

**Client Warranty**  
 Prior to installation, the equipment referred to in this manual must be stored in a clean, dry environment, in accordance with the Company's published specification. Periodic checks must be made on the equipment's condition. In the event of a failure under warranty, the following documentation must be provided as substantiation:  
 – A listing evidencing process operation and alarm logs at time of failure.  
 – Copies of all storage, installation, operating and maintenance records relating to the alleged faulty unit.

**Instructions SOI/266-EN Rev.J**  
**2600T Series Pressure Transmitters**

Engineered solutions for all applications  
 Measurement made easy



EN Important: Instructions, datasheets, certificates and much more available at:  
 IT Importante: manuali operativi, specifiche tecniche, certificati e molto altro disponibile all'indirizzo:  
 DE Wichtig: Betriebsanleitung, Datenblätter, Zertifikate und vieles mehr zur Verfügung:  
 FR Important: mode d'emploi, fiches techniques, certificats et beaucoup plus disponible à:  
 BG Важно: обучение, технически спецификации, удостоверения и много по-достъпна на:  
 CS Důležité: Instrukce, listech, certifikáty a mnohem více k dispozici na:  
 HR Važno: Uputstvo, tablice, potvrde i još mnogo toga dostupnije su na:  
 DA Viktigt: Instruktions, datablad, certifikater og meget mere findes på:  
 ET Oluline: Korraldus, andmeleht, tunnistuste ja palju muud kättesaadavad:  
 FI Tärkeää: Instruktion, lomakkeissa, todistukset ja paljon muuta saatavilla:  
 GR Σημαντικό: Οδηγίες, βεληγία, τα πιστοποιητικά και πολλά περισσότερα διαθέσιμα σε:  
 GA Tábhachtach: Teagasc, datasheets, teastas agus i bhfad níos mó ar fáil ag:  
 LT Svarig: Instrukcija, duetu lapas, sertifikaty un vēl daudz vairāk pieejams:  
 LV Svarīgi: Instrukcija, specifikācija, patēriņmaī i r daug daudāku gāimā rasti:  
 MT Important: Istruzzjoni, dokumnti teknici, certifikati u heffa oħtra disponibbli fi:  
 NL Belangrijk: Instructie, datasheets, certificaten en nog veel meer verkrijgbaar bij:  
 PL Ważne: Instrukcja, arkusze danych, certyfikaty i wiele innych dostępne w:  
 PT Importantes: instrução, folhas de dados, certificados e muito mais disponíveis em:  
 RO Important: instrucțiuni, specificații tehnice, certificate și mult mai mult disponibile la:  
 SK Dôležité: Instrukcia, listoch, certifikáty a oveľa viac k dispozícii na:  
 SL Pomembno: Navodila, obratci, potrdila in še veliko več na voljo:  
 ES Importante: Instrucción, hojas de datos, certificados y mucho más disponible en:  
 SV Viktigt: Underledning, datablad, certifikat och mycket mer finns på:  
 UH Fontos: Oktatás, adatlap, bizonyítványok és sok más elérhető:  
 RU Важно: Инструкция, спецификации, сертификаты и многое другое доступно на:  
 ZH 重要提示: 指令·数据表·证书和更多可在:  
 JA 重要: 命令・データシート・証明書とではるかに利用できます  
 NO Viktig: Instruksjon, dataark, sertifikater og mye mer tilgjengelig på:  
 www.abb.com/pressure

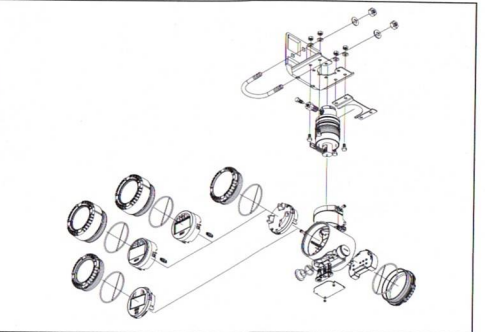


2600T Series Pressure Transmitters | Instructions

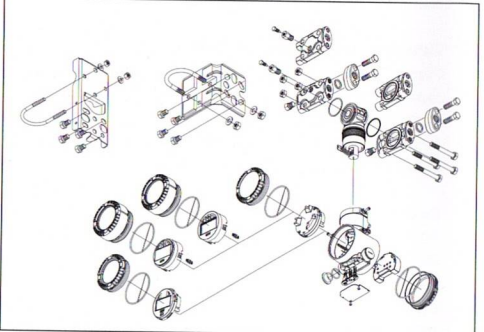
Instructions | 2600T Series Pressure Transmitters

\*Drawings show cumulative composition.  
 Received goods differ depending on chosen configuration.

