

FEATURES

- ◆ M20x1.5 high pressure port
- ◆ Metal / metal screw sealing
- ◆ Integrated Amplifier optional
- ◆ Heavy duty body

APPLICATIONS

- ◆ Hydraulic regulation process
- ◆ Fatigue test benches
- ◆ Laboratory and research

P105

High Pressure Transducer

SPECIFICATIONS

- ◆ Range 0-1000 to 4000 bar [15k psi to 60k psi]
- ◆ Stainless steel diaphragm
- ◆ High level output in option
- ◆ Cable gland or connector output
- ◆ $\pm 0.3\%$ accuracy

The **P105** is a high pressure transducer designed to measure static and dynamic pressure under a wide variety of conditions, including hostile environments. The mechanical design and a stainless steel diaphragm allow the sensor to withstand most aggressive liquids.

The sensing element is fitted with a temperature compensated Wheatstone bridge equipped with thin strain gauges. With **the P105-A1/A2 Series Measurement Specialties, Inc.** offers a high level output model.

The pressure port uses a high pressure connector with metal-metal conic sealing.

For higher range, a specific sensor, model **P125**, can measure up to **7 000 bar**. Do not hesitate to contact and ask your local MEAS representative for its technical specification.

On request, Instruction documents can be provided to ease the selection and use of our sensors and provide helpful tips.

P105

High Pressure Transducer

STANDARD RANGES

Range in bar	1k	2k	3k	4k
Range in psi	15k	30k	45k	60k

PERFORMANCE SPECIFICATIONS (typical values at temperature 23±3°C)

Parameters	
Operating Temperature Range (OTR)	-20 to 80° C [-4 to 176° F]
Compensated Temperature Range (CTR)	0 to 50° C [32 to 122° F]
Zero Shift in CTR	<2% F.S. / 50° C [/100° F]
Sensitivity Shift in CTR	<2% of reading / 50 °C [/100° F]
Range (F.S.)	1000, 2000, 3000, 4000 bar, G = gauge type only
Over-Range	
Without Damage	1.5 x F.S. or max. 5000bar.
Without Destruction	3 x F.S. or max. 5000bar
Accuracy	
Combined Non-Linearity & Hysteresis	±0.3% F.S.

Electrical Characteristics

Model	P105	P105-A1	P105-A2
Supply Voltage	5 Vdc	10 to 30 Vdc	±15 Vdc (±12 to ±18 Vdc)
F.S. Output ⁶	1.5 mV/V	4 V ±0.2V	5 V ±0.2V
Zero Offset ⁶	<± 5% F.S.	0.5 V ±0.2V	0 V ±0.2V
Input Impedance/Consumption	350 Ω	<25 mA	<25 mA
Output Impedance	350 Ω	1 kΩ ⁷	1 kΩ ⁷
Insulation under 50Vdc	≥100 MΩ	≥100 MΩ	≥100 MΩ

