- **0,1 ... 10,5 bar (0,14 ... 152 psi), G1/4, 1/4 NPT**
- **High accuracy**
- **High number of switching cycles**
- **Microswitch approved by UL and CSA**
- **Fixed or adjustable hysteresis**
- **Shock and vibration tested to EN 61373, Category 1, class B**

EN 61373

+70°C (+158°F)

-40°C (-40°F)

Technical features

Medium:
For neutral, gaseous and liquid fluids, non-combustible
Operation:
Diaphragm
Operating pressure range:
Standard
0,1 ... 10,5 bar (1,4 ... 152 psi)
Low pressure
0,1 ... 6 bar (1,4 ... 87 psi)
Operating viscosity:
Up to 1000 mm^2/s

Switching pressure difference/ hysteresis:
Fixed - option
Adjustable - option
Repeatability:
±3% of final value
Switching element:
Microswitch with gold plated or silver alloy contacts
Mounting position:
Optional

Degree of protection:
IP65
Electrical connection:
DIN EN 175301-803; form A;
3 pin & PE;
DIN 43651; M26x1,5; 6 pin & PE
alternative thread for cable gland
Ambient / Media temperature:
-40 ... +70°C (-40 ... 158°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (35°F).

Materials:
Cover and Housing:
Die cast aluminium
Diaphragm: Silicon
Sealing: NBR

Technical data - standard models (pressure range *1) 0,1 ... 10,5 bar (1,4 ... 152 psi)

Symbol	Port size	Switching pressure difference Lower range (bar)	(psi)	Upper range (bar)	(psi)	Switch type *2)	Circuit	Circuit diagram no. *3)	Electrical base Interface according	Weight (kg)	Dim. No.	Model
	G1/4	0,35	5,0	0,75	10,8	A	SPDT	C1	DIN EN 175301-803; form A	0,55	1	21D1101
	1/4 NPT	0,35	5,0	0,75	10,8	A	SPDT	C1	DIN EN 175301-803; form A	0,55	1	21D1201
	G1/4	0,35	5,0	0,75	10,8	A	SPDT	C1	Thread for cable gland *4)	0,50	3	21D1102
	1/4 NPT	0,35	5,0	0,75	10,8	A	SPDT	C1	Thread for cable gland *4)	0,50	3	21D1202
	G1/4	0,4	5,8	0,8	11,6	A	DPDT	C2	DIN 43651; M26x1,5	0,55	2	21D1103
	1/4 NPT	0,4	5,8	0,8	11,6	A	DPDT	C2	DIN 43651; M26x1,5	0,55	2	21D1203
	G1/4	0,4	5,8	0,8	11,6	A	DPDT	C2	Thread for cable gland *4)	0,50	3	21D1104
	1/4 NPT	0,4	5,8	0,8	11,6	A	DPDT	C2	Thread for cable gland *4)	0,50	3	21D1204
	G1/4	0,35	5,0	0,75	10,8	B	SPDT	C1	DIN EN 175301-803; form A	0,55	1	21D1105
	1/4 NPT	0,35	5,0	0,75	10,8	B	SPDT	C1	DIN EN 175301-803; form A	0,55	1	21D1205
	G1/4	0,35	5,0	0,75	10,8	B	SPDT	C1	Thread for cable gland *4)	0,50	3	21D1106
	1/4 NPT	0,35	5,0	0,75	10,8	B	SPDT	C1	Thread for cable gland *4)	0,50	3	21D1206
	G1/4	0,4	5,8	0,8	11,6	B	DPDT	C2	DIN 43651; M26x1,5	0,55	2	21D1107
	1/4 NPT	0,4	5,8	0,8	11,6	B	DPDT	C2	DIN 43651; M26x1,5	0,55	2	21D1207
	G1/4	0,4	5,8	0,8	11,6	B	DPDT	C2	Thread for cable gland *4)	0,50	3	21D1108
	1/4 NPT	0,4	5,8	0,8	11,6	B	DPDT	C2	Thread for cable gland *4)	0,50	3	21D1208
	G1/4	0,6	8,7	0,85	12,3	C	SPDT	C3	Thread for cable gland *4)	0,50	3	21D1109
	1/4 NPT	0,6	8,7	0,85	12,3	C	SPDT	C3	Thread for cable gland *4)	0,50	3	21D1209
	G1/4	0,85	12,3	1,1	15,9	D	DPDT	C4	Thread for cable gland *4)	0,50	3	21D1110
	1/4 NPT	0,85	12,3	1,1	15,9	D	DPDT	C4	Thread for cable gland *4)	0,50	3	21D1210

*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.
*2) Electrical details on page 3
*3) Details on page 2
*4) Cable gland not included, please order separately.

