

Use instructions

PRESSURE TRANSMITTER ST1-ST2



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1. Important information

Read this instruction manual carefully before installing and commissioning the instrument. Keep it in a safe place accessible to users at any time.

The safety of the instrument derives from a careful choice of the model and installation in the system, as well as from compliance with the maintenance procedures established by the manufacturer.

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 compliance with Standards	Standards of reference: IEC 61326-1
EMC 2014/68/UE – PED 2014/68/UE	IEC 60770 – IEC 61298-2

2. Safety information



Warning

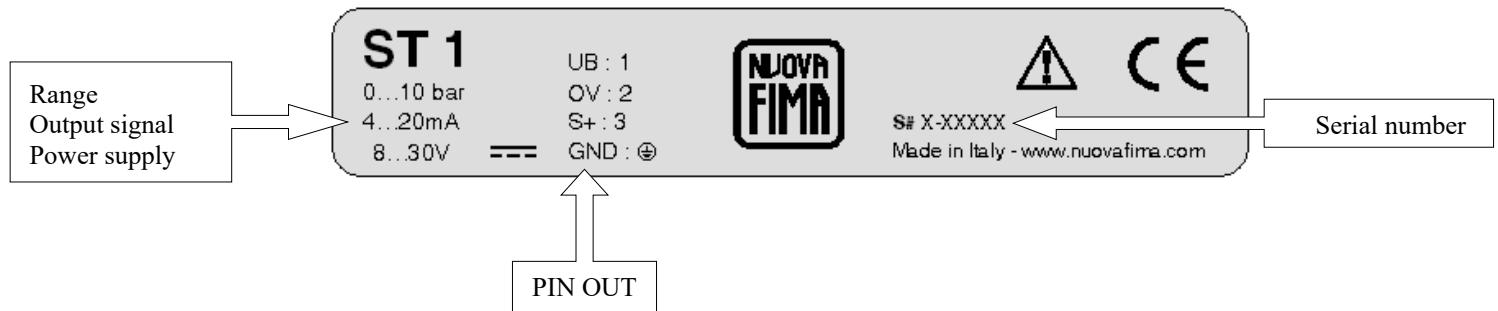
- The manufacturer disclaims all responsibility in case of damages caused by the improper use of the product and by the non-respect of the instructions reported in this manual.
- The specific safety rules in case of measuring oxygen pressure, acetylene, inflammable or toxic gas or liquids must be observed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



Attention

- Before installation, be sure that the right instrument has been selected according to 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 which are conform to standard 94/9/CE (ATEX).
- In case of non-authorized modifications and of unproper use of the product, the product warranty is no longer valid.
- 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. Product tag



4. Intended use

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

5. Electrical connection

Output Signal					
	4...20mA	0...5Vcc	0...10Vcc	1...5Vcc	0,5...4,5Vcc Ratiometric
N° of wires	2	3	3	3	3
Charge (Ohm)	$R_L \leq (V_{in}-8)/0,02$	$R_L > 5K\Omega$	$R_L > 10K\Omega$	$R_L > 5K\Omega$	$R_L > 4,5K\Omega$
Power Supply U_b (Vcc)	8...30	8...30	14...30	8...30	5±10%
Current Consumption (mA)	< 25	< 10	< 10	< 10	< 10

Connection						
	Connector DIN 175301-803 A		Connector M12x1		Cable outlet	
N° of wires	2	3	2	3	2	3
Power Supply Terminal: U_b	1	1	1	1	Brown	Brown
Negative Terminal: 0V	2	2	3	3	White	Green
Signal: S+	-	3	-	4	-	White
Screen	GND	GND	2	2	Grey	Grey

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 it is not possible to do so, connect the transmitter to ground through the connector and the cable screen.

6. 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.

User instructions

PRESSURE TRANSMITTER ST1-ST2

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

As for those process connections with a cylindrical thread (Gas-Metric), a head gasket compatible with the gas or fluid of measure should be used.

If the connection thread is conical, the instrument is tightened through a simple screwing to the plug. In order to tight the thread more strongly, a PTFE layer on the male thread is recommended.

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



7. Maintenance

The ST1-ST2 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/



8. Disposal

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