

Series PM1



AVENTICS™ Series PM1



Pressure Switches, Series PM1

R412010711

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
-0.9 bar

Operating pressure max
0 bar

Compressed air connection type
Internal thread

Compressed air connection
G 1/4

Working pressure min.
-0.9 bar

Working pressure max
0 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
 $\pm 2\%$

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
250 V AC

Power supply connection
With valve plug connector

Mounting types
via through holes

Protection class
IP65

Electrical connection
Plug

Electrical connection
EN 175301-803, form A

Weight
0.13 kg

Material

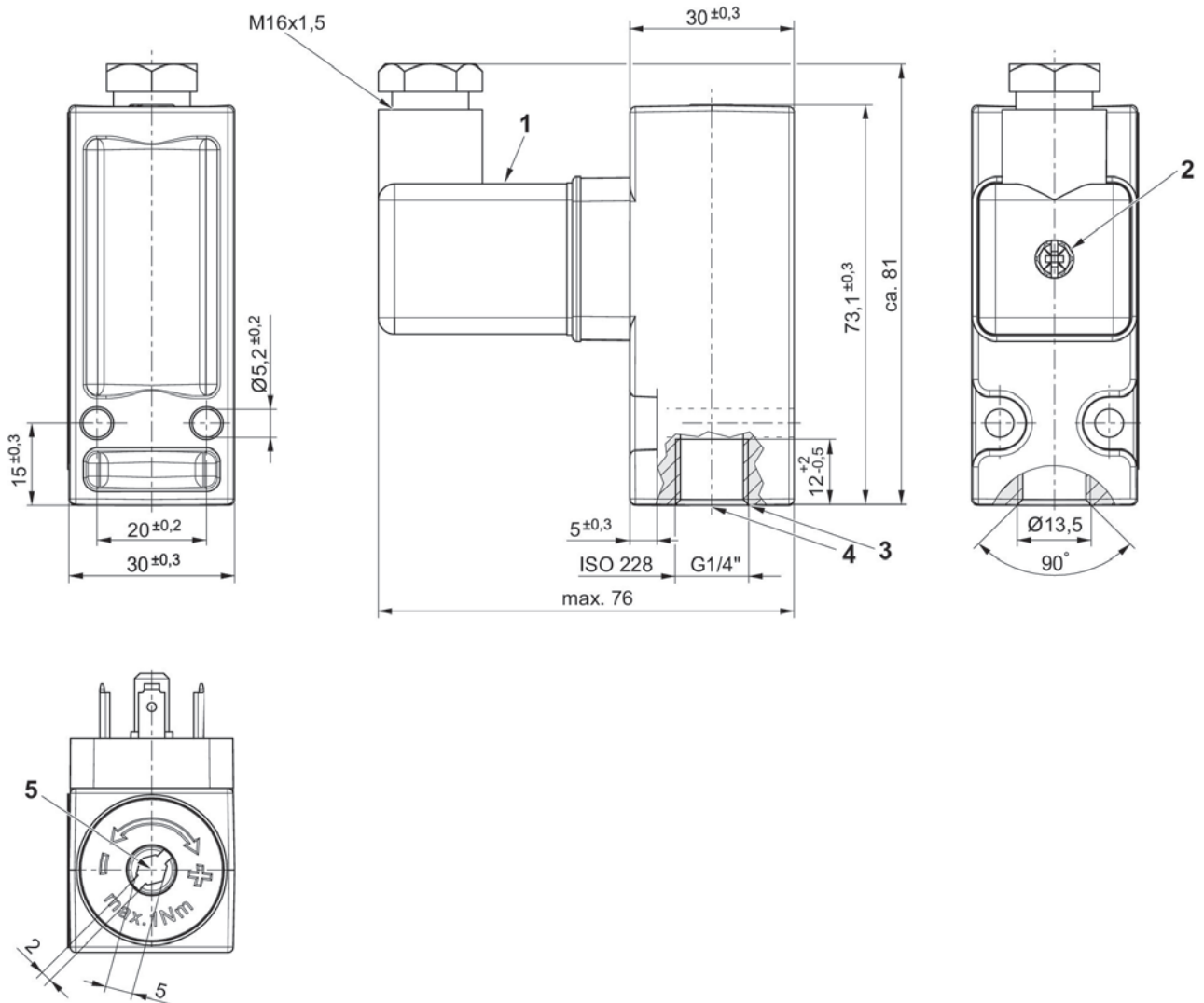
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

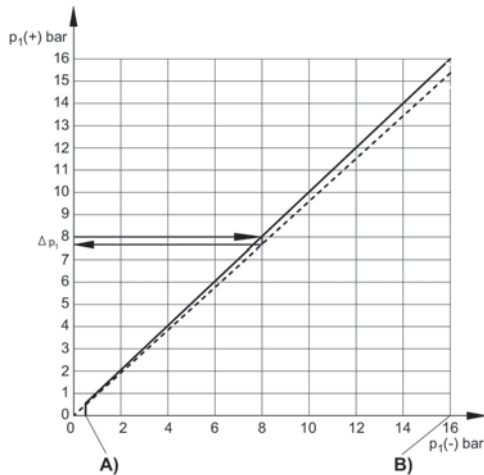
Material electrical connection
Brass

Part No.
R412010711

Dimensions

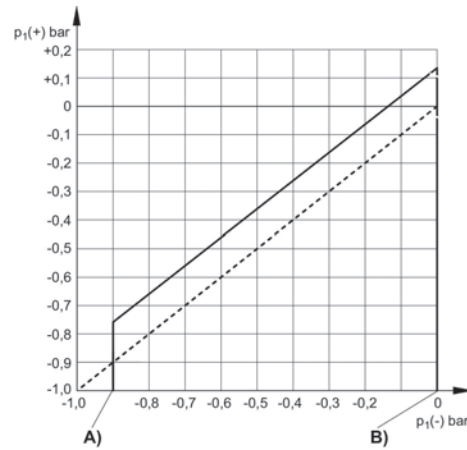


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
 $\Delta p1$ = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar# $\Delta p1$ = 0.4 bar

differential switching pressure characteristic curve (-0,9 – 0 bar)



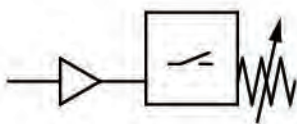
A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I
max. [A] with inductive load

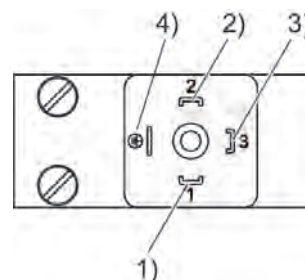
U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	-

max. permissible continuous current I
max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30	5	3
48	5	1,2
60	5	0,8
125	5	0,4
250	5	-



PIN assignment for valve plug connectors



Pin	Allocation
1	+UB
2	break contact
3	NO (make contact)
4	GND

Pressure Switches, Series PM1

R412022752

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
-0.9 bar

Operating pressure max
3 bar

Compressed air connection type
Internal thread

Compressed air connection
G 1/4

Working pressure min.
-0.9 bar

Working pressure max
3 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
 $\pm 2 \%$

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
250 V AC

Power supply connection
Without valve plug connector

Mounting types
via through holes

Protection class
IP65

Electrical connection
Plug

Electrical connection
EN 175301-803, form A

Weight
0.13 kg

Material

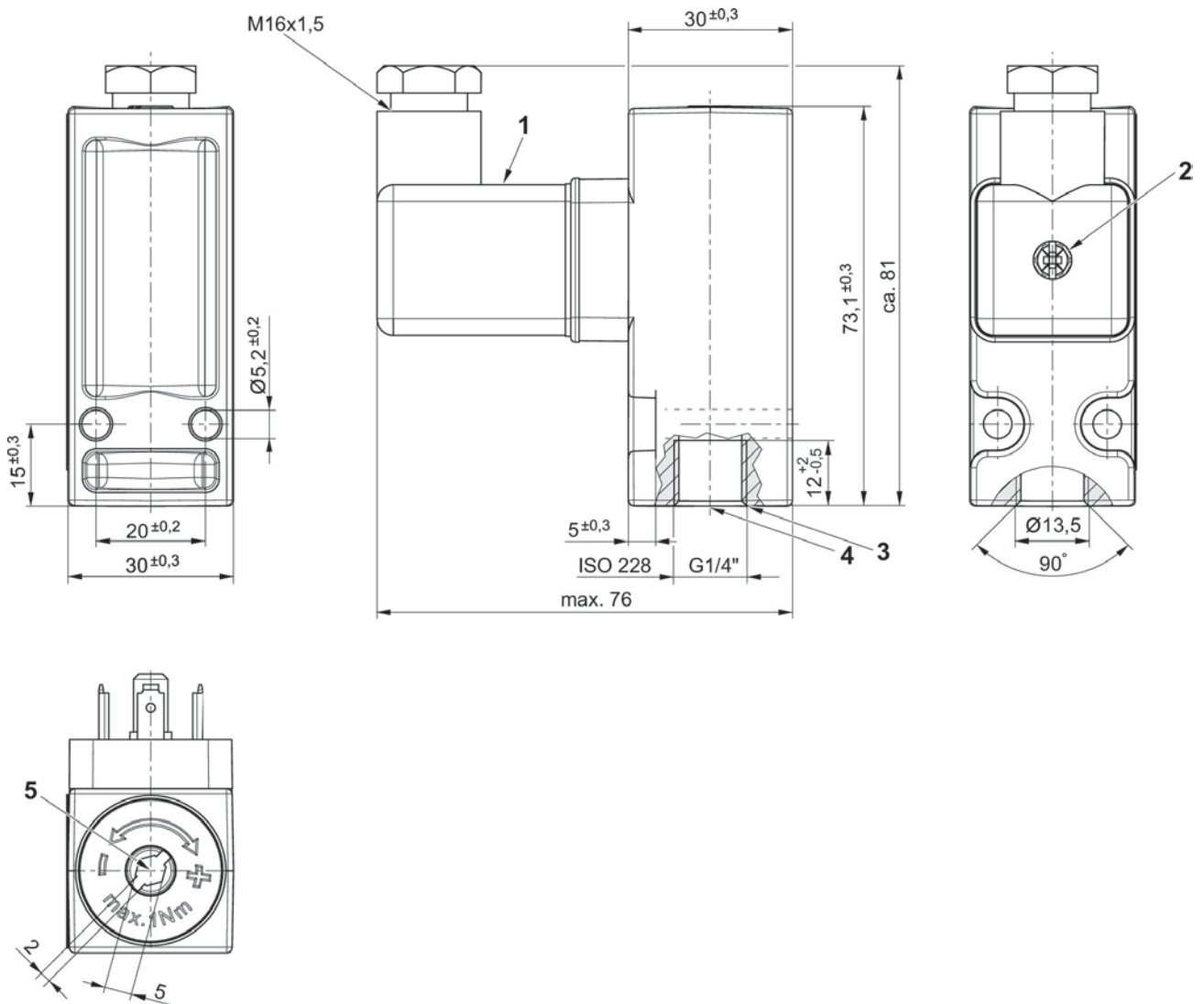
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

