5333
2-Wire Programmable Transmitter

No. 5333V113-UK
From ser. no.:
132094001 - 132094630
141115001 →

Ex
IEC
IECEx
FM
Approved
CCOE
CE
Segurança
INMETRO
EAC

Ex

Ex

Ex

Ex
## Revision Notes

The following list provides notes concerning revisions of this document.

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<th>Date</th>
<th>Notes</th>
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<td>111</td>
<td>13/45</td>
<td>IECEx and INMETRO approvals added</td>
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<td>112</td>
<td>15/14</td>
<td>PESO/CCOE approval added</td>
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<td></td>
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<td>GOST approval replaced with EAC approval</td>
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<td>113</td>
<td>17/07</td>
<td>FM installation drawing updated</td>
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<td></td>
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<td>INMETRO installation drawings updated</td>
</tr>
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2-WIRE
PROGRAMMABLE TRANSMITTER
5333

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2-WIRE PROGRAMMABLE TRANSMITTER
5333

• RTD or Ohm input
• High measurement accuracy
• 3-wire connection
• Programmable sensor error value
• For DIN form B sensor head mounting

Application

• Linearised temperature measurement with Pt100...Pt1000 or Ni100...Ni1000 sensor.

• Conversion of linear resistance variation to a standard analogue current signal, for instance from valves or Ohmic level sensors.

Technical characteristics

• Within a few seconds the user can program PR5333 to measure temperatures within all RTD ranges defined by the norms.

• The RTD and resistance inputs have cable compensation for 3-wire connection.

Mounting / installation

• For DIN form B sensor head mounting. In non-hazardous areas the 5333 can be mounted on a DIN rail with a special fitting.
APPLICATIONS

RTD to 4...20 mA

Resistance to 4...20 mA

2-wire installation in control room
Order: 5333

<table>
<thead>
<tr>
<th>Type</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>5333 Standard</td>
<td>: A</td>
</tr>
<tr>
<td>CSA, FM, ATEX, IECEx &amp; INMETRO</td>
<td>: D</td>
</tr>
</tbody>
</table>

Electrical specifications

Specifications range:
-40°C to +85°C

Common specifications:

Supply voltage, DC
- Standard: 8...35 V
- CSA, FM, ATEX, IECEx & INMETRO: 8...30 V

Internal power dissipation
- Standard: 25 mW...0.8 W
- CSA, FM, ATEX, IECEx & INMETRO: 25 mW...0.7 W

Voltage drop: 8 VDC

Warm-up time: 5 min.

Communications interface: Loop Link

Signal / noise ratio: Min. 60 dB

Response time (programmable): 0.33...60 s

Signal dynamics, input: 19 bit

Signal dynamics, output: 16 bit

Calibration temperature: 20...28°C
Accuracy, the greater of general and basic values:

<table>
<thead>
<tr>
<th>General values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input type</strong></td>
</tr>
<tr>
<td>All</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Basic values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input type</strong></td>
</tr>
<tr>
<td>RTD</td>
</tr>
<tr>
<td>Lin. R</td>
</tr>
</tbody>
</table>

**EMC immunity influence** .................. < ±0.5% of span

**Effect of supply voltage variation** .................. ≤ 0.005% of span / VDC

**Vibration** ........................................... IEC 60068-2-6 : 2007

- 2...25 Hz ........................................... ±1.6 mm
- 25...100 Hz ........................................... ±4 g

**Max. wire size** ..................................... 1 x 1.5 mm² stranded wire

**Humidity** ............................................. < 95% RH (non-cond.)

**Dimensions** ......................................... Ø 44 x 20.2 mm

**Protection degree (enclosure / terminal)** ...... IP68 / IP00

**Weight** ............................................... 50 g

**Electrical specifications, input:**

**RTD and linear resistance input:**

<table>
<thead>
<tr>
<th>RTD type</th>
<th>Min. value</th>
<th>Max. value</th>
<th>Min. span</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt100</td>
<td>-200°C</td>
<td>+850°C</td>
<td>25°C</td>
<td>IEC 60751</td>
</tr>
<tr>
<td>Ni100</td>
<td>-60°C</td>
<td>+250°C</td>
<td>25°C</td>
<td>DIN 43760</td>
</tr>
<tr>
<td>Lin. R</td>
<td>0 Ω</td>
<td>10000 Ω</td>
<td>30 Ω</td>
<td>------</td>
</tr>
</tbody>
</table>