Gauge pressure transmitter



Differential pressure transmitter



Opening the box\*

**Validity**  
 Specific processes and instructions in this document require special precautions to guarantee the safety of the operating personnel.

**Target Group / Personnel**  
 Responsibility for planning, assembly, commissioning, operation, maintenance, and dismantling lies with the system operator. Storage, mounting, installation, commissioning, operation, maintenance and disassembly of any devices may only be carried out by trained, qualified personnel according to the technical data provided in the specification for the relevant model. The instruction manual must be read and understood.

**Reference to further documentation**  
 For installation in hazardous areas, i.e. areas with dangerous concentrations of gases or dusts that may explode if ignited, the installation must be carried out in accordance with relative standards either IEC/EN 60079-14 and/or with local authority regulations, for the relevant type of protection adopted. The corresponding data sheets, declarations of conformity, EC / type examination certificates and control drawings if applicable are complementary documentation part to this document. You can find this information under [www.abb.com/pressure](http://www.abb.com/pressure). Due to constant revisions, documentation is subject to continuous amendments. Please refer only to the most up-to-date version, which can be found under [www.abb.com/pressure](http://www.abb.com/pressure).

**Marking**  
 The instrument is identified by the data plates. The certification plate contains the certification related parameters for use in hazardous area.

**Important**  
**Note for pressure transmitter with combined approval.**  
 Before installation of the Transmitter, the customer should permanent mark his chosen Protection Concept on the safety label.

The nameplate, on top, provides information concerning the model code, maximum working pressure, range and span limits, power supply, output signal, diaphragms material, fill fluid, range limit, serial number, maximum allowable pressure (PS) and maximum / minimum allowable temperature (TS) according to PED directive. The tag plate, instead, provides customer tag number and calibrated range. The instrument may be used as a pressure accessory (category III) as defined by the Pressure Equipment Directive 2014/68/EC. In this case, near the CE mark, you will find the number of the notified body (0474) that has verified the compliance according to module H. 266 pressure transmitters comply with directive EMC 2014/30/UE.

The ATEX, CE, and IECEx certification plates can be issued by ABB S.p.A, 22016 Tremezzina, Italy, with the numbers:  
 – FM09ATEX0023X or IECEx FME 16.0002X (Ex d)  
 – FM09ATEX0024X or IECEx FME 16.0003X (Ex ia)  
 – FM09ATEX0025X or IECEx FME 16.0004X (Ex nA)  
 CE-Identification number of the notified bodies to Pressure Equipment Directive: 0474, to ATEX certification: 0722, to IECEx certification: IT/CES/QAR07.0001.

Or by ABB GmbH, 32425 Minden, Germany, with the numbers:  
 – FM09ATEX0068X or IECEx FME 16.0002X (Ex d)  
 – FM09ATEX0069X or IECEx FME 16.0003X (Ex ia)  
 – FM09ATEX0070X or IECEx FME 16.0004X (Ex nA)  
 CE-Identification number of the notified bodies to Pressure Equipment Directive: 0045, to ATEX certification: 0044, to IECEx certification: DE/TUN/QAR06.0012 .

Or by ABB India Limited, 560058 Bangalore, India, with the numbers:  
 – FM11ATEX0035X (Ex ia)  
 – FM11ATEX0036X (Ex d)  
 – FM11ATEX0037X (Ex nA)  
 CE-Identification number of the notified bodies to ATEX certification: 1725.

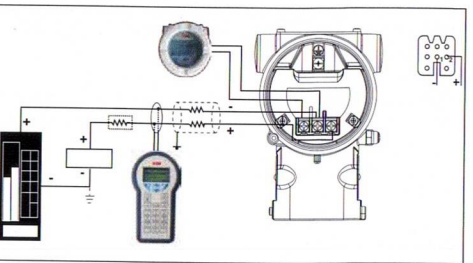
Or by ABB Engineering Limited, Shanghai 201319, P.R. China, with the numbers:  
 – FM11ATEX0046X or IECEx FMG 11.0019X (Ex ia)  
 – FM11ATEX0047X or IECEx FMG 11.0018X (Ex d)  
 – FM11ATEX0048X or IECEx FMG 11.0020X (Ex nA)  
 CE-Identification number of the notified bodies to ATEX certification: 1725.



