

## Sub-Miniature Pressure Sensor



### Features

- ➔ Available with 0,5-4,5Vdc output
- ➔ Operating from -40 to +125°C
- ➔ Ultra light sensor : 3 grams
- ➔ Pressure ranges from -1 to 250bar

### Applications

- ➔ Automotive - on vehicle
- ➔ Machine construction
- ➔ Medical instruments
- ➔ Automation & Robotics

The PST860 series is a miniature pressure sensor. Operating from -40 up to +125°C, three compensated temperature ranges are available to best suit your application's environment. Its wetted parts being stainless steel, it is compatible with most media, including corrosive fluids used in automotive and aerospace industries. High performances and stability over temperature are achieved thanks to EFE proprietary sensing technologies. The robust and proven design of the sensor ensures reliability in your application. The PST860 series is available with unamplified (mV/V) and amplified voltage output (0,5-4,5Vdc), integrating a high performance and ruggedized electronic module.

## Technical specifications

|                                          |                                                                                                                                                                    |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pressure ranges (FS)                     | -1/+4bar ; -1/+9bar ;<br>5bar ; 10bar ; 20bar ; 40bar ; 70bar ; 250bar ;<br>-14.5/+50PSI ; -14.5/+140PSI ;<br>70PSI ; 150PSI ; 300PSI ; 500PSI ; 1000PSI ; 3000PSI |
| Type                                     | Absolute ; Gage                                                                                                                                                    |
| Type (for ranges > 40 bar)               | Sealed Gage                                                                                                                                                        |
| Safe overload                            | 150% FS                                                                                                                                                            |
| Burst pressure                           | 300% FS                                                                                                                                                            |
| Power supply                             | 8 to 16Vdc                                                                                                                                                         |
| Consumption                              | < 10mA                                                                                                                                                             |
| Insulation                               | > 1000 MOhms under 50Vdc at ambient temperature                                                                                                                    |
| Output at -100%FS (only for $\pm$ range) | 0.5Vdc                                                                                                                                                             |
| Output at 0%FS (except ranges $\pm$ )    | 0.5Vdc                                                                                                                                                             |
| Output at 100%FS                         | 4.5Vdc                                                                                                                                                             |
| Zero and sensitivity settings tolerances | $\pm$ 50mV                                                                                                                                                         |

## Technical Specifications

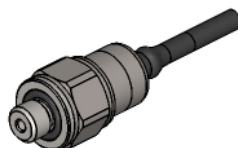
|                                            |                                                                        |
|--------------------------------------------|------------------------------------------------------------------------|
| Non linearity and hysteresis combined      | ±0.25% FS typical (±0.35% FS max.)                                     |
| Non repeatability                          | ±0.02% FS typ.                                                         |
| Signal bandwidth                           | 1000Hz @ -3dB<br>Option : Special Adjustment up to 3000Hz @ -3dB       |
| Compensated temperature range              | 0 to +60°C<br>Option : -25 to +85°C ; -25 to +125°C                    |
| Operating temperature range                | -40 to +125°C                                                          |
| Combined thermal zero & sensitivity shifts | ±0.02% FS/°C                                                           |
| Constant acceleration in linear vibrations | ± 0.02% FS/g (frequency 20-2000Hz, 50g max.)                           |
| Mechanical shock                           | 100g ½ sinus 1ms                                                       |
| Electrical protection                      | Not protected against polarity inversion                               |
| EMC protection                             | Compliant to EN61000                                                   |
| Electrical connection                      | AWG32 4 wires Ø1.6mm Shielded Teflon Cable & Polyolefine Sleeve        |
| Mechanical connection                      | M5x0.8-6g male                                                         |
| Material(s) of wetted parts                | Stainless Steel 316L ; Stainless Steel 17-4PH ; Stainless steel 15-5PH |
| Weight                                     | 3g without cable                                                       |
| Enclosure protection                       | IP65 for sealed gage version                                           |