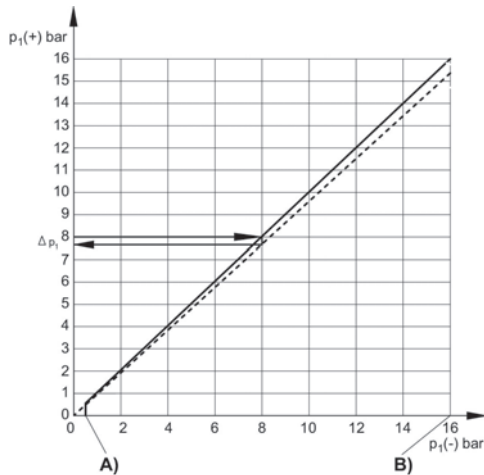
Material electrical connection
Brass

Part No.
R412022752

Dimensions

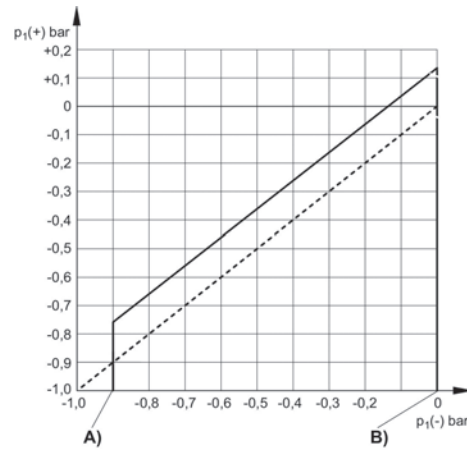


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
 $\Delta p1$ = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar# $\Delta p1$ = 0.4 bar

differential switching pressure characteristic curve (-0,9 – 0 bar)



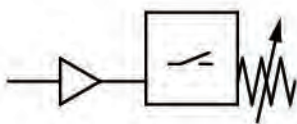
A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I
max. [A] with inductive load

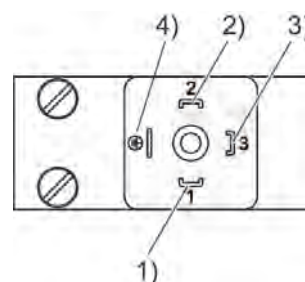
U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	-

max. permissible continuous current I
max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30	5	3
48	5	1,2
60	5	0,8
125	5	0,4
250	5	-



PIN assignment for valve plug connectors



Pin	Allocation
1	+UB
2	break contact
3	NO (make contact)
4	GND

Pressure Switches, Series PM1

R412010712

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
0.2 bar

Operating pressure max
16 bar

Compressed air connection type
Internal thread

Compressed air connection
G 1/4

Working pressure min.
0.2 bar

Working pressure max
2 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
 $\pm 2 \%$

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
250 V AC

Power supply connection
Without valve plug connector

Mounting types
via through holes

Protection class
IP65

Electrical connection
Plug

Electrical connection
EN 175301-803, form A

Weight
0.13 kg

Material

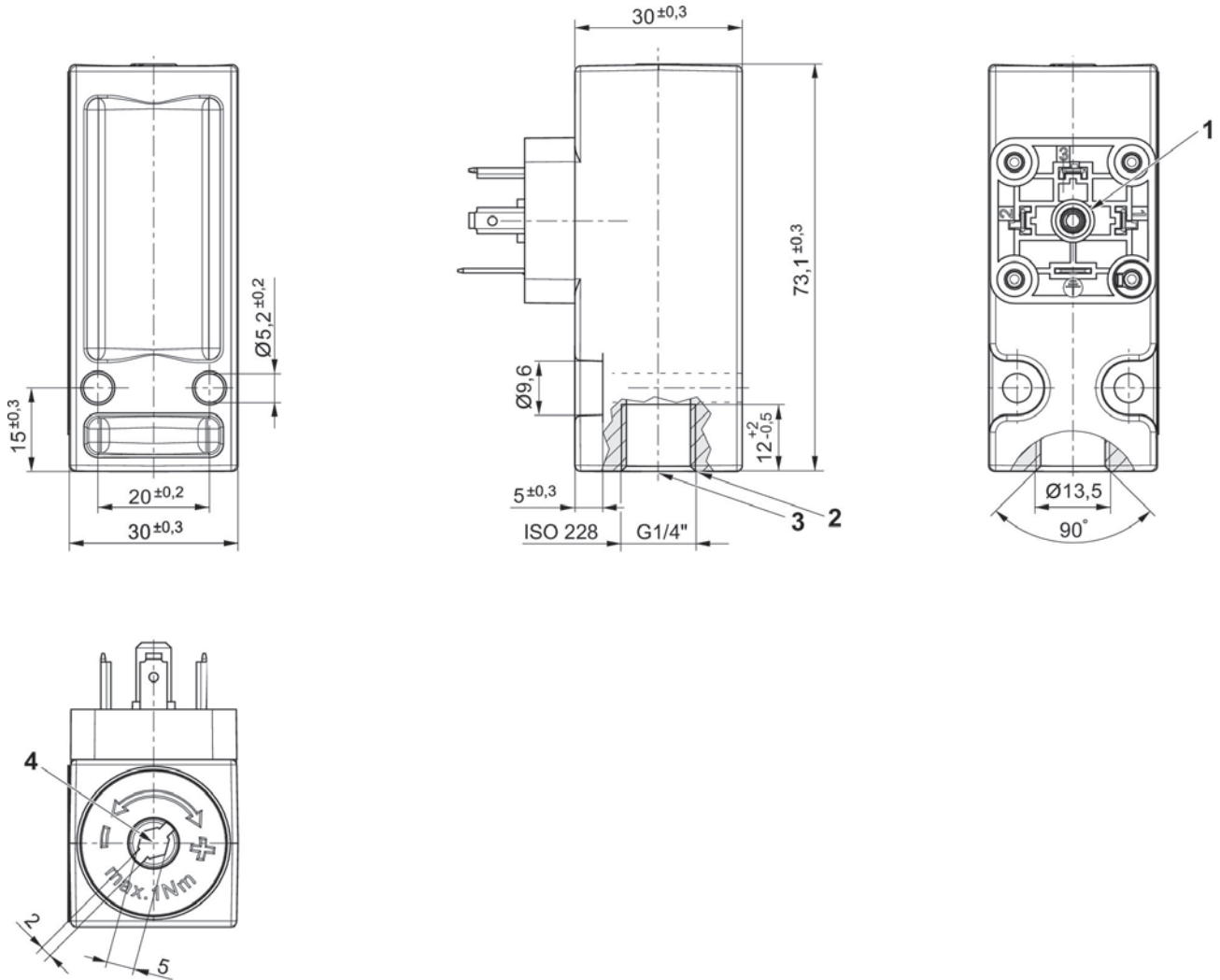
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

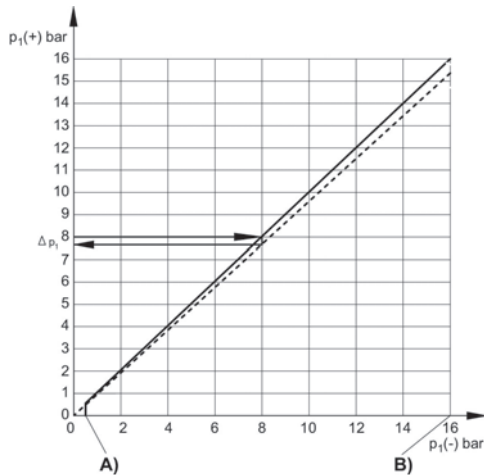
Material electrical connection
Brass

Part No.
R412010712

Dimensions

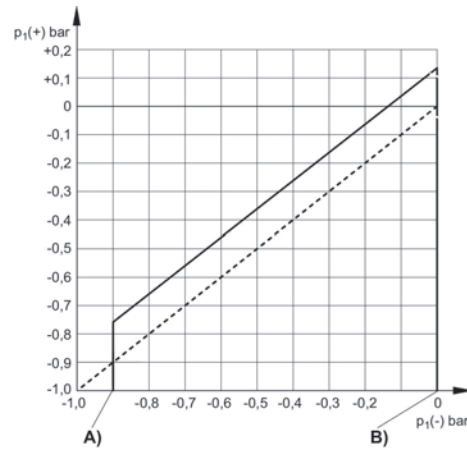


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
 $\Delta p1$ = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar# $\Delta p1 = 0.4$ bar

differential switching pressure characteristic curve (-0,9 – 0 bar)



