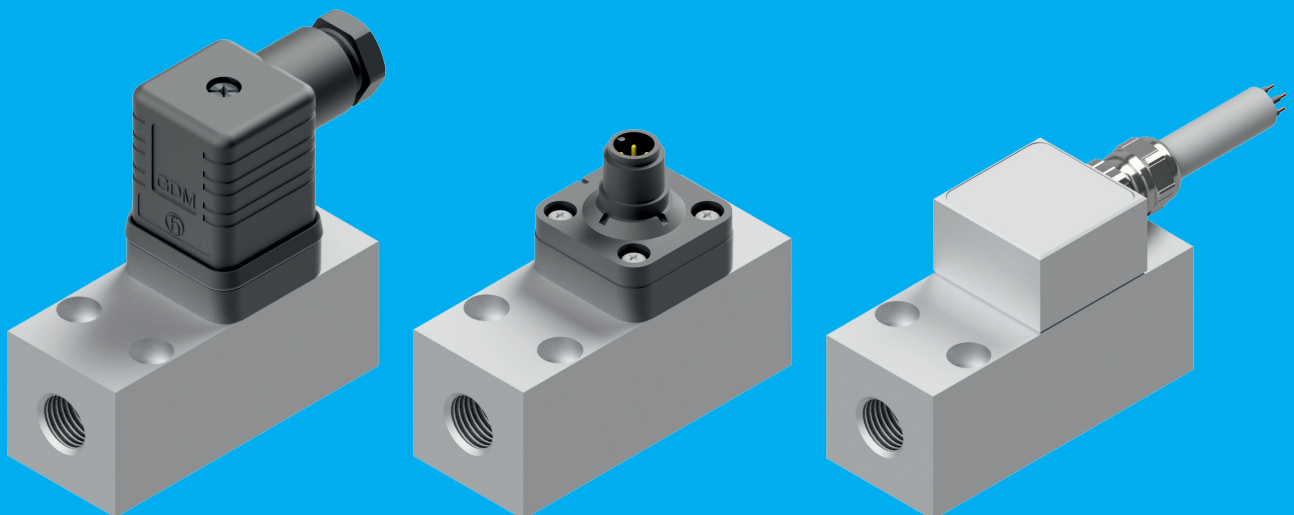


Product Catalog

MINICOMB®

Compact Pressure Switch 30x30

Compact Pressure Switch 30x30 / ATEX



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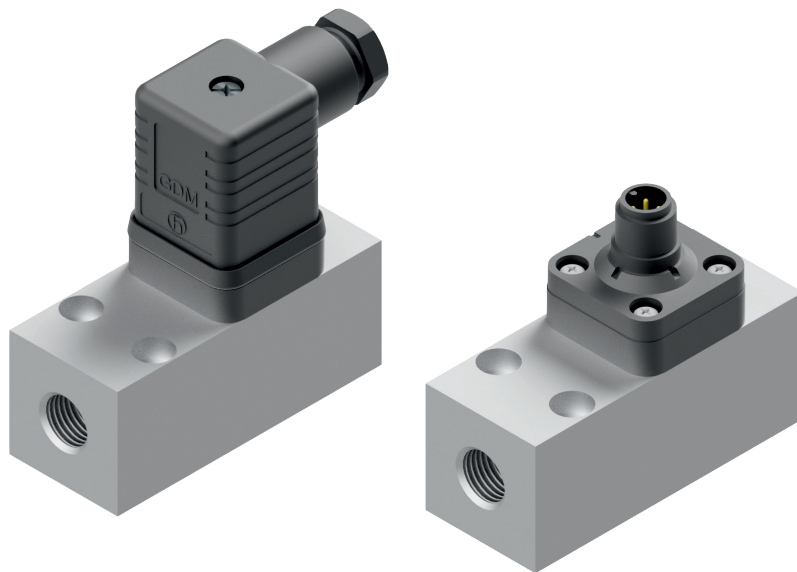
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MINICOMB® Compact Pressure Switch 30x30



at a glance

- friction-free force-balance measuring system
- high repeatability
- very good longterm stability
- pressure ranges -0,9... 0 (+1) bar or 0,2 - 16 bar
- process connection 1/4" ISO 228 female or sub-base mounting
- electrical connection ISO 4400 or M12x1

Description

The MINICOMB® Series is a very compact-sized pressure switch for measuring compressed air, low-viscous media and non-aggressive gases.