Technical data - standard models (pressure range *1) 0,1 ... 6 bar (1,4 ... 87 psi)

Symbol	Port size	Switching pressure difference Lower range (bar)	(psi)	Upper range (bar)	(psi)	Switch type *2)	Circuit	Circuit diagram no. *3)	Electrical base Interface according	Weight (kg)	Dim. No.	Model
	G1/4	0,25	3,6	0,55	7,9	A	SPDT	C1	DIN EN 175301-803; form A	0,55	1	21D2101
	1/4 NPT	0,25	3,6	0,55	7,9	A	SPDT	C1	DIN EN 175301-803; form A	0,55	1	21D2201
	G1/4	0,25	3,6	0,55	7,9	A	SPDT	C1	Thread for cable gland *4)	0,50	3	21D2102
	1/4 NPT	0,25	3,6	0,55	7,9	A	SPDT	C1	Thread for cable gland *4)	0,50	3	21D2202
	G1/4	0,35	5,0	0,65	9,4	A	DPDT	C2	DIN 43651; M26x1,5	0,55	2	21D2103
	1/4 NPT	0,35	5,0	0,65	9,4	A	DPDT	C2	DIN 43651; M26x1,5	0,55	2	21D2203
	G1/4	0,35	5,0	0,65	9,4	A	DPDT	C2	Thread for cable gland *4)	0,50	3	21D2104
	1/4 NPT	0,35	5,0	0,65	9,4	A	DPDT	C2	Thread for cable gland *4)	0,50	3	21D2204
	G1/4	0,25	3,6	0,55	7,9	B	SPDT	C1	DIN EN 175301-803; form A	0,55	1	21D2105
	1/4 NPT	0,25	3,6	0,55	7,9	B	SPDT	C1	DIN EN 175301-803; form A	0,55	1	21D2205
	G1/4	0,25	3,6	0,55	7,9	B	SPDT	C1	Thread for cable gland *4)	0,50	3	21D2106
	1/4 NPT	0,25	3,6	0,55	7,9	B	SPDT	C1	Thread for cable gland *4)	0,50	3	21D2206
	G1/4	0,35	5,0	0,65	9,4	B	DPDT	C2	DIN 43651; M26x1,5	0,55	2	21D2107
	1/4 NPT	0,35	5,0	0,65	9,4	B	DPDT	C2	DIN 43651; M26x1,5	0,55	2	21D2207
	G1/4	0,35	5,0	0,65	9,4	B	DPDT	C2	Thread for cable gland *4)	0,50	3	21D2108
	1/4 NPT	0,35	5,0	0,65	9,4	B	DPDT	C2	Thread for cable gland *4)	0,50	3	21D2208
	G1/4	0,5	7,2	0,8	11,6	C	SPDT	C3	Thread for cable gland *4)	0,50	3	21D2109
	1/4 NPT	0,5	7,2	0,8	11,6	C	SPDT	C3	Thread for cable gland *4)	0,50	3	21D2209
	G1/4	0,65	9,4	0,9	13,0	D	DPDT	C4	Thread for cable gland *4)	0,50	3	21D2110
	1/4 NPT	0,65	9,4	0,9	13,0	D	DPDT	C4	Thread for cable gland *4)	0,50	3	21D2210

*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.
*2) Electrical details on page 3
*3) Details see below
*4) Cable gland not included, please order separately.

Option selector

21D★★★★

Pressure range	Substitute
0,1 ... 10 bar (standard)	1
0,1 ... 6 bar (low pressure)	2
Port size	**Substitute**
G1/4	1
1/4 NPT	2

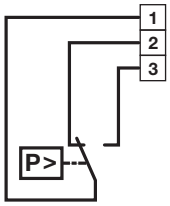
Other modifications fixed pressure settings, pressure range, materials etc. on request

Switch modification Switch type	Circuit type	Electrical base Interface according to	Substitute
A	SPDT	DIN EN 175301-803	01
A	SPDT	Cable gland	02
A	DPDT	DIN 43651	03
A	DPDT	Cable gland	04
B	SPDT	DIN EN 175301-803	05
B	SPDT	Cable gland	06
B	DPDT	DIN 43651	07
B	DPDT	Cable gland	08
C	SPDT	Cable gland	09
D	DPDT	Cable gland	10