## Codification

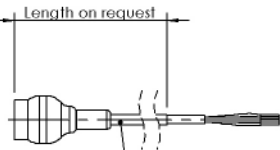
|                                                                 |       |   |   |       |    |    |       |   |   |   |   |  |
|-----------------------------------------------------------------|-------|---|---|-------|----|----|-------|---|---|---|---|--|
| Sub-Miniature Pressure Sensor                                   | PST86 | 7 | S | 10bar | G  | 05 | 17/1m | A | 3 | 1 | B |  |
| Output Signal                                                   |       |   |   |       |    |    |       |   |   |   |   |  |
| 0.5-4.5Vdc unregulated power supply                             |       | 7 |   |       |    |    |       |   |   |   |   |  |
| Material                                                        |       |   |   |       |    |    |       |   |   |   |   |  |
| Stainless Steels                                                |       |   | S |       |    |    |       |   |   |   |   |  |
| Range                                                           |       |   |   |       |    |    |       |   |   |   |   |  |
| Example                                                         |       |   |   | 10bar |    |    |       |   |   |   |   |  |
| Type                                                            |       |   |   |       |    |    |       |   |   |   |   |  |
| Gage                                                            |       |   |   |       | G  |    |       |   |   |   |   |  |
| Sealed Gage                                                     |       |   |   |       | SG |    |       |   |   |   |   |  |
| Mechanical connection                                           |       |   |   |       |    |    |       |   |   |   |   |  |
| M5x0.8-6g male                                                  |       |   |   |       |    | 05 |       |   |   |   |   |  |
| Electrical connection                                           |       |   |   |       |    |    |       |   |   |   |   |  |
| AWG32 4 wires Ø1.6mm Shielded Teflon Cable & Polyolefine Sleeve |       |   |   |       |    |    | 17/1m |   |   |   |   |  |
| Compensated temperature range                                   |       |   |   |       |    |    |       |   |   |   |   |  |
| 0 to +60°C                                                      |       |   |   |       |    |    |       | A |   |   |   |  |
| -25 to +85°C                                                    |       |   |   |       |    |    |       | B |   |   |   |  |
| -25 to +125°C                                                   |       |   |   |       |    |    |       | C |   |   |   |  |
| Non linearity and hysteresis combined                           |       |   |   |       |    |    |       |   |   |   |   |  |
| ±0.25% FS typical (±0.35% FS max.)                              |       |   |   |       |    |    |       |   | 3 |   |   |  |
| Combined thermal zero & sensitivity shifts                      |       |   |   |       |    |    |       |   |   |   |   |  |
| ±0.02% FS/°C                                                    |       |   |   |       |    |    |       |   |   | 1 |   |  |
| Options                                                         |       |   |   |       |    |    |       |   |   |   |   |  |
| Special Adjustment up to 3000Hz @ -3dB                          |       |   |   |       |    |    |       |   |   |   | B |  |



\* Option filetage allongé 10 mm  
10 mm lengthened thread option



DIMENSIONS : mm

|  | 4 CONDUCTOR TEFLON CABLE |           |  <p>#32 AWG 4 conductor<br/>Teflon shielded cable<br/>covered by Polyolefin<br/>or Viton jacket</p> |
|----------------------------------------------------------------------------------|--------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                  | VOLTAGE OUTPUT           | CONDUCTOR |                                                                                                                                                                                        |
|                                                                                  | + EXCITATION             | RED       |                                                                                                                                                                                        |
|                                                                                  | + SIGNAL                 | GREEN     |                                                                                                                                                                                        |
|                                                                                  | 0 VOLT                   | BLACK     |                                                                                                                                                                                        |
|                                                                                  | NC                       | WHITE     |                                                                                                                                                                                        |
|                                                                                  | SENSOR HOUSING           | SHIELD    |                                                                                                                                                                                        |

Agent :



E.F.E.

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