	pressure	0.07	... 0.35	/ 7	$\frac{1}{8}$ "NPTm	PP700/PP701	12.06
	vacuum	-0.03	... 0.17	/ -0,85	$\frac{1}{8}$ "NPTm	VP700/VP701	12.06
STAINLESS STEEL	many options	0.3	... 1.5	/ 200	G $\frac{1}{4}$ m	DS18	12.02
	low pressure, handwheel	0.005	... 0.02	/ 12	G $\frac{1}{8}$ m a. G $\frac{1}{4}$ m	DSP	12.03



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Description	The pressure switch closes or opens an electrical contact when the desired pressure is reached. If it falls below, the contact will be reset.		
Media	compressed air, non-corrosive gases or liquids		
Overpressure	see chart for max. static pressure, dynamic pressures are 50% lower		
Switch contact	DS16: NO contact, optionally NC contact	DS17/18: SPDT switch	
Contact load	DS16: 2 A at 42 V DC,	DS17: 4 A at 42 V DC,	DS18: 4 A at 250 V AC
Electrical connector	DS16: screw terminal,	DS17/18: spade terminal 6.3 x 0.8 mm, optionally also for 16	
Hysteresis	DS16: 5...20%,	DS17/18: adjustable to 10...30% by factory	
Life cycle	10 ⁶ switching cycles at < 50 bar	Switching frequency	max. 200 cycles/min
Vibration resistance	10 g at 5...200 Hz	Shock resistance	30 g
Certifications	CSA-certified and UL-listed	Mounting position	any
Protection class	IP 00, with coupling socket IP 65		
Temperature range	-30 °C to 100 °C / -22 °F to 212 °F for NBR/Buna-N, -30 °C to 120 °C / -22 °F to 248 °F for EPDM, -5 °C to 120 °C / 23 °F to 248 °F for FKM		
Material	Body: steel, optionally stainless steel at DS18 Elastomer: NBR/Buna-N, optionally EPDM or FKM		



0,1 ... 1/200 bar

Pressure transmission by	Overpressure protection < bar	Measuring tolerance ± bar	Measurement range bar	Order number
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Pressure switch G1/4m, NO 42V		steel, NBR/Buna-N, without protective cap	DS16
diaphragm	300	0.2	0.1 ... 1.0
		0.5	1.0 ... 10
		1.0	10 ... 20
		2.0	20 ... 50
piston	600	5.0	50 ... 150

Pressure switch G1/4m, SPDT 42V		steel, NBR/Buna-N, with coupling socket	DS17
diaphragm	100	0.2	0.3 ... 1.5
	100	0.5	1.0 ... 10
	300	1.0	1.0 ... 10
	300	3.0	10 ... 50
	300	5.0	10 ... 100
piston	600	5.0	50 ... 200

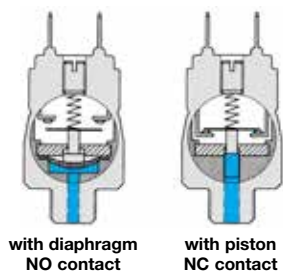
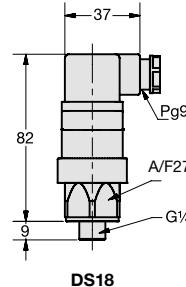
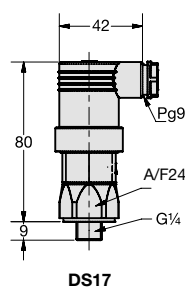
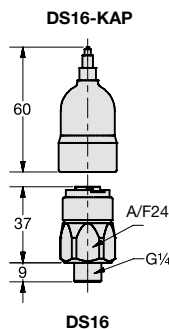
Pressure switch G1/4m, SPDT 250V		steel, NBR/Buna-N, with coupling socket	DS18
diaphragm	100	0.2	0.3 ... 1.5
	300	1.0	1.0 ... 10
	300	3.0	10 ... 50
	300	5.0	10 ... 100
piston	600	5.0	50 ... 200

Special options, add the appropriate letter

EPDM elastomer			DS1.-.E
FKM elastomer			DS1.-.V
free of oil and grease	suitable for oxygen, max. 10 bar		DS1.-.L
NC contact	instead of normally open contact	for DS16	DS1.-.1
spade terminal	6.3 x 0.8 mm, galvanised	for DS16	DS1.-.T
600 bar overpressure	maximum	for DS16	DS16-.U
gold contact	max. 24 V AC/DC, 50 mA	for DS17	DS17-.G
250 V	max. voltage	for DS17	DS17-.W
stainless steel body	0.5...5/200 bar	for DS18	DS18-.S
factory-set pressure	pressure indication falling pressure VF .. rising pressure		DS1.-.VS..