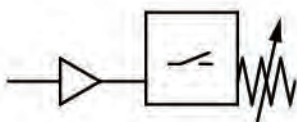
A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I
max. [A] with inductive load

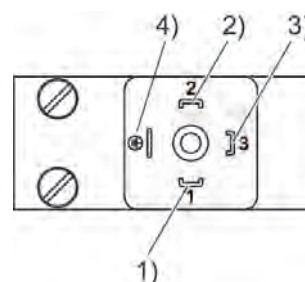
U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	-

max. permissible continuous current I
max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30	5	3
48	5	1,2
60	5	0,8
125	5	0,4
250	5	-



PIN assignment for valve plug connectors



Pin	Allocation
1	+UB
2	break contact
3	NO (make contact)
4	GND

Pressure Switches, Series PM1

R412010713

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
0.2 bar

Operating pressure max
16 bar

Compressed air connection type
Internal thread

Compressed air connection
G 1/4

Working pressure min.
0.2 bar

Working pressure max
8 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
 $\pm 2\%$

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
250 V AC

Power supply connection
With valve plug connector

Mounting types
via through holes

Protection class
IP65

Electrical connection
Plug

Electrical connection
EN 175301-803, form A

Weight
0.13 kg

Material

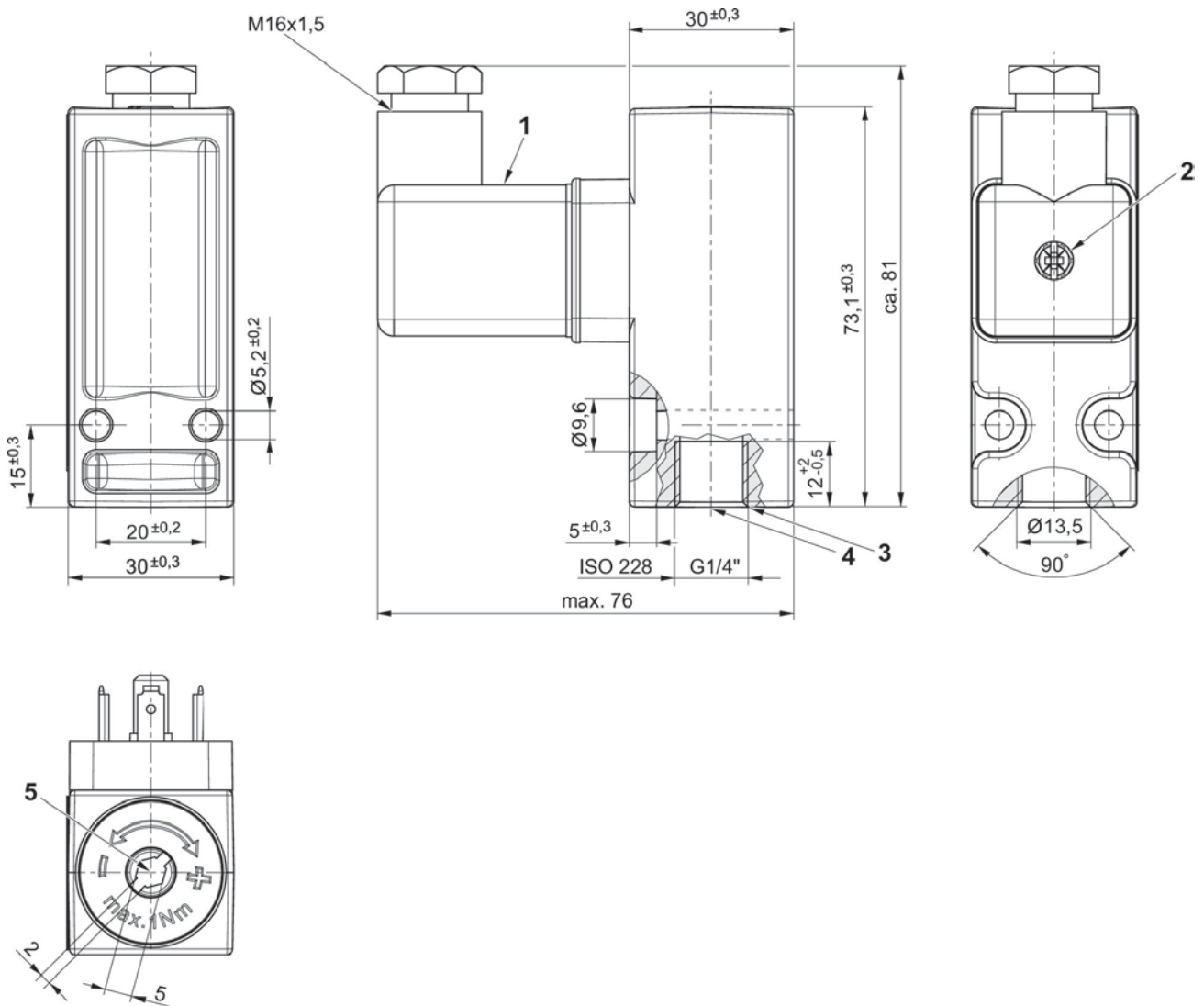
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

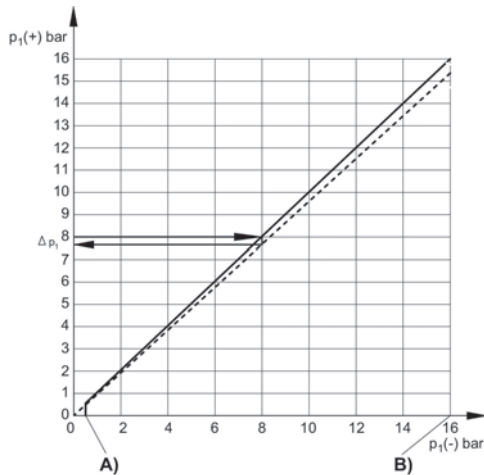
Material electrical connection
Brass

Part No.
R412010713

Dimensions

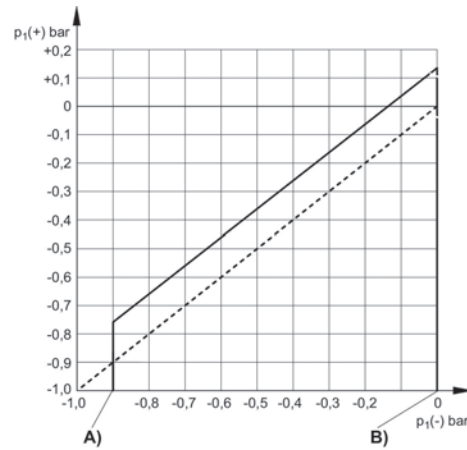


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
Δ p1 = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar#Δ p1 = 0.4 bar

differential switching pressure characteristic curve (-0,9 – 0 bar)



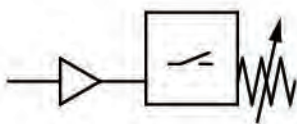
A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I
max. [A] with inductive load

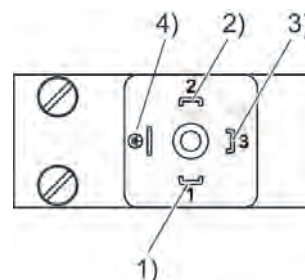
U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	-

max. permissible continuous current I
max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30	5	3
48	5	1,2
60	5	0,8
125	5	0,4
250	5	-



PIN assignment for valve plug connectors



Pin	Allocation
1	+UB
2	break contact
3	NO (make contact)
4	GND

Pressure Switches, Series PM1

R412010714

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
-0.9 bar

Operating pressure max
0 bar

Compressed air connection type
Flange with O-ring

Compressed air connection
Ø 5x1,5

Working pressure min.
-0.9 bar

Working pressure max
0 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
 $\pm 2 \%$

