

## Universal Industrial Pressure Sensor



### Features

- ➔ Available with Built in Electronic
- ➔ Large choice of connectors & threads
- ➔ All Stainless steel
- ➔ Large Bandwidth

### Applications

- ➔ Railway
- ➔ Test benches
- ➔ Process
- ➔ Automation & Robotics

The PST220 series is designed for absolute or gage pressure measurements from 50mbar up to 600bar. With all stainless steel wetted parts, it is compatible with most fluids used in the industry including corrosive ones. Manufactured with proven components ensuring accuracy and reliability, the PST220 is compatible with most application thanks to a large choice of mechanical and electrical connections.

## Technical specifications

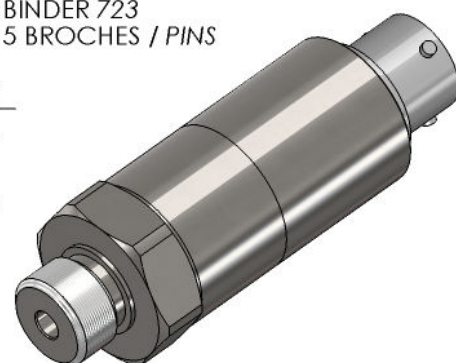
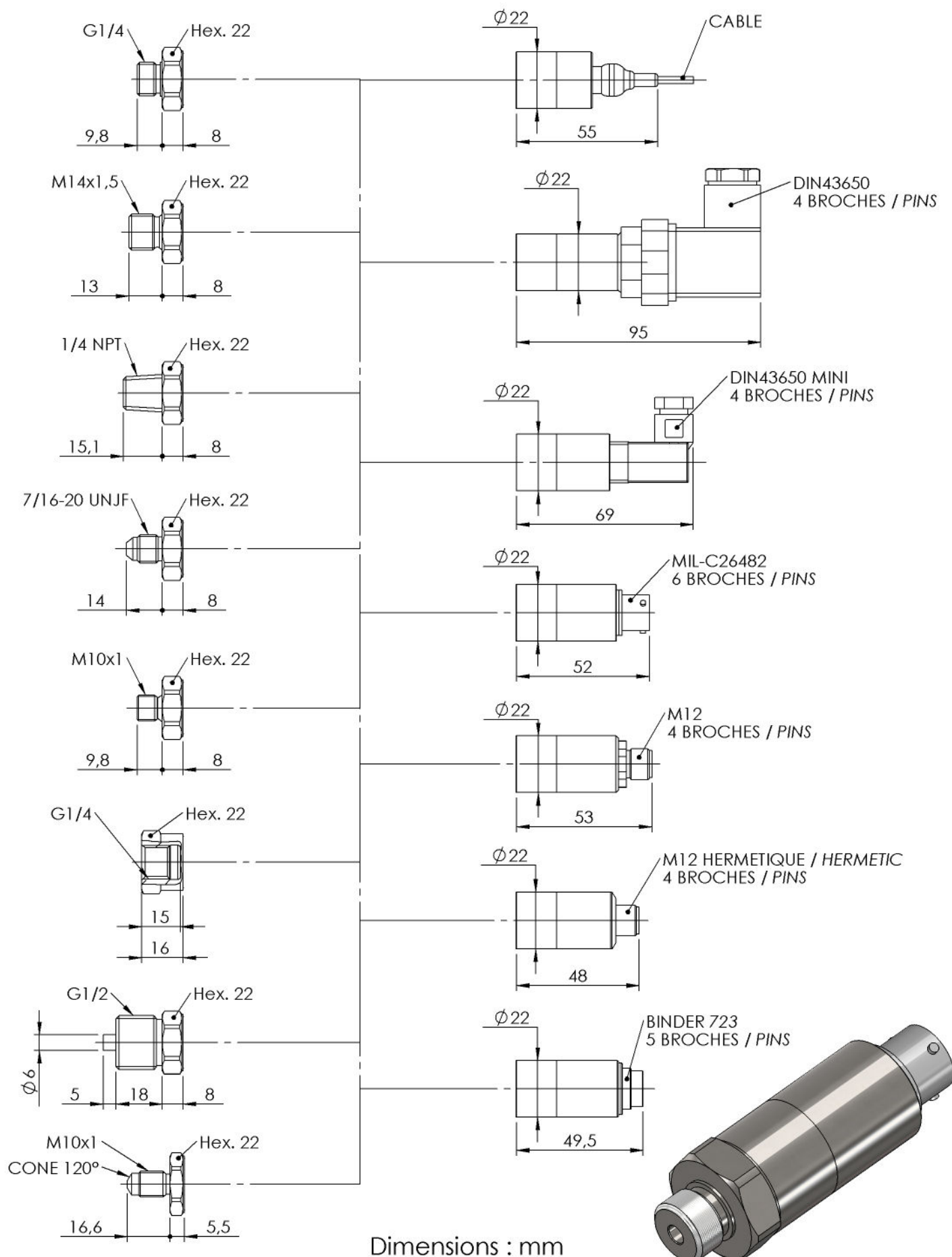
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pressure ranges (FS)       | <p>±50mbar ; ±100mbar ; ±250mbar ; ±500mbar ;</p> <p>100mbar ; 250mbar ; 500mbar ;</p> <p>±1bar ; -1/+2bar ; -1/+3bar ; -1/+5bar ;</p> <p>1bar ; 2bar ; 3bar ; 5bar ; 10bar ; 20bar ; 40bar ; 100bar ; 250bar ; 400bar ; 600bar ;</p> <p>±1PSI ; ±1.5PSI ; ±3.5PSI ; ±7PSI ; ±14.5PSI ; -14.5/+30PSI ; -14.5/+40PSI ; -14.5/+70PSI ;</p> <p>1.5PSI ; 8000PSI ; 3PSI ; 5PSI ; 10PSI ; 15PSI ; 30PSI ; 40PSI ; 70PSI ; 150PSI ; 300PSI ;</p> <p>500PSI ; 1500PSI ; 3000PSI ; 5000PSI</p> |
| Type                       | Absolute ; Gage                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Type (for ranges > 40 bar) | Sealed Gage                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Safe overload              | <p>150% FS</p> <p>Option : Special overload</p>                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Burst pressure             | 300% FS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Power supply               | 12 to 30Vdc                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Consumption                | Current loop                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Insulation                 | > 1000 MOhms under 50Vdc at ambient temperature                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Technical Specifications

