MANOCOMB® - IP65

Precision Pressure Switch with integr. pressure gauge

for wall and pipe mounting



Type designation	Number of contacts	gauge	Process connection
1K	1	no	1
1KA	1	1	1
2K	2	no	1
2KA	2	1	1
2KP	2	no	2
2K2AP	2	2	2
1KPDi	1	no	2
1K2APDi	1	2	2

Low pressure ranges (integr. gauge not available)

0 - 60 mbar	-60 - 0 mbar
0 - 100 mbar	-100 - 0 mbar
0 - 160 mbar	-160 - 0 mbar
0 - 250 mbar	-250 - 0 mbar
0 - 400 mbar	-400 - 0 mbar

Pressure range (gauge available)

0 - 0,6 bar	- 0,6 - 0 bar
0 - 1 bar	- 1 - 0 bar
0 - 2,5 bar	
0 - 4 bar	
0 - 6 bar	
0 - 10 bar	
0 - 16 bar	
0 - 25 bar	
0 - 40 bar	0 - 160 bar
0 - 60 bar	0 - 250 bar
0 - 100 bar	0 - 400 bar

Differential pressure ranges

in the ration of 10:1 from static pressure to differential pressure.

Others on request.

General description

The MANOCOMB®-IP65 precision pressure switch features:

- calibrated set point scales
- a friction-free force-balance measuring system
- high repeatability
- integrated pressure gauge (optional)
- high usability and comfortable handling

Design

Reinforced plastic housing (Polycarbonate) with transparent Makrlon cover, protection IP 65.
Housing according to UL94-V0 optionally available.

Precision pressure switch

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 completly friction-free, resulting in minimal wear and no maintenance.

Actual value indicator (integr. pressure gauge)

The standard version can be supplied with or without an actual value indicator. These indicators are burdon tube pressure gauges with an accuracy of ≤ 1,0%.

Technical data

wetted parts, standard	:	brass and tin-bronze
wetted parts, stainless steel	:	1.4571 (AISI 316Ti)
overpressure safety	:	1,3x (DIN 16005)
allowed temperature	:	-10°C - +70°C
temerature deviation	:	1% per 20°C
Accuracy of pressure gauge	:	≤ 1,0 %
Accuracy of setpoint scales	:	≤ 1,0 %
contact adjustment range	:	0 - 100 %
repeatability	:	≤ 0,03 %
switching differential (hysteresis)	:	see electrical data
process connection	:	G1/4 BSP male
weight	:	approx. 1,5 kg
protection	:	IP65

Electrical data

Max. load of microswitches (Cat. AC/DC 12)

Microswitch		24V	48V	110V	240V	Hysteresis at 1 -250 bar
Standard	A (AC)	5	5	5	5	≤ 1,0 %
	A (DC)	1	0,5	-	-	
MW	A (AC)	5	5	5	5	≤ 0,8 %
	A (DC)	1	0,5	-	-	
MH	A (AC)	5	5	5	5	≤ 2,0 %
	A (DC)	5	2	0,8	0,4	
MG	A (AC)	1	1	1	-	≤ 1,5 %
	A (DC)	1	0,5	0,2	-	

