



Compact High Pressure Transmitter

Series 100



Ranges from 0...6 bar up to 2,200 bar gauge

Various output signals

Variety of pressure ports

Built-up to approx. 35 mm only

GENERAL

The miniature pressure transmitter features small dimensions cum excellent performance. Ideal for installations where space is at a premium.

DESCRIPTION

In the bare 30mm sized housing a sputtered thin film sensor inclusive electronics has been built-in. The proof pressure of 3 x FS enables sensors to survive most severe pressure peaks.

A wide choice of electrical outputs as well as both electrical and pressure connections means the unit is suitable for most applications without modification. The welded stainless steel construction ensures long service life.

TECHNICAL DATA

INPUT

Measuring Span

from 0...6 bar
up to 0...2,200 bar gauge ¹⁾

Proof Pressure

$2 \times P_N$ (up to 1000bar); $1.25 \times P_N$ >1600 bar
(Return to zero without remaining offset)

Burst Pressure

10 x nominal up to 100 bar
4 x nominal up to 1000 bar

Fatigue life

> 100 Millionen cycles

Zero Tolerance

1 % of span

Span Tolerance

1% of span (mV version _ 10 mV)

Sensitivity

1% of span (mV version on request)

Media Gases, vapours and liquids

Pressure Port

see order codes

Wetted Parts

Stainless Steel 17-4 PH (X5CrNi-CuNb16-4); FKM

OUTPUT

Output Signal: see order codes

Characteristics linear

Conformity

± 0.25 % of nominal pressure
(Fix point methode, incl. Hysterisis)

Load

Two- wire technology

$$R_L = \frac{U_{Supply} - 10[V]}{0,02[A]} [Ohm]$$

Three-wire technology [V] $\geq 10 \text{ k}\Omega$

Three-wire technology [mV] $\geq 100 \text{ k}\Omega$

Response time

approx. 2 ms

Longterm Drift

0.1 %/ year [nominal pressure]
(Non cumulative)

POWER SUPPLY

Direct current

Version	Output	Supply
Voltage	all	$U_S = U_{SIGNAL} + 2[V]$ (up to 36 V)
Current	4...20 mA	10 ...36 V
ratiometr.	0,5...4,5 V	5 V
mV	from 10 to 25	10 V

Consumption

Version	Voltage	Current	mV
Required	8 mA	20 mA	3,5 mA

AMBIENT CONDITIONS

Permissible Ambient Temperature

-40...+125 °C

Permissible Process Temperature

-40...+125 °C

Compensated Temperature

-40 ...+120 °C

Temperature Effect

≤ 0.2 % / 10 K

Vibration

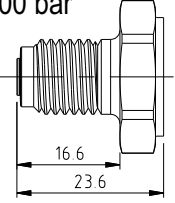
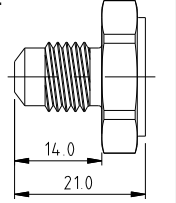
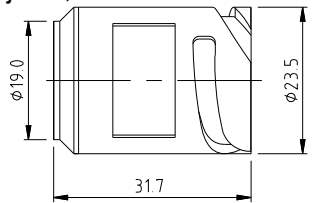
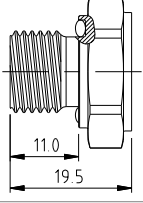
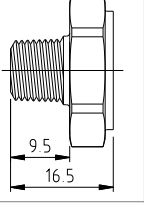
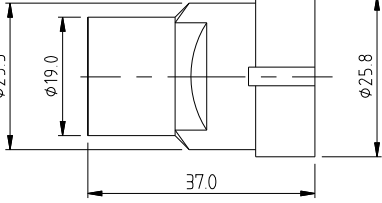
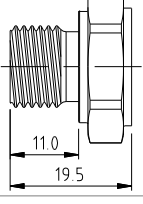
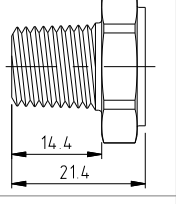
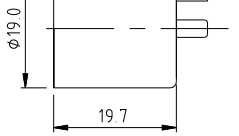
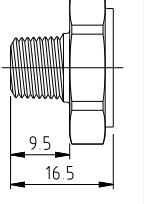
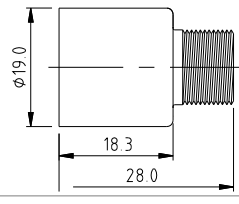
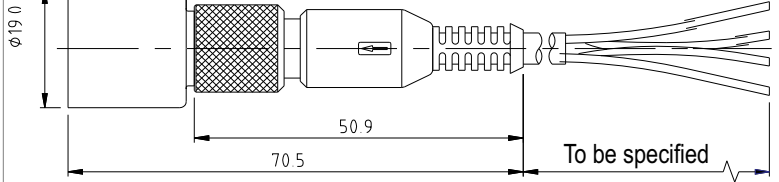
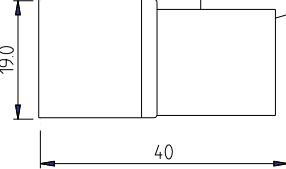
20 g_{pp} sinusoidal, 10 - 2000 Hz