|                                            |                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output at -100%FS (only for $\pm$ range)   | 4mA                                                                                                                                                                                                                                                                                                                       |
| Output at 0%FS (except ranges $\pm$ )      | 4mA                                                                                                                                                                                                                                                                                                                       |
| Output at 100%FS                           | 20mA                                                                                                                                                                                                                                                                                                                      |
| Zero and sensitivity settings tolerances   | $\pm 0.1$ mA                                                                                                                                                                                                                                                                                                              |
| Non linearity and hysteresis combined      | $\pm 0.25\%$ FS                                                                                                                                                                                                                                                                                                           |
| Non repeatability                          | $\pm 0.02\%$ FS typ.                                                                                                                                                                                                                                                                                                      |
| Signal bandwidth                           | 1000Hz @ -3dB                                                                                                                                                                                                                                                                                                             |
| Compensated temperature range              | 0 to +60°C<br>Option : -25 to +85°C ; -25 to +125°C (Except M12, 723 Receptacles and PVC Cable)                                                                                                                                                                                                                           |
| Operating temperature range                | -25 to +125°C (-25 to +90°C with M12, 723 Receptacles and PVC Cable)                                                                                                                                                                                                                                                      |
| Combined thermal zero & sensitivity shifts | $\pm 0.02\%$ FS/°C                                                                                                                                                                                                                                                                                                        |
| Constant acceleration in linear vibrations | $\pm 0.02\%$ FS/g (frequency 20-2000Hz, 50g max.)                                                                                                                                                                                                                                                                         |
| Mechanical shock                           | 100g $\frac{1}{2}$ sinus 1ms                                                                                                                                                                                                                                                                                              |
| Electrical protection                      | Protected against polarity inversion                                                                                                                                                                                                                                                                                      |
| EMC protection                             | Compliant to EN61000                                                                                                                                                                                                                                                                                                      |
| Electrical connection                      | DIN 43650 Receptacle - 4 pins<br>Option : Miniature DIN 43650 mPm Receptacle - 4 pins ; Receptacle M12 - 4 pins ; Hermetic MIL-C-26482 - 6 pins Receptacle ; AWG26, Viton Jacketed Shielded Cable Ø3mm, 4 wires ; AWG24 double Shield PVC Cable, 4 wires ; Hermetic M12 4 pins Receptacle ; Binder 723 Receptacle, 5 pins |
| Mechanical connection                      | 1/4 Gaz A male ; 1/4 NPT male<br>Option : 1/2 Gaz A male (Gauge) ; 1/4 Gaz female ; 7/16-20 UNJF-3A male - MS33656-4 ; M10x1-4h male with 80° internal cone ; M10x1-4h male 120° cone ; M14x1.5-4h male                                                                                                                   |
| Material(s) of wetted parts                | Stainless Steel 316L ; Stainless Steel 17-4PH ; Stainless steel 15-5PH                                                                                                                                                                                                                                                    |
| Weight                                     | < 100g without cable                                                                                                                                                                                                                                                                                                      |
| Enclosure protection                       | IP65 for absolute & sealed gage version                                                                                                                                                                                                                                                                                   |

