

## Compact Differential Pressure Transducer



### Features

- ➔ All Stainless steel
- ➔ Operating from -40 to +125°C
- ➔ Outputs : 0-5V, 4-20mA, 0,5-4,5V
- ➔ Wet/wet differential pressure

### Applications

- ➔ Automotive - on vehicle
- ➔ Aerospace
- ➔ Energy / Nuclear
- ➔ Test benches

The PDM220 series pressure sensors provide accurate differential pressure measurement of gas and liquids in ranges from 250mbar up to 600bar. Standard unamplified and amplified analog outputs are available : mV/V, 0.5-4.5Vdc, 0-5Vdc and 2-wire 4 to 20mA current loop. They are suitable for uni or bi-directional measurement. Their construction being all stainless steel, they are compatible with most media, including corrosive fluids used in automotive and aerospace industries.

## Technical specifications

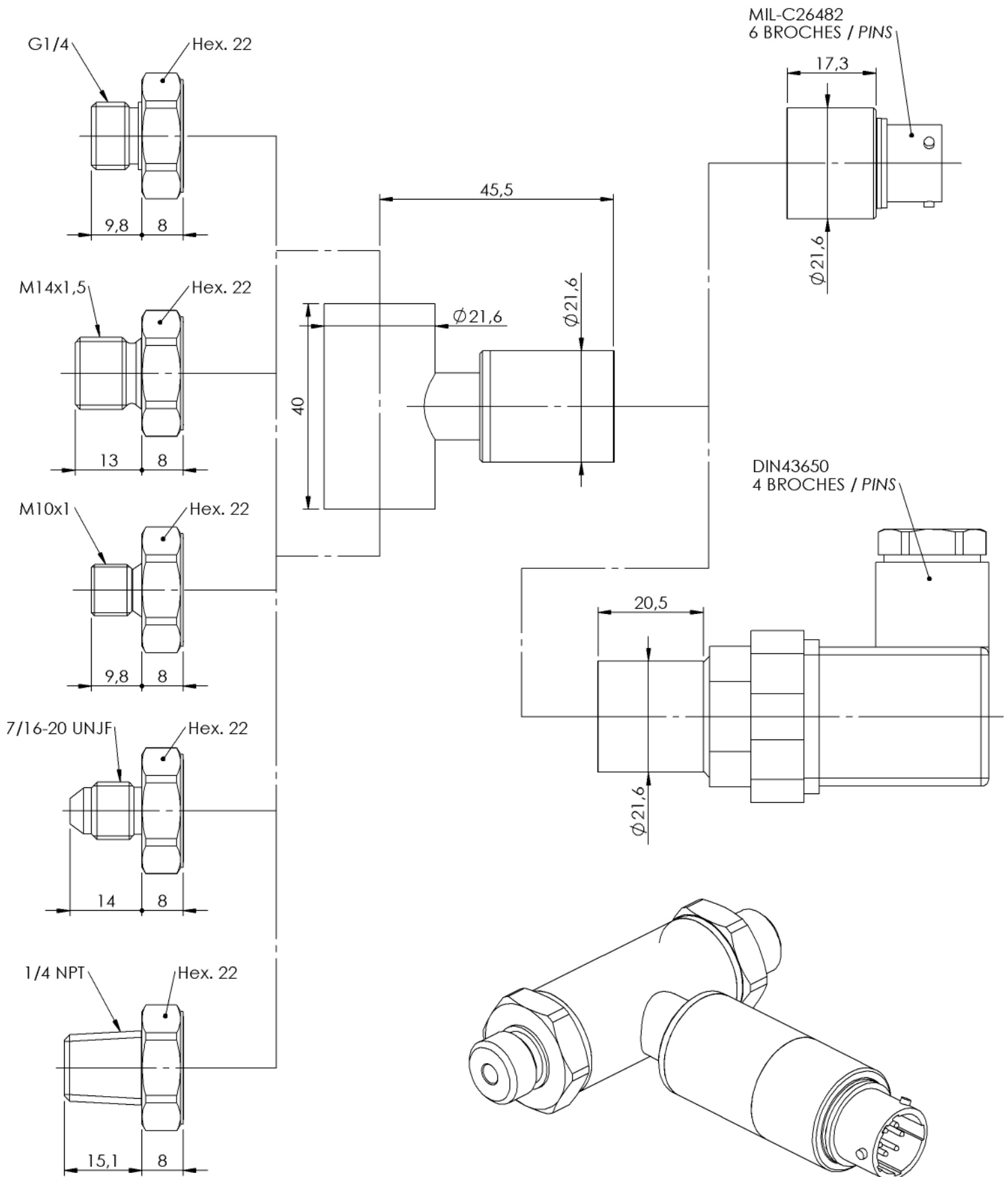
|                                      |                                                                                                                           |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Uni-directional pressure ranges (FS) | 250mbar ; 500mbar ; 1bar ; 2bar ; 3bar ; 5bar ; 10bar ; 20bar ; 40bar ; 100bar ; 250bar ;<br>400bar ; 600bar              |
| Bi-directional pressure ranges (FS)  | ±250mbar ; ±500mbar ; ±1bar ; ±2bar ; ±3bar ; ±5bar ; ±10bar ; ±20bar ; ±40bar ;<br>±100bar ; ±250bar ; ±400bar ; ±600bar |
| Type                                 | Differential                                                                                                              |
| Line pressure                        | Less or equal to nominal pressure range                                                                                   |
| Safe overload                        | 150% FS                                                                                                                   |
| Burst pressure                       | 300% FS                                                                                                                   |
| Output impedance                     | > 3000 Ohms typ.                                                                                                          |
| Input impedance                      | > 3500 Ohms typ.                                                                                                          |
| Power supply                         | 10Vdc stabilized and regulated                                                                                            |
| Consumption                          | < 10mA                                                                                                                    |
| Insulation                           | > 1000 MOhms under 50Vdc at ambient temperature                                                                           |
| Output at -100%FS (only for ± range) | Proportional to +100%FS                                                                                                   |
| Output at 0%FS                       | 0mV/V                                                                                                                     |

