



## Applications

Capsule gauges for low pressure with integrated ALL-IN-ONE precision transmitter are used to measure and monitor gaseous, non-aggressive media.

The possibility of digital crosslinking via RS-485 interface, the 4..20mA analogue output or the usage of both integrated switching outputs expand the application ranges of the combined instrument for the solution of the most diverse MSR applications.

In addition to the electronic data transmission of the measured value, the classic mechanical display of the instrument ensures a fast on-site display of the measurand. At the same time it is a redundant way of measurement to the transmitter.

Both switching outputs are freely adjustable regarding their switching function, switching points and switching hysteresis via USSCOM software. Furthermore, it has a software low-pass, which suppresses the pulsation of the medium efficiently.

An active temperature compensation guarantees the compliance with the error class in the entire rated temperature range without any additional errors.

"USSCOM" is also used to display the pressure and temperature measured values of up to 254 crosslinked transmitters on one PC.

Reference and test equipment

Process gas supply

Density examination

Environmental technology

Pressure switch

Ventilation engineering

Combustion controller

Research

Analysis technology

## Standard Version

### Process Connection

G ½ B (½ " BSP)

### Measuring Cell / Sensor

Piezoresistive full bridge

### Case

Stainless steel

### Pressure Range / Overload

Standard spans

Overpressure [mbar]	Overload limit [mbar]
0 – 40	52
0 – 100	130
0 – 250	325
0 – 600	780

Rupture pressure: minimum 5-fold  $P_N$

### Electrical Data (Wiring see back of page)

Output signal analogue: 2-wire 4..20 mA

Digital interface: RS 485

2 short-circuit proof switching outputs (PNP-switch with NC-function) for ohmic, capacitive and inductive load each 0.2 A, short-circuit proof, voltage drop (at  $I_{max} = 0.2 A$ )  $\leq 2 V$ ;  
Switching function: breaking contact, making contact, window or inverted window adjustable via optional software USSCOM

### Electrical Connection

Universal plug connector, lateral to the right

### Load Impedance

$RL < (U_B - 8 V) / 0.023 A$ ; max. 680 Ohm at 24 V DC



### Power Supply

+12 to +24 V DC ( $\pm 25 \%$ ), reverse polarity protected

### Measurement Accuracy

Capsule gauge for low pressure: see data sheet 6201  
Integrated DMU:  $\leq 0.1 \%$  in entire rated temperature range (including non-linearity, hysteresis and non-repeatability)

### Temperature Ranges

Transport and storage temperature:  $-40 \text{ }^\circ\text{C}$  to  $+85 \text{ }^\circ\text{C}$   
( $-40 \text{ }^\circ\text{F}$  to  $+185 \text{ }^\circ\text{F}$ )

Rated temperature:  $10 \text{ }^\circ\text{C}$  to  $+40 \text{ }^\circ\text{C}$   
( $+50 \text{ }^\circ\text{F}$  to  $+104 \text{ }^\circ\text{F}$ )

### Reference Temperature

$+20 \text{ }^\circ\text{C}$  ( $+68 \text{ }^\circ\text{F}$ )

### Long-term Stability

$\leq 0.05 \%$  FS/a (at reference conditions)

### Position of Installation / Position of Connection

Any

### Protection Type (EN 60529/ IEC 529)

IP 54

### Options

- Other process connections upon request
- Other measuring ranges upon request
- Vacuum, compound and differential pressure versions upon request
- Version with increased precision upon request
- Other rated temperature ranges upon request
- Switching output adjusted ex works
- Software USSCOM for visualisation of the measuring data and administration of the transmitter
- RS-485 / USB converter with integrated voltage converter 5 V / 12 V; 0.15 A

### Ordering Information

Please specify in your order:

Model: **KPCh100-3**  
Pressure range: e.g. **600 mbar**  
Process connection: e.g. **G ½ B**  
With **integrated DMU**  
**Model DIGPTM**  
Output signal: e.g. **0..20 mA**

**Example:** **KPCh100-3, 600 mbar, G ½ B, with DMU Model DIGPTM 4..20mA**



Sales and Export South, West, North

**ARMATURENBAU GmbH**

Manometerstraße 5 • D – 46487 Wesel-Ginderich  
Tel.: +49 (0) 28 03/ 91 30 – 0 • Fax: +49 (0) 28 03/ 10 35  
armaturenbau.com • mail@armaturenbau.com