Electromagnetic Compatibility

CE approved

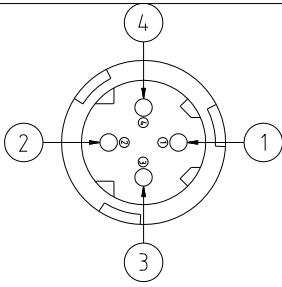
¹⁾ Measuring ranges ≥ 1000 bar only
with M12 x 1,5 (6g) coupling

DIMENSIONS

Code		Code		Code	
2T	M12 x1,5 6g ≥ 1000 bar 	04	7/16 UNF 37° cone SAE 	7	Bajonet, IP 68 
05	G ¼ A with O-Ring 	08	NPT 1/8 -27 ANSI 	6	AMP Superseal, IP 67 
01	G ¼ A BS 5380 	02	NPT ¼ -18 ANSI 	A	Mini DIN, IP 65 
		OL	M12 x 1,5 	E	M12 x 1, 4-Pin, IP 67 
					M12 x 1, 4 Pin, IP 67, free ends 
				8	Deutsch plug DT04, IP 67 

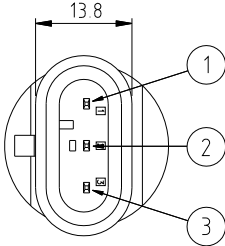
ELECTRICAL CONNECTIONS

Code



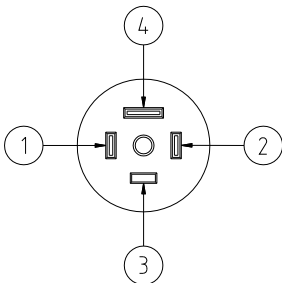
7

Pin out	Current 4...20 mA	Voltage Volt	Voltage mV
1	Output plus	Supply plus	
2	Output minus	Supply/Output minus	
3	Not allocated	Output plus	
4	Not allocated	Not allocated	



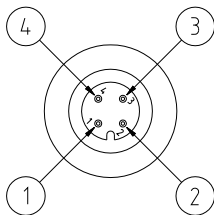
6

1	Not allocated	Output plus
2	Output minus	Supply/Output minus
3	Output plus	Supply plus



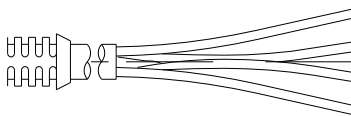
A

1	Not allocated	Output plus
2	Output plus	Supply plus
3	Not allocated	Not allocated
4	Output minus	Supply/Output minus

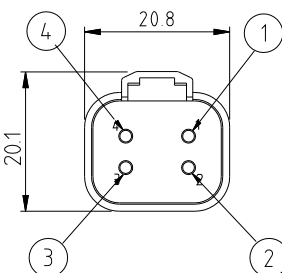


E

1	Output plus	Supply plus	Supply plus
2	Not allocated	Output plus	Output minus
3	Output minus	Supply/Output minus	Output plus
4	Not allocated	Not allocated	Supply minus



Red	Output plus	Supply plus	Supply plus
green	Not allocated	Output plus	Output minus
blue	Output minus	Supply/Output minus	Output plus
yellow	Not allocated	Not allocated	Supply minus



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1	Output minus	Supply/Output minus
2	Output plus	Supply plus
3	Not allocated	Not allocated
4	Not allocated	Output plus

GENERAL

Housing

Stainless steel 316 L (1.4435)

Mode of Protection

IP 65 for electr. version A
IP 67 for electr. version E, 6
IP 67k for electr. version 7

Electrical Connections

see order codes

Mounting

Position not critical

- Via process coupling according to version. It must be assured that during mounting in liquid filled pipes/containers the displaced volume freely can escape. For process temperatures above + 120 °C the use of a syphon is recommended.