**Max. offset** ........................................ 50% of selec. max. value

**Cable resistance per wire (max.)** ............. 10 Ω

**Sensor current** ..................................... > 0.2 mA, < 0.4 mA

**Effect of sensor cable resistance**

(3-wire) ............................................... < 0.002 Ω / Ω

**Sensor error detection** ........................... Yes
Output:

Current output:
- Signal range: 4...20 mA
- Min. signal range: 16 mA
- Updating time: 135 ms
- Load resistance: \( \leq \frac{(V_{\text{supply}} - 8)}{0.023} \Omega \)
- Load stability: \(< \pm 0.01\% \) of span / 100 \( \Omega \)

Sensor error detection:
- Programmable: 3.5...23 mA
- NAMUR NE43 Upscale: 23 mA
- NAMUR NE43 Downscale: 3.5 mA

Of span = Of the presently selected range

Approvals:
- EMC: 2014/30/EU
- CCOE: P337392/3
- RoHS: 2011/65/EU
- EAC: TR-CU 020/2011

Marine approval:
- DNV-GL, Ships & Offshore: Standard for Certification No. 2.4

Ex / I.S.:
- ATEX 2014/34/EU
  - 5333A: KEMA 10ATEX0003 X
  - 5333D: KEMA 03ATEX1535 X
- FM certificate: FM17US0013X
- CSA certificate: 1125003
- IECEx: DEK 13.0036 X
- INMETRO: DEKRA 16.0014 X
- CCOE: P337392/4
- EAC Ex TR-CU 012/2011: RU C-DK.GB08.V.00410
CONNECTIONS

Input:

- RTD, 2-wire
- RTD, 3-wire
- Resistance, 2-wire
- Resistance, 3-wire

Output:

2-wire installation

1 2
mA

+ -
PROGRAMMING

- Loop Link is a communications interface that is needed for programming 5333.
- For programming please refer to the drawing below and the help functions in PReset.
- Loop Link is not approved for communication with modules installed in hazardous (Ex) areas.

Order: Loop Link

[Diagram showing the connection between Loop Link and programming equipment]

* Connected only for "on-line" programming
Mechanical specifications

Mounting of sensor wires

Wires must be mounted between the metal plates.
APPENDIX

ATEX Installation Drawing - 5333A
ATEX Installation Drawing - 5333D
IECEx installation drawing - 5333A
IECEx installation drawing - 5333D
FM Installation Drawing - 5333D
CSA Installation Drawing - 5333D
INMETRO Instruções de Segurança - 5333A
INMETRO Instruções de Segurança - 5333D
ATEX Installation drawing

For safe installation of 5333A the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

Year of manufacture can be taken from the first two digits in the serial number.

### ATEX Certificate
KEMA 10ATEX 0003X

### Marking
- II 3 G Ex nA [ic] IIIC T4 ... T6 Gc
- II 3 G Ex ic IIIC T4...T6 Gc
- II 3 D Ex ic IIIIC Dc

### Standards
- EN 60079-0 : 2012
- EN 60079-11 : 2012
- EN 60079-15 : 2010

<table>
<thead>
<tr>
<th>T4:</th>
<th>Terminal: 3,4,6</th>
<th>Terminal: 1,2</th>
<th>Terminal: 1,2</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40 ≤ Ta ≤ 85°C</td>
<td>Ex nA [ic]</td>
<td>Ex nA</td>
<td>Ex ic</td>
</tr>
<tr>
<td>T6:</td>
<td>Uo: 5V</td>
<td>Umax. ≤ 35 VDC</td>
<td>Ui = 35 VDC</td>
</tr>
<tr>
<td></td>
<td>Io: 4.0 mA</td>
<td>Ii = 110mA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Po: 20 mW</td>
<td>Li = 10 μH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lo: 900 mH</td>
<td>Ci = 1.0 nF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Co: 1000 μF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Special conditions for safe use

For type of protection Ex nA, the transmitter shall be mounted in a metal enclosure providing a degree of protection of at least IP54 according to EN60529.