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
250 V AC

Power supply connection
With valve plug connector

Mounting types
via through holes

Protection class
IP65

Electrical connection
Plug

Electrical connection
EN 175301-803, form A

Weight
0.13 kg

Material

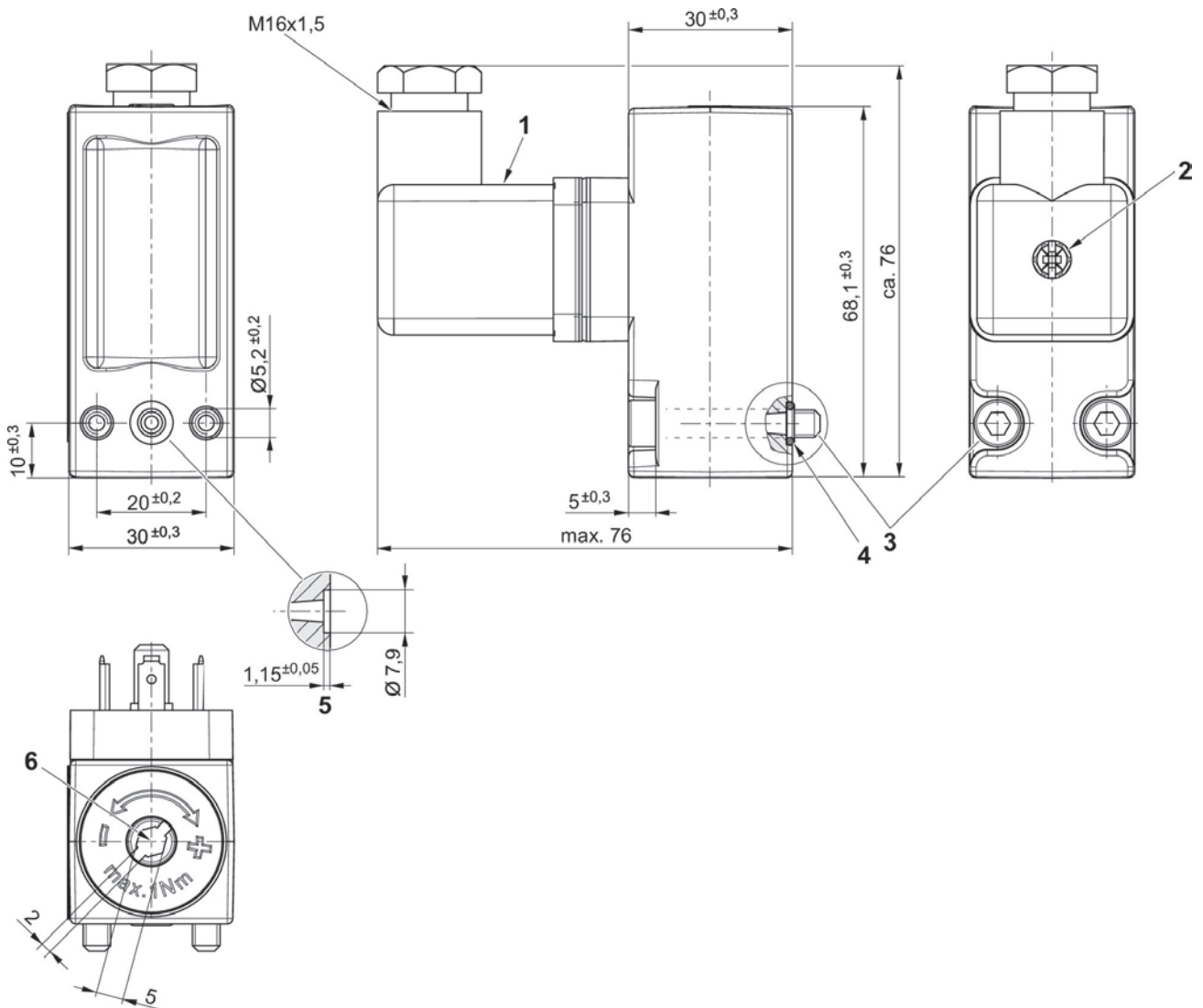
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

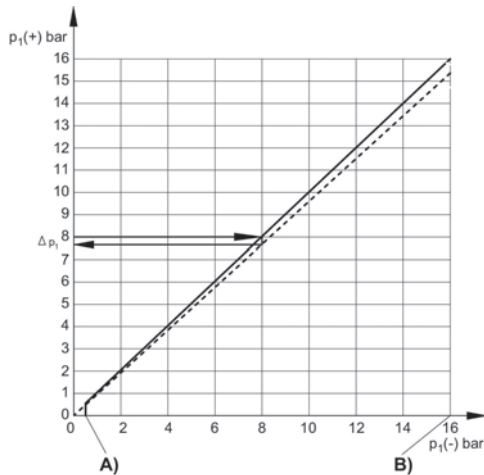
Material electrical connection
Brass

Part No.
R412010714

Dimensions

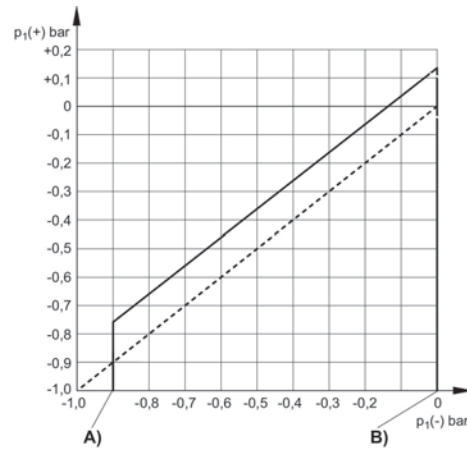


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
 $\Delta p1$ = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar# $\Delta p1 = 0.4$ bar

differential switching pressure characteristic curve (-0,9 – 0 bar)



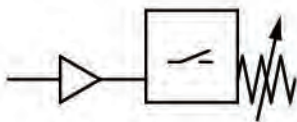
A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I
max. [A] with inductive load

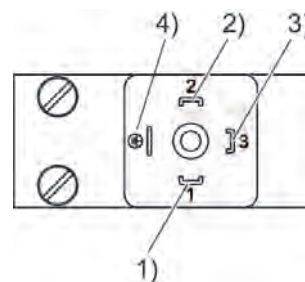
U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	-

max. permissible continuous current I
max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30	5	3
48	5	1,2
60	5	0,8
125	5	0,4
250	5	-



PIN assignment for valve plug connectors



Pin	Allocation
1	+UB
2	break contact
3	NO (make contact)
4	GND

Pressure Switches, Series PM1

R412010715

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
0.2 bar

Operating pressure max
16 bar

Compressed air connection type
Flange with O-ring

Compressed air connection
Ø 5x1,5

Working pressure min.
0.2 bar

Working pressure max
3 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
 $\pm 2 \%$

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
250 V AC

Power supply connection
Without valve plug connector

Mounting types
via through holes

Protection class
IP65

Electrical connection
Plug

Electrical connection
EN 175301-803, form A

Weight
0.13 kg

Material

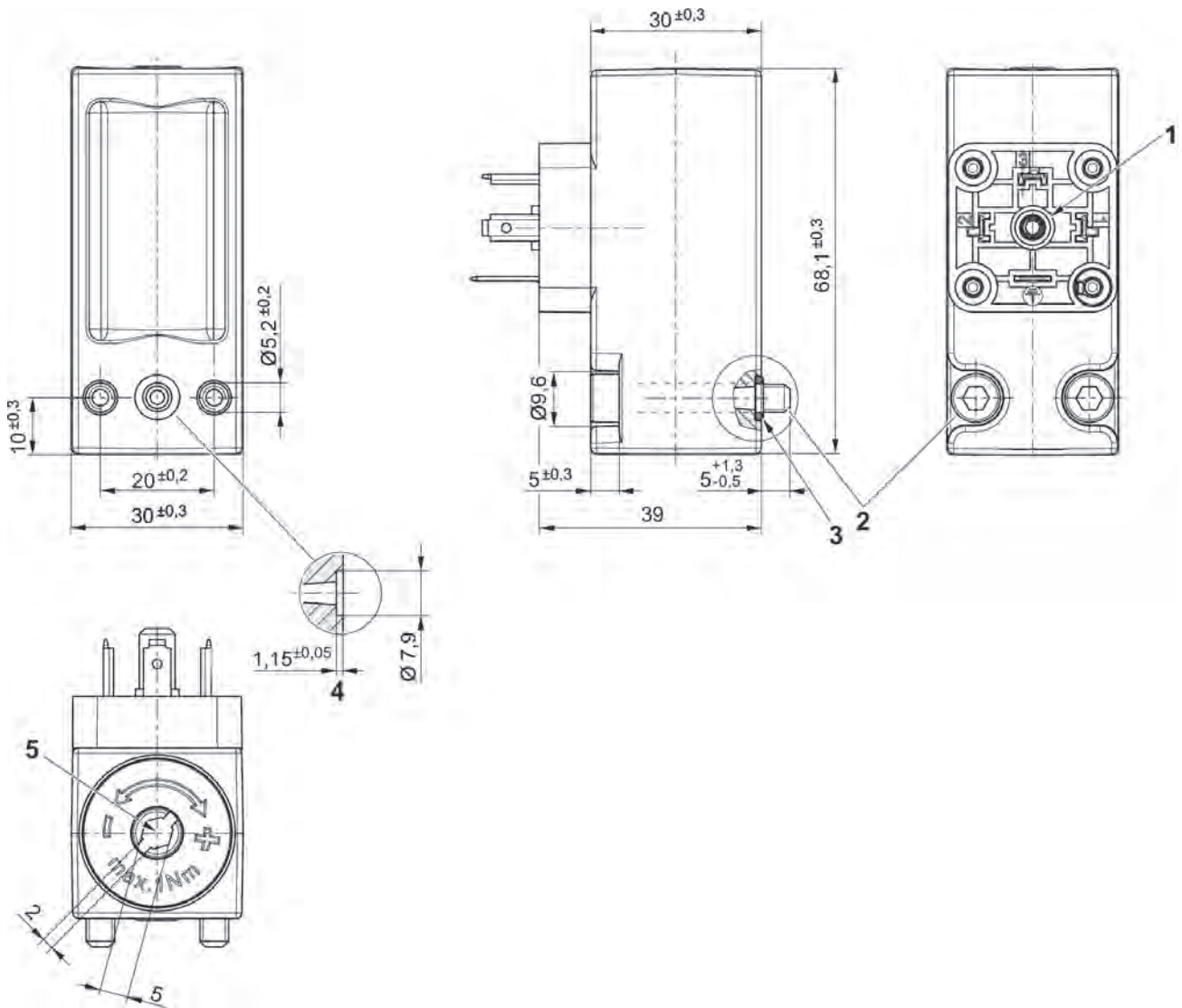
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