Accessories, enclosed

protection cap	straight, IP65	for DS16	DS16-KAP
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with diaphragm NO contact

with piston NC contact

* Product group

PDF CAD
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Order example:
DS16-A

Description	Adjustable pressure switch for monitoring pressure, vacuum and differential pressure. From the 6 bar device on two turns of the adjusting knob are necessary for the whole adjustment range, so the scale on the knob is inappropriate.		
Media	compressed air, non-corrosive gases or liquids	Overpressure	see chart
Switch contact	SPDT switch with silver contact, optionally gold contact	Hysteresis	see chart
Contact load	2 A at 24 V DC, 6 A at 250 V AC	Vibration resistance	20 g
Electrical connector	AMP spade terminal, 6.3 x 8 mm, according to DIN 46244	Switching time	30 ms
Life cycle	10 ⁶ switching cycles	Protection class	IP 65 w/ coupling socket
Certifications	VDI, TÜV design test, optionally Atex		
Mounting position	any, but indication needed for switch point < 100 mbar		
Temperature range	-20 °C to 85 °C / -4 °F to 185 °F for NBR/Buna-N, EPDM and polyamide, up to 130 °C / 266 °F for FKM		
Material	Body: Zytel, a high-quality polyamide Elastomer: NBR/Buna-N, optionally EPDM, FKM or special FKM (saturated steam-resistant) Pressure connection: brass, at DSP-W polyamide, optionally stainless steel or PVDF		

Dimensions	Overpressure protection	hysteresis max.	Measurement range	Order number
B Ø	< bar	mbar / bar	mbar / bar	
mm mm				

Pressure switch G ¹ / ₄ male, for low pressure				wetted sections: brass and NBR/Buna-N, scale toleranz 10%	DSP-D
68	45	0.5	3 mbar	5 ... 20 mbar	DSP-DB2
		0.5	5 mbar	10 ... 50 mbar	DSP-DB5
		0.5	10 mbar	25 ... 100 mbar	DSP-DC1
		1.0	20 mbar	50 ... 250 mbar	DSP-DC2
		1.0	50 mbar	100 ... 500 mbar	DSP-DC5
		10	150 mbar	0.25 ... 1.0 bar	DSP-D01
		10	250 mbar	0.5 ... 1.5 bar	DSP-D02
		10	500 mbar	1 ... 3.0 bar	DSP-D03
		25	0.5 / 2 bar*	1 ... 6.0 bar	DSP-D06
		25	0.5 / 2 bar*	4 ... 9.0 bar	DSP-D09
		25	0.5 / 2 bar*	7 ... 12 bar	DSP-D12

Pressure switch G ¹ / ₄ male				wetted sections: brass and NBR/Buna-N, scale toleranz 10%	DSP-V
68	45	0.5	3 mbar	-5 ... -20 mbar	DSP-V02
		0.5	5 mbar	-10 ... -50 mbar	DSP-V05
		0.5	10 mbar	-25 ... -100 mbar	DSP-V10
		0.5	20 mbar	-50 ... -125 mbar	DSP-V12
		1.0	25 mbar	-75 ... -200 mbar	DSP-V20
		1.0	30 mbar	-100 ... -300 mbar	DSP-V30
		1.0	75 mbar	-200 ... -500 mbar	DSP-V50
		1.0	75 mbar	-300 ... -700 mbar	DSP-V70

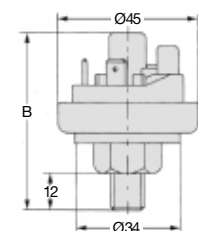
Differential press. switch, nipple Ø 6.5				wetted sections: polyamide and NBR/Buna-N, scale toleranz 10%	DSP-W
77	45	0.1	3 mbar	5 ... 20 mbar	DSP-W20
		0.1	5 mbar	10 ... 50 mbar	DSP-W50

