

WARNING

FOR YOUR SAFETY

- Select the appropriate pressure transmitter with regard to scale range, performance and specific measurement conditions prior to installing.
- Observe the relevant national regulations (e.g.: NEC, CEC) and observe the applicable standards and directives for special applications (e.g. with dangerous media such as oxygen, acetylene, flammable gases or liquids and toxic gases or liquids and with refrigeration plants or compressors).
- **If you do not observe the appropriate regulations, serious injuries and/or damage can occur!**
- **Open pressure connections only after the system is without pressure!**
- Check to see whether the values given on the type plate (particularly the pressure range and intrinsically safe parameters) correspond to your required specifications.
- Observe the overpressure safety of the respective pressure range!
- Observe the ambient and working conditions.
- Ensure that the pressure transmitter is only operated in accordance with the provisions.
- Do not interfere with or change the pressure transmitter in any other way than described in this operating- and safety instruction manual.
- Remove the pressure transmitter from service and mark it to prevent it from being used again accidentally, if it becomes damaged (e.g. body tube, process connection, electrical connection or wiring) or unsafe for operation.
- **Take precautions with regard to remaining media in removed pressure transmitter. Remaining media in the pressure port may be hazardous or toxic!**
- Have repairs performed by the manufacturer only.

Special advice for hazardous environments

- Consider the details given in the respective specifications for explosion hazard use of the country concerned (e.g.: NEC, CEC). If you do not observe these stipulations, serious injuries and/or damage can occur.
- The electrical connection provided on the transmitter should be used as originally supplied and not bypassed or modified (other than cable or wire length where appropriate). Improper installation or modification of the electrical connection will void the intrinsically safe hazardous area approval rating.
- Protect the diaphragm against any contact with abrasive substances and pressure peaks and do not touch it with tools. If you damage the diaphragm, no intrinsic safety can be guaranteed (FM)!

HAZARDOUS LOCATION

Class I, II, III, Division 1, Group A, B, C, D, E, F, G
Class I, II, III, Division 2, Group A, B, C, D, F, G

Correlation between model, temperature class, ambient temperature and maximum permissible medium temperature:

ATM/IS, Series 83	T6	T4	T3
Temperature class			
Environmental temp. [°C]	-25...55	-25...85	-25...85
Medium temperature [°C]	-25...55	-25...100	-25...150

ATM/F/IS, Series 85	T6	T4	T3
Temperature class			
Environmental temp. [°C]	-25...55	-25...85	-25...85
Medium temperature [°C]	-25...55	-25...100	-25...150

ATM/N/IS, Series 84	T4
Temperature class	
Environmental temp. [°C]	-5...50
Medium temperature [°C]	-5...50

ATM/IS Transmitter with o-ring, welded or elastomerfree version ATM/F/IS, ATM/N/IS Transmitters

$V_{max} = 30 \text{ V}$, $I_{max} = 100 \text{ mA}$, $P_i = 1 \text{ W}$,
 $C_i = 10 \text{ nF} + 0.12 \text{ nF/meter of integral cable}$,
 $L_i = 0.1 \text{ mH} + 0.001 \text{ mH/meter of integral cable}$

Notes:

1. Install per the National Electrical Code, ANSI/ISA-RP12.06.01, as applicable
2. Equipment connected to associated apparatus shall not use or generate in excess of 250 Vrms
3. Associated Apparatus shall have outputs approved for connection to the applicable hazardous location.
However, the use of associated apparatus with outputs approved for connection to Division 1 shall be permitted when installing transmitters in Division 2.
4. Installations within Division 2 require the use of nonincendive field wiring. Installation in Division 2 without protection by associated apparatus is not permitted.

PACKAGING

Inspect the pressure transmitter for possible damage during transportation. Should there be any obvious damage, inform the transport company and STS without delay.

NONHAZARDOUS LOCATION

FM Entity Approved/Certified Associated Apparatus / Barrier

$V_{oc} \leq 30 \text{ V}$, $I_{sc} \leq 100 \text{ mA}$, $P_o \leq 1 \text{ W}$,
 $C_a \geq 10 \text{ nF} + C_{cable}$
 $L_a \geq 0.1 \text{ mH} + L_{cable}$

Keep the packaging, as it offers optimal protection during transportation (e.g. changing installation location, shipment for repair.

Transmitters with FM approval

Operating- and safety instruction manual

IMPORTANT

Read these operating instructions before installing and starting the pressure transmitter. Keep the operating instructions in a place that is accessible to all users at any time.
The following installation and operating instructions have been compiled by us with great care but it is not feasible to take all possible applications into consideration. These installation and operation instructions should meet the needs of most pressure measurement applications. If questions remain regarding a specific application, you can obtain further information/data sheets, instructions, etc.). Contact STS at any time for additional technical support. The product data sheet is designated as ATM/IS, ATM/N/IS or ATM/F/IS.
STS pressure transmitters are carefully designed and manufactured using state-of-the-art technology. Every component undergoes strict quality inspection before assembly and each instrument is fully tested prior to shipment.
Use the intrinsically safe pressure transmitter for pressure measurement in hazardous areas.

INSTALLATION

Avoid any damage to the diaphragm during installation. Ensure that the cable diameter fits to the cable gland of the connector. Ensure that the cable gland of the mounted connector is positioned correctly and that the sealings are available and undamaged. Tighten the threaded connection and check the correct position of the sealings in order to ensure the ingress protection. When mounting the instrument, ensure that the sealing faces of the instrument and the measuring point are clean and undamaged. Do not use the case as working surface for screwing in or unscrewing the instrument. When screwing the transmitter in, ensure that the threads are not jammed.