

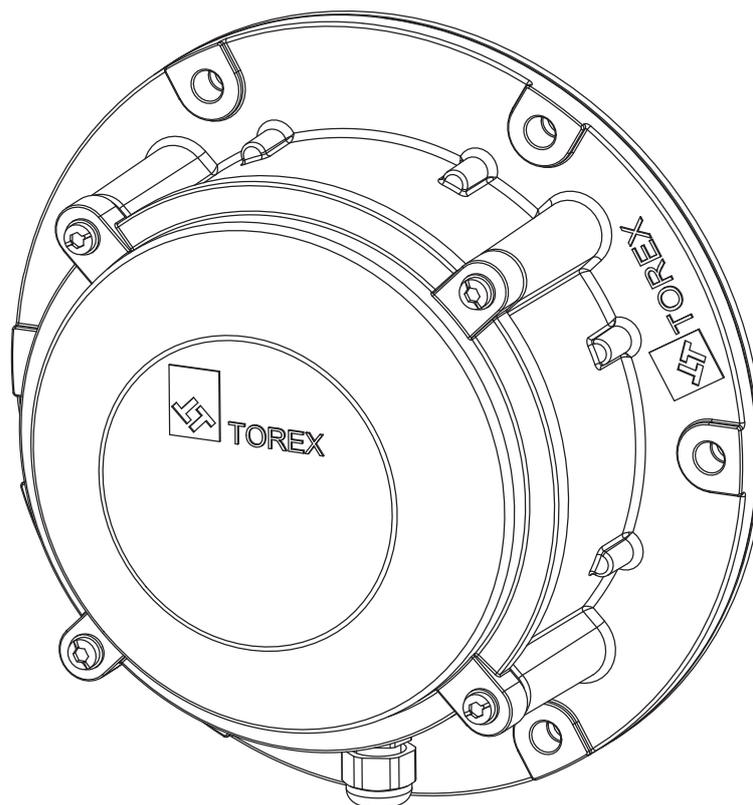


**IPE**   
**ATEX**

*ELECTRONIC PRESSURE  
METERS*

4

**APPENDIX**



Manual No. TOR.IPE.EX.A.A.0724.EN  
Issue: A Latest update: July 2024

ORIGINAL INSTRUCTIONS IN ENGLISH

Code:  
063002586  
Division: TOR



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All the products described in this catalogue are manufactured according to **TOREX S.p.A. Quality System procedures**. The Company's Quality System, certified according to **ISO 9001-2015** guarantees that the entire production process, from the customer's order to the after sales service, can fulfil the product quality standard.

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## 1.0 INTRODUCTION

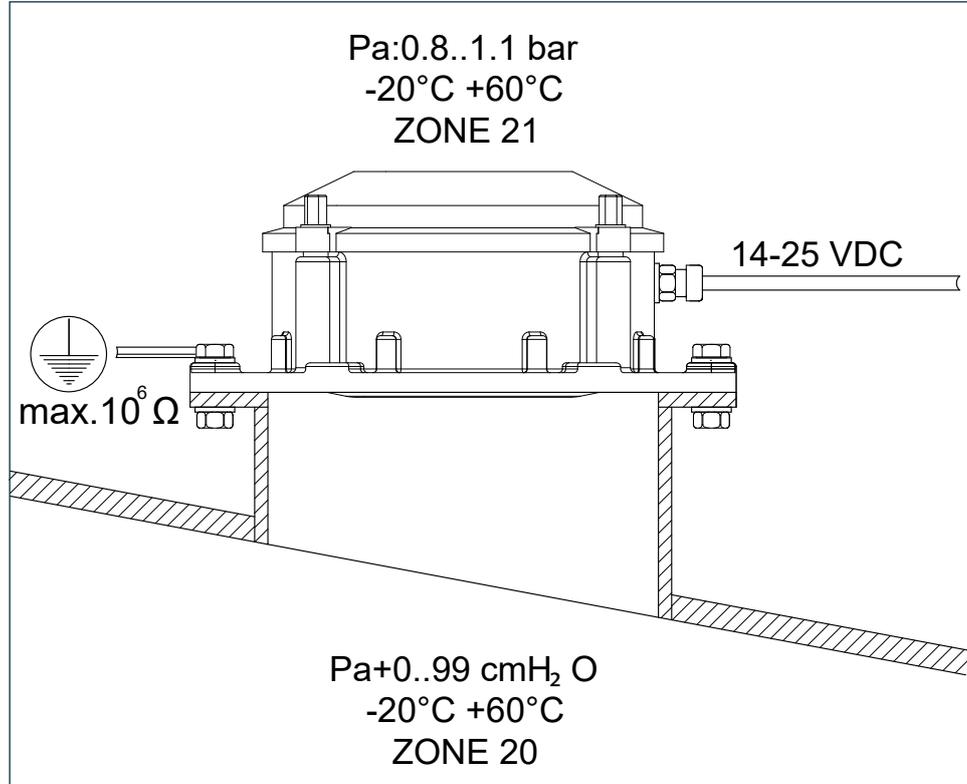
This document contains specific instructions concerning ATEX-certified pressure indicators series "IPE" **certified according to ATEX Directive 2014/34/EU for gr. IIIC ta/tb T100°C Da/Db.**

It does not contain all pieces of information for the correct operation of the indicator. You should read the "IPE-IPM" pressure indicator Operation and Maintenance Manual available on our website [www.wamgroup.com](http://www.wamgroup.com). If you are not able to access the website, please contact the TOREX Sales Office or your **WAMGROUP®** subsidiary.

