

Minipak Series Transmitters

Superior thin film sensing products

Highly Accurate, Thin Film Pressure Sensors, Transmitters and Dual Output Transducers



Features

- Superior Long Term Stability
- High Accuracy Across Wide Temperature Ranges
- Rugged Design—All Stainless Steel Housing and Wetted Parts
- EMC Protection
- Ranges from 0-3.5 Bar up to 3,000 Bar
- High Quality Product & Process Design
- Low Cost

Applications

- Hydraulics Controls
- HVAC Systems
- Engine Controls (including Diesel)
- Industrial Process Controls
- Off-Highway Equipment Controls
- Compressors and Pumps

InstrumentTeam Minipak Series is a unique product providing a lifetime of accuracy for pressure and combined pressure/temperature applications used in harsh media requiring stainless steel wetted parts.

The 17-4PH stainless steel sensor design allows for a wide range of temperature and provides a rugged design that can withstand high levels of shock and vibration.

Combined with an ASIC technology and cutting edge package design, the Minipak product has a diverse range of outputs, fittings and electrical connectors.

Specifications:

Input

Pressure Range 0 to 5 bar to 2200 barg, **Proof Pressure** 4 (2) x FS, (Ranges 1600 & 2200bar 1.5x), **Burst Pressure** Ranges 400bar 10 x minimum 600, 1000 4 x, 1600 & 2200 1.8 x. **Fatigue Life** Designed for more than 100,000,000 cycles

Performance

Long Term Drift 0.1% FS/year non cumulative, **Accuracy** $\pm 0.25\%$ FS (Temp O/P $\pm 2.5\%$ FS), **Thermal Error** $\pm 1\%$ typical/100°C, **Compensated Temperature** -40° to 120°C (-40° to 250°F), **Operable** -40° to 125°C (-40° to 250°F), **Zero Tolerance** $\pm 0.5\%$ of span
Span Tolerance $\pm 0.5\%$ of span

Mechanical Construction

Pressure Port See ordering chart (current 4.5mA), **Wetted Parts** 17-4 PH Stainless Steel, **Electrical Connection** See ordering chart

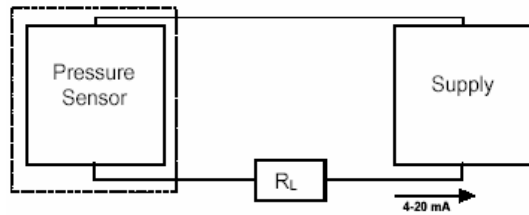
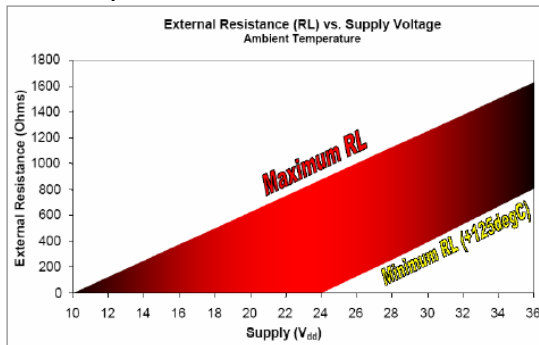
Enclosure

IP67 for electrical codes E, 6, 7, 8 and 9, IP65 for electrical code B (with connector fitted), **Vibration** 20G, 10-2000Hz sinusoidal
Shock Withstands free fall to IEC 68-2-32 procedure 1, **Approvals** CE, **Weight** 35 gms

Voltage Output Units

Output See ordering chart (current 4.5mA), **Supply Voltage** 2 Volts above Full Scale, to max 30 Volts

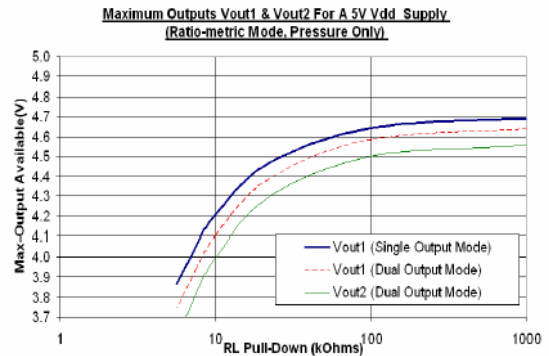
Current Output Units



Output 4-20mA

Supply Voltage 10 to 30Vdc (24Vdc max for 110° and above), **Max. Loop Resistance** $(V_s - 10) \times 50$ ohms

Ratiometric Output Units



Output 0.5 to 4.5Vdc, **Supply Voltage** 5Vdc, $\pm 10\%$ (current 3.5mA)

How to order:

Use the **Bold** characters from the chart below to construct a product code

Model	I	II	III	IV	V	VI
IT-3X0X	X	XXXXX	XX	X	X	00

Model

IT-3X0X

100 - Pressure output standard duty

200 - Pressure output heavy duty

101 - Pressure and temperature output standard duty (see **Note 1**)

201 - Pressure and temperature output heavy duty (see **Note 1**)

Tabel I, Output:

B - 4-20mA **C** - 1-6V

H - 1-5V **N** - 0.5 to 4.5V Non Ratiometric **R** - 0-5V

S - 0-10V **T** - 0.5 to 4.5 Ratiometric

Tabel II, Pressure Range:

