



Protran® PR3860

HIGH TEMPERATURE PRESSURE TRANSMITTER



- THICK FILM SENSOR TECHNOLOGY
- PRESSURE RANGES 0-10bar TO 0-400bar
- 4-20mA TWO WIRE OUTPUT
- ACCURACY 0.30% NLHR
- OPTIONAL ATEX APPROVED VERSION (4-20mA ONLY)
- UP TO 250°C MEDIA TEMPERATURE
- ½" BSP WITH FLUSH DIAPHRAGM
- 316L STAINLESS STEEL MEMBRANE
- ALL STAINLESS STEEL HOUSING

DESCRIPTION

The PR3860 high temperature pressure transmitter has been designed to meet the requirements of the majority of industrial pressure measurement applications where a hygienic flush diaphragm connection is required.

Robustly constructed from stainless steel, the PR3860 pressure transmitter permits accurate pressure measurement at elevated temperatures. Output options include 0-5Vdc, 0-10Vdc and 0-20mA. This transmitter is suitable for use at media temperature up to 250°C. Typical applications include food processing, pharmaceutical and petrochemical. The flush membrane can be easily cleaned for long term reliability and outstanding performance. The PR3860 offers a stable and accurate output signal of 4-20mA with options for 0-5Vdc, 0-10Vdc, 0-20mA and other output signals. Electrical connection is via a detachable DIN connector allowing easy access to zero and span adjustment. Pressure ranges available from 0-10bar to 0-400bar.

Optional weldable boss is available to ensure flush-face installation of transmitter to tanks and pipe-work.

An optional ATEX certified version of this product is available approved for explosion protection for flammable gases (zone 0), dusts (zone 20) and mining areas (group I MI).



PRESSURE RANGES

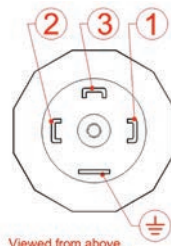
0 - 10bar through to 0 - 400bar see table below for list of all standard pressure ranges.

Range (bar)	Order Code	Range (bar)	Order Code
0-10	0010	0-100	0100
0-16	0016	0-160	0160
0-25	0025	0-250	0250
0-40	0040	0-400	0400
0-60	0060		

DIMENSIONS (in mm)



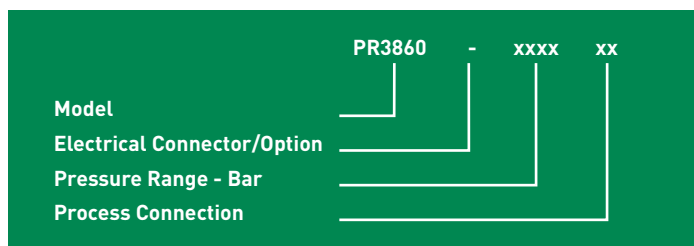
ELECTRICAL CONNECTION (mA)	
Pin No.	2 wire
1	+supply
2	4-20mA signal
3	not fitted to case
⊥	



Viewed from above with socket removed.

ELECTRICAL CONNECTION (Vdc)		
Pin No.	4 wire	3 wire
1	-supply	common
2	+supply	+supply
3	+output	+output
⊥	-output	to case

ORDERING INFORMATION



ELECTRICAL CONNECTION/OPTION

DIN 43650 plug and socket
ATEX certified with DIN43650 plug and socket

PROCESS CONNECTION

1/2" BSP male flush diaphragm

EXAMPLE

Output signal 4-20mA
ATEX certified with DIN43650 plug and socket
Pressure range 0-100barg
Pressure connection 1/2" BSP male flush diaphragm
Correct Part Number

For options not listed contact sales team

Order Code

-

EX

Order Code

BA

Order Code

PR3860

EX

0100

BA

PR3860EX0100BA

SPECIFICATION

PRESSURE REFERENCE

Gauge

OVERPRESSURE

Pressure can be exceeded by 1.5x full scale range with no damage or change in calibration greater than $\pm 0.5\%$ FS.

OUTPUT SIGNAL

4-20 mA (2 wire configuration) as standard.
0-5Vdc and 0-10Vdc available on request.

ZERO OFFSET AND SPAN TOLERANCE

± 0.16 mA (at room temperature)
 $\pm 5\%$ FS zero adjustment with easy access trimming potentiometers.

SUPPLY VOLTAGE

Measured across supply terminals on connector plug
13-36Vdc for 4-20mA versions

PROTECTION OF SUPPLY VOLTAGE

Protected against supply voltage reversal up to 50Vdc

ACCURACY (NON LINEARITY, HYSTERESIS & REPEATABILITY)

$\pm 0.30\%$ FS Typical Max. Best fit straight line.

PRESSURE MEDIA

All fluids compatible with 316 stainless steel.

OPERATING TEMPERATURE RANGE

Media: 0°C to +250°C
Sensor and electronics thermally insulated from media temperature.
Operating : -20°C to +85°C
Storage: 5°C to +40°C

TEMPERATURE EFFECTS

$\pm 2.5\%$ FS total error band for -20°C to +70°C.
Typical thermal zero and span coefficients $\pm 0.04\%$ FS/°C

ATEX APPROVAL (4-20mA versions only)

Ex II 1 G Ex ia IIC T4 Ga (zone 0)
Ex II 1 D Ex ia IIIC T135°C Da (zone 20)
EX I M 1 Ex ia I Ma (group I M1)

ATEX SAFETY VALUES

Ui = 28V
Ii = 119mA
Pi = 0.65W
Li = 0.1
Ci = 62nF
Temperature range = -20°C to +70°C
Max. cable length = 105m

ELECTROMAGNETIC CAPABILITY

Emissions: EN61000-6-4
Immunity: EN61000-6-2

PRESSURE CONNECTION

1/2" BSP male with flush 316L diaphragm.

ELECTRICAL CONNECTION

Mating socket with screw terminal connections to DIN 43650, rated IP65. Flying lead with optional cable length also available.

DISCLAIMER : ESI Technology Ltd operates a policy of continuous product development. We reserve the right to change specification without prior notice. All products manufactured by ESI Technology Ltd are calibrated using precision calibration equipment with traceability to international standards.