Special options, add the appropriate letter

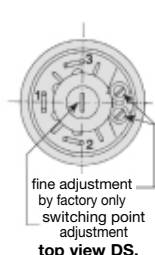
factory-set pressure				DSQ-...
G¹/₈ male	pressure port thread,	(not for DSP-W)		DSP-...1
stainless steel port	pressure port thread, 1.4401,	(not for DSP-W)		DSP-...S
FKM elastomer	max. 130 °C / 266 °F			DSP-...V
EPDM elastomer				DSP-...E
increased overpressure	max. 4 bar for pressure measurement range < 1 bar			DSP-...U
gold contact	max. 24 V AC, 100 mA			DSP-...G
Ex-i-Atex	II 1/2G Ex ia IIB T4 and II 1/2G Ex ia IIC T4			DSP-...EX
Ex-ii-Atex	II 1/2G Ex ia IIB T4 and II 1/2G Ex ia IIC T4			DSP-...SEX

Accessories, enclosed

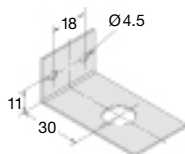
mounting bracket	made of steel, including nut	for G ¹ / ₄	BW14-01
protection cap	angular, cable feedthrough Ø 5 mm	IP44	DS-KAP4
	angular, high-strength cable gland Pg 9	IP54	DS-KAP5
		IP65	DS-KAP6



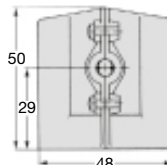
DSP/ DSQ



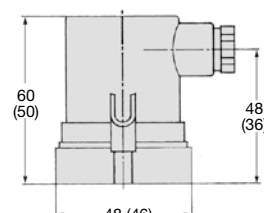
top view DS.



BW14-01

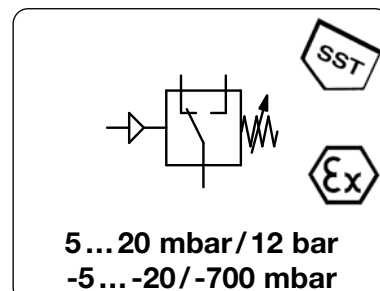


DS-KAP4



DS-KAP5 (-KAP6)

* 0.5 bar at the beginning, 2 bar at the end of the pressure range



5...20 mbar/12 bar
-5...-20/-700 mbar



DSP-D09

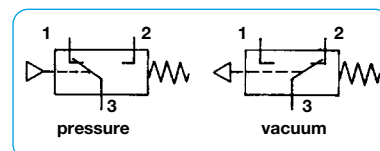


DSP-W



DS-KAP5

DS-KAP4



pin configuration

* Product group

PDF CAD
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Order example
DSP-DB2

Description

High-precision pressure and vacuum switch with electrical outlet signal. The microswitch satisfies UL and CSA regulations. Polysulphone of the body approved by National Sanitation Foundation. The switch also complies with FDA regulations and is suitable for water and food products.

Media

compressed air, non-corrosive gases or liquids

Switch contact

micro SPDT switch, covered by plastic cap

Contact load

3 A at 230 V AC or 1.2 A at 125 V DC

10 A at 230 V AC or 0.5 A at 125 V DC

Electrical connector

0.187" (4.75 mm) quick connector for Molex connector

Repeatability

± 2% FS

Certifications

CSA-certified and UL-listed

Switching time

25 ms

Mounting position

any

Temperature range

4 °C to 66 °C / 40 °F to 150 °F

Material

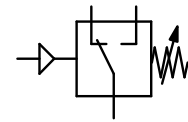
Body: polysulphone

Diaphragm: polyurethane

Spring:

stainless steel

Media non-contact parts: nylon, carbon fibre nylon, acetal



3 ... 30 mbar / 7 bar
-1 ... -10 mbar / -1 bar

Description

Contact load

max. A

Hysteresis

typical max. mbar

Over-pressure

max. bar

Measurement range

bar

Order number



Pressure and Vacuum Switch

pressure port 1/8" NPT male with nylon nipple
Ø 1/16", and covering cap, SPDT switch

F4200

pressure switch

3	3	10	1	0.003 ... 0.03	F4200- 0,5PT
10	7	20	2	0.014 ... 0.14	F4200- 2PT
10	30	50	2	0.035 ... 0.35	F4200- 5PT
10	70	110	3	0.035 ... 1.0	F4200- 15PT
10	120	160	4	0.035 ... 2.1	F4200- 30PT
10	240	350	8	0.035 ... 4.2	F4200- 60PT
10	400	500	8	0.070 ... 7.0	F4200-100PT

vacuum switch

3	1	3	-0.3	-0.001 ... -0.01	F4200-X 4PT
10	17	27	-1	-0.007 ... -0.17	F4200-X 5PT
10	34	50	-1	-0.015 ... -0.34	F4200-X10PT
10	68	100	-1	-0.050 ... -1.00	F4200-X30PT

