L'Essor Français Electronique

PTA221

High Accuracy Pressure Sensor



Features

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

Applications

- Railway
- Test benchs
- Instrumentation
- Navy and shipbuilding applications

The PTA220 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 PTA220 is compatible with most application thanks to a large choice of mechanical and electrical connections

Technical specifications

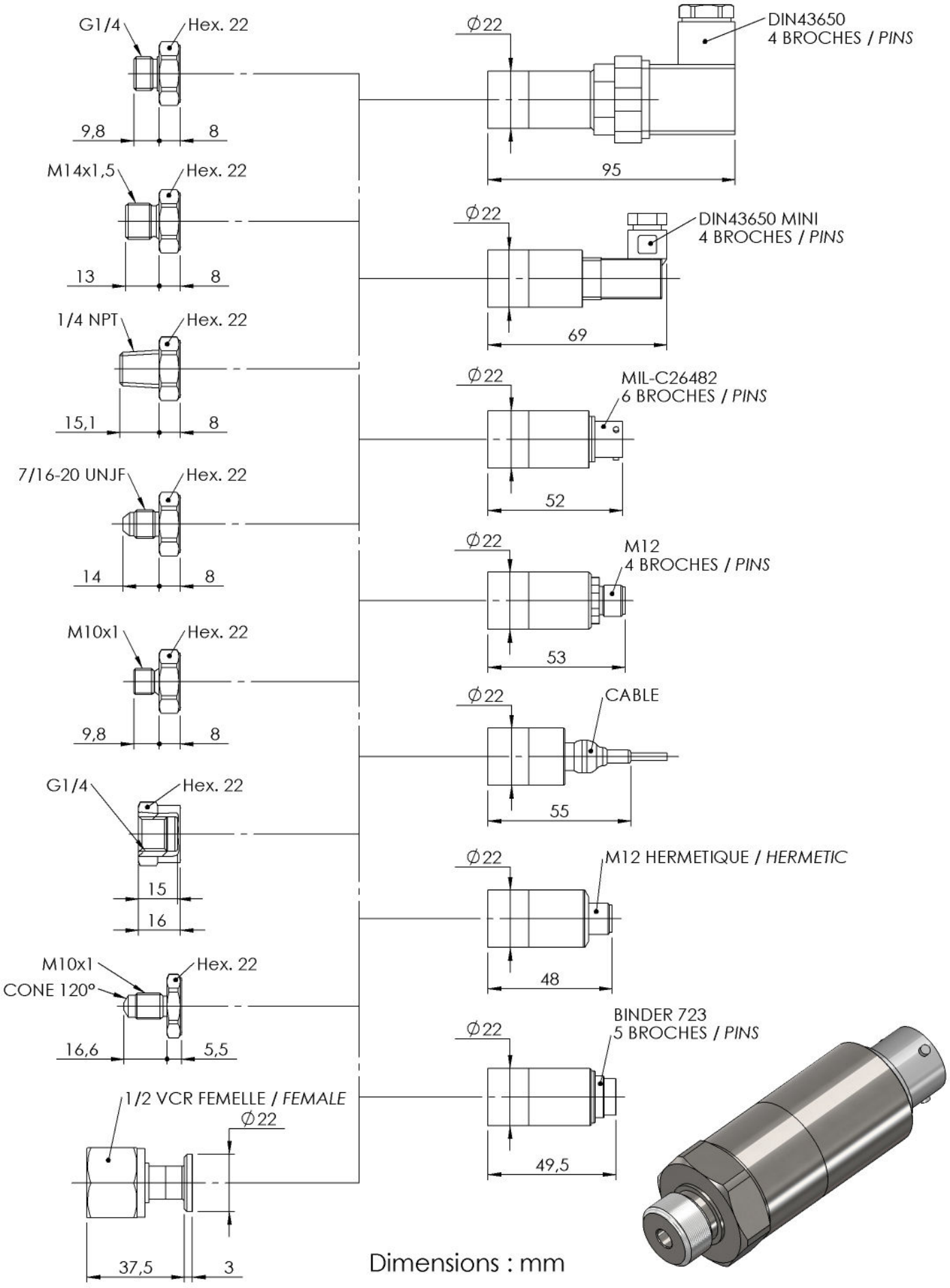
Pressure ranges (FS)	±100mbar ; ±250mbar ; ±500mbar ; 250mbar ; 700/1200mbar ; 500mbar ; ±1bar ; -1/+2bar ; -1/+3bar ; -1/+5bar ; -1/+10bar ; 1bar ; 2bar ; 3bar ; 5bar ; 10bar ; 20bar ; 40bar ; 100bar ; 250bar ; 400bar ; 600bar ; ±14.5PSI ; -14.5/+30PSI ; -14.5/+40PSI ; -14.5/+70PSI ; -14.5/+150PSI ; 8000PSI ; 3PSI ; 5PSI ; 10PSI ; 15PSI ; 30PSI ; 40PSI ; 70PSI ; 150PSI ; 300PSI ; 500PSI ; 1500PSI ; 3000PSI ; 10000PSI ; 5000PSI
Type	Absolute ; Gage
Type (for ranges > 40 bar)	Sealed Gage
Safe overload	150% FS Option : Special overload
Burst pressure	300% FS
Output impedance	> 3000 Ohms typ.
Input impedance	> 3500 Ohms typ.
Power supply	5 to 15Vdc