**Intended use**  
 The devices are only approved for appropriate and intended use. Ignoring these instructions will void any warranty and absolve the manufacturer from any liability. The pressure transmitter is connected to a process by means of impulse lines and can measure gauge pressure, differential pressure or absolute pressure. The measurement is transmitted as a 4-20 mA signal with a superimposed digital signal (HART) or as a digital transmission protocol (PROFIBUS or FOUNDATION Fieldbus).

The measure can also be indicated on a (optional) local or remote display. Instructions for preliminary checks, proper transmitter location, installation, wiring, power-up and zero calibration (trimming) of the transmitter are described on operating instruction available at [www.abb.com/pressure](http://www.abb.com/pressure). In order to assure operator and plant safety it is essential that personnel suitably trained on the local applicable codes of hazardous location, functional safety, electrical wiring and mechanical piping carry out the installation.

**Analogue output (HART) transmitter wiring**



1. Power source
2. Remote indicator
3. Handheld communicator
4. External ground termination point
5. Internal ground termination point
6. Line load





### Improper use

- It is prohibited to use the device for the following purposes:
- As a climbing aid, e.g., for mounting purposes.
  - As a support for external loads, e.g., as a support for pipes.
  - Adding material, e.g., by painting over the nameplate or welding/soldering on parts.
  - Removing material, e.g., by drilling the housing.

### Mounting

Failure to observe the warnings and instructions may cause a malfunction or personal hazard. Before installing the transmitter, check whether the device design meets the requirements of the measuring point from a measurement technology and safety point of view. This applies in respect of the:

- Explosion protection certification
- Measuring range
- Temperature (Process and Ambient)
- Operating voltage

The suitability of the materials must be checked as regards their resistance to the media. This applies in respect of the:

- Gasket
- Process connection, isolating diaphragm, etc.

In addition, the relevant directives, regulations, standards, and accident prevention regulations must be observed (e.g., VDE/VDI 3512, DIN 19210, VBG, Elex V, etc.). Measurement accuracy can be significantly affected by correct installation of the pressure transmitter and, if applicable, the associated measuring pipe(s). As far as possible, the measuring setup should be free from critical ambient conditions such as large variations in temperature, vibrations, or shocks.



### Important.

If unfavorable ambient conditions cannot be avoided for reasons relating to building structure, measurement technology or other issues, the measurement quality may be affected. If a remote seal with capillary tube is installed on the transmitter, the additional operating instructions for remote seals and the related data sheets must be observed.

For the sake of your own safety, we draw your attention to the fact that for the electrical connection, only sufficiently isolated tools acc. to EN 60 900 may be used. Furthermore consider the following regulations:

- The pertinent safety regulations concerning the construction and operation of electrical installations, e.g. the rule regarding technical working material (safety rule for instruments), have to be observed.
- The pertinent standards.
- The regulations and recommendations relating to explosion protection if explosion-proof transmitters are to be installed.
- The safety recommendation if installed in a SIL loop as described in the Safety Manual (available at [www.abb.com/pressure](http://www.abb.com/pressure)).

The device can be operated with high pressure and aggressive media. Serious injury and/or considerable material damage can therefore be caused when this device is handled incorrectly. Please observe the pertinent national rules when using pressure transmitters.

### Housing

To ensure the IP degree of protection:

- all seals must be undamaged and correctly fitted
- all screws of the housing and its cover must be tightened so as to have metal-to-metal contact (approx. 20Nm)
- only cable of the appropriate size must be used in the cable glands
- all cable glands must be tightened so as to have metal-to-metal contact; empty cable gland must be sealed with sealing plugs.



### Electrical connection

The relevant guidelines must be observed during the electrical installation! Since the transmitter has no switch-off elements, it is important to provide the possibility of disconnecting the power main or providing over-current protection devices on the system side (over voltage protection may be selected as a transmitter option). An open cover does not provide a protection against accidental contact. Do not touch any conductive components. Check that the existing power voltage corresponds to that indicated on the type plate. For power supply and output signal, the same lines are used. Use the enclosed connection diagram! The electrical connection is made via cable entry 1/2in, 14 NPT or M20 x 1.5 (or via optional Han 8 U, 7/8in or M12 x 1 connectors).

**Important.** *The red plugs are to be removed and properly replaced when the transmitter is installed in hazardous area. They are not explosion proof certified products.*

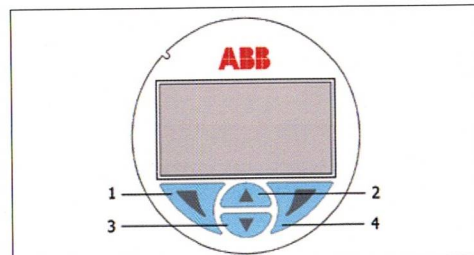
To ensure the Type 4X and IP 67 degree of protection for transmitter according to Canadian Standard CSA, the conduit must be screwed into the housing 1/2in. NPT female using a suitable sealing compound. The blanking plug has been sealed with Molykote DX, the use of any other sealing compound is done so at owners own risk.