For use in the presence of combustible dusts the transmitter shall be mounted in an enclosure providing a degree of protection of at least IP6X in accordance with EN60529, the surface temperature of the outer enclosure is 20 K above the ambient temperature.

For an ambient temperature ≥ 60°C, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.
ATEX Installation drawing

For safe installation of 5333D the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

Year of manufacture can be taken from the first two digits in the serial number.

ATEX Certificate  KEMA 03ATEX 1535 X

Marking 

II 1 G Ex ia IIC T4...T6 Ga  
II 1 D Ex ia IIIC Da  
II 1 M Ex ia I Ma


Hazardous area
Zone 0, 1, 2, 20, 21, 22

Non Hazardous Area

T4: -40 ≤ Ta ≤ 85ºC
T6: -40 ≤ Ta ≤ 60ºC

Terminal: 3,4,6
Uo: 27 VDC
Io:  7 mA
Po: 45 mW
Lo: 35 mH
Co: 90 nF

Terminal: 1,2
 Ui: 30 VDC
Ii:  120 mA
Pi:  0.84 W
Li: 10μH
Ci:  1.0nF

5333D
Installation notes:

In a potentially explosive gas atmosphere, the transmitter shall be mounted in an enclosure in order to provide a degree of protection of at least IP20 according to EN60529.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment of category 1 G, 1 M or 2 M, and if the enclosure is made of aluminum, it must be installed such that ignition sources due to impact and friction sparks are excluded.

If the enclosure is made of non-metallic materials, electrostatic charging shall be avoided.

For installation in a potentially explosive dust atmosphere, the following instructions apply:

The transmitter shall be mounted in a metal enclosure form B that is providing a degree of protection of at least IP6X according to EN60529, that is suitable for the application and correctly installed.

Cable entries and blanking elements shall be used that are suitable for the application and correctly installed.

For an ambient temperature ≥ 60°C, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

The surface temperature of the enclosure is equal to the ambient temperature plus 20 K, for a dust layer with a thickness up to 5 mm.
IECEx Installation drawing

For safe installation of 5333A or 5343A the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

Year of manufacture can be taken from the first two digits in the serial number.

Certificate: IECEx DEK 13.0036X

Marking:
- Ex nA [ic] IIC T6..T4 Gc
- Ex ic IIC T6..T4 Gc
- Ex ic IIIIC Dc


<table>
<thead>
<tr>
<th>Terminal</th>
<th>Ex nA [ic]</th>
<th>Ex ic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2</td>
<td>Umax = 35V</td>
<td>Ui : 35V, li:110mA, li:10µH, Ci:1,0nF</td>
</tr>
<tr>
<td>3,4,6</td>
<td>Uo: 5V, Io: 4mA, Po: 20mW, Lo: 900mH, Co: 1000µF</td>
<td></td>
</tr>
</tbody>
</table>

Installation note:

For installation in a potentially explosive gas atmosphere, the following instructions apply:

For nA installation the transmitter must be installed in a metal enclosure e.g. a form B enclosure, providing a degree of protection of at least IP54 according to IEC60529 or in an enclosure with type of protection Ex n or Ex e.

For ic installation the transmitter must be installed in an enclosure providing a degree of protection of at least IP20 according to IEC60529 and that is suitable for the application.

Cable entry devices and blanking elements shall fulfill the same requirements.

For an ambient temperature ≥ 60°C, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

For installation in a potentially explosive dust atmosphere, the following instructions apply:

The surface temperature of the enclosure is equal to the ambient temperature plus 20 K, for a dust layer with a thickness up to 5 mm.