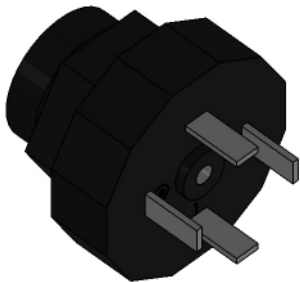
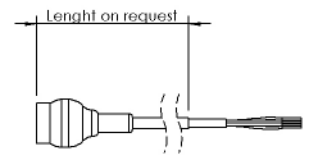
## Codification

|                                                           |       |   |   |      |    |       |    |   |   |   |   |
|-----------------------------------------------------------|-------|---|---|------|----|-------|----|---|---|---|---|
| Universal Industrial Pressure Sensor                      | PST22 | 5 | S | 1bar | A  | 01    | 01 | A | 1 | 1 | L |
| Output Signal                                             |       |   |   |      |    |       |    |   |   |   |   |
| 4-20mA - 2 wires                                          |       | 5 |   |      |    |       |    |   |   |   |   |
| Material                                                  |       |   |   |      |    |       |    |   |   |   |   |
| Stainless Steels                                          |       |   | S |      |    |       |    |   |   |   |   |
| Range                                                     |       |   |   |      |    |       |    |   |   |   |   |
| Example                                                   |       |   |   | 1bar |    |       |    |   |   |   |   |
| Type                                                      |       |   |   |      |    |       |    |   |   |   |   |
| Absolute                                                  |       |   |   |      | A  |       |    |   |   |   |   |
| Gage                                                      |       |   |   |      | G  |       |    |   |   |   |   |
| Sealed Gage                                               |       |   |   |      | SG |       |    |   |   |   |   |
| Mechanical connection                                     |       |   |   |      |    |       |    |   |   |   |   |
| M14x1.5-4h male                                           |       |   |   |      |    | 01    |    |   |   |   |   |
| 1/2 Gaz A male (Gauge)                                    |       |   |   |      |    | 06    |    |   |   |   |   |
| 1/4 Gaz A male                                            |       |   |   |      |    | 07    |    |   |   |   |   |
| 1/4 Gaz female                                            |       |   |   |      |    | 08    |    |   |   |   |   |
| 7/16-20 UNJF-3A male - MS33656-4                          |       |   |   |      |    | 10    |    |   |   |   |   |
| 1/4 NPT male                                              |       |   |   |      |    | 13    |    |   |   |   |   |
| M10x1-4h male with 80° internal cone                      |       |   |   |      |    | 19    |    |   |   |   |   |
| M10x1-4h male 120° cone                                   |       |   |   |      |    | 21    |    |   |   |   |   |
| Electrical connection                                     |       |   |   |      |    |       |    |   |   |   |   |
| DIN 43650 Receptacle - 4 pins                             |       |   |   |      |    | 01    |    |   |   |   |   |
| Miniature DIN 43650 mPm Receptacle - 4 pins               |       |   |   |      |    | 02    |    |   |   |   |   |
| Hermetic MIL-C-26482 - 6 pins Receptacle                  |       |   |   |      |    | 03    |    |   |   |   |   |
| Receptacle M12 - 4 pins                                   |       |   |   |      |    | 07    |    |   |   |   |   |
| AWG26, Viton Jacketed Shielded Cable Ø3mm, 4 wires        |       |   |   |      |    | 08/1m |    |   |   |   |   |
| AWG24 double Shield PVC Cable, 4 wires                    |       |   |   |      |    | 10/1m |    |   |   |   |   |
| Hermetic M12 4 pins Receptacle                            |       |   |   |      |    | 15    |    |   |   |   |   |
| Binder 723 Receptacle, 5 pins                             |       |   |   |      |    | 23    |    |   |   |   |   |
| Compensated temperature range                             |       |   |   |      |    |       |    |   |   |   |   |
| 0 to +60°C                                                |       |   |   |      |    |       |    | A |   |   |   |
| -25 to +85°C                                              |       |   |   |      |    |       |    | B |   |   |   |
| -25 to +125°C (Except M12, 723 Receptacles and PVC Cable) |       |   |   |      |    |       |    | C |   |   |   |
| Non linearity and hysteresis combined                     |       |   |   |      |    |       |    |   |   |   |   |
| ±0.25% FS                                                 |       |   |   |      |    |       |    |   | 1 |   |   |
| Combined thermal zero & sensitivity shifts                |       |   |   |      |    |       |    |   |   |   |   |
| ±0.02% FS/°C                                              |       |   |   |      |    |       |    |   |   | 1 |   |
| Options                                                   |       |   |   |      |    |       |    |   |   |   |   |
| Special overload                                          |       |   |   |      |    |       |    |   |   |   | L |

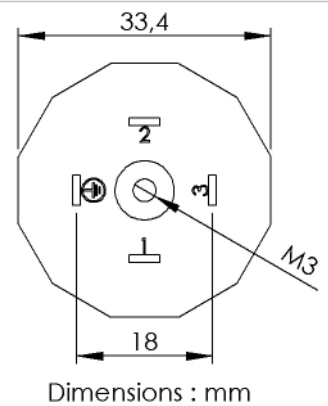


**#26 AWG, 4 CONDUCTOR SHIELDED VITON CABLE**

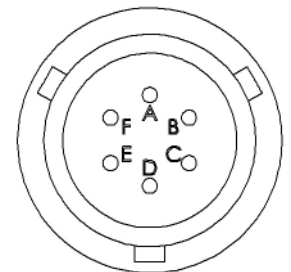
| 4-20 mA OUTPUT | CONDUCTOR      |
|----------------|----------------|
| + EXCITATION   | RED            |
| + SIGNAL       | GREEN / YELLOW |
| NC             | WHITE          |
| NC             | BLUE / BLACK   |
| SENSOR HOUSING | SHIELD         |