Gasket

- According to versions with anaerobe sealing material.

Pressure spikes

- Especially within hydraulic systems with fast acting valves (shut down) transient pressure spikes are present. It is recommended that a restrictor respectively a damping device is fitted to protect the transmitter.

Mounting Torque

max 30 Nm

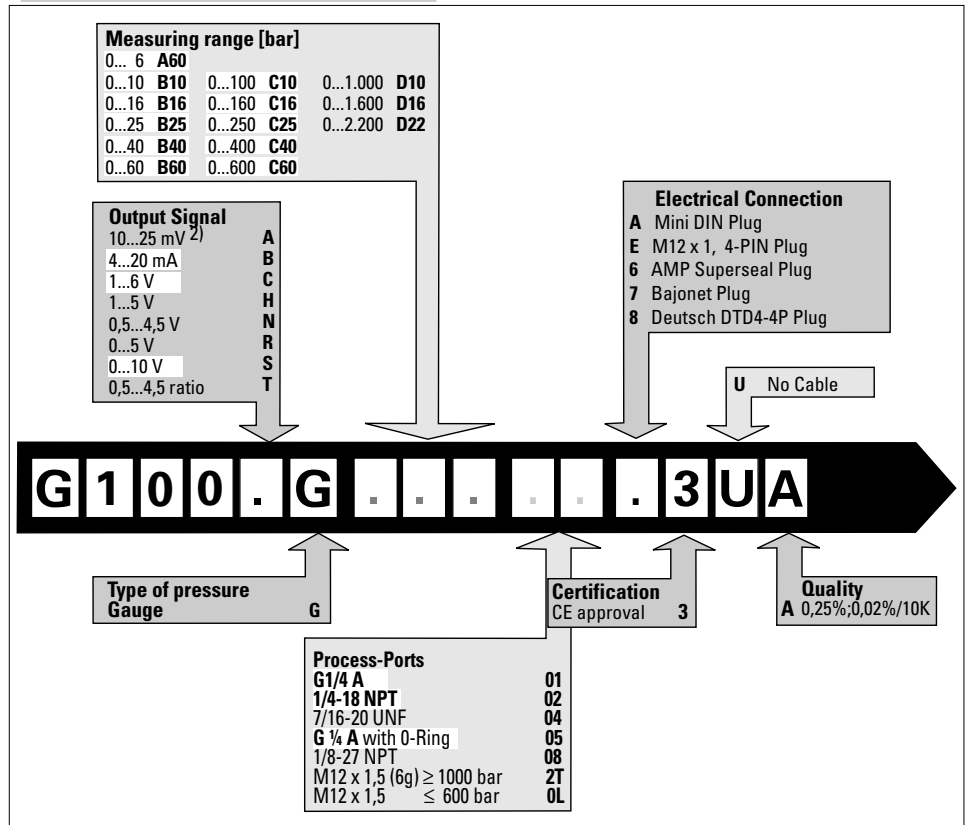
Weight

approx. 35 g (without connector)

Accessories

Operations see: www.pma-online.de/en/products

ORDER CODES



High lighted specifications are preferred options and available on short lead time

ACCESSORIES

Cable with plug M12 x 1

(for code E electrical connection)

Length	Order code
1 m	G557703-01M0
2 m	G557703-02M0
3 m	G557703-03M0
4 m	G557703-04M0
5 m	G557703-05M0

AMP Superseal Plug

(for code 6 electrical connection)

Order code	G557701
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Mini DIN Stecker

(for Code A electrical connection)

Type C Industry standard RM 9,4

Order code	G557702
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²⁾ only with electrical connection code A



Germany

PMA Prozeß- und Maschinen- Automation GmbH
Miramstrasse 87, D-34123 Kassel

Tel./Fax: (0561) 505 - 1307/-1710
E-mail: mailbox@pma-online.de
Internet: <http://www.pma-online.de>

Your local dealer: