

# PHP225



PHP225 is a transducer dedicated to high pressure measurements. Wetted parts being all stainless steel, it is compatible with all common and corrosive pressure media used in industry. With compact dimensions, low mass and ruggedized design, PHP225 is adapted to a wide range of industrial applications.

EFE thin film technology makes PHP225 compatible with harsh environment, including wide operating temperature, from -40 to +85°C.

Its manufacturing process, including traceable controls and special burn-in, gives the best insurance of high performance and stability in the most challenging applications.

The sensor's integrated electronics deliver a high-level output of 4-20mA.

## FEATURES

- All Stainless Steel Ruggedized Design
- High Pressure up to 3000 bar
- Built-in electronics : 4-20mA
- -40 to +85°C operation

## APPLICATIONS

|   |                  |
|---|------------------|
| X | Energy / Nuclear |
| X | Automotive       |
| X | Test Benches     |
|   | Others           |



## TECHNICAL SPECIFICATIONS

- Pressure Specifications

|                      |  |
|----------------------|--|
| Pressure ranges (FS) | 250bar; 400bar; 600bar; 800bar; 1500bar; 2000bar; 2500bar; 3000bar<br>350PSI; 6000PSI; 8000PSI; 1000PSI; 20000PSI; 30000PSI; 35000PSI;<br>40000PSI |
| Type                 | Absolute ; Gage; Sealed Gage   |
| Safe overload        | 120% FS with no excess of 3000bar  |

- Electrical Specifications

|  |   |
|--|---|
| Power Supply                             | 13 to 30Vdc                                     |
| Consumption                              | Current loop                                    |
| Insulation                               | > 1000 MOhms under 50Vdc at ambient temperature |
| Output at 0%FS                           | 4mA   |
| Sensitivity                              | 16mA  |
| Output at 100%FS                         | 20mA  |
| Zero and sensitivity settings tolerances | $\pm 0.1\text{mA}$                              |



- Accuracy

|   |  |
|---|--|
| Nonlinearity and hysteresis combined for Pressure | $\pm 0.25\%$ FS<br>Option : $\pm 0.1\%$ FS |
| Non repeatability for Pressure                    | $\pm 0.02\%$ FS typ.                       |

- Environmental Specifications

|   |  |
|---|--|
| Compensated temperature range             | 0 to 60°C<br><i>Options: -25 to +85°C ; -40 to +85°C</i> |
| Operating temperature range               | -40 to +85°C   |
| Combined thermal zero & sensitivity shift | $\pm 0.02\%$ FS/°C                                       |
| Vibrations                                | 20-2000Hz, 50g max.                                      |
| Mechanical shock                          | 100g ½ sinus 1ms   |
| EMC protection                            | Compliant to EN61000                                     |

- Technical Specifications

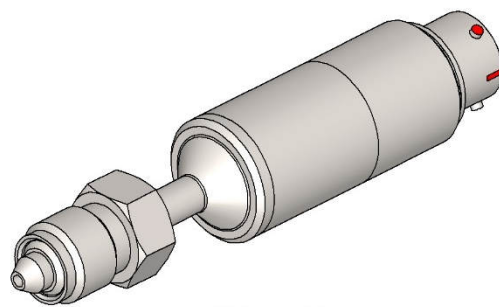
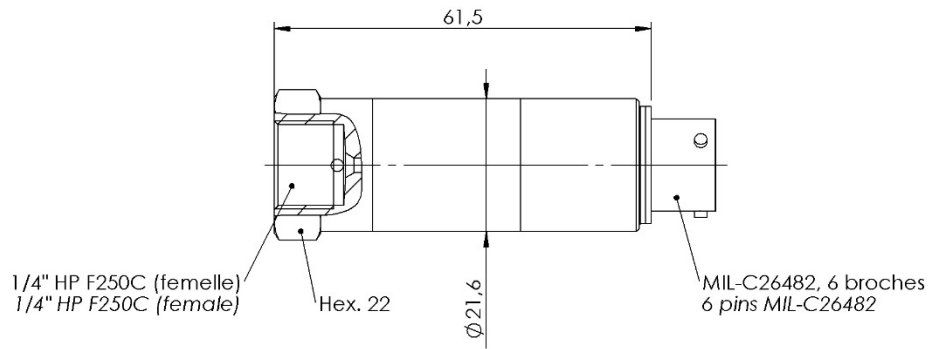
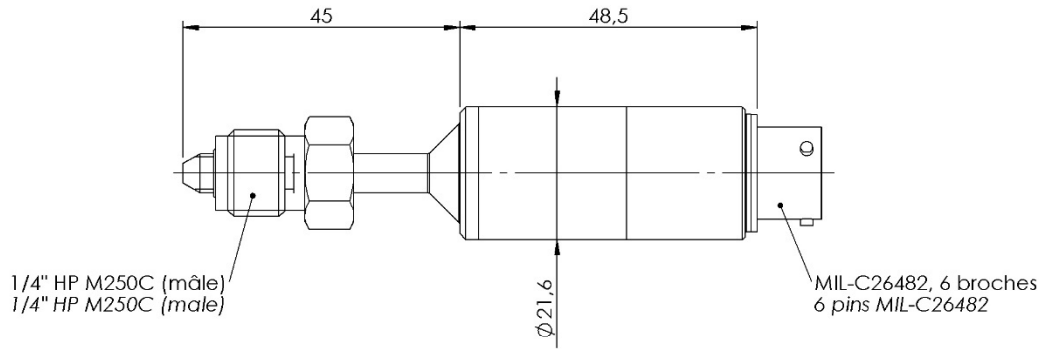
|                             |   |
|-----------------------------|---|
| Electrical connection       | MIL-C-26482 6 pins Receptacle<br><i>Option : AWG26, Viton Jacketed Shielded Cable Ø3mm, 4 wires</i> |
| Mechanical connection       | 9/16-18 UNF male (M250C)<br><i>Option : 9/16-18 UNF female (F250C)</i>                              |
| Material(s) of wetted parts | Stainless Steel 316L, 17-4PH and 15-5PH   |
| Weight                      | 70g approx. for the connector version   |
| Enclosure protection        | IP65 for absolute and sealed gage versions  |