0005G – 5barG, **0010G** – 10barG, **0100S** – 100barS, **0016G** – 16barG, **0160S** – 160barS,
0025G – 25barG, **0250S** – 250barS, **0040G** – 40barG, **0400S** – 400barS, **0060G** – 60barG,
0600S – 600barS, **1000S** –1000barS, **1600S** –1600barS, **2200S** – 2200barS, (see **Note 2**)

Tabel III, Integral Pressure Connection

01 - G1/4 External

02 - 1/4- 18 NPT External

04 - 7/16-20 UNF External

05 - G1/4 External Soft Seal

08 - 1/8 NPT External

0L - M12 x 1.5 - 6g (600b and below)

1G - Schraeder Deflator (Short)

1J - 7/16 - 20 UNF External 'O' Ring Seal

2T - M12 x 1.5-6g (1000b and above)

Tabel IV, Restrictor

0 - Not fitted

R – Fitted

Tabel V, Electrical Connection

6 - AMP Superseal 1.5 Series

7 - DIN 72585 Bayonet

8 - Deutsch Series DT-04

9 - Packard Metripak

B - Industrial DIN 43650 C (small)

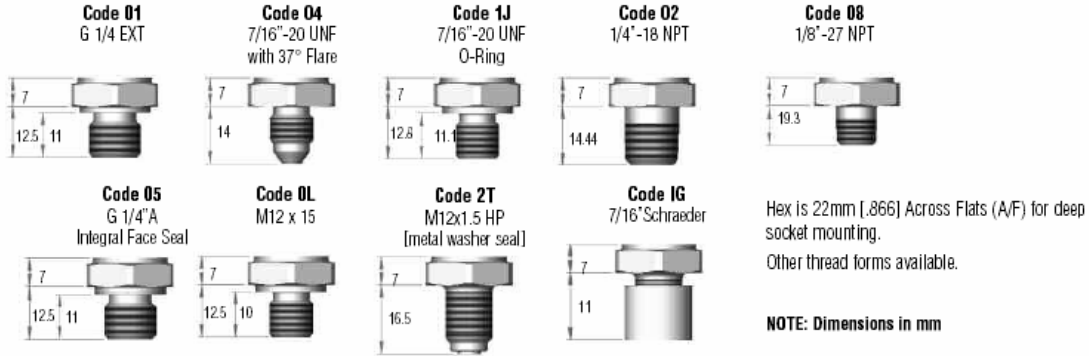
G - DIN 43650 A (big)

E - M12x 1

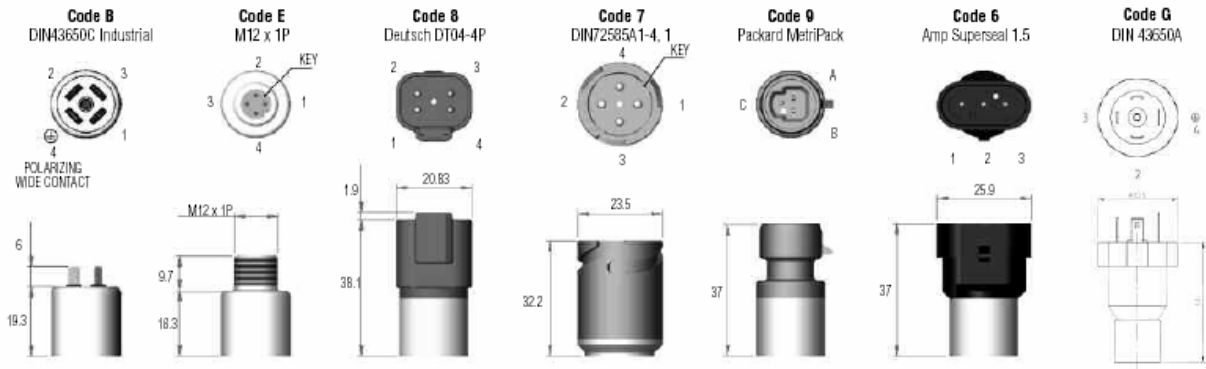
Note 1 Pressure and temperature output available with voltage output and electrical connectors B, E, 7 and 8 only

Note 2 Ranges 1000 bar and above available with 2T pressure port only and standard duty.

MECHANICAL FITTINGS



ELECTRICAL CONNECTOR



Note: The diameter of all cans is 19mm [.748]

Pin #	Function	
	Current	Voltage
1	N/A	Press D/P +VE
2	+VE	Supply +VE
3	N/A	Temp O/P +VE
4	-VE	Common

Pin #	Function	
	Current	Voltage
1	-VE	Supply +VE
2	N/A	Press D/P +VE
3	-VE	Common
4	N/A	Temp O/P +VE

Pin #	Function	
	Current	Voltage
1	-VE	Common
2	-VE	Supply -VE
3	N/A	Temp O/P +VE
4	N/A	Press D/P +VE

Pin #	Function	
	Current	Voltage
1	+VE	Supply +VE
2	-VE	Common
3	N/A	Press O/P +VE
4	N/A	Temp O/P +VE

Pin #	Function	
	Current	Voltage
A	-VE	Common
B	+VE	Supply +VE
C	N/A	Press D/P +VE

Pin #	Function	
	Current	Voltage
1	N/A	Press D/P +VE
2	-VE	Common
3	+VE	Supply +VE

Pin #	Function	
	Current	Voltage
1	Positive	Supply +VE
2	Negative	Common
3	N/A	Press O/P +VE
4	N/A	N/A



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