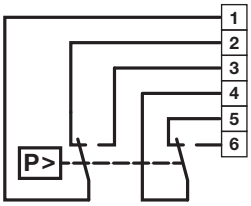
Note: Factory preset options available

Switching function/electrical connection

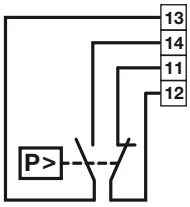
Circuit SPDT
Circuit diagram C1



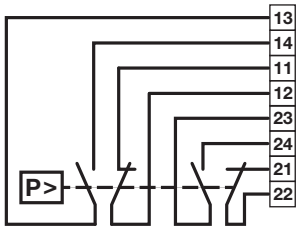
Circuit DPDT
Circuit diagram C2



Circuit SPDT
Circuit diagram C3



Circuit DPDT
Circuit diagram C4



Accessories

Pressure port Reducing nipple

Page 5

Model
0574767 (brass)
0550083 (stainless steel)

Surge damper

Page 5

Model
0574773 (brass)
0553258 (stainless steel)

Connector; Interface according to DIN EN 175301-803; form A

Model
0570110

7 pin connector

Page 5

Model
0660689

Cable gland (M20 x 1,5)

Page 5

Cable Ø	Material	Model
5,0 ... 8,0 mm	Nickel plated brass	0588819
10 ... 14 mm	Nickel plated brass	0588851
7,0 ... 12 mm	Stainless steel 1.4404	0589395
10 ... 14 mm	Stainless steel 1.4404	0589387

Switching capacity

Switch type	Current type	Load type *2)	U min [V]	Max. permanent current Imax [A] at U *1) (UL & CSA) 30 V	125 V	250 V
A	a.c.	Ohmic	12	10	10	10
		Inductive COS ϕ = 0,7		5	5	5
	d.c.	Ohmic		2	0,5	—
		Inductive L/R ≤ 10 ms		2	0,5	—
B *3)	a.c.	Ohmic	5	0,4	0,1	0,05
		Inductive COS ϕ = 0,7		0,4	0,1	0,0,5
	d.c.	Ohmic		0,1	—	—
		Inductive L/R ≤ 10 ms		0,1	—	—
C	a.c.	Ohmic	12	10	10	10
		Inductive COS ϕ = 0,7		6	6	6
	d.c.	Ohmic		10	2	—
		Inductive L/R ≤ 10 ms		2,9	0,7	—
D	a.c.	Ohmic	12	8	8	8
		Inductive COS ϕ = 0,7		4,8	4,8	4,8
	d.c.	Ohmic		5	1,0	—
		Inductive L/R ≤ 10 ms		0,8	0,2	—

*1) Higher currents (5 A max) will cause a reduction of the durability of the micro-switch contacts. Futhermore additional measuements 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.

*3) With gold plated contacts

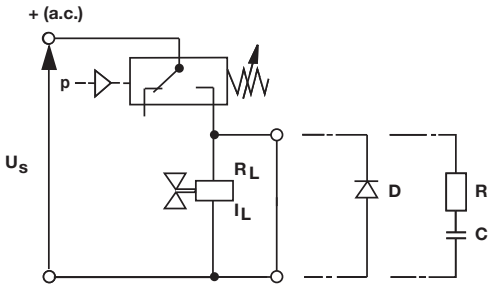
Recommended circuit
Spark quenching and EMV intrinsically safe

1. Quick diode (D) with tv ≤ 200 ms, parallel to inductive load.
2. RC link in parallel to load in parallel to switching contact.

Dimensioning principles:

RL in W ≈ 0,2 x RLoad in W

C in [µF] ≈ ILoad in [A]