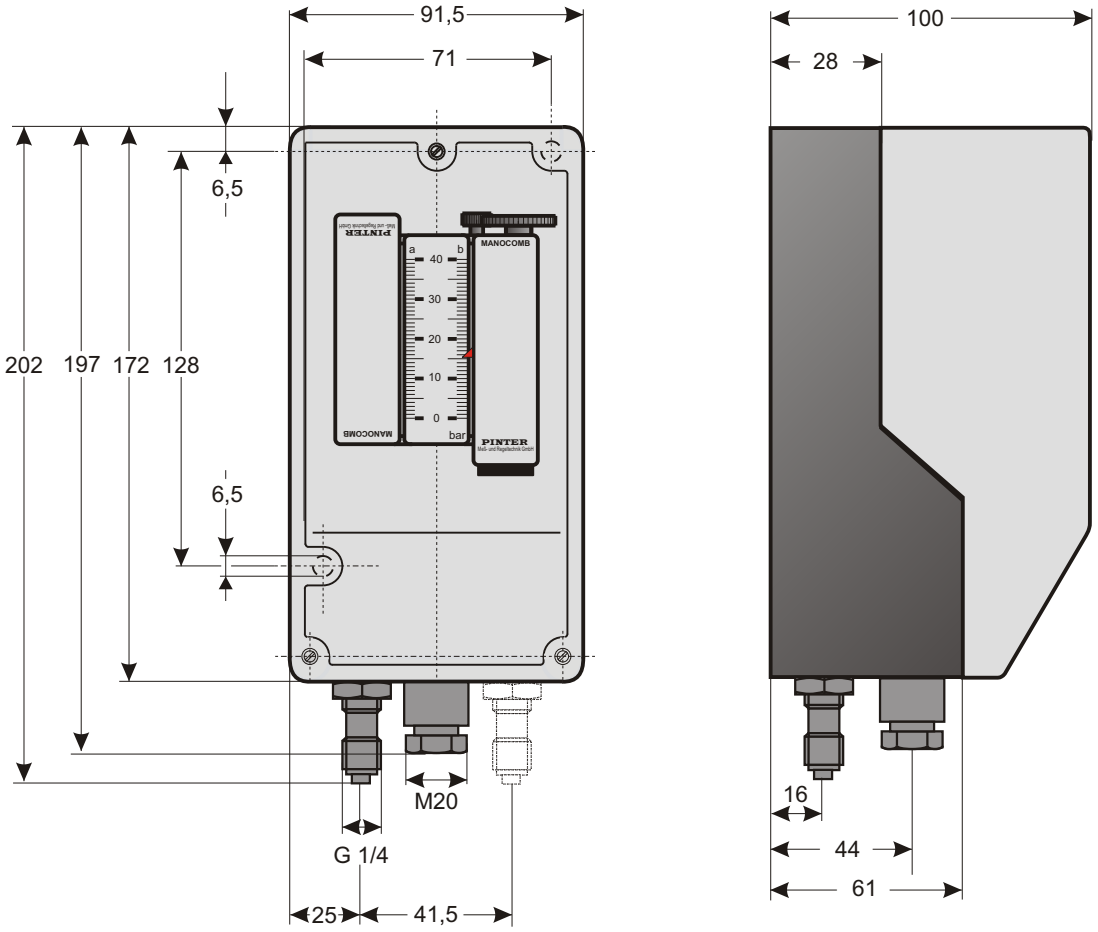
All values regarding non-inductive load

Electrical connection with terminal blocks 2,5mm²

alternatively:
- inductive contacts
- airgap contacts
- pneumatic 3/2-way valve
- analog signal instead of 2nd contact. (see model TM)

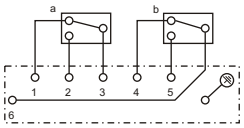
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Designs and Dimensions
MANOCOMB® - IP65
Precision Pressure Switch

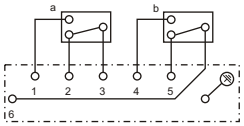


Wiring diagrams
shown in zero-pressure condition

positive overpressure



negative overpressure



Certificates
MANOCOMB® - IP65
Precision Pressure Switch

EC-Type-examination (Module B) acc. to Directive 97/23/EG

Certificate-No.: BAF-MUC 03 12 707534 001

VdTÜV-Merkblatt Druck 100/1
Pressure Equipment Directive (PED) 97/23/EG

Type-test approval no.: TÜV . DWFS (SDBFS) . 02 - 312

EC-Type-examination acc. to Directive 90/396/EWG
DIN EN 1854
DIN 3398-3

Certifcate-No.: CE-0085BO6137 / 6138

DIN 3398-4

Registernumber: 3C03803

Stand: 22.04.2004 / Änderung vorbehalten

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PINTER GmbH
Mess- und Regeltechnik
Technische Keramik

Höhenweg 4
D - 69436 Schönbrunn
Telefon: +49 6272 9303 - 3
Telefax: +49 6272 9303-40
Email: info@pinter-gmbh.de
Internet: www.pinter-gmbh.de