Operating Principle

The principle of operation is the balance of forces. The working force within each bellow is counter-balanced by adjustable steel springs. This system actuates a microswitch when the working pressure overcomes the opposing force. The measuring system operates without any pistons or diaphragms, thus completely friction-free, resulting in minimal wear and no maintenance.

Approvals

Performance Level (ISO 13849): PLc

Technical Data	Standard
Function	mechanical pressure switch; force-balance measuring system with bellows sensor
Life Cycle	at least 10 mio switch cycles
Pressure Range	0,2 - 16 bar
Vacuum Range	-0,9 - 0 bar
Pressure / Vacuum Range	-0,9...+1 bar
Over Pressure Safety	25 bar
Vacuum Safety	-1 bar
Material Enclosure	Aluminium
Material Wetted Parts	Aluminium, Brass
Material Wetted Gasket	FKM (with sub-base mounting also NBR)
Permissible Media Temperature	-10...+80°C
Permissible Ambient Temperature	-20...+80°C
Temperature Deviation	approx. 1% per 20°C
Switching Contact	1 micro switch (SPDT)
Adjustment Accuracy	≤ 1,0% FS
Switching Accuracy	≤ 1,0% FS
Repeatability	≤ 1,0% FS
Switching Differential (Hysteresis)	≤ 4,0% FS
Process Connection	sub base mounting or sub base mounting CNOMO or female thread G1/4
Electrical Connection	plug EN175 301-803-A (ISO 4400) or plug M12x1
Weight	approx. 160 g
Protection	IP65 (IP67 with plug M12)
Shock Resistance	15 g (IEC 60068-2-64)
Vibration Resistance	10 g (60 - 500 Hz) (IEC 60068-2-6)

Options & Accessories

OEM Versions; Customer Specific Versions

Special Measuring Ranges; Extended Overpressure Safety

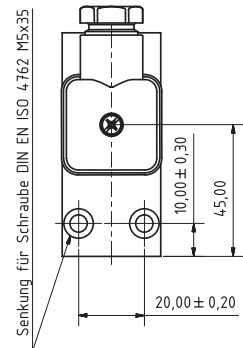
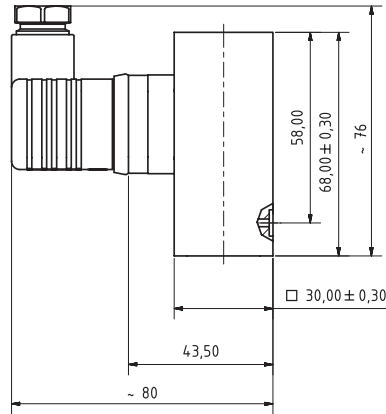
Other Gasket Materials; Cleaned for O2 service

Electrical Connection: Cable

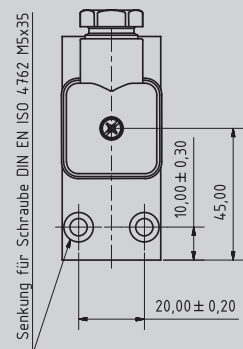
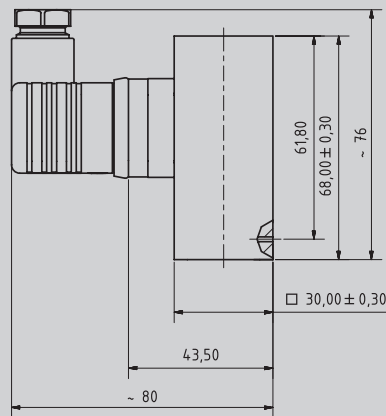
Accessories see chapter „Accessories“