## 2.1 Description

IPE (electronic pressure indicator): indicates the pressure inside the silo through an electrical output signal. The signal range can be chosen 0-20 mA or 4-20 mA.

CODE	OUTPUT SIGNAL (mA)	MEMBRANE MATERIAL
IPE1X	0-20	EPDM
IPE5X	4-20	

**2.2 Limits of use**


LIMIT PARAMETERS OF THE PROCESS POWDERS	
Class	St1, St2
Minimum ignition energy	> 3 mJ
Minimum ignition temperature of powder cloud	> 200 °C
Ignition temperature of the settled powder layer (5 mm)	> 200 °C
Resistivity parameter KST	< 300 bar m/s
Powder electrical resistivity	< $10^{12} \Omega\text{m}$

### 2.3 Identification of the equipment

The pressure indicator is identified by the nameplate containing the following details:

- 1) Name and address of the manufacturer
- 2) Type and series of indicator
- 3) Use/input voltage
- 4) Outdoor temperature limits
- 5) Group, category and mode of protection
- 6) Maximum surface temperature
- 7) EU type examination certificate number
- 8) Serial number



#### Important

**Ensure that the indicator casing and the plant have equipotential connection. Connect the indicator to the plant structure via the appropriate earth connection point.**

## 2.4 Safety prescriptions for use

Before starting up the plant in which the pressure indicator has been installed, the user must ensure that it has been set in safety conditions as regards the risk of explosion and also that the "Document on protection from explosion" has been drafted according to the requirements of the **ATEX Directive**.

Avoid formation of dust layers on the surface of the indicator; do not use compressed air to remove the dust.

Before carrying out any maintenance interventions, it is important to ensure that all electrical are disconnected. It is therefore **STRICTLY FORBIDDEN** to open the indicator cover while the equipment is electrically powered.

Check and ensure that there are no overheating anomalies on the surface.

If necessary, carry out the necessary checks.

When working on the pressure indicator, take into account that there may be potentially explosive atmospheres.

To carry out operations on the device (maintenance and cleaning), the operators must use suitable personal protection devices (PPE), including:

- Antistatic safety shoes (certified)
- Antistatic protective clothing (certified)
- Antistatic cut-proof gloves

Electrical equipment, if any, used for maintenance or cleaning, must be **ATEX certified in category IIIC Db IP6x**.

- Before connecting any power supply or electrical cable, check that the applied voltages and currents are within the limits of use.
- In addition, the sensor membrane must never be directly exposed to the passage of air or process material.

For the **ATEX 2014/34/EU** certified indicators, in addition to the operations indicated in the IPE-IPM manual, also the following checks are required.

**3.0 ADDITIONAL MAINTENANCE INSTRUCTIONS  
FOR ATEX-CERTIFIED INDICATORS****3.1 Periodic maintenance**

It is recommended to periodically check the following pressure indicator components:

<b>MATERIAL</b>	<b>MAINTENANCE</b>
Cable gland	Check that it is undamaged and properly attached to the indicator.
Diaphragm:	Check that it is undamaged and clean.
Cover and O-ring	Check that they are intact and properly secured.

## 4.1 Spare parts

Contact the commercial network TOREX or your WAM branch of reference indicating the serial number of the machine.

**A1 Declaration of Incorporation**

ISO 9001:2015 Certified company  
Cert.n.501006063  
EN ISO/IEC 80079-34:2018 Company certified  
Cert.n.TUV IT 16 ATEX 056 Q



The manufacturer:  
**TOREX S.p.A.**

located in  
Via Rodolfo Ferrari 8-10 - 41030 S.Prospero Modena - Italy

**under its own responsibility declares that:**

the pressure indicators range IPE, serial number: (see serial number on the back)

**complies with the requirements imposed by the following Directives:**

**Directive 2014/30/CE** of the European Parliament and the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility;

Standards used for the evaluation of the device:

**EN 61326-1:2021**

(EMC safety requirements for electrical equipment for measurement, control and laboratory use.)

**Directive 2011/65/UE RoHS** of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

**Directive 2014/34/CE of 26 February 2014 (ATEX)**

Standards used for the evaluation of the device:

**EN IEC 60079-0:2018**

(Explosive Atmospheres - Part 0. Equipment - General requirements)

**EN 60079-31:2014**

(Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure 't')

**CE  II 1/2D Ex ta/tb IIIC T100 °C Da/Db**

Cert. no. TUV IT 15 ATEX 068X

Ambient temperature -20 °C / +60 °C; mie > 3mJ

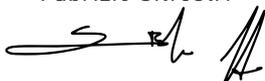
The conformity of the product with the harmonised standards in force has been verified.

The signing company is committed to provide, in response to a reasoned request by national authorities, relevant information on products covered by this declaration, without prejudice to the rights of intellectual property of the manufacturer. The information will be transmitted directly to the national authorities having requested.

Via Rodolfo Ferrari 8-10 - 41030 - S.Prospero Modena - Italy, (issue date on the rear)

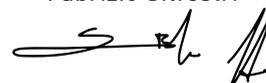
The person authorized to provide  
the technical documentation:

Fabrizio Silvestri



The legal representative:

Fabrizio Silvestri



Serial number:

**N.B.:** All data given in this catalogue are not binding and they can be subject to changes at any time.

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