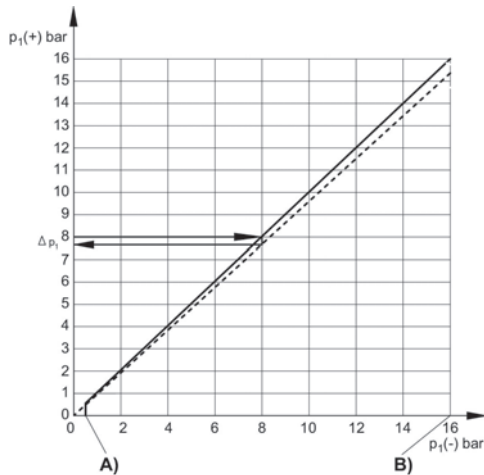
Material electrical connection
Brass

Part No.
R412010715

Dimensions

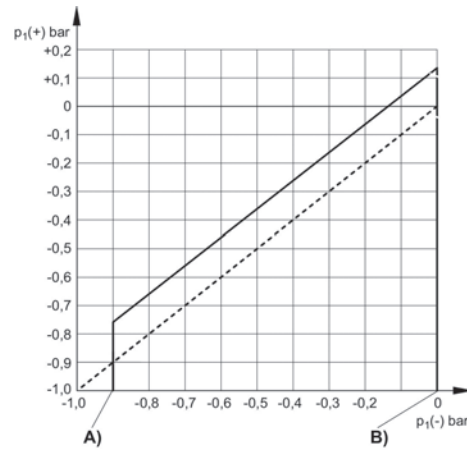


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
Δ p1 = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar#Δ p1 = 0.4 bar

differential switching pressure characteristic curve (-0,9 – 0 bar)



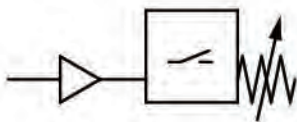
A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I
max. [A] with inductive load

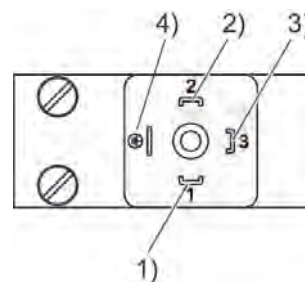
U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	-

max. permissible continuous current I
max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30	5	3
48	5	1,2
60	5	0,8
125	5	0,4
250	5	-



PIN assignment for valve plug connectors



Pin	Allocation
1	+UB
2	break contact
3	NO (make contact)
4	GND

Pressure Switches, Series PM1

R412010718

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
0.2 bar

Operating pressure max
16 bar

Compressed air connection type
Flange with O-ring

Compressed air connection
Ø 5x1,5

Working pressure min.
0.5 bar

Working pressure max
8 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
 $\pm 2\%$

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
250 V AC

Power supply connection
With valve plug connector

Mounting types
via through holes

Protection class
IP65

Electrical connection
Plug

Electrical connection
EN 175301-803, form A

Weight
0.13 kg

Material

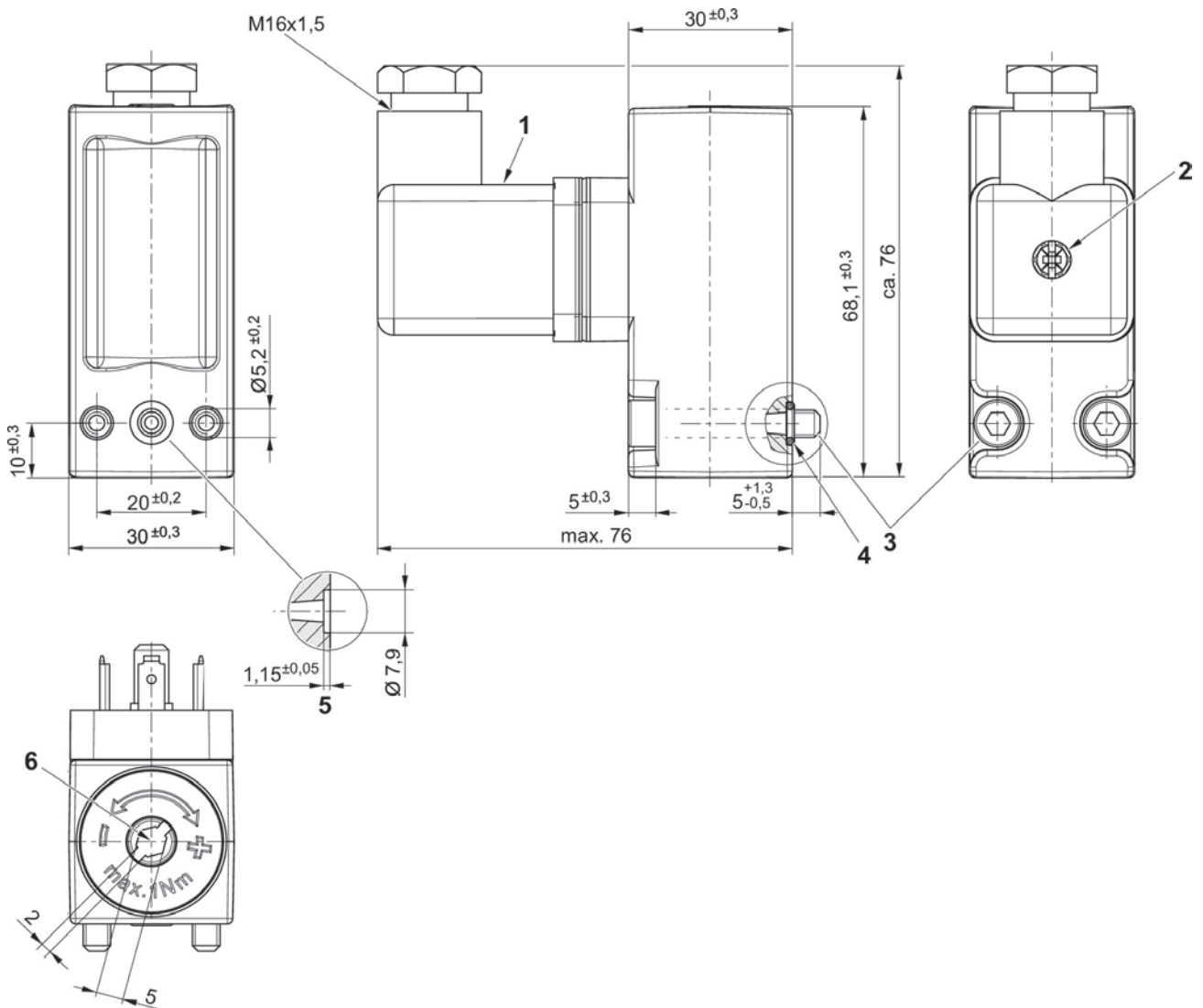
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

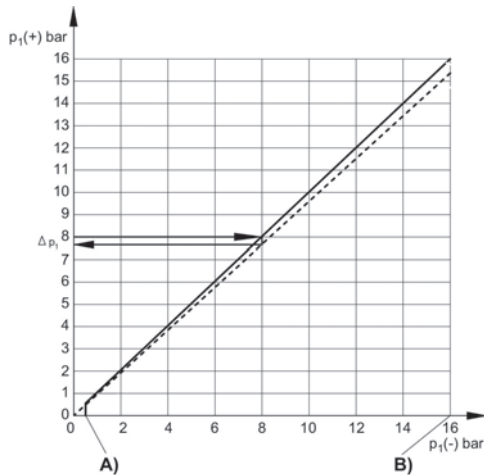
Material electrical connection
Brass

Part No.
R412010718

Dimensions

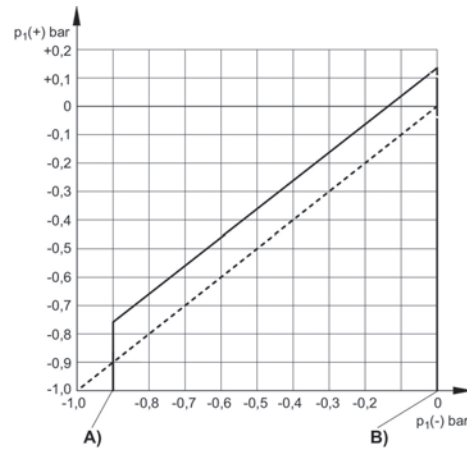


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
 $\Delta p1$ = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar# $\Delta p1$ = 0.4 bar

differential switching pressure characteristic curve (-0,9 – 0 bar)



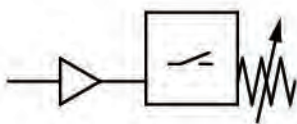
A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I
max. [A] with inductive load

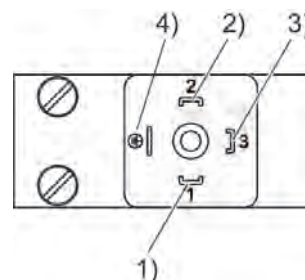
U [V]	I [A] 1) 3)	I [A] 2) 4)
30	3	2
48	3	0.55
60	3	0.4
125	3	0.15
250	3	-

max. permissible continuous current I
max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30	5	3
48	5	1,2
60	5	0,8
125	5	0,4
250	5	-



