

- > -1 ... 16 bar
Port size: G1/4, 1/4 NPT, flange
- > Microswitch with gold plated contacts
- > High number of switching cycles
- > Microswitch approved by UL and CSA
- > Intrinsically safe operation
- > Wide range of temperature
- > Pressure switch suitable for -55°C on request
- > Shock and vibration resistant to EN 61373, Category 1, class A and B


Technical features
Medium:

For neutral, gaseous and liquid fluids, non-combustible

Operation:

Diaphragm

Operating pressure:

-1 ... 16 bar (-14 ... 232 psi)

Repeatability:

0,2 ... 2 bar (2.9 ... 29 psi):

±0,2 bar (2.9 psi)

0,5 ... 8 bar: (7.2 ... 116 psi)

±0,4 bar (5.6 psi)

1,0 ... 10 bar: (7.2 ... 116 psi)

±0,6 bar (8.7 psi)

1,6 ... 16 bar: (23.2 ... 232 psi)

±0,75 bar (10.8 psi)

Port size:

G1/4, 1/4 NPT or flange

Media viscosity:

Up to 1000 mm²/s

Switching pressure difference/hysteresis:

Fixed

Switching cycles:

100 1/min

Life cycle of mechanical parts:

10⁷ switching cycles

Switching element:

Microswitch with gold plated contacts

Mounting position:

Optional

Degree of protection:

IP65 for DIN EN 175301-803

(DIN 43650) form A connection

IP67 for M12 x 1 connection

Electrical connection:

DIN EN 175301-803 (DIN 43650)

form A or M12 x 1 IEC 947-5-2

Weight:

0,2 kg (0.44 lbs)

Operating temperature range:

Ambient/Media (reliability)

Standard

-40 ... +85°C (-40 ... +185°F)

Optional

-55 ... +85°C (-67 ... +185°F)

Air supply must be dry enough

to avoid ice formation at


temperatures below +2°C (+35°F)

Materials:


Body: Aluminium (brass)

Seals: EPDM, VMQ, NBR

Technical data
DIN plug connection – plug included in scope of supply

Symbol	Port size	Pressure range *1)		Switching pressure difference				Materials press sensor		Drawing No.	Model
		(bar)	(psi)	Lower range (bar)	Upper range (bar)	psi)	psi)	Body	Seal		
	Female, 1/4"	-1 ... 0	-14 ... 0	0,2	2,9	0,4	5,8	AL anodized	EPDM, VMQ	2	088#157
	Female, 1/4"	0,2 ... 2	2,9 ... 29	0,25	3,62	0,45	6,52	AL anodized	EPDM, VMQ	2	088#257
	Female, 1/4"	0,5 ... 8	7,2 ... 116	0,4	5,8	0,9	13,0	AL anodized	EPDM, VMQ	1	088#357
	Female, 1/4"	1 ... 10	7,2 ... 116	0,45	6,52	1,0	14,5	AL anodized	EPDM, VMQ	1	088#457
	Female, 1/4"	1 ... 16	23,2 ... 232	0,5	7,2	1,1	15,9	AL anodized	EPDM, VMQ	1	088#657
	Flange	0,2 ... 2	2,9 ... 29	0,25	3,62	0,45	6,52	AL anodized	EPDM, VMQ, NBR	3	088#1257
	Flange	0,5 ... 8	7,2 ... 116	0,4	5,8	0,9	13,0	AL anodized	EPDM, VMQ, NBR	3	088#1357
	Flange	1 ... 10	7,2 ... 116	0,45	6,52	1,0	14,5	AL anodized	EPDM, VMQ, NBR	3	088#1457
	Flange	1 ... 16	23,2 ... 232	0,5	7,2	1,1	15,9	AL anodized	EPDM, VMQ, NBR	3	088#1657

M12 x 1 Connection – plug not included, max. allowable voltage 30

Symbol	Port size	Pressure range *1)		Switching pressure difference				Materials press sensor		Drawing No.	Model
		(bar)	(psi)	Lower range (bar)	Upper range (bar)	psi)	psi)	Body	Seal		
	Female, 1/4"	0,2 ... 2	2,9 ... 29	0,25	3,62	0,45	6,52	AL anodized	EPDM, VMQ	2	088#258
	Female, 1/4"	1 ... 10	7,2 ... 116	0,45	6,52	1,0	14,5	AL anodized	EPDM, VMQ	1	088#458

Please insert '0' for ISO G and '4' for NPT thread

*1) Setpoints should be ideally in the middle of the switching pressure range. Reference pressure = atmospheric pressure.