Dimensions

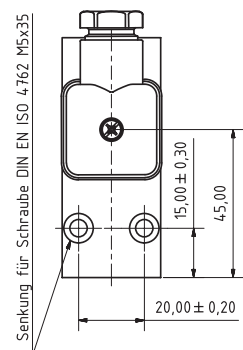
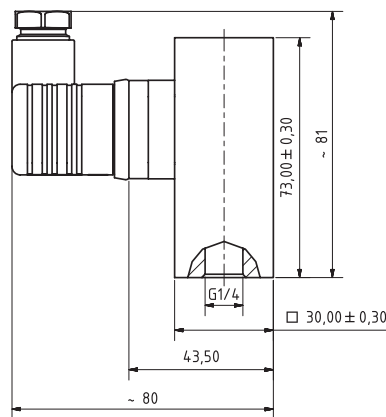
**Sub-base Mounting
Plug ISO 4400**



**Sub-base Mounting CNOMO
Plug ISO 4400**

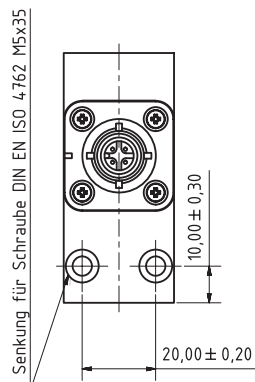
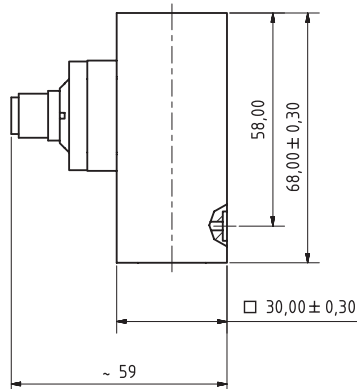


**Female Thread 1/4"
Plug ISO 4400**

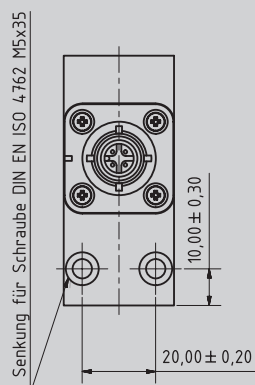
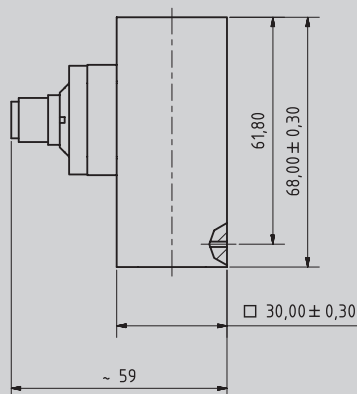


Dimensions

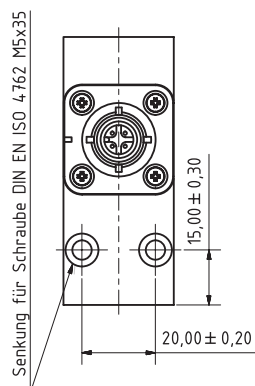
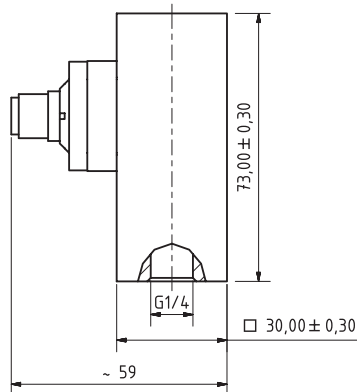
Sub-base Mounting
Plug M12



Sub-base Mounting CNOMO
Plug M12



Female Thread 1/4"
Plug M12



Electrical Data

Max. Steady Current I max [A] on Inductive Load

Reference Switch Cycle: 30/min, Reference Temperature: +30°C, AC = cos φ ca. 0,7°, DC = L/R ca 10ms