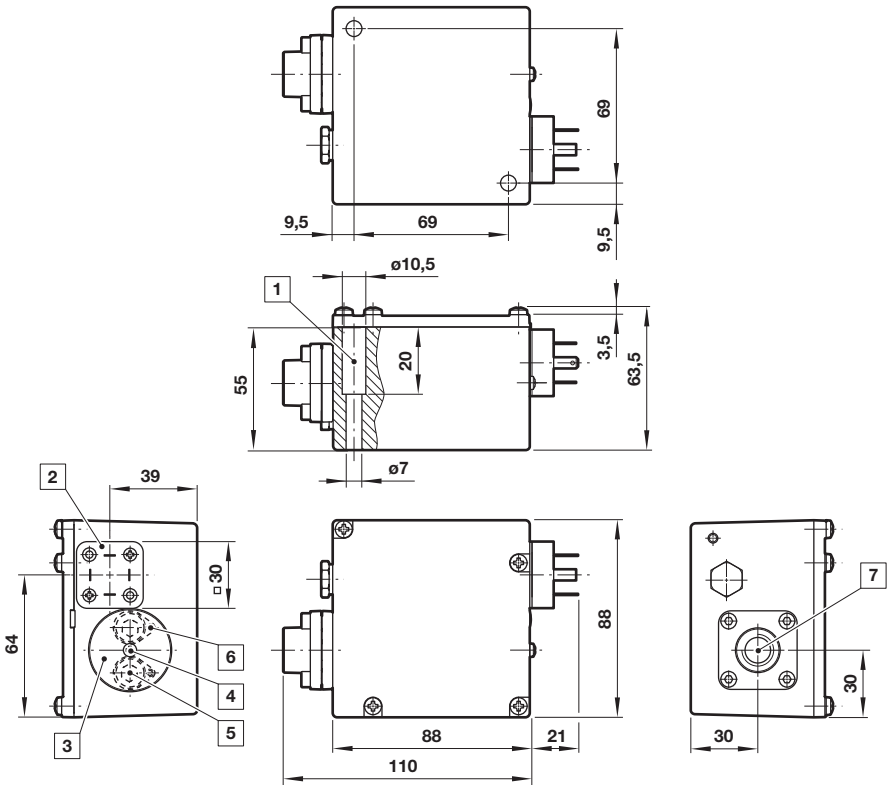


RL = Load resistance

Dimensions

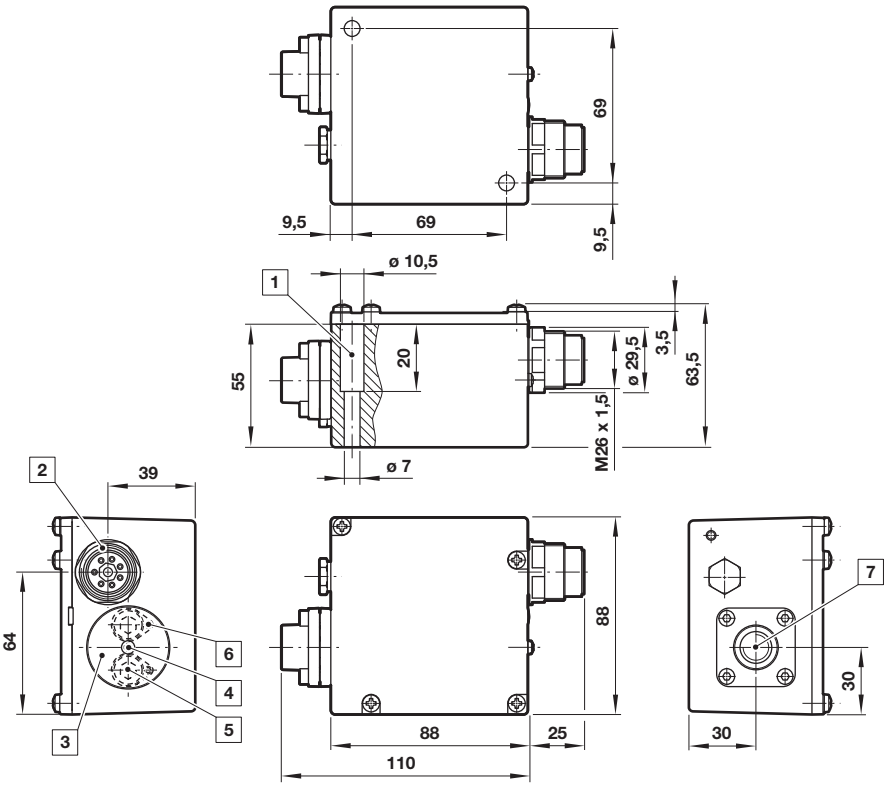
Dimensions shown in mm
Projection/First angle

1



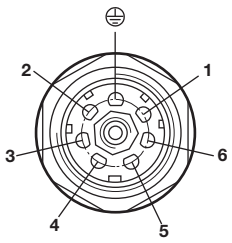
1 Two holes for panel mounting
2 Electrical interface according DIN EN 175 301-803; form A
3 Cover
4 Cover screw; torque 0,5 ... 0,7 Nm
5 Two adjustable screws for pressure setting
6 Two lockable screws; torque 0,5 ... 0,7 Nm; after pressure setting
7 Inlet port - G1/4 or 1/4 NPT