## Technical Specifications

|                                            |                                                                                                                                     |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Output at 100%FS                           | 1 to 2mV/V                                                                                                                          |
| Zero and sensitivity settings tolerances   | ±3% FS                                                                                                                              |
| Non linearity and hysteresis combined      | ±0.25% FS<br>Option : ±0.15% FS                                                                                                     |
| Non repeatability                          | ±0.05% FS                                                                                                                           |
| Compensated temperature range              | 0 to +60°C<br>Option : -25 to +85°C ; -25 to +125°C                                                                                 |
| Operating temperature range                | -25 to +125°C                                                                                                                       |
| Combined thermal zero & sensitivity shifts | ±0.02% FS/°C                                                                                                                        |
| EMC protection                             | Compliant to EN61000                                                                                                                |
| Electrical connection                      | DIN 43650 Receptacle - 4 pins<br>Option : Hermetic MIL-C-26482 - 6 pins Receptacle                                                  |
| Mechanical connection                      | 1/4 Gaz A male ; 1/4 NPT male ; M14x1.5-4h male<br>Option : 7/16-20 UNJF-3A male - MS33656-4 ; M10x1-4h male with 80° internal cone |
| Material(s) of wetted parts                | Stainless Steel 316L ; Stainless Steel 17-4PH ; Stainless steel 15-5PH                                                              |
| Enclosure protection                       | IP65                                                                                                                                |