The transmitter must be mounted in an enclosure according to DIN 43729 that provides a degree of protection of at least IP6X according to IEC60529, and that is suitable for the application. Cable entry devices and blanking elements shall fulfill the same requirements.
IECEx Installation drawing

For safe installation of 5333D or 5343B the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area.

Year of manufacture can be taken from the first two digits in the serial number.

Certificate: IECEx DEK 13.0036X
Marking: Ex ia IIC T4…T6 Ga
Ex ia IIIC Da
Ex ia I Ma

Hazardous area
Zone 0, 1, 2, 20, 21, 22, M1

Non Hazardous Area

Terminal: 3, 4, 6
Uo: 30 VDC
Io: 8 mA
Po: 60 mW
Lo: 35 mH
Co: 66 nF

Terminal: 1, 2
Ui: 30 VDC
Ii: 120 mA
Pi: 0.84 W
Li: 10µH
Ci: 1.0nF

T4: -40 ≤ Ta ≤ 85°C
T5: -40 ≤ Ta ≤ 60°C
T6: -40 ≤ Ta ≤ 45°C
Installation notes.

In a potentially explosive gas atmosphere, the transmitter shall be mounted in a metal form B enclosure in order to provide a degree of protection of at least IP20 according to IEC60529. If however the environment requires a higher degree of protection, this shall be taken into account.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Ga, Ma and Mb, and if the enclosure is made of aluminum, it must be installed such, that ignition sources due to impact and friction sparks are excluded.

For installation in a potentially explosive dust atmosphere, the following instructions apply:

For explosive dust atmospheres, the surface temperature of the outer enclosure is 20 K above the ambient temperature.

The transmitter shall be mounted in a metal enclosure form B according to DIN43729 that is providing a degree of protection of at least IP6X according to IEC60529, that is suitable for the application and correctly installed.

Cable entries and blanking elements shall be used that are suitable for the application and correctly installed.

For an ambient temperature $\geq 60^\circ$C, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.
FM Installation Drawing

Model 5331D, 5333D and 5343B

Hazardous (Classified) Location
Class I, Division 1, Groups A, B, C, D T4..T6
Class I, Zone 0, AEx ia IIC T4..T6

- Associated Apparatus or Barrier with entity Parameters:
  - UM ≤ 250V
  - Voc or Uo ≤ Vmax or Ui
  - Isc or Io ≤ Imax or Ii
  - Po ≤ Pi
  - Ca or Co ≥ Ci + Ccable
  - La or Lo ≥ Li + Lcable

This device must not be connected to any associated apparatus which uses or generates more than 250 VRMS

Non Hazardous Location

- Ambient temperature limits
  - T4: -40 to +85 deg. Celsius
  - T6: -40 to +60 deg. Celsius

- Terminal 1, 2
  - Vmax or Ui: 30 V
  - Imax or Ii: 120 mA
  - Pmax or Pi: 0.84 W
  - Ci: 1 nF
  - Li: 10 uH

- Terminal 3, 4, 5, 6
  - Vt or Uo: 9.6 V
  - It or Io: 28 mA
  - Pt or Po: 67.2 mW
  - Ca or Co: 3.5 uF
  - La or Lo: 35 mH

Model 5335D, 5337D

Hazardous (Classified) Location
Class I, Division 1, Groups A, B, C, D T4..T6
Class I, Zone 0, AEx ia IIC T4..T6

- Associated Apparatus or Barrier with entity Parameters:
  - UM ≤ 250V
  - Voc or Uo ≤ Vmax or Ui
  - Isc or Io ≤ Imax or Ii
  - Po ≤ Pi
  - Ca or Co ≥ Ci + Ccable
  - La or Lo ≥ Li + Lcable

This device must not be connected to any associated apparatus which uses or generates more than 250 VRMS

Non Hazardous Location

- Ambient temperature limits
  - T4: -40 to +85 deg. Celsius
  - T6: -40 to +60 deg. Celsius