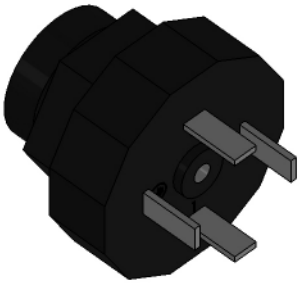
Technical Specifications

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
Output at 100%FS (FS > 2bar)	1.5mV/V nom.
Output at 100%FS (FS < 700mbar)	3 to 6mV/V
Output at 100%FS (700mbar <FS< = 2bar)	6 to 10mV/V
Zero and sensitivity settings tolerances	±3% FS
Non linearity and hysteresis combined	±0.1% FS Option : ±0.05% FS
Non repeatability	±0.02% FS typ.
Compensated temperature range	0 to +60°C 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	±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	DIN 43650 Receptacle - 4 pins 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 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

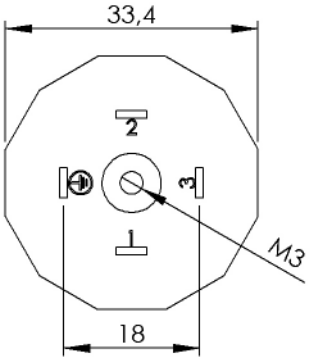
High Accuracy Pressure Sensor	PTA22	1	S	10bar	A	01	01	A	2	1	L	
Output Signal												
mV/V		1										
Material												
Stainless Steels			S									
Range												
Example				10bar								
Type												
Absolute					A							
Gage					G							
Sealed Gage					SG							
Mechanical connection												
M14x1.5-4h male						01						
1/2 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												
±0.1% FS									2			
±0.05% FS									4			
Combined thermal zero & sensitivity shifts												
±0.02% FS/°C										1		
Options												
Special overload											L	


G1/4
Hex. 22
9,8
8
M14x1,5
Hex. 22
13
8
1/4 NPT
Hex. 22
15,1
8
7/16-20 UNJF
Hex. 22
14
8
M10x1
Hex. 22
9,8
8
G1/4
Hex. 22
15
16
M10x1
CONE 120°
Hex. 22
16,6
5,5
1/2 VCR FEMELLE / FEMALE
Ø22
37,5
3
Ø22
DIN43650
4 BROCHES / PINS
95
Ø22
DIN43650 MINI
4 BROCHES / PINS
69
Ø22
MIL-C26482
6 BROCHES / PINS
52
Ø22
M12
4 BROCHES / PINS
53
Ø22
CABLE
55
Ø22
M12 HERMETIQUE / HERMETIC
48
Ø22
BINDER 723
5 BROCHES / PINS
49,5
Dimensions : mm