Switching pressure must not exceed the indicated values.



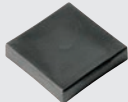
Option selector






088★★5★

Fluid port	Substitute
G1/4	0
Flange	1
1/4 NPT	4
Pressure range (bar)	Substitute
-1 ... 0	1
0,2 ... 2	2
0,5 ... 8	3
1 ... 10	4
1 ... 16	6

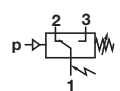
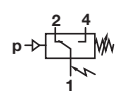
Electrical connection	Substitute
DIN EN 175301-803 (DIN 43650) form A	7
M12x1 IEC 947-5-2	8

Accessories

<p>Pressure port reducing nipple</p>  <p>Page 4 0574767 (brass) 0550083 (stainless steel)</p>	<p>Surge damper</p>  <p>Page 4 0574773 (brass) 0553258 (stainless steel)</p>	<p>Cover</p>  <p>Page 4 0554737</p>
---	--	---

<p>Connector DIN EN 175301-803</p>  <p>0570110 (Form A)</p>	<p>Connector M 12 x 1 4-pin, 90°</p>  <p>0523058 (2 m cable,4-core) 0523053 (5 m cable,4-core)</p>	<p>Connector M 12 x 1 4-pin, straight</p>  <p>0523056 (without cable)</p>	<p>4-pin, straight</p>  <p>0523057 (2 m cable, 4-core) 0523052 (5 m cable, 4-core)</p>	<p>4-pin, straight</p>  <p>0523055 (without cable)</p>
---	--	---	--	---

Switching function

	<p>Connector DIN EN 175301-803, form A Microswitch SPDT Terminals 1 - 3: Contacts close on rising pressure. Terminals 1 - 2: Contacts open on rising pressure.</p>		<p>Connector M12 x 1 Microswitch SPDT Terminals 1 - 4: Contacts close on rising pressure. Terminals 1 - 2: Contacts open on rising pressure.</p>
---	---	---	--

Switching capacity

Commutator with gold plated contacts

Current type	Load type *2)	U min [V]	Max. permissible persistent current I _{max} [A] at U *1) (UL & CSA)				Electrical life-time
			M12 x 1 30 V	DIN EN 175301-803, form A 30 V	48 V	125 V	
a.c.	Ohmic, inductive	6	0,1	0,1	0,1	0,1	≥ 2 x 10 ⁵ Switching cycles
d.c.	Ohmic, inductive	6	0,1	0,1	—	—	

Reference number: 20/min, Reference temperature: +20°C.

I_{min} = 1 mA at 24 V d.c. or 5 mA at 6 V d.c.

*1) Higher currents (5 A max) will cause a reduction of the durability of the micro-switch contacts. Furthermore additional measures has to be taken to fulfil the EMV regulation 2004/108/EG by the manufacturer

*2) Spark quenching/overload protection will be necessary using inductive loads.

Recommended circuit

Spark quenching and EMV intrinsically safe

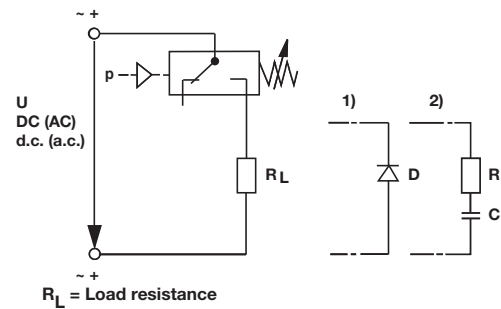
1. Quick diode (D) with t_v ≤ 200 ns, parallel to inductive load.