Special options, add or change the appropriate letter

flush mounting

barbed fitting made of nylon, Ø 1/16", Ø 2 mm

panel mounting

barbed fitting made of nylon, Ø 1/16", Ø 2 mm

manifold mounting

barbed fittings

for FM and PM, made of nylon, Ø 1/16", Ø 2 mm
nylon, Ø 1/8", Ø 4 mm
polysulphone, Ø 1/16", Ø 2 mm
polysulphone, Ø 1/8", Ø 4 mm

gold contact

factory-set switchpoint

± 5%, indicate on order

free of oil and grease

specially cleaned, suitable for oxygen

F4200-...FM

F4200-...PM

F4200-...MM

F4200-...B80 Stand.

F4200-...B85

F4200-...P80

F4200-...P85

F4200-...1B

F4200-...X

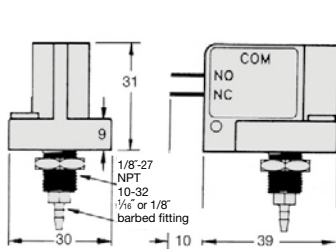
F4200-...L

F4200-...PT

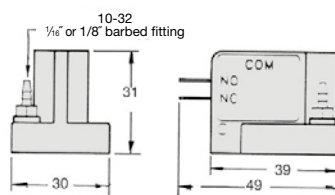
F4200-...FM

F4200-...PM

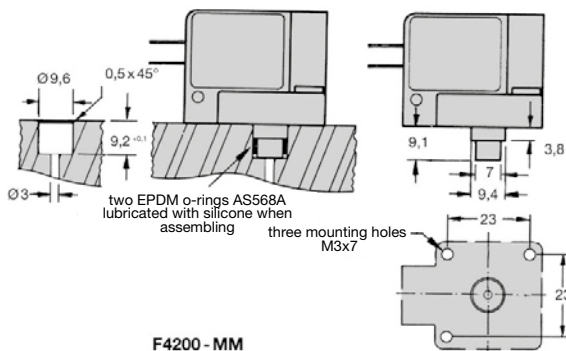
F4200-...MM



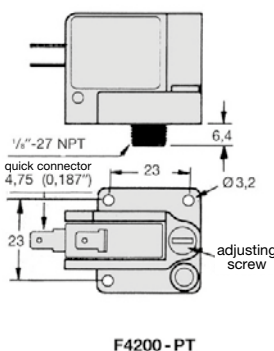
F4200 - PM



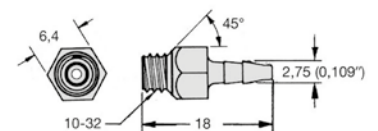
F4200 - FM



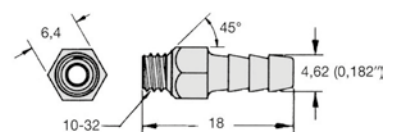
F4200 - MM



F4200 - PT



B80 / P80



B85 / P85

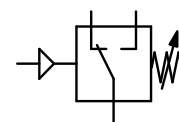
* Product group

PDF CAD
www.aircom.net



Order example:
F4200-0,5PT

Description	Pressure and vacuum switch with electrical outlet signal and low hysteresis. The microswitch satisfies UL and CSA regulations. Polysulphone of the body approved by National Sanitation Foundation. The switch also complies with FDA regulations and is suitable for water and food products.		
Media	compressed air, non-corrosive gases or liquids		
Switch contact	micro SPDT switch, covered by plastic cap		
Contact load	3 A or 4 A at 230 V AC, see chart		
Electrical connector	0.110" (2.8 mm) quick connector for Molex/ETC connector		
Repeatability	± 2% FS		
Certifications	CSA-certified and UL-listed		
Switching time	25 ms		
Mounting position	any		
Temperature range	4 °C to 66 °C / 40 °F to 150 °F		
Material	Body: polysulphone	Spring: stainless steel	
	Diaphragm: polyurethane	Media non-contact parts: nylon, carbon fibre nylon, acetal	



14 ... 140 mbar / 7 bar
-7 ... -170 mbar / -1 bar

Switches



12

Description	Contact load	Hysteresis typical	Hysteresis max.	Over-pressure max. bar	Measurement range bar	Order number
	max. A	mbar	mbar	max. bar	bar	