El. Connection	U [V]	24 V	48 V	60 V	110 V	240 V
ISO 4400/Cable	I [A] AC	3	3	3	3	3
ISO 4400/Cable	I [A] DC	2	0,55	0,4	0,15	—
M 12	I [A] AC	3	—	—	—	—
M 12	I [A] DC	2	—	—	—	—

Max. Steady Current I max [A] on Ohmic Load

Reference Switch Cycle: 30/min, Reference Temperature: +30°C

El. Connection	U [V]	24 V	48 V	60 V	110 V	240 V
ISO 4400/Cable	I [A] AC	5	5	5	5	5
ISO 4400/Cable	I [A] DC	3	1,2	0,8	0,4	—
M 12	I [A] AC	4	—	—	—	—
M 12	I [A] DC	3	—	—	—	—

Electrical Connection

El. Connection	+Ub	Normally Closed	Normally Open	GND
ISO 4400	1	2	3	GND
M 12	1	2	4	—
Cable	1	2	3	4

Part-No. Overview

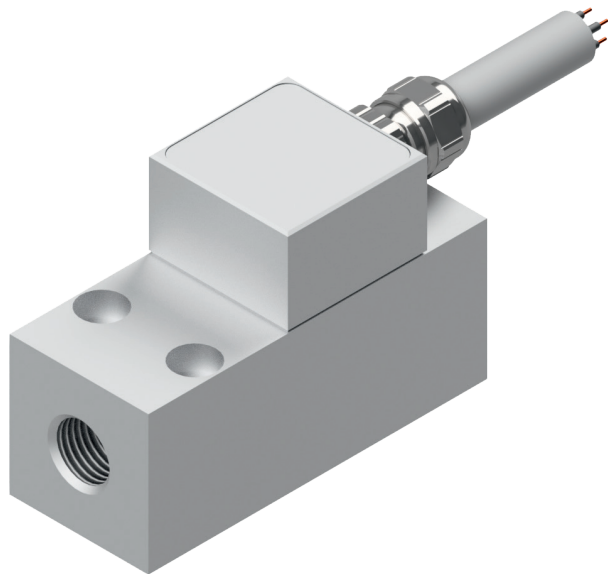
Most Common Versions

Pressure Range	Electrical Connection	Process Connection	Part-No.
0,2 - 16 bar	ISO 4400	Sub-base Mounting ¹	C0011F-199-PAO
0,2 - 16 bar	ISO 4400	Sub-base Mounting CNOMO ¹	C0011F-199-CAO
0,2 - 16 bar	ISO 4400	Female Thread 1/4" ²	C0051F-199-4AO
0,2 - 16 bar	M12	Sub-base Mounting ³	C0011F-199-PDO
0,2 - 16 bar	M12	Sub-base Mounting CNOMO ¹	C0011F-199-CDO
0,2 - 16 bar	M12	Female Thread 1/4" ⁴	C0051F-199-4DO
-0,9...0 bar	ISO 4400	Sub-base Mounting ¹	C0011F-300-PAO
-0,9...0 bar	ISO 4400	Sub-base Mounting CNOMO ¹	C0011F-300-CAO
-0,9...0 bar	ISO 4400	Female Thread 1/4" ²	C0051F-300-4AO
-0,9...0 bar	M12	Sub-base Mounting ³	C0011F-300-PDO
-0,9...0 bar	M12	Sub-base Mounting CNOMO ¹	C0011F-300-CDO
-0,9...0 bar	M12	Female Thread 1/4" ⁴	C0051F-300-4DO
-0,9...+1 bar	ISO 4400	Sub-base Mounting ¹	C0011F-301-PAO
-0,9...+1 bar	ISO 4400	Sub-base Mounting CNOMO ¹	C0011F-301-CAO
-0,9...+1 bar	ISO 4400	Female Thread 1/4" ²	C0051F-301-4AO
-0,9...+1 bar	M12	Sub-base Mounting ³	C0011F-301-PDO
-0,9...+1 bar	M12	Sub-base Mounting CNOMO ¹	C0011F-301-CDO
-0,9...+1 bar	M12	Female Thread 1/4" ⁴	C0051F-301-4DO