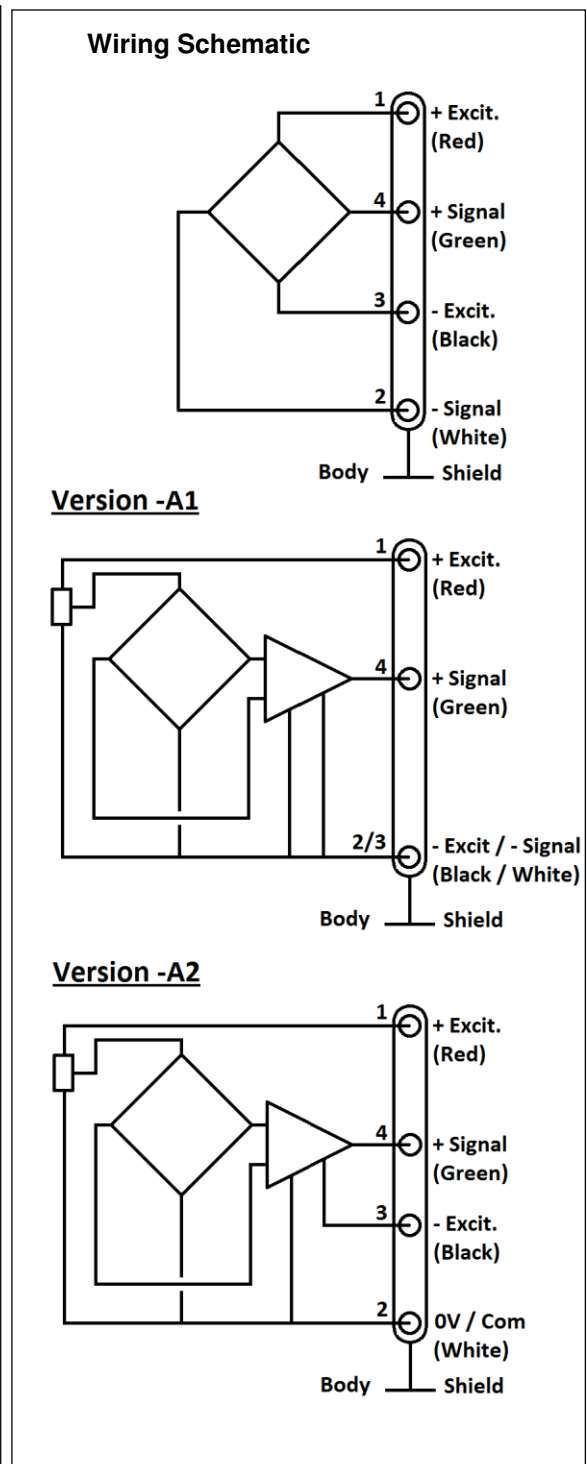
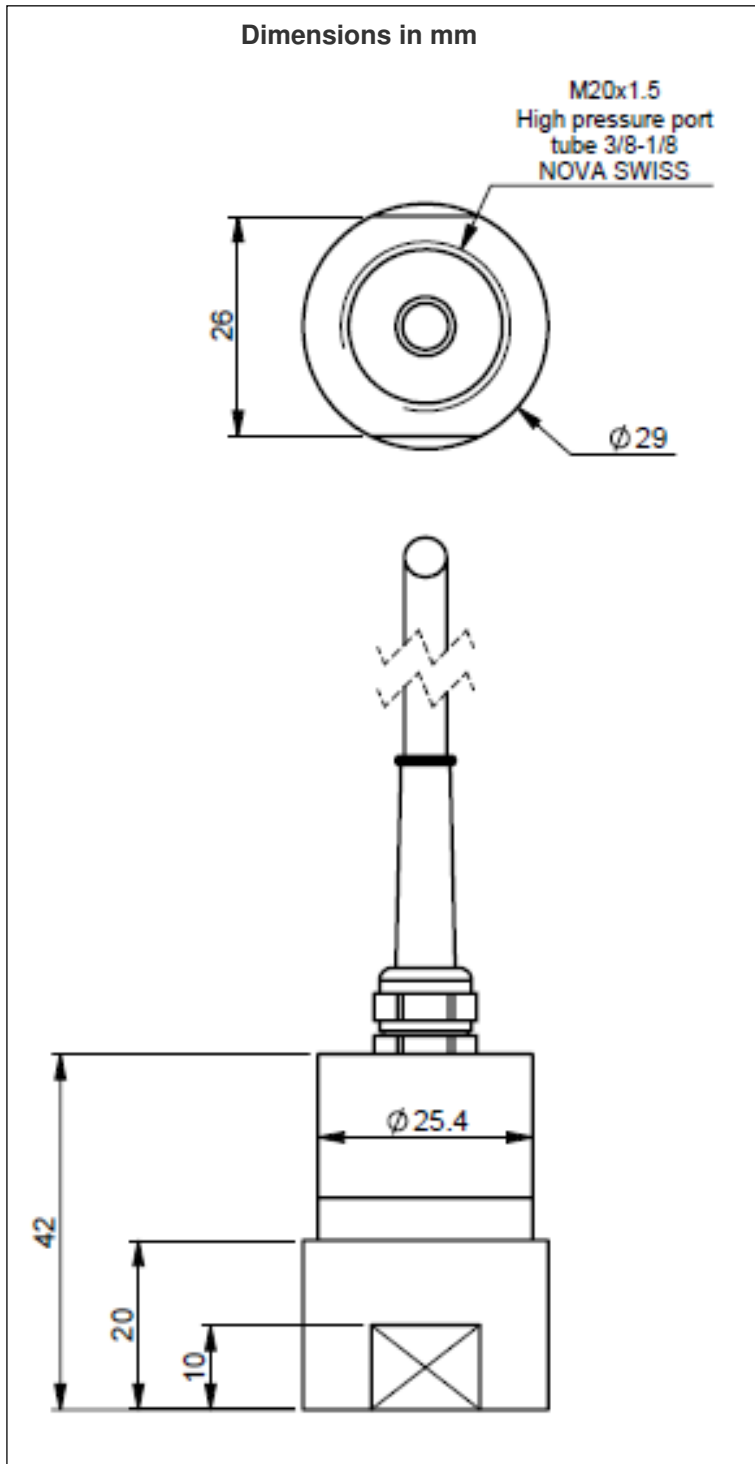
Notes

1. Electrical Termination: Cable gland, standard length 2m [6.6ft]. Optional connector output on request.
2. Material: Stainless steel diaphragm, body in aluminium
4. Weight: 300g [0.66lb]
5. Protection Index: IP50
6. Standard output signal, custom outputs available on request
7. Output impedance standard, available <100Ω on request.
8. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1

P105

High Pressure Transducer

DIMENSION & WIRING SCHEMATIC (METRIC ONLY)



P105

High Pressure Transducer

OPTIONS

A1	: Amplified Tension output with unipolar power supply
A2	: Amplified Tension output with bipolar power supply
ET1	: CTR -20 to 100° C [-4 to 212° F]
ET2	: CTR -40 to 120° C [-40 to 248° F]
SC	: Connector output
L00M	: special cable length, replace "00" with total length in meters

ORDERING INFORMATION

P105	-	A1	-	2KB	G	-	/L4M
Modèle	-	Electrical interface	-	Etendue de mesure	Pression de référence	-	/Options
P105	-	(empty) = bridge mV/V A1 = 0.5 to 4.5 V A2 = 0 to 5 V	-	1KB 2KB 3KB 5KB	G = Gage	-	/ETX /SC /L00M

The sensor ordering codes uses only bar as units because **P105** uses metric threads. Psi value correspondence is noted as information

SUPPLIED ACCESSOIRES (ONLY WITH **SC** OPTION)

EFMX-4M : mating plug Jaeger 530-801-006 with clamp 530-841-006 standard with SC option
EFMX-4H : mating plug Jaeger 530-804-006 with clamp 530-844-006 for ET1, ET2 or ET3 & SC options