Pressure / vacuum switch, low hysteresis

pressure port 1/8" NPT male, w. covering cap, SPDT switch

F4300

pressure switch	3	7	14	2	0.014 ... 0.14	F4300- 2PT
	4	14	24	2	0.035 ... 0.35	F4300- 5PT
	4	30	41	3	0.035 ... 1.0	F4300- 15PT
	4	40	70	4	0.035 ... 2.1	F4300- 30PT
	4	100	170	8	0.035 ... 4.2	F4300- 60PT
	4	140	240	8	0.070 ... 7.0	F4300-100PT
vacuum switch	4	10	20	-1	-0.007 ... -0.17	F4300-X 5PT
	4	20	34	-1	-0.015 ... -0.34	F4300-X10PT
	4	34	50	-1	-0.050 ... -1.00	F4300-X30PT



F4300-...PT



F4300-...FM



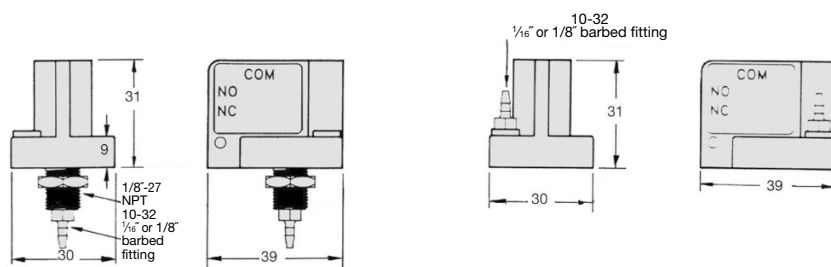
F4300-...PT



F4300-...MM

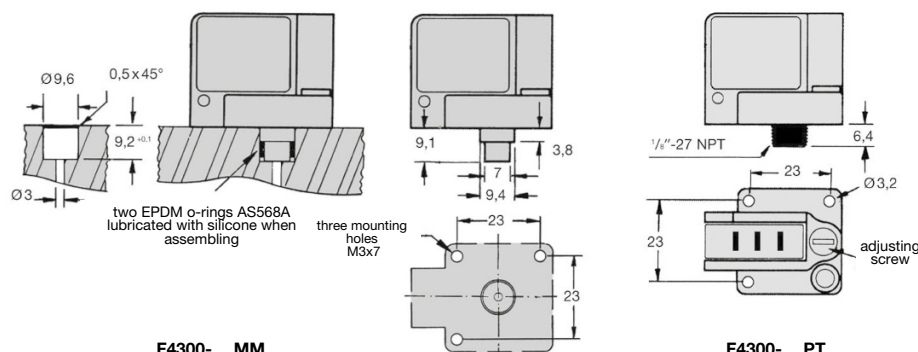
Special options, add or change the appropriate letter

flush mounting	barbed fitting made of nylon, Ø 1/16", Ø 2 mm	F4300-...FM
panel mounting	barbed fitting made of nylon, Ø 1/16", Ø 2 mm	F4300-...PM
manifold mounting		F4300-...MM
barbed fittings	for FM and PM, made of nylon, Ø 1/16", Ø 2 mm	F4300-...B80 Stand.
	nylon, Ø 1/16", Ø 4 mm	F4300-...B85
	polysulphone, Ø 1/16", Ø 2 mm	F4300-...P80
	polysulphone, Ø 1/8", Ø 4 mm	F4300-...P85
gold contact	0.1 A at 125 V AC	F4300-...1B
factory-set switchpoint	± 5%, indicate on order	F4300-...X
free of oil and grease	specially cleaned, suitable for oxygen	F4300-...L



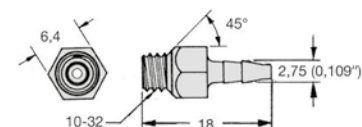
F4300-...PM

F4300-...FM

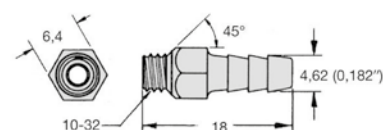


F4300-...MM

F4300-...PT



B80 / P80



B85 / P85

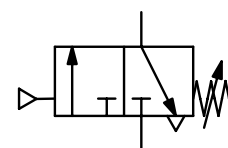
* Product group

PDF CAD
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Order example:
F4300-2PT