### Activation procedure for Standard and TTG LCD versions (L1 and L5 option codes)

The HMI features 4 push buttons (see figure) to allow the navigation through the various functions.

- Press simultaneously the central buttons (2) and (3) until two icons will appear at the bottom corners of the display.
- Press the button (4) under the right icon within one second to access the HMI menu or press the left button (1) to access the instantaneous diagnostic messages.

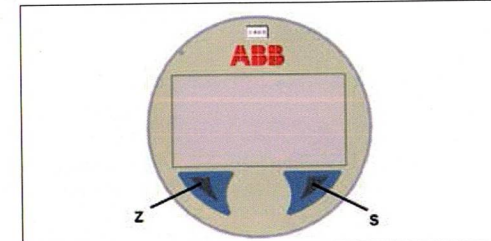
**Important.** *Do not operate TTG display (L5 option) for 30 seconds after transmitter power-on. During this period of time, the transmitter is calibrating the capacitive switches.*



### Integrated LCD operation (LS option code)

This HMI features 2 push buttons (see figure) to allow basic transmitter operations.

- left navigation key (here identified by "Z") is the Zero push button. Depressing this key for few seconds will cause the output to go at 4 mA. The span will remain unchanged
- right navigation key (here identified by "S") is the Span push button. With 100% input pressure applied, depressing this key for few seconds will set the Upper Range Value.



### Write Protection

Write protection prevents the configuration data from being overwritten by unauthorized users. If write protection is enabled, the "Z" and "S" buttons (internal or external) are disabled. However, it is still possible to read out the configuration data using the graphical user interface (DTM) or another, similar communication tool. The control unit may be leaded if required. Write protection can be activated via hardware (pushbutton under the device nameplate or dip switch on the electronic board) or via software (DD file, DTM or display). For further information, refer to complete instruction manual.

### Factory settings

Transmitters are calibrated at the factory to full span (0 to URL) or according to the customer's span, if specified. The calibrated range is provided on the tag plate with the tag number on housing neck.

Transmitter are generally delivered with the following basic configuration (unless otherwise specified):

### Parameter Factory setting

Lower Range Value (LRV)	Zero
Upper Range Value (URV)	URL
Optional LCD HMI scale	1 line PV plus bargraph

Other protocol-related basic settings can be found on complete instruction manuals.

### Operation, Maintenance and Repair

Repairs, alterations and enhancements or the installation of replacement parts are only permissible as far as these are described in the manual. Approval by ABB must be requested for all activities beyond this scope. Repairs performed by ABB-authorized centers are excluded from this.

### Delivery, transport and disposal

After unpacking the pressure transmitter, check the device and relevant accessories (if any) for transport damage. During intermediate storage or transport, use the original packaging only. Although there is no limit on the duration of storage, the warranty conditions stipulated on the order acknowledgment from the supplier still apply. ABB actively promotes environmental awareness and has an operational management system that meets the

requirements of DIN EN ISO 9001:2008, EN ISO 14001:2004, and OHSAS 18001:2007. Our products and solutions are intended to have minimum impact on the environment and persons during manufacturing, storage, transport, use and disposal. This includes the environmentally friendly use of natural resources. ABB conducts an open dialog with the public through its publications. This product/solution is manufactured from materials that can be reused by specialist recycling companies.

### Pressure transmitters certified according to IEC61508

266 HART pressure transmitters certified according to IEC61508 are identified by a specific wired-on plate and by digits 8 or T under the output / additional options characteristic (last digit of mandatory selection). In case of applications within safety loops please read the safety and the operative manual carefully. Documents are available for download on ABB website.



**Certificate IEC61508 for 266 pressure transmitters**



**Safety manual for 266 family**



**Inspection report by TUV**

### Customer support

We provide a comprehensive after sales service via a Worldwide Service Organization.

Contact one of the following offices for details on your nearest Service and Repair Centre.

### ABB S.p.A.

Via Luigi Vaccani, 4 Loc. Ossuccio  
22016 Tremezzina (Co) – Italy  
Tel: +39 0344 58111  
Email: [instrumentation@it.abb.com](mailto:instrumentation@it.abb.com)

### ABB Automation Product GmbH

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