2



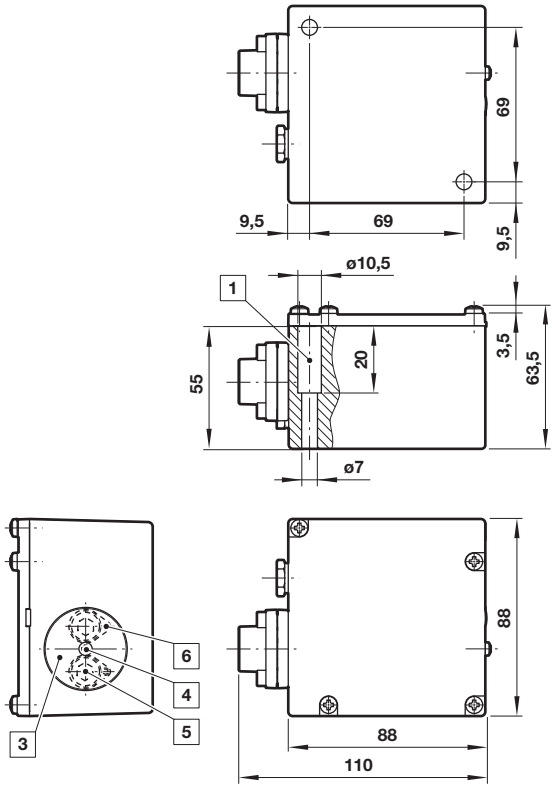
1 Two holes for panel mounting
2 Electrical interface according DIN 43651
3 Cover
4 Cover screw; torque 0,5 ... 0,7 Nm
5 Two adjustable screws for pressure setting
6 Two lockable screws; torque 0,5 ... 0,7 Nm; after pressure setting
7 Inlet port - G1/4 or 1/4 NPT

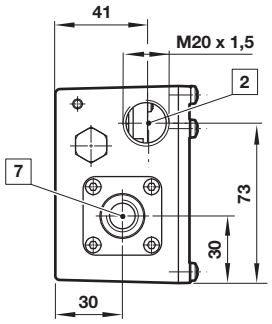
Pin view



3

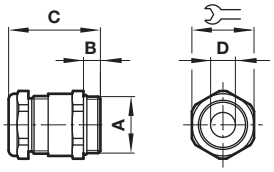
Dimensions shown in mm
Projection/First angle





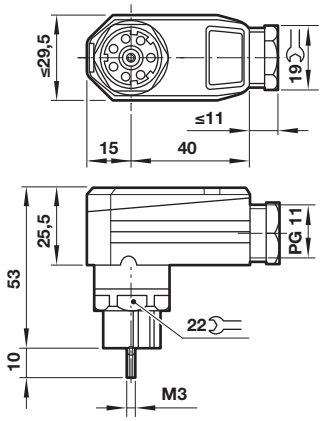
1 Two holes for panel mounting
2 Thread for cable gland
3 Cover
4 Cover screw; torque 0,5 ... 0,7 Nm
5 Two adjustable screws for pressure setting
6 Two lockable screws; torque 0,5 ... 0,7 Nm; after pressure setting
7 Inlet port - G1/4 or 1/4 NPT

Cable gland

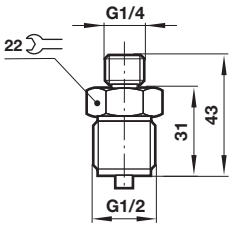


A	B	C	ø D		Model
M20 x 1,5	9	36	5 ... 8	22	0588819
M20 x 1,5	14	39	10 ... 14	24	0588851
M20 x 1,5	14	39	7 ... 12	24	0589395
M20 x 1,5	10	34	10 ... 14	24	0589387

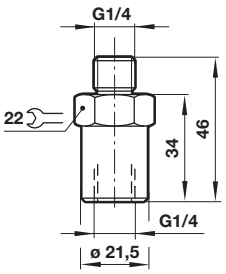
7 Pin connector
Model: 0660689



Pressure port/Reducing nipple Model: 0574767
Material: brass



Surge damper
Model: 0574773
Material: brass



Warning

These products are intended for use in industrial compressed air and rail transport 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.