DIN 43650 - 4 PINS

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

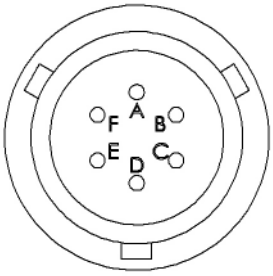


Dimensions : mm



MIL-C26482 - 6 PINS

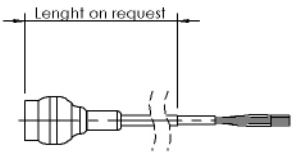
mV/V OUTPUT	PIN
+ EXCITATION	PIN A
+ SIGNAL	PIN B
- SIGNAL	PIN C
- EXCITATION	PIN D
SENSOR HOUSING	PINS E &F





#26 AWG, 4 CONDUCTOR SHIELDED VITON CABLE

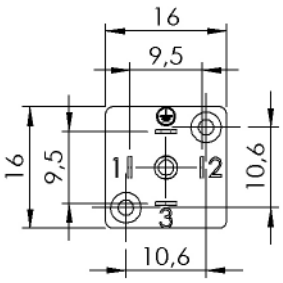
mV/V OUTPUT	CONDUCTOR
+ EXCITATION	RED
+ SIGNAL	GREEN / YELLOW
- SIGNAL	WHITE
- EXCITATION	BLUE / BLACK
SENSOR HOUSING	SHIELD



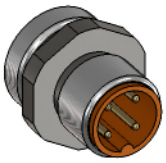


DIN MINIATURE 43650 - 4 PINS

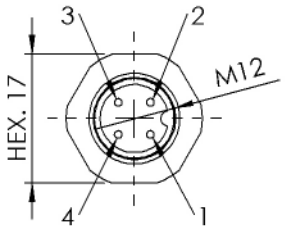
mV/V OUTPUT	PIN
+ EXCITATION	PIN 1
+ SIGNAL	PIN 2
- SIGNAL	PIN 3
- EXCITATION	PIN T



Dimensions : mm



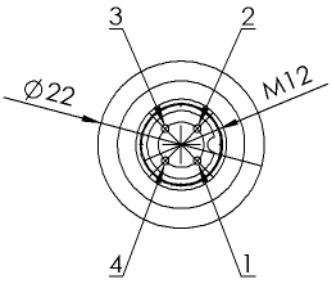
M12 - 4 PINS	
mV/V OUTPUT	**PIN**
+ EXCITATION	PIN 1
+ SIGNAL	PIN 4
- SIGNAL	PIN 2
- EXCITATION	PIN 3
SENSOR HOUSING	CONNECTOR HOUSING



Dimensions : mm



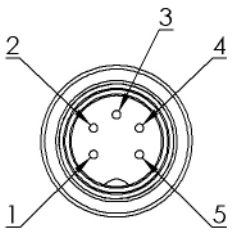
HERMETIC M12 - 4 PINS	
mV/V OUTPUT	**PIN**
+ EXCITATION	PIN 1
+ SIGNAL	PIN 4
- SIGNAL	PIN 2
- EXCITATION	PIN 3
SENSOR HOUSING	CONNECTOR HOUSING



Dimensions : mm

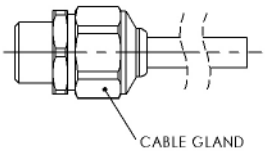


BINDER 723 - 5 PINS	
mV/V OUTPUT	**PIN**
+ EXCITATION	PIN 3
+ SIGNAL	PIN 2
- SIGNAL	PIN 4
- EXCITATION	PIN 1
NC	PIN 5
SENSOR HOUSING	CONNECTOR HOUSING





#24 AWG, 4 CONDUCTOR, DOUBLE SHIELD PVC CABLE	
mV/V OUTPUT	**CONDUCTOR**
+ EXCITATION	RED
+ SIGNAL	GREEN
- SIGNAL	WHITE
- EXCITATION	BLACK
SENSOR HOUSING	SHIELD



Agent :

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