2. RC link in parallel to load in parallel to switching contact.

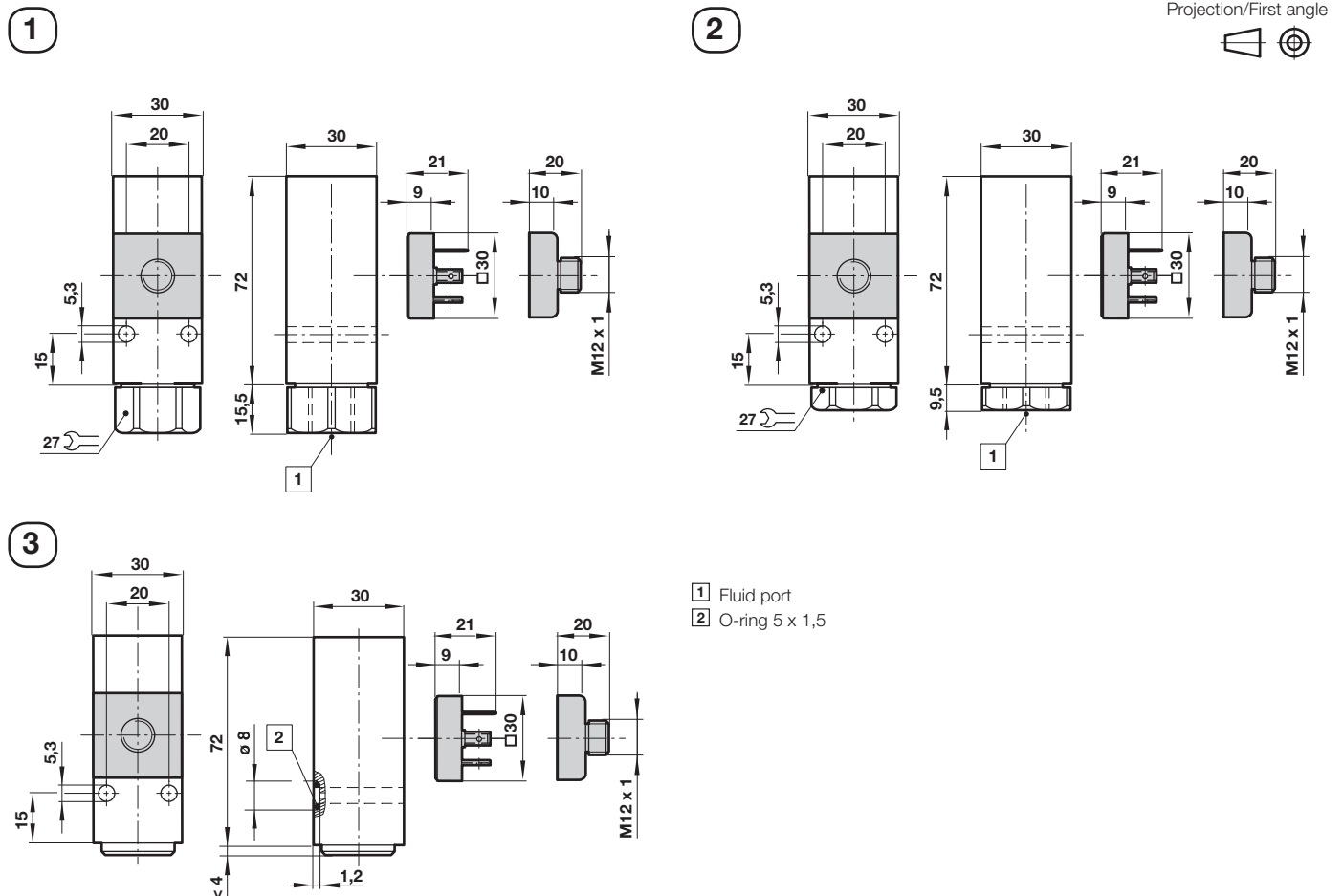
Dimensioning principles:

R_L in Ω ≈ 0,2 x R_{Load} in Ω

C in [μF] ≈ I_{Load} in [A]



Drawings



Adjustable switch point

After releasing the locking screw

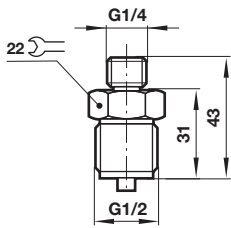
Clockwise rotation = increasing switch point

Counter clockwise rotation = decreasing the switch point



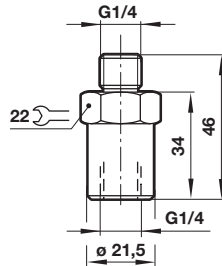
Pressure port reducing nipple

Model: 0574767 (brass)
0550083 (stainless steel)



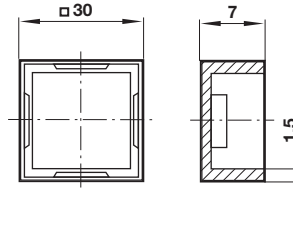
Surge damper

Model: 0574773 (brass)
0553258 (stainless steel)



Cover

Model: 0554737 (plastic)



Dimensions in mm
Projection/First angle



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 IMI 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.