Remarks

- 1 Counter Plug and Screws within Supply Range
- 2 Counter Plug within Supply Range
- 3 Counter Plug and Cable (5m) and Screws within Supply Range
- 4 Counter Plug and Cable (5m) within Supply Range

MINICOMB® Compact Pressure Switch 30x30 / ATEX



at a glance

- friction-free force-balance measuring system
- high repeatability
- very good longterm stability
- pressure ranges -0,9... 0 (+1) bar or 0,2 - 16 bar
- process connection 1/4" ISO 228 female or sub-base mounting
- electrical connection 3m, 5m or 7m cable

Description

The MINICOMB® Series is a very compact-sized pressure switch for measuring compressed air, low-viscous media and non-aggressive gases.

Operating Principle

The principle of operation is the balance of forces. The working force within each bellow is counter-balanced by adjustable steel springs.

This system actuates a microswitch when the working pressure overcomes the opposing force.

The measuring system operates without any pistons or diaphragms, thus completely friction-free, resulting in minimal wear and no maintenance.

Approvals

Performance Level (ISO 13849): PLc
 ATEX Directive: II 3G Ex nA nC IIC T4 Gc
 ATEX Directive: II 3D Ex tc IIIC T135°C Dc

Technical Data	Standard
Function	mechanical pressure switch; force-balance measuring system with bellows sensor
Life Cycle	at least 10 mio switch cycles
Pressure Range	0,2 - 16 bar
Vacuum Range	-0,9 - 0 bar
Pressure / Vacuum Range	-0,9...+1 bar
Over Pressure Safety	25 bar
Vacuum Safety	-1 bar
Material Enclosure	Aluminium
Material Wetted Parts	Aluminium, Brass
Material Wetted Gasket	FKM (with sub-base mounting also NBR)
Permissible Media Temperature	-10...+80°C
Permissible Ambient Temperature	-20...+80°C
Temperature Deviation	approx. 1% per 20°C
Switching Contact	1 micro switch (SPDT)
Adjustment Accuracy	≤ 1,0% FS
Switching Accuracy	≤ 1,0% FS
Repeatability	≤ 1,0% FS
Switching Differential (Hysteresis)	≤ 4,0% FS
Process Connection	sub base mounting or sub base mounting CNOMO or female thread G1/4
Electrical Connection	3m or 5m or 7m cable
Weight	tbc
Protection	IP65 (IP67 with plug M12)
Shock Resistance	15 g (IEC 60068-2-64)
Vibration Resistance	10 g (60 - 500 Hz) (IEC 60068-2-6)

Options & Accessories

OEM Versions; Customer Specific Versions

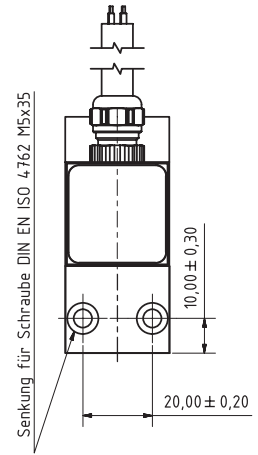
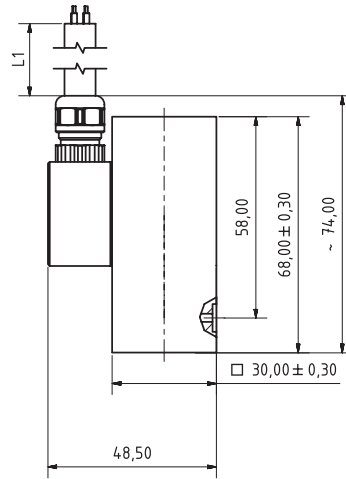
Special Measuring Ranges; Extended Overpressure Safety