**DIN 43650 - 4 PINS**

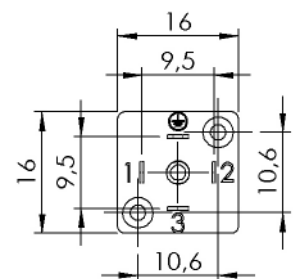
| 4-20 mA OUTPUT | PIN   |
|----------------|-------|
| + EXCITATION   | PIN 1 |
| + SIGNAL       | PIN 2 |
| NC             | PIN 3 |
| SENSOR HOUSING | PIN T |

**MIL-C26482 - 6 PINS**

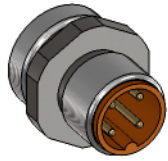
| 4-20 mA OUTPUT | PIN        |
|----------------|------------|
| + EXCITATION   | PIN A      |
| + SIGNAL       | PIN B      |
| NC             | PIN C      |
| NC             | PIN D      |
| SENSOR HOUSING | PINS E & F |

**DIN MINIATURE 43650 - 4 PINS**

| 4-20 mA OUTPUT | PIN   |
|----------------|-------|
| + EXCITATION   | PIN 1 |
| + SIGNAL       | PIN 2 |
| NC             | PIN 3 |
| SENSOR HOUSING | PIN T |

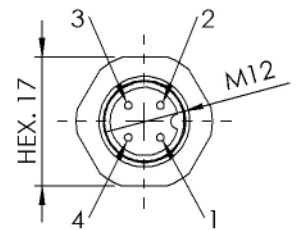


Dimensions : mm



### M12 - 4 PINS

| 4-20 mA OUTPUT | PIN               |
|----------------|-------------------|
| + EXCITATION   | PIN 1             |
| + SIGNAL       | PIN 4             |
| NC             | PIN 2             |
| NC             | PIN 3             |
| SENSOR HOUSING | CONNECTOR HOUSING |

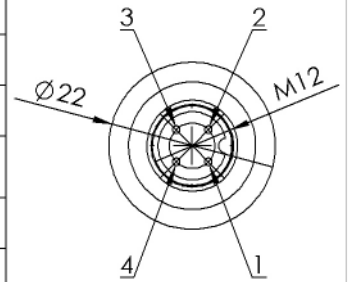


Dimensions : mm



### HERMETIC M12 - 4 PINS

| 4-20 mA OUTPUT | PIN               |
|----------------|-------------------|
| + EXCITATION   | PIN 1             |
| + SIGNAL       | PIN 4             |
| NC             | PIN 2             |
| NC             | PIN 3             |
| SENSOR HOUSING | CONNECTOR HOUSING |

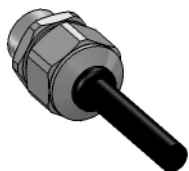
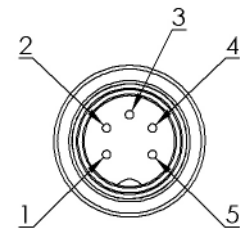


Dimensions : mm



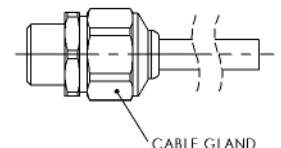
### BINDER 723 - 5 PINS

| 4-20 mA OUTPUT | PIN               |
|----------------|-------------------|
| + EXCITATION   | PIN 3             |
| NC             | PIN 2             |
| NC             | PIN 4             |
| + SIGNAL       | PIN 1             |
| NC             | PIN 5             |
| SENSOR HOUSING | CONNECTOR HOUSING |



### #24 AWG, 4 CONDUCTOR, DOUBLE SHIELD PVC CABLE

| 4-20 mA OUTPUT | CONDUCTOR |
|----------------|-----------|
| + EXCITATION   | RED       |
| + SIGNAL       | GREEN     |
| NC             | WHITE     |
| NC             | BLACK     |
| SENSOR HOUSING | SHIELD    |





E.F.E.

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