PIN assignment for valve plug connectors



Pin	Allocation
1	+UB
2	break contact
3	NO (make contact)
4	GND

Pressure Switches, Series PM1

R412010716

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
-0.9 bar

Operating pressure max
0 bar

Compressed air connection type
Internal thread

Compressed air connection
G 1/4

Working pressure min.
-0.9 bar

Working pressure max
0 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
± 2 %

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
30 V AC

Mounting types
via through holes

Protection class
IP67

Electrical connection
Plug

Electrical connection
M12x1

Weight
0.13 kg

Material

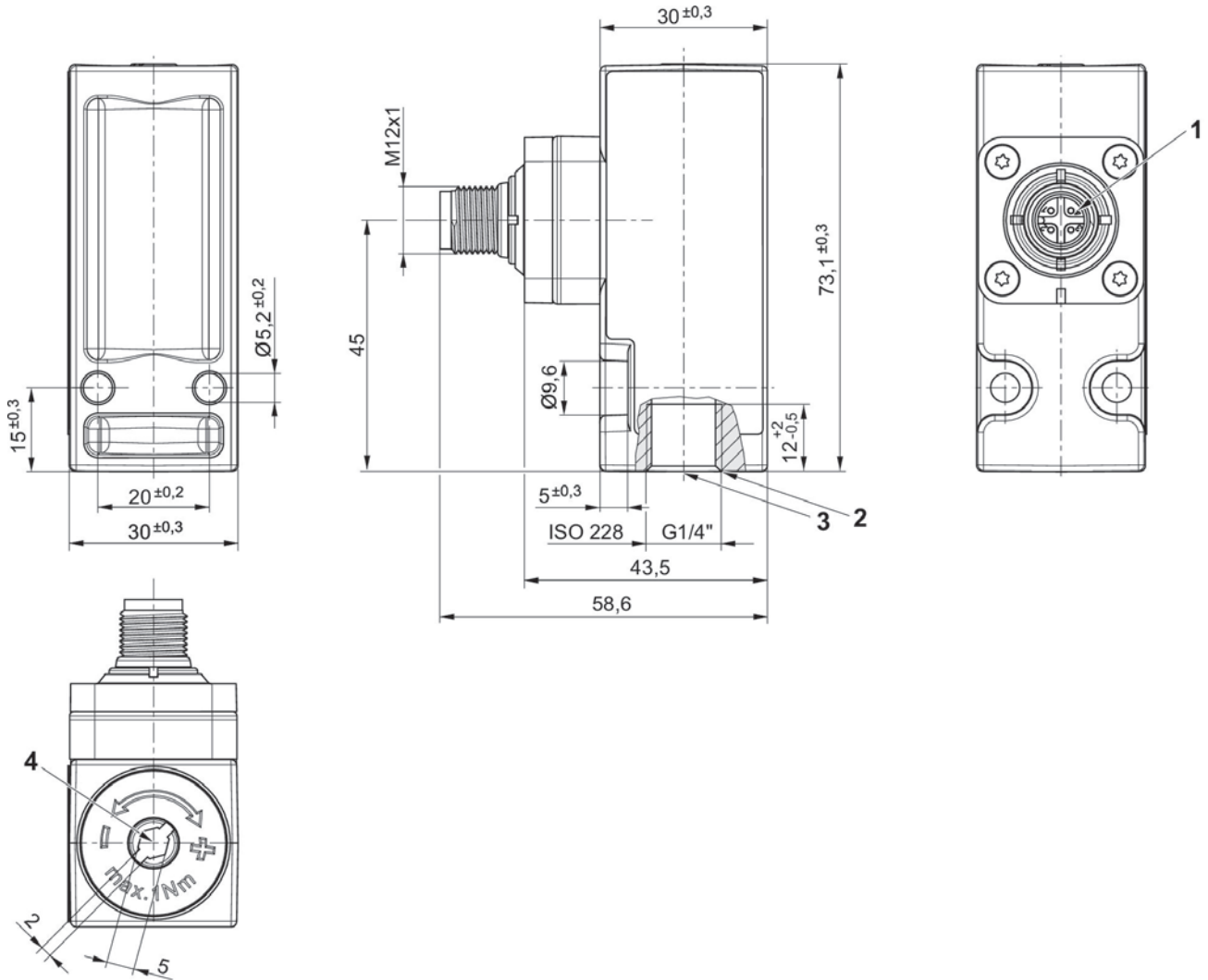
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

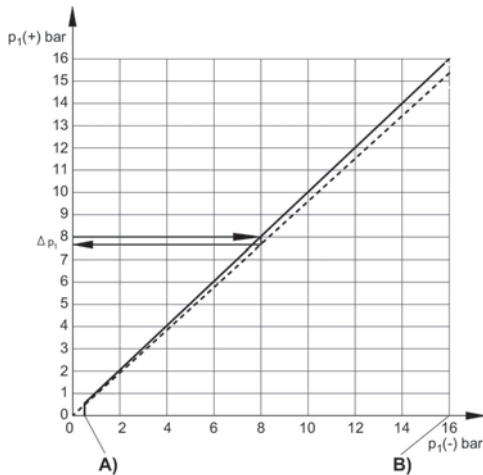
Material electrical connection
Brass

Part No.
R412010716

Dimensions

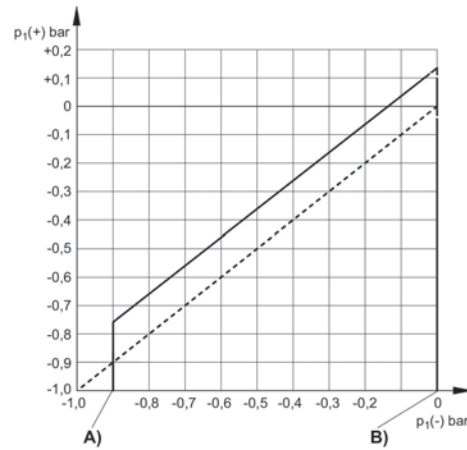


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
Δ p1 = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar#Δ p1 = 0.4 bar

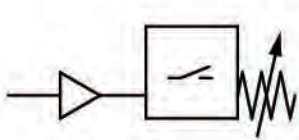
differential switching pressure characteristic curve (-0,9 – 0 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I max. [A] with inductive load

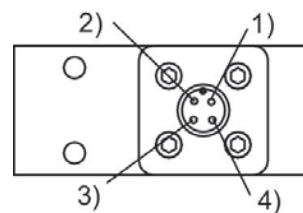
U [V]	I [A] 1) 3)	I [A] 2) 4)
30-250	3A	-
30 / 48 / 60 / 125	-	2 / 0,55 / 0,4 / 0,2



max. permissible continuous current I max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30-250	3A	-
30 / 48 / 60 / 125	-	3 / 1,2 / 0,8 / 0,4

Pin assignments



Pin	Allocation
1	+UB
2	break contact
3	No function
4	NO (make contact)

Pressure Switches, Series PM1

R412010717

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
0.2 bar

Operating pressure max
16 bar

Compressed air connection type
Internal thread

Compressed air connection
G 1/4

Working pressure min.
0.5 bar

Working pressure max
16 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
± 2 %

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
30 V AC

Mounting types
via through holes

Protection class
IP67

Electrical connection
Plug

Electrical connection
M12x1

Weight
0.13 kg

Material

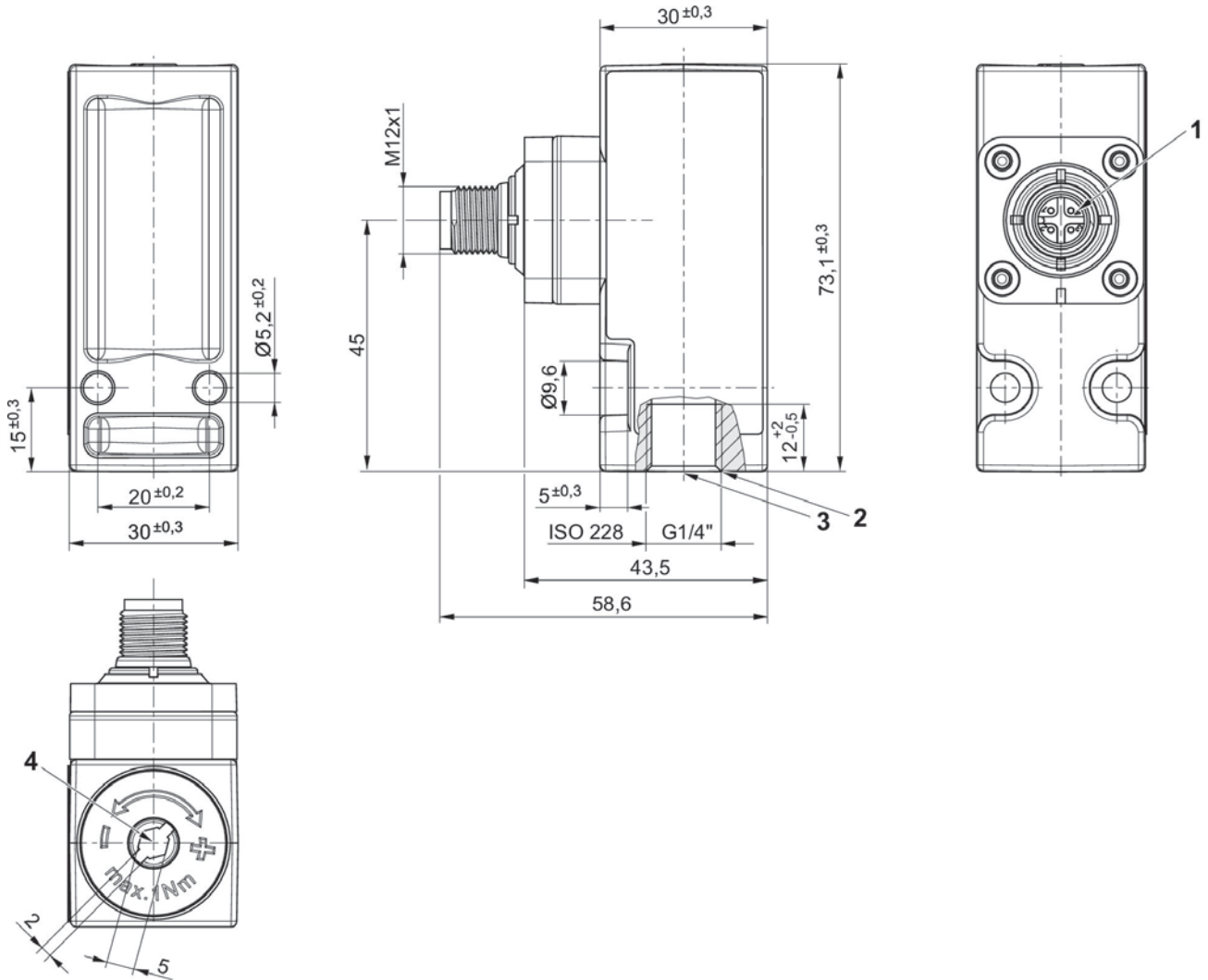
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