Other Gasket Materials; Cleaned for O2 service

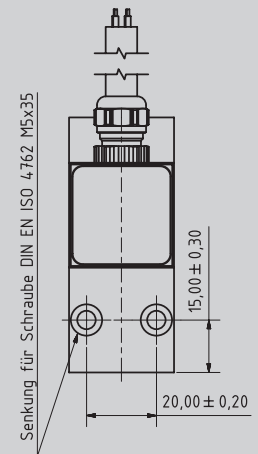
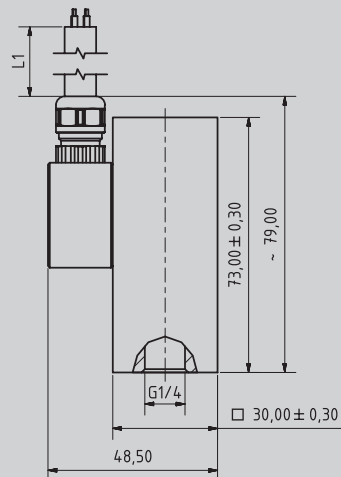
Accessories see chapter „Accessories“

Dimensions

Sub-base Mounting



Female Thread 1/4"



Electrical Data

Max. Steady Current I max [A] on Inductive Load

Reference Switch Cycle: 30/min, Reference Temperature: +30°C, AC = $\cos \varphi$ ca. 0,7°, DC = L/R ca 10ms

El. Connection	U [V]	24 V	48 V	60 V	110 V	240 V
Cable	I [A] AC	3	3	3	3	3
Cable	I [A] DC	2	0,55	0,4	0,15	—

Max. Steady Current I max [A] on Ohmic Load

Reference Switch Cycle: 30/min, Reference Temperature: +30°C

El. Connection	U [V]	24 V	48 V	60 V	110 V	240 V
Cable	I [A] AC	3	3	3	3	3
Cable	I [A] DC	3	1,2	0,8	0,4	—

Electrical Connection

El. Connection	+Ub	Normally Closed	Normally Open	GND
Cable	1	2	3	4

Part-No. Overview
Most Common Versions

Pressure Range	Electrical Connection	Process Connection	Part-No.
0,2 - 16 bar	3m Cable	Sub-base Mounting	C0211F-199-PFO
0,2 - 16 bar	3m Cable	Female Thread 1/4"	C0251F-199-4FO
0,2 - 16 bar	5m Cable	Sub-base Mounting	C0211F-199-PGO
0,2 - 16 bar	5m Cable	Female Thread 1/4"	C0251F-199-4GO
0,2 - 16 bar	7m Cable	Sub-base Mounting	C0211F-199-PHO
0,2 - 16 bar	7m Cable	Female Thread 1/4"	C0251F-199-4HO
-0,9...0 bar	3m Cable	Sub-base Mounting	C0211F-300-PFO
-0,9...0 bar	3m Cable	Female Thread 1/4"	C0251F-300-4FO
-0,9...0 bar	5m Cable	Sub-base Mounting	C0211F-300-PGO
-0,9...0 bar	5m Cable	Female Thread 1/4"	C0251F-300-4GO
-0,9...0 bar	7m Cable	Sub-base Mounting	C0211F-300-PHO
-0,9...0 bar	7m Cable	Female Thread 1/4"	C0251F-300-4HO
-0,9...+1 bar	3m Cable	Sub-base Mounting	C0211F-301-PFO
-0,9...+1 bar	3m Cable	Female Thread 1/4"	C0251F-301-4FO
-0,9...+1 bar	5m Cable	Sub-base Mounting	C0211F-301-PGO
-0,9...+1 bar	5m Cable	Female Thread 1/4"	C0251F-301-4GO
-0,9...+1 bar	7m Cable	Sub-base Mounting	C0211F-301-PHO
-0,9...+1 bar	7m Cable	Female Thread 1/4"	C0251F-301-4HO

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