Subsidiary Company, Sales and Export East

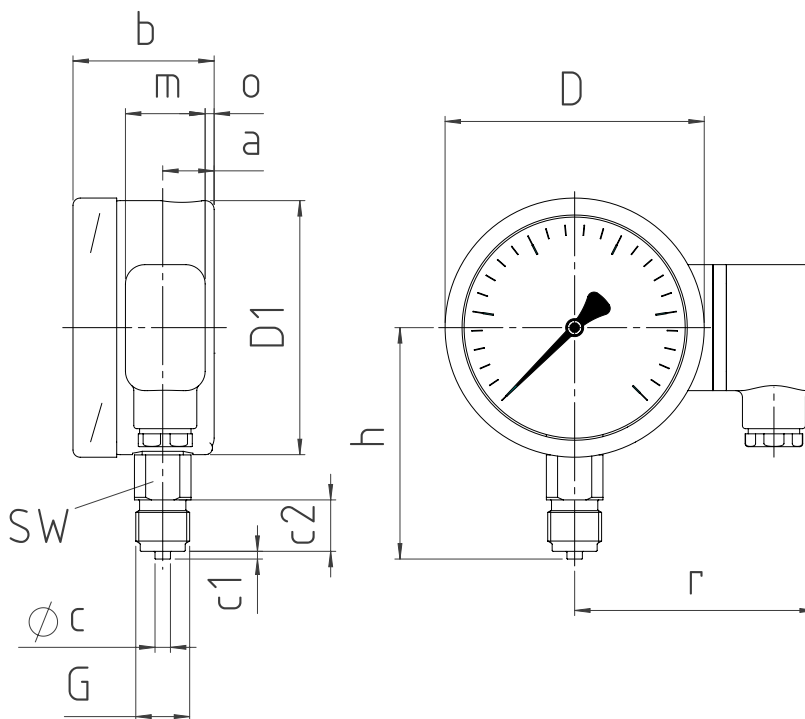
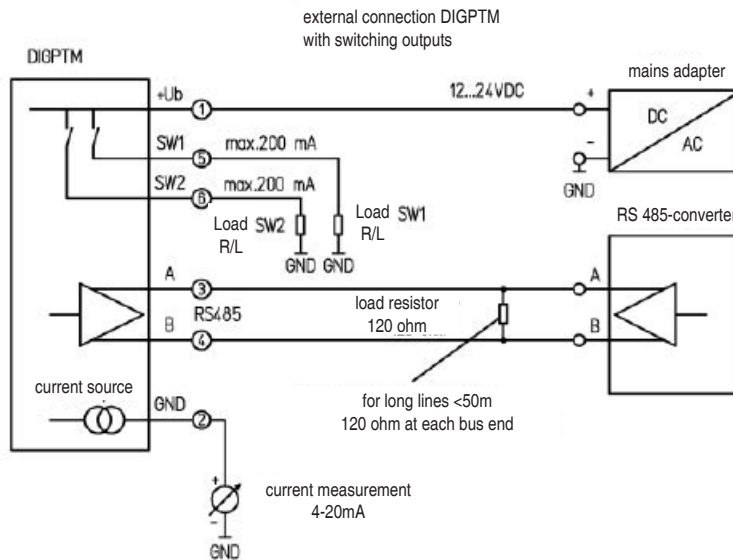
**MANOTHERM Beierfeld GmbH**

Am Gewerbepark 9 • D – 08344 Grünhain-Beierfeld  
Tel.: +49 (0) 37 74/ 58 – 0 • Fax: +49 (0) 37 74/ 58 – 545  
manotherm.com • mail@manotherm.com



## Dimensional Data and Weights, Wiring Diagram

### Standard Version



**Dimensional Data (mm / inches) and Weights (kg / lb)**

	a	b	c	c1	c2	D	D1	G	h	m	o	r	SW	approx. weight
KPCh100-3 DIGPTM	20	55	6	3	20	101	99	G $\frac{1}{2}$	87	31	3,5	94	22	0.7
	.79	2.17	.24	.12	.79	3.98	3.9	$\frac{1}{2}$ "BSP	3.43	1.22	.14	3.7	.87	1.54
								M 20x1.5						

