

## General Purpose Aerospace Pressure Transducer



### Features

- ➔ Available with Built in Electronic
- ➔ All Stainless steel
- ➔ Robust and reliable sensor
- ➔ Large Bandwidth

### Applications

- ➔ Aerospace
- ➔ OEM
- ➔ Military
- ➔ Test benches

The PGA220 series is a general purpose aerospace pressure sensor. The sensing element is an advanced piezo-resistive pressure module which together with the latest compensation techniques, provides high performance measurements. It is available with unamplified (mV/V) or amplified (Vdc, mA) outputs. Wetted parts being all stainless steel (other materials are available on request), the sensor is compatible with most media used in Aerospace industry, especially corrosive ones (Skydrol, Kerosene...). High accuracy pressure measurements on test bench is one of the main application for the PGA220. Thanks to compact dimensions and a large choice in mechanical and electrical connections, installation is easier.

## Technical specifications

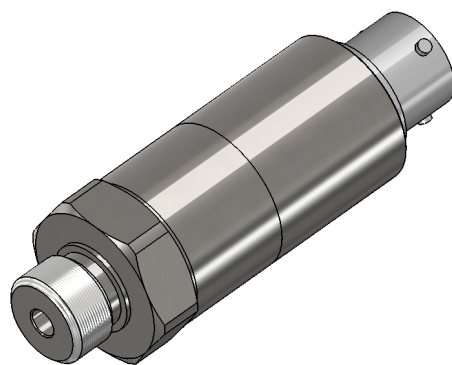
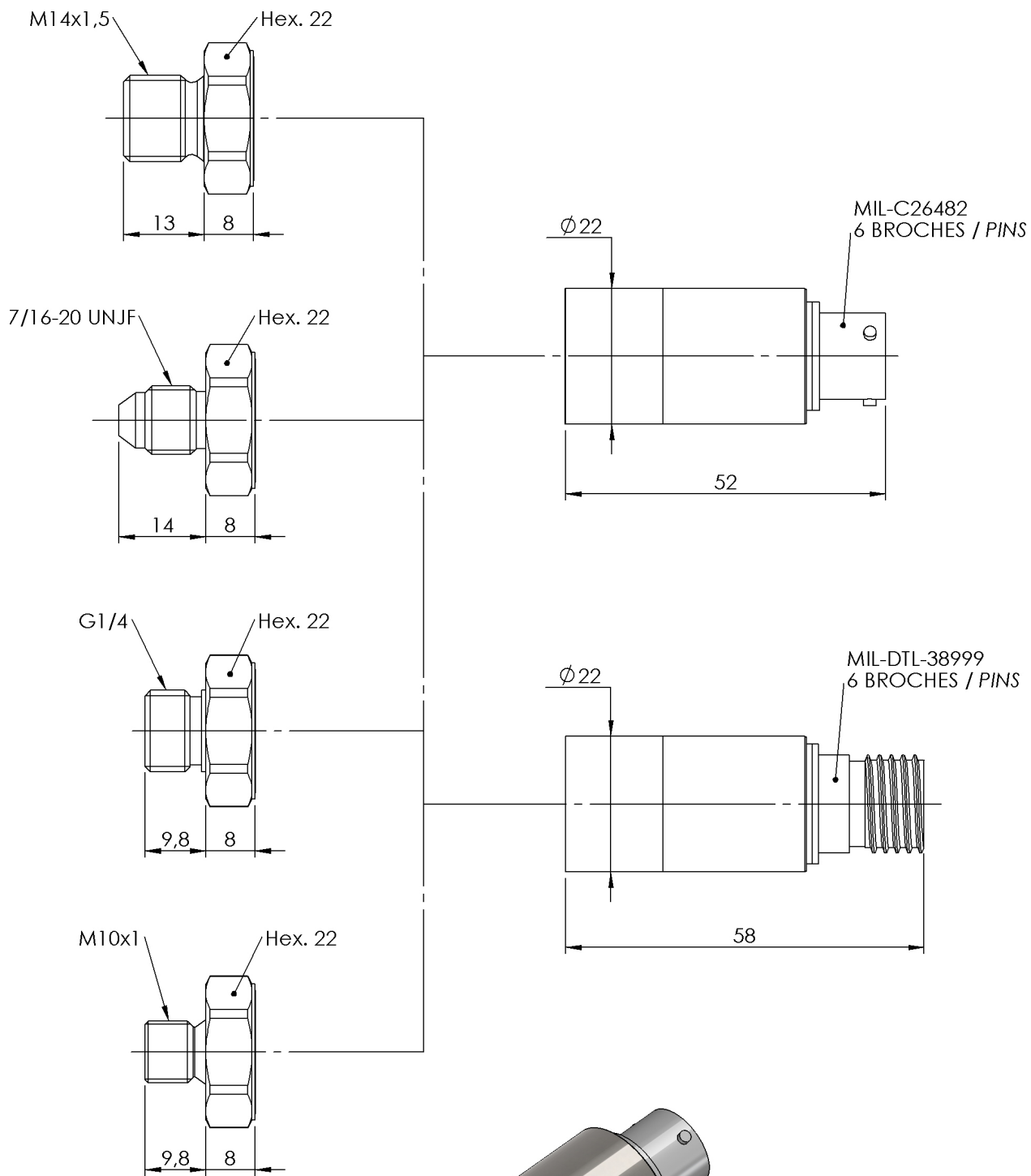
|                                      |  |
|--------------------------------------|--|
| Pressure ranges (FS)                 | -1/+2bar ; -1/+5bar ;<br>3bar ; 5bar ; 10bar ; 20bar ; 40bar ; 100bar ; 250bar ; 400bar ; 600bar ;<br>-14.5/+30PSI ; -14.5/+70PSI ;<br>8000PSI ; 40PSI ; 70PSI ; 150PSI ; 300PSI ; 500PSI ; 1500PSI ; 3000PSI ; 10000PSI ; 5000PSI |
| Type                                 | Absolute ; Gage  |
| Type (for ranges > 40 bar)           | Sealed Gage  |
| Safe overload                        | 150% FS  |
| Burst pressure                       | 300% FS  |
| Output impedance                     | > 3000 Ohms typ.   |
| Input impedance                      | > 3500 Ohms typ.   |
| Power supply                         | 5 to 15Vdc   |
| 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                           | 1.5mV/V nom.   |
| Zero and sensitivity settings tolerances   | ±3% FS   |
| Non linearity and hysteresis combined      | ±0.25% FS  |
| Non repeatability                          | ±0.02% FS typ.   |
| Compensated temperature range              | -55 to +125°C  |
| Operating temperature range                | -55 to +125°C  |
| Combined thermal zero & sensitivity shifts | ±0.03% FS/°C<br>Option : ±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                      | Protected against polarity inversion   |
| EMC protection                             | Compliant to EN61000   |
| Electrical connection                      | Hermetic MIL-C-26482 - 6 pins Receptacle<br>Option : MIL-DTL-38999 - 6 pins Receptacle                               |
| Mechanical connection                      | 1/4 Gaz A 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   |
| Weight                                     | < 120g without cable   |
| Enclosure protection                       | IP67 for absolute & sealed gage version  |