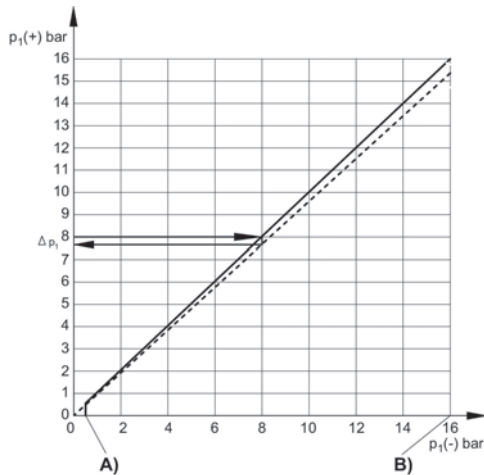
Material electrical connection
Brass

Part No.
R412010717

Dimensions

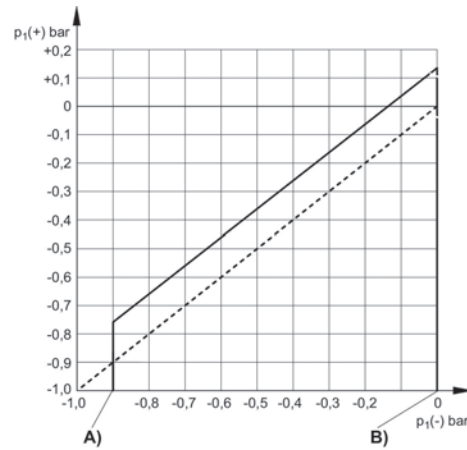


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
 $\Delta p1$ = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar# $\Delta p1 = 0.4$ bar

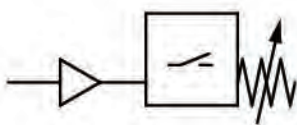
differential switching pressure characteristic curve (-0,9 – 0 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I
max. [A] with inductive load

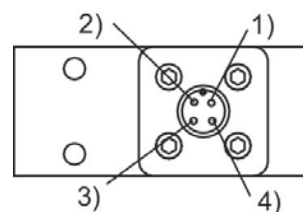
U [V]	I [A] 1) 3)	I [A] 2) 4)
30-250	3A	-
30 / 48 / 60 / 125	-	2 / 0,55 / 0,4 / 0,2



max. permissible continuous current I
max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30-250	3A	-
30 / 48 / 60 / 125	-	3 / 1,2 / 0,8 / 0,4

Pin assignments



Pin	Allocation
1	+UB
2	break contact
3	No function
4	NO (make contact)

Pressure Switches, Series PM1

R412010719

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
-0.9 bar

Operating pressure max
0 bar

Compressed air connection type
Flange with O-ring

Compressed air connection
Ø 5x1,5

Working pressure min.
-0.9 bar

Working pressure max
0 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
± 2 %

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
30 V AC

Mounting types
via through holes

Protection class
IP67

Electrical connection
Plug

Electrical connection
M12x1

Weight
0.13 kg

Material

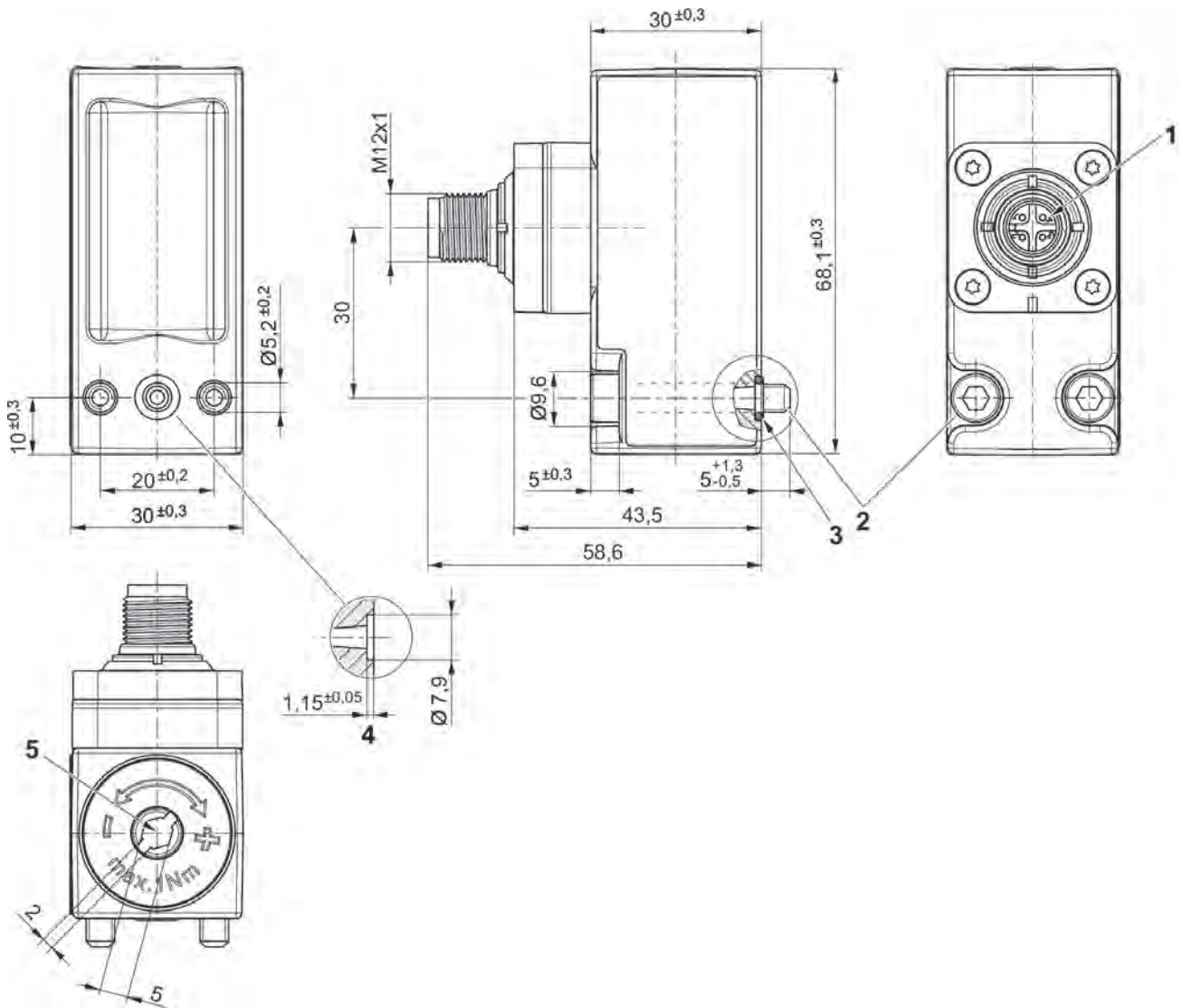
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

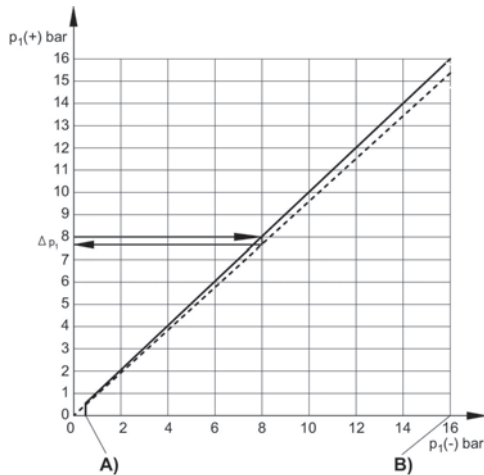
Material electrical connection
Brass

Part No.
R412010719

Dimensions

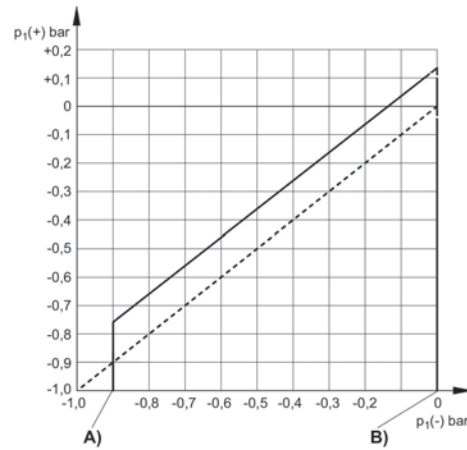


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
Δ p1 = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar#Δ p1 = 0.4 bar