Description	Pilot-actuated pressure valve with precisely adjustable pilot setpoint. Perfect for applications which require intrinsic safety, pneumatic sequencing or pressure relief. Valves are normally opened or closed. The switch complies with FDA regulations and is suitable for water and food products.		
Media	5 µm filtered compressed air		
Pressure valve	3-port/2-way air-assisted servo valve with exhaust to atmosphere, NO or NC, made of nylon		
	Supply pressure:	1.4...8 bar, untapped exhaust	
	Air consumption:	max. 0.3 l/min at 2 bar supply pressure or max. 0.7 l/min at 7 bar	
	Pneumatic connection:	quick connector for hose external diameter of 4 mm (5/32")	
	Flow rate:	70 l/min at 7 bar, nominal size DN 0.2, K _v = 0.05	
	Switching time:	64 ms at 6 bar supply pressure	
Accuracy	Pressure switch:	at supply pressure variation of 0.7 bar: < 7 mbar pressure deviation	
	Vacuum switch:	at supply pressure variation of 0.3 bar: < 3 mbar pressure deviation	
	Repeatability:	± 2% FS	
Temperature range	4 °C to 60 °C / 40 °F to 140 °F		
Material	Body: polysulphone	Mounting position	any
	Diaphragm: polyurethane	Spring:	stainless steel
		Media non-contact parts:	nylon, carbon fibre nylon, acetal



70 ... 350 mbar / 7 bar
-30 ... -170 / -850 mbar

Description	Supply pressure of switching valve	Hysteresis typical mbar	max. mbar	Over-pressure max. bar	Measurement range bar	Order number
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Switch with pneumatic output, NO

1/8" NPT male, supply pressure 1.4...8 bar

PP / VP700

pressure switch	1.4 ... 8 bar	15	30	2	0.07 ... 0.35	PP700- 5PT
		20	40	4	0.07 ... 1.0	PP700- 15PT
	NO	20	70	4	0.07 ... 2.1	PP700- 30PT
		35	140	8	0.20 ... 4.2	PP700- 60PT
		50	240	8	0.35 ... 7.0	PP700-100PT
vacuum switch	1.4 ... 8 bar	15	35	-1	-0.03 ... -0.17	VP700- 5PT
		20	40	-1	-0.03 ... -0.34	VP700- 10PT
	NO	35	70	-1	-0.07 ... -0.85	VP700- 30PT

Switch with pneumatic output, NC

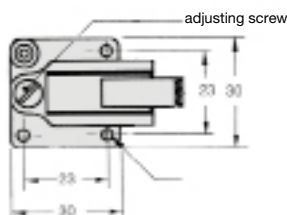
1/8" NPT male, supply pressure 1.4...8 bar

PP / VP701

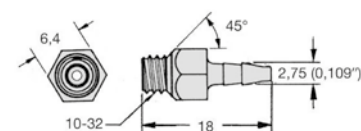
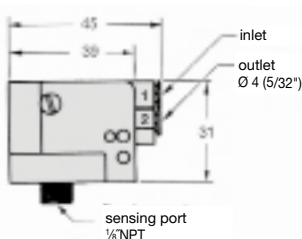
pressure switch	1.4 ... 8 bar	15	30	2	0.07 ... 0.35	PP701- 5PT
		20	40	4	0.07 ... 1.0	PP701- 15PT
	NC	20	70	4	0.07 ... 2.1	PP701- 30PT
		35	140	8	0.20 ... 4.2	PP701- 60PT
		50	240	8	0.35 ... 7.0	PP701-100PT
vacuum switch	1.4 ... 8 bar	15	35	-1	-0.03 ... -0.17	VP701- 5PT
		20	40	-1	-0.03 ... -0.34	VP701- 10PT
	NC	35	70	-1	-0.07 ... -0.85	VP701- 30PT

Special options, add or change the appropriate letter

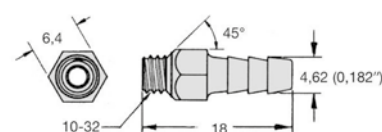
flush mounting	barbed fitting made of nylon,	Ø 1/16", Ø 2 mm	.P70.-... FM
panel mounting	barbed fitting made of nylon,	Ø 1/16", Ø 2 mm	.P70.-... PM
manifold mounting			.P70.-... MM
barbed fitting	for FM and PM,	nylon, Ø 1/16", Ø 2 mm	.P70.-... B80 Stand.
		nylon, Ø 1/8", Ø 4 mm	.P70.-... B85
		polysulphone, Ø 1/16", Ø 2 mm	.P70.-... P80
		polysulphone, Ø 1/8", Ø 4 mm	.P70.-... P85
free of grease and oil	specially cleaned, suitable for oxygen		.P70.-... L



PP / VP70



B80 / P80



B85 / P85

*1 only output signal in the absence of input signal (positive pressure, vacuum)

*2 no output signal in the absence of input signal (positive pressure, vacuum)

* Product group