Codification

|   |  |   |   |       |    |    |    |   |   |   |  |
|---|--|---|---|-------|----|----|----|---|---|---|--|
| General Purpose Aerospace Pressure Transducer | PGA22                                    | 1 | S | 10bar | A  | 01 | 03 | E | 1 | 1 |  |
| Output Signal                                 |  |   |   |       |    |    |    |   |   |   |  |
|   | mV/V                                     |   | 1 |       |    |    |    |   |   |   |  |
| Material                                      |  |   |   |       |    |    |    |   |   |   |  |
|   | Stainless Steels                         |   | S |       |    |    |    |   |   |   |  |
| Range   |  |   |   |       |    |    |    |   |   |   |  |
|   | Example                                  |   |   | 10bar |    |    |    |   |   |   |  |
| Type  |  |   |   |       |    |    |    |   |   |   |  |
|   | Absolute                                 |   |   |       | A  |    |    |   |   |   |  |
|   | Gage                                     |   |   |       | G  |    |    |   |   |   |  |
|   | Sealed Gage                              |   |   |       | SG |    |    |   |   |   |  |
| Mechanical connection                         |  |   |   |       |    |    |    |   |   |   |  |
|   | M14x1.5-4h male                          |   |   |       |    | 01 |    |   |   |   |  |
|   | 1/4 Gaz A male                           |   |   |       |    | 07 |    |   |   |   |  |
|   | 7/16-20 UNJF-3A male - MS33656-4         |   |   |       |    | 10 |    |   |   |   |  |
|   | M10x1-4h male with 80° internal cone     |   |   |       |    | 19 |    |   |   |   |  |
| Electrical connection                         |  |   |   |       |    |    |    |   |   |   |  |
|   | Hermetic MIL-C-26482 - 6 pins Receptacle |   |   |       |    |    | 03 |   |   |   |  |
|   | MIL-DTL-38999 - 6 pins Receptacle        |   |   |       |    |    | 20 |   |   |   |  |
| Compensated temperature range                 |  |   |   |       |    |    |    |   |   |   |  |
|   | -55 to +125°C                            |   |   |       |    |    |    | E |   |   |  |
| Non linearity and hysteresis combined         |  |   |   |       |    |    |    |   |   |   |  |
|   | ±0.25% FS                                |   |   |       |    |    |    |   | 1 |   |  |
| Combined thermal zero & sensitivity shifts    |  |   |   |       |    |    |    |   |   |   |  |
|   | ±0.02% FS/°C                             |   |   |       |    |    |    |   |   | 1 |  |
|   | ±0.03% FS/°C                             |   |   |       |    |    |    |   |   | 3 |  |

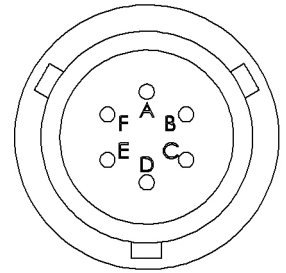


Dimensions : mm

**MIL-C26482 - 6 PINS**



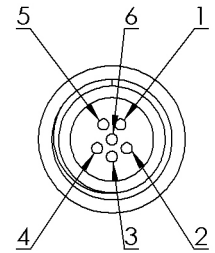
| mV/V OUTPUT    | PIN        |
|----------------|------------|
| + EXCITATION   | PIN A      |
| + SIGNAL       | PIN B      |
| - SIGNAL       | PIN C      |
| - EXCITATION   | PIN D      |
| SENSOR HOUSING | PINS E & F |



**MIL-DTL-38999 - 6 PINS**



| mV/V OUTPUT    | PIN               |
|----------------|-------------------|
| + EXCITATION   | PIN 1             |
| + SIGNAL       | PIN 3             |
| - SIGNAL       | PIN 4             |
| - EXCITATION   | PIN 2             |
| NC             | PIN 5             |
| NC             | PIN 6             |
| SENSOR HOUSING | CONNECTOR HOUSING |



Agent :



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