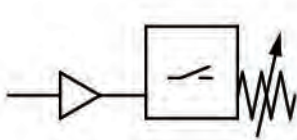
differential switching pressure characteristic curve (-0,9 – 0 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I max. [A] with inductive load

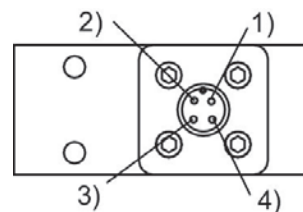
U [V]	I [A] 1) 3)	I [A] 2) 4)
30-250	3A	-
30 / 48 / 60 / 125	-	2 / 0,55 / 0,4 / 0,2



max. permissible continuous current I max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30-250	3A	-
30 / 48 / 60 / 125	-	3 / 1,2 / 0,8 / 0,4

Pin assignments



Pin	Allocation
1	+UB
2	break contact
3	No function
4	NO (make contact)

Pressure Switches, Series PM1

R412010720

Series PM1

- Operating pressure -[[0,9]bar] ... [[16]bar]
- Diaphragm, spring loaded, adjustable
- Cable
- EN 175301-803, form A
- M12x1



Technical information

Industry
Industrial

Function
change-over contact (mechanical)

Operating voltage DC, max.
30 V DC

Type
Mechanical

Type
Diaphragm, spring loaded, adjustable

Mounting orientation
Any

Operating pressure min
0.2 bar

Operating pressure max
16 bar

Compressed air connection type
Flange with O-ring

Compressed air connection
Ø 5x1,5

Working pressure min.
0.2 bar

Working pressure max
3 bar

Min. ambient temperature
-20 °C

Max. ambient temperature
80 °C

Min. medium temperature
-10 °C

Max. medium temperature
80 °C

Medium
Compressed air
Hydraulic oil

Measurement
Relative pressure

Switching element
microswitch (input/output)

Protection against overpressure
[[80] bar]

Max. switching frequency
1,5 Hz

Shock resistance max.
15 g

Vibration resistance
10 g (60 - 500 Hz)

Repetitive precision
± 2 %

Switching point
adjustable

Hysteresis
max. switching pressure difference

Operating voltage DC, min.
12 V DC

Operating voltage AC, min.
12 V AC

Operational voltage AC, max.
30 V AC

Mounting types
via through holes

Protection class
IP67

Electrical connection
Plug

Electrical connection
M12x1

Weight
0.13 kg

Material

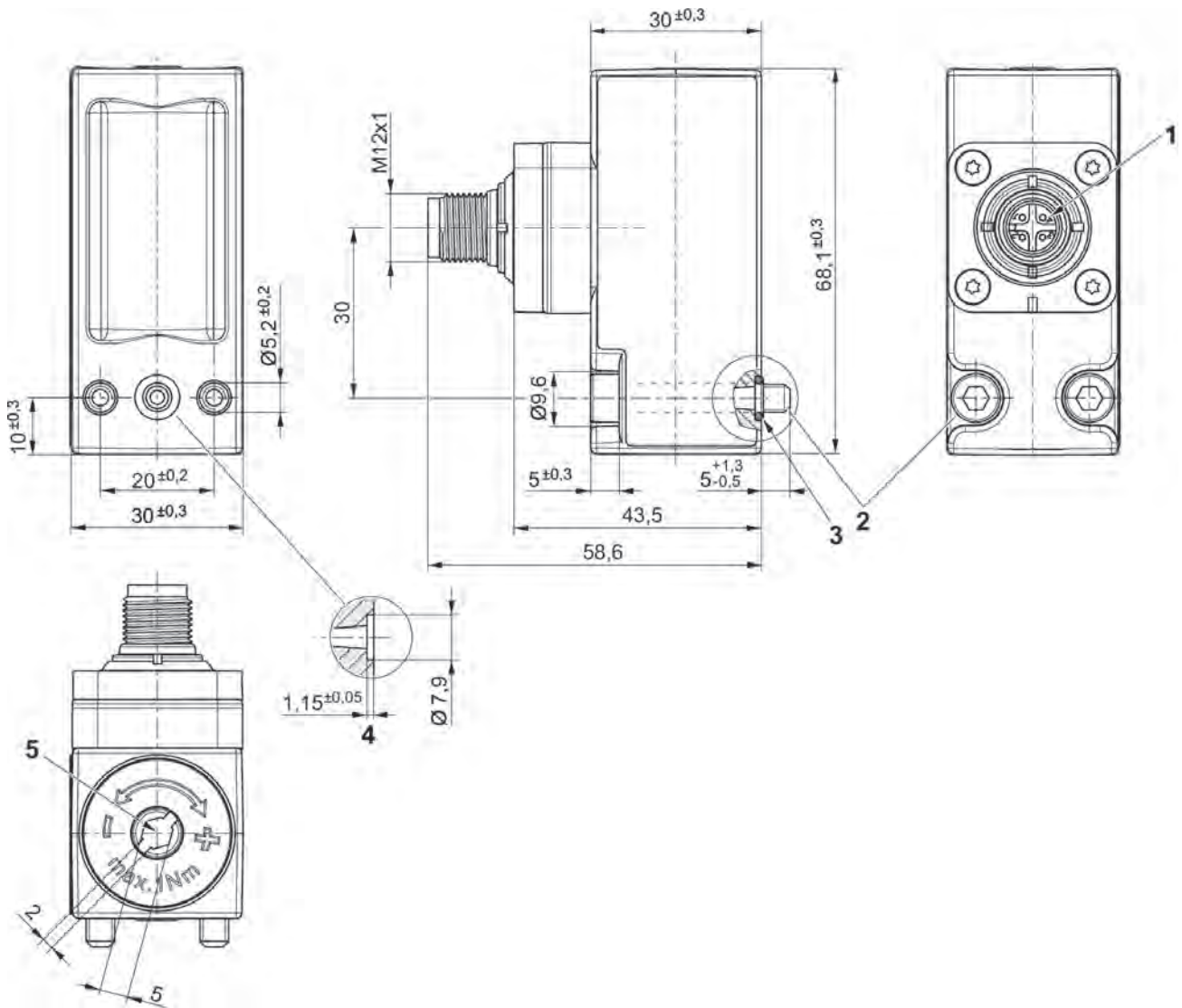
Housing material
Aluminum

Seal material
Acrylonitrile butadiene rubber

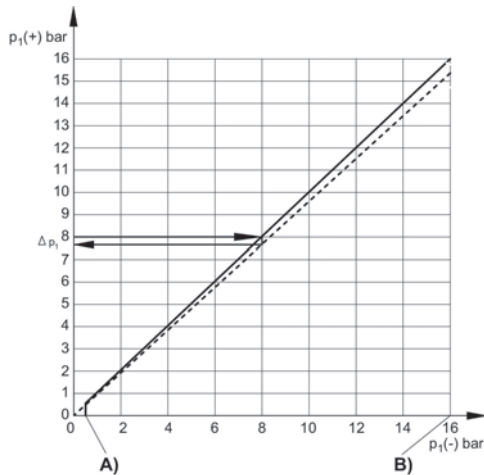
Material electrical connection
Brass

Part No.
R412010720

Dimensions

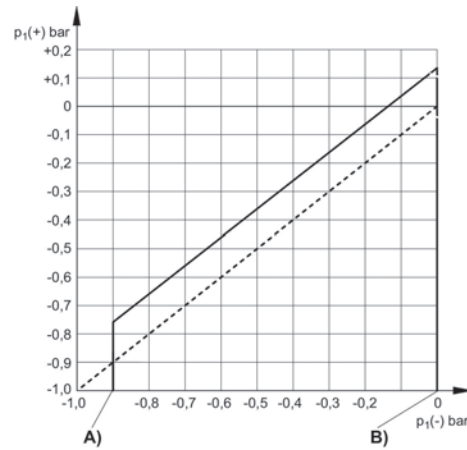


differential switching pressure characteristic curve (0,2 - 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure
Δ p1 = max. operating pressure difference or hysteresis#Example:#p1 (+) = 8 bar > p1(-) = 7.6 bar#Δ p1 = 0.4 bar

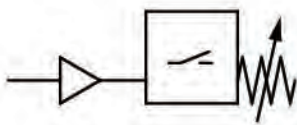
differential switching pressure characteristic curve (-0,9 – 0 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I max. [A] with inductive load

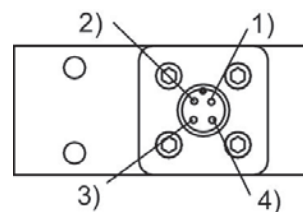
U [V]	I [A] 1) 3)	I [A] 2) 4)
30-250	3A	-
30 / 48 / 60 / 125	-	2 / 0,55 / 0,4 / 0,2



max. permissible continuous current I max. [A] with ohmic load

U [V]	I [A] 1)	I [A] 2)
30-250	3A	-
30 / 48 / 60 / 125	-	3 / 1,2 / 0,8 / 0,4

Pin assignments



Pin	Allocation
1	+UB
2	break contact
3	No function
4	NO (make contact)

Efficient pneumatic solutions, our program: cylinders and drives, valves and valve systems, air supply management



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