**CODIFICATION**


|  |       |   |   |        |    |    |             |   |   |   |
|--|-------|---|---|--------|----|----|-------------|---|---|---|
| <b>High Pressure Sensor</b>  | PHP22 | 5 | S | 250bar | A  | 28 | 08/1m       | A | 1 | 1 |
| <b>Output Signal</b>   |       |   |   |        |    |    |             |   |   |   |
| 4-20mA   |       | 5 |   |        |    |    |             |   |   |   |
| <b>Material</b>  |       |   |   |        |    |    |             |   |   |   |
| Stainless Steel  |       |   | S |        |    |    |             |   |   |   |
| <b>Range</b>   |       |   |   |        |    |    |             |   |   |   |
| Example : 250bar   |       |   |   | 250bar |    |    |             |   |   |   |
| <b>Type</b>  |       |   |   |        |    |    |             |   |   |   |
| Absolute   |       |   |   |        | A  |    |             |   |   |   |
| Gage   |       |   |   |        | G  |    |             |   |   |   |
| Sealed Gage  |       |   |   |        | SG |    |             |   |   |   |
| <b>Mechanical connection</b>   |       |   |   |        |    |    |             |   |   |   |
| 9/16-18 UNF male (M250C)   |       |   |   |        |    | 28 |             |   |   |   |
| 9/16-18 UNF female (F250C)   |       |   |   |        |    | 31 |             |   |   |   |
| <b>Electrical Connection</b>   |       |   |   |        |    |    |             |   |   |   |
| 6 pins MIL-C26482 receptacle<br>AWG26, Viton Jacketed Shielded Cable, 4 wires (1; 2 or 3m) |       |   |   |        |    |    | 03<br>08/1m |   |   |   |
| <b>Compensated temperature range</b>   |       |   |   |        |    |    |             |   |   |   |
| 0 to +60°C   |       |   |   |        |    |    |             | A |   |   |
| -25 to +85°C   |       |   |   |        |    |    |             | B |   |   |
| -40 to +85°C   |       |   |   |        |    |    |             | D |   |   |
| <b>Nonlinearity and hysteresis combined</b>  |       |   |   |        |    |    |             |   |   |   |
| ±0.25% FS  |       |   |   |        |    |    |             |   | 1 |   |
| ±0.1% FS   |       |   |   |        |    |    |             |   | 2 |   |
| <b>Combined thermal zero &amp; sensitivity shifts</b>                                      |       |   |   |        |    |    |             |   |   |   |
| ±0.02% EM/°C   |       |   |   |        |    |    |             |   |   | 1 |
| <b>Options</b>   |       |   |   |        |    |    |             |   |   |   |
| -  |       |   |   |        |    |    |             |   |   | - |


### DIMENSIONS



ECHELLE 1 : 1  
SCALE 1 : 1

Dimensions : mm

|  | MIL C26482 - 6 PINS |            |
|---|---------------------|------------|
|   | CURRENT OUTPUT      | PIN        |
|   | + Excitation        | PIN A      |
|   | + Signal            | PIN B      |
|   | Not Connected       | PINS C & D |
|   | Sensor's Housing    | PINS E & F |

|  | VITON CABLE- 4 CONDUCTORS |             |
|--|---------------------------|-------------|
|  | CURRENT OUTPUT            | CONDUCTOR   |
|  | + Excitation              | Red         |
|  | + Signal                  | Green       |
|  | Not Connected             | White/Black |
|  | Sensor's Housing          | Shield      |

**AGENT**


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