

User guide

PRESSURE TRANSMITTER ST



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1. Important information

A careful reading of this instruction manual is strongly recommended before installation and use of the instrument.

This manual must be stored in a safe and easily accessible place.

To operate in safe conditions, this instrument should be selected according to the intended application and should be properly installed according to the manufacturer's installation instructions.

The operators in charge of the instrument selection, installation and maintenance should be able to recognize what conditions may affect the instrument functioning and that may lead to premature damage or failure of it.

Plants regulations procedures need to be carried out by qualified operators. If used improperly, the instrument may damage and may be dangerous to operators and plant. In order to select the right instrument, all products details can be found on the most updated edition of the general products catalogue available on-line at www.nuovafima.com.



In accordance with directive
EMC 2014/30/EU – PED 2014/68/EU

Standards of reference: EN 61326
IEC 60770 – IEC 61298-2

2. Safety Instructions



Warning

- The manufacturer disclaims all responsibility in case of damages caused by the improper use of the product and by the non-respect of the instructions reported in this manual.
- Follow carefully the specific safety rules in case of measuring oxygen pressure, acetylene, inflammable or toxic gas or liquids.
- Disconnect the instruments only after depressurization of the system.
- The process fluids residuals remaining in the disassembled instruments components could affect people, the environment and the system. Proper precautions are highly recommended.



Attention

- Before installation be sure that the right instrument has been selected following the working conditions and in particular the range, the working temperature and the compatibility between the material used and the process fluid.
- This manual does not concern the instruments conforming to standard 2014/34/EU (ATEX).
- The product warranty is no longer valid in case of non-authorized modifications and of improper use of the product.
- The user is totally responsible for the instrument installation and maintenance.
- Instruments employed for measuring toxic or inflammable fluids, should be handled and stored with extreme care.

3. Intended use

The pressure transmitter turns the input pressure into an output electrical signal. The electrical signal changes in proportion to the input pressure level.

4. Electrical connections

		EN 175301-803 Form A	M12x1	Cable output
		EN 175301-803 Form C		
Output signal:	4...20 mA			
N° of wires:	2			
Charge (Ohm):	$R_L - (V_{in}-10)/0,02$			
Input +Vin:	10...30			

			EN 175301-803 Form A	M12x1	Cable output
			EN 175301-803 Form C		
Output signal:	0...5 Vdc	0...10 Vdc			
N° of wires:	3	3			
Charge (Ohm):	min. 5Kohm	min. 10Kohm			
Input +Vin:	8...30	14...30			

The transmitter metal case should always be connected to ground through the process connection thread in order to protect it from disturbances due to electromagnetic fields or electrostatic charges.

If this procedure cannot be performed, the transmitter should be connected to the ground through the connector and the cable screen.

5. Installation

Before installing an electric safety equipment into a plant or a system, the user should verify that the instrument is suitable to the plant characteristics and that it is installed correctly. After installation procedure is finalized, the user should verify that the instrument is not exposed to any source of heat that may exceed the established ambient limits.

Secure the instrument thread through a special key/wrench on the process connection hexagon without grasping the case by the hands.

Secure the instrument thread through a special key/wrench on the process connection hexagon (20...30Nm). The correct torque depends on the type of process connection and the type of seal used (form and material).

If the connection thread is conical the instrument is tightened through a simple screwing on the plug. In order to improve the thread tightness, the male thread should be wrapped with a PTFE layer.

If the instrument is provided with a fluid diaphragm seal the connection should be clamped on the diaphragm otherwise the calibration could be compromised.

Connector Assembling EN 175301-803 Form A

Disassemble the connector as in fig.1 and connect the cable as in fig.2.

Reassemble the connector and fasten it to the transmitter.



Figure 1 – Exploded view of the connector

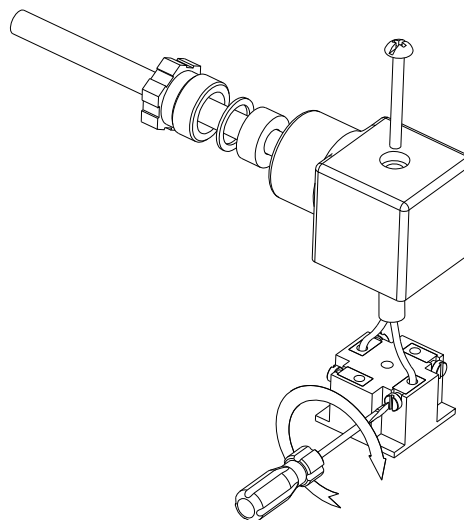


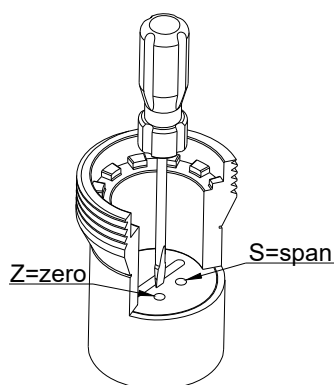
Figure 2 – Wires connections



The IP grade according to standard CEI EN 60529 is guaranteed only if the female connector equipped with a connection cable is mounted on the instrument and all the other components are assembled correctly

6. Recalibration and maintenance

In some models the zero and the full scale range can be adjusted as follows:



- Connector disassembling (see fig. 1)
- Zero adjustment (Z)
- Span adjustment(S)

The ST transmitters is “*maintenance free*”.

In case of damage, contact NUOVA FIMA S.r.l. through the following service:

Product Return - www.nuovafima.com/en/product-return/



7. Disposal

Instrument components and packaging materials must be disposed respecting the environment and observing the specific national rules.