## Codification

|                                            |       |   |   |      |   |    |    |   |   |   |  |
|--------------------------------------------|-------|---|---|------|---|----|----|---|---|---|--|
| Compact Differential Pressure Transducer   | PDM22 | 1 | S | 1bar | D | 01 | 01 | A | 1 | 1 |  |
| Output Signal                              |       |   |   |      |   |    |    |   |   |   |  |
| mV/V                                       |       | 1 |   |      |   |    |    |   |   |   |  |
| Material                                   |       |   |   |      |   |    |    |   |   |   |  |
| Stainless Steels                           |       |   | S |      |   |    |    |   |   |   |  |
| Range                                      |       |   |   |      |   |    |    |   |   |   |  |
| Example                                    |       |   |   | 1bar |   |    |    |   |   |   |  |
| Type                                       |       |   |   |      |   |    |    |   |   |   |  |
| Differential                               |       |   |   |      | D |    |    |   |   |   |  |
| Mechanical connection                      |       |   |   |      |   |    |    |   |   |   |  |
| M14x1.5-4h male                            |       |   |   |      |   | 01 |    |   |   |   |  |
| 1/4 Gaz A male                             |       |   |   |      |   | 07 |    |   |   |   |  |
| 7/16-20 UNJF-3A male - MS33656-4           |       |   |   |      |   | 10 |    |   |   |   |  |
| 1/4 NPT male                               |       |   |   |      |   | 13 |    |   |   |   |  |
| M10x1-4h male with 80° internal cone       |       |   |   |      |   | 19 |    |   |   |   |  |
| Electrical connection                      |       |   |   |      |   |    |    |   |   |   |  |
| DIN 43650 Receptacle - 4 pins              |       |   |   |      |   |    | 01 |   |   |   |  |
| Hermetic MIL-C-26482 - 6 pins Receptacle   |       |   |   |      |   |    | 03 |   |   |   |  |
| 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                                  |       |   |   |      |   |    |    |   | 1 |   |  |
| ±0.15% FS                                  |       |   |   |      |   |    |    |   | 5 |   |  |
| Combined thermal zero & sensitivity shifts |       |   |   |      |   |    |    |   |   |   |  |
| ±0.02% FS/°C                               |       |   |   |      |   |    |    |   |   | 1 |  |

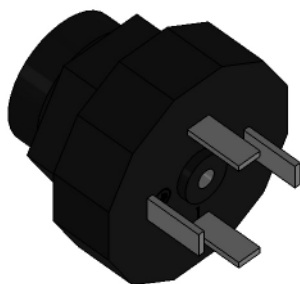
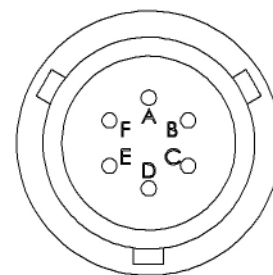


Dimensions : mm



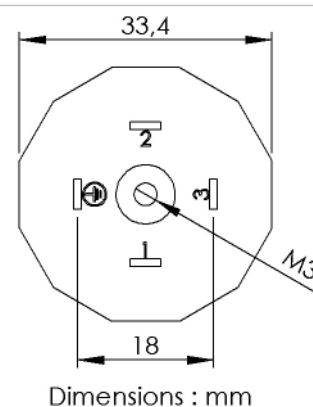
### MIL-C26482 - 6 PINS

| mV/V OUTPUT    | PIN        |
|----------------|------------|
| + EXCITATION   | PIN A      |
| + SIGNAL       | PIN B      |
| - SIGNAL       | PIN C      |
| - EXCITATION   | PIN D      |
| SENSOR HOUSING | PINS E & F |



### DIN 43650 - 4 PINS

| mV/V OUTPUT  | PIN   |
|--------------|-------|
| + EXCITATION | PIN 1 |
| + SIGNAL     | PIN 2 |
| - SIGNAL     | PIN 3 |
| - EXCITATION | PIN T |



Agent :



E.F.E.

L'ESSOR FRANCAIS ELECTRONIQUE

16 Rue Porte a Bateaux - 27540 Ivry-la-Bataille - FRANCE

Tel : 33 (0)2 32 22 35 05 - Fax : 33 (0)2 32 36 93 08

[www.efc-sensor.com](http://www.efc-sensor.com) - [infos@efc-sensor.com](mailto:infos@efc-sensor.com)