

## ESI - PR3800 - FLUSH DIAPHRAGM PRESSURE SENSOR

PR3821A02.5BV  
0-5V, 0..2.5 bar, SMS 40mm female, 1M cable

- Thick film sensor technology for long service life
- Pressure ranges up to 400 bar
- Up to 250°C media temperature option
- Easy clean flush membrane to prevent clogging



### PRODUCT DESCRIPTION

Robustly constructed from stainless steel, the PR3800 series incorporates the latest strain gauge technology together with a custom IC amplifier offering excellent stability and accuracy over a long service life. The range offers a stable and accurate output signal of 4-20 mA with options for 0-5 V and 0-10 V. Typical applications include food processing, pharmaceutical, petrochemical, waste water and slurry handling. In these installations the process media may corrode the sensing diaphragm or clog the narrow pressure inlet on a standard transmitter. The flush membrane can be easily cleaned for long term reliability and outstanding performance. For hygienic applications the PR3800 series provides a sanitary grade pressure fitting. Seals are available in a variety of forms and materials for a wide range of applications and can be directly attached to the proposed connection or remotely via stainless steel capillary. Pressure ranges available from 0-200 mbar to

An optional ATEX and IECEx approved versions of this range are available for explosion protection for flammable gases (zone 0), dusts (zone 20) and mining areas (group I M1).

### TECHNICAL DATA

|                          |                          |
|--------------------------|--------------------------|
| Ambient temperature      | -20..85°C                |
| Electrical connection    | 1M Cable outlet screened |
| EMC                      | EN61000-6-4, EN61000-6-2 |
| Linearity                | ≤±0.3% BSFL              |
| Material of wetted parts | Stainless steel          |
| Media temperature        | -20..85°C                |
| Output                   | 0-5V                     |
| Overpressure protection  | 3.75 bar                 |
| Pressure range max       | 2.5 bar                  |
| Pressure range min       | 0 bar                    |

|                            |                                                       |
|----------------------------|-------------------------------------------------------|
| <b>Pressure reference</b>  | Gauge                                                 |
| <b>Process connection</b>  | SMS 40mm                                              |
| <b>Sensor technology</b>   | Ceramic thick film or Isolated Piezoresistive Silicon |
| <b>Storage temperature</b> | 5..40°C                                               |
| <b>Supply voltage</b>      | 13-30 V DC                                            |