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UNI EN ISO 9001:2008

# INSTALLATION AND TESTING INSTRUCTIONS FOR INTRINSICALLY SAFE PRODUCTS

## INTRODUCTION

**Hereafter are described the instructions to be followed for the safe use of the DATEXEL temperature transmitters in hazardous area, in compliance with ATEX 94/9/EC Directive. Please read carefully the following instrunctions before to perform the installation or the testing of the following devices:**

**DAT 1010 IS – DAT 1010 IS/HT**
**DAT 1015 IS – DAT 1015 IS/HT**
**DAT 1065 IS – DAT 1065 IS/HT**
**DAT 2015 IS – DAT 2015 IS/HT**
**DAT 4035 IS – DAT 4035 IS/HT**

## DESCRIPTION

The DAT xxxx IS and DAT xxxx IS/HT temperature transmitters are produced by DATEXEL Srl – Tradate (VA) in compliance with the ATEX 94/9/EC Directive, II group, 1G category, with reference to EN60079-0 and EN60079-11 Standards.

## MARK

CERTIFICATION NUMBER:

**CESI 02 ATEX 115**

PROTECTION MODE:

**Ex ia IIC T6, T5**
**Ex ia IIC T6, T5, T4 (only for HT version)**

**Intrinsically Safe protection type,**
**Zone 0, IIC,**
**temperature class T6, T5, T4**

ATEX NOTIFICATION:

**CESI 0722 Ex II 1 G**

| | |
|---|---|
| **0722** | **Notified Organism nr. (of ATEX notification)** |
| **II** | **group II (surface)** |
| **1** | **category 1 device** |
| **G** | **explosive atmosphere with gas, fogs** |

## ELECTRICAL CHARACTERISTICS

**Ex Data:**

| Power Supply: | Sensor Output: |
|---|---|
| **Ui = 30V** | **Uo = 6.2V** |
| **Ii = 100mA** | **Io = 100mA** |
| **Pi = 0.75W** | **Po = 500mW** |
| **Li = 0.1mH** | **Lo = 3.6mH** |
| **Ci = 10nF** | **Co = 5uF** |

**Operating Temperature:**

| Operating Temperature : | Temperature Class: |
|---|---|
| -20 °C..+55°C | T6 |
| -20 °C..+70°C | T5 |
| -20 °C..+85°C | T4 |

## HAZARDOUS AREA INSTALLATION INSTRUCTIONS

Installation and maintenance of DAT xxxx IS and DAT xxxx IS/HT devices must be performed in compliance with the Hazardous area electrical installation Normatives. Before installing a device, please read its Data-Sheet and the following directives.

To guarantee a safe and correct functionality of the transmitter the following requirements must be satisfied:

**1) The power supply voltage (intrinsically safe) applied to +V and -V terminals must be supplied through a Compling Device (BARRIER) certified in compliance with EN60079-0 and EN60079-11 Standards, with the following requirements:**
**- Voltage must be 11Vdc to 30 Vdc;**
**- Maximum Current supplied by the barrier must be less of 100 mA;**
**- Maximum Power supplied by the barrier must be less of 0.75 W.**

**2) The IS transmitter must be mounted in a IP54 housing (for external) or IP4x housing (for internal or protected area).**

**3) The temperature transmitter must be installed in such way to be guaranteed, in every condition, the working temperature indicated in the Ex Data.**

**4) The connection between the device and the PRODAT-03 programming interface must be performed ONLY IN SAFE AREA and using the CVPR-03 cable.**

**5) Clean only with damp cloth or antistatic products.**

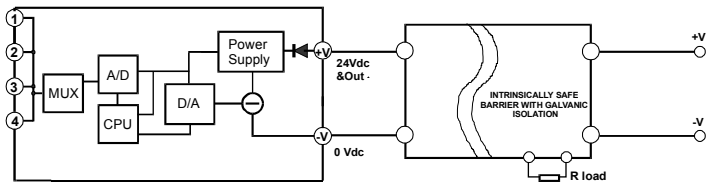
**6) Only DATEXEL s.r.l. is authorized to repair the device.**

## APPLICATION NOTES

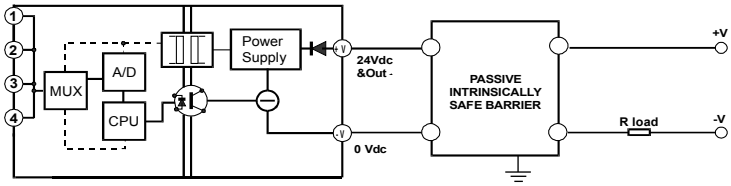
DAT1010, DAT1015 and DAT1065 devices are suitable for DIN B Head mounting; DAT2015 and DAT4035 are suitable for DIN Rail mounting.

DAT1010, DAT1015 and DAT2015 don't perform the galvanic isolation between input and output.
DAT1065 and DAT4035 perform the galvanic isolation between input and output, needed when the sensor is not provided of an adequated ground isolation. In this case then it is possible to use passive zener barrier (without galvanic isolation).

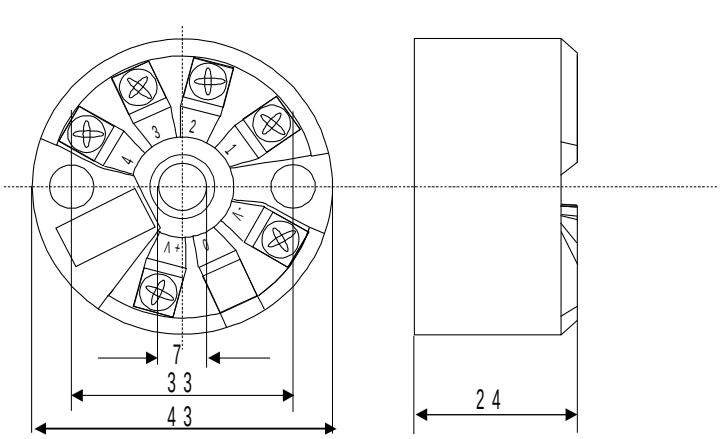
**Not Isolated Device**

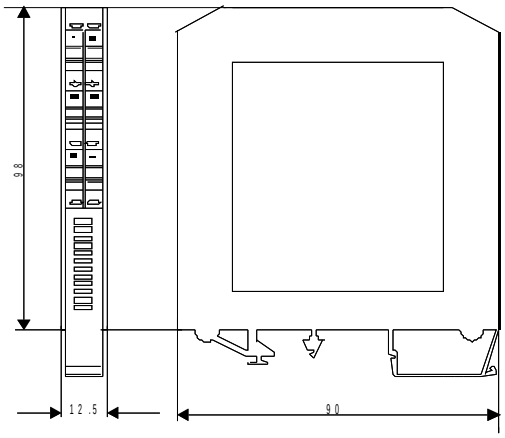



**Galvanically Isolated Device**




## MECHANICAL DIMENSIONS ( mm. )

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