- Terminal 1, 2
  - Vmax or Ui: 30 V
  - Imax or Ii: 120 mA
  - Pmax or Pi: 0.84 W
  - Ci: 1 nF
  - Li: 10 uH

- Terminal 3, 4, 5, 6
  - Vt or Uo: 9.6 V
  - It or Io: 28 mA
  - Pt or Po: 67.2 mW
  - Ca or Co: 3.5 uF
  - La or Lo: 35 mH
The entity concept
The Transmitter must be installed according to National Electrical Code (ANSI-NFPA 70) and shall be installed with the enclosure, mounting, and spacing segregation requirement of the ultimate application.

Equipment that is FM-approved for intrinsic safety may be connected to barriers based on the ENTITY CONCEPT. This concept permits interconnection of approved transmitters, meters and other devices in combinations which have not been specifically examined by FM, provided that the agency's criteria are met. The combination is then intrinsically safe, if the entity concept is acceptable to the authority having jurisdiction over the installation.

The entity concept criteria are as follows:

The intrinsically safe devices, other than barriers, must not be a source of power.

The maximum voltage $U_i(V_{\text{MAX}})$ and current $I_i(I_{\text{MAX}})$, and maximum power $P_i(P_{\text{MAX}})$, which the device can receive and remain intrinsically safe, must be equal to or greater than the voltage ($U_0$ or $V_{\text{OC}}$ or $V_t$) and current ($I_0$ or $I_{\text{SC}}$ or $I_t$) and the power $P_0$ which can be delivered by the barrier.

The sum of the maximum unprotected capacitance ($C_i$) for each intrinsically device and the interconnecting wiring must be less than the capacitance ($C_a$) which can be safely connected to the barrier.

The sum of the maximum unprotected inductance ($L_i$) for each intrinsically device and the interconnecting wiring must be less than the inductance ($L_a$) which can be safely connected to the barrier.

The entity parameters $U_0, V_{\text{OC}}$ or $V_t$ and $I_0, I_{\text{SC}}$ or $I_t$ and $C_a$ and $L_a$ for barriers are provided by the barrier manufacturer.

NI Field Circuit Parameters

**Model 5331D, 5333D, 5335D, 5337D and 5343B**

<table>
<thead>
<tr>
<th>Hazardous (Classified) Location</th>
<th>Non Hazardous Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I, Division 2, Groups A, B, C, D T4..T6</td>
<td>Associated Apparatus or Barrier</td>
</tr>
<tr>
<td>Class I, Zone 2, IIC T4..T6</td>
<td></td>
</tr>
</tbody>
</table>

Ambient temperature limits
T4: -40 to +85 deg. Celsius
T6: -40 to +60 deg. Celsius

Terminal 1, 2
$V_{\text{MAX}}$: 35 V
$C$: 1.0 nF
$L$: 10 uH

This device must not be connected to any associated apparatus which uses or generates more than 250 VRMS.
CSA Installation drawing 533XQC03

Hazardous area

T4: \(-40 \leq T_a \leq 85^\circ C\)
T6: \(-40 \leq T_a \leq 60^\circ C\)

Module 5331D, 5333D
**Terminal: 3,4,5,6**
Only passive, or non-energy storing devices such as RTD’s and Thermocouples may be connected

Module 5335D, 5336D and 5337D
**Terminal: 3,4,5,6**
**Terminal: 1,2**

<table>
<thead>
<tr>
<th>Terminals</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ui: 2, 3</td>
<td>30 VDC</td>
</tr>
<tr>
<td>Ii: 2, 3</td>
<td>120 mA</td>
</tr>
<tr>
<td>Pi: 2, 3</td>
<td>0.84 W</td>
</tr>
<tr>
<td>Li: 2, 3</td>
<td>10 μH</td>
</tr>
<tr>
<td>Ci: 2, 3</td>
<td>1.0 nF</td>
</tr>
<tr>
<td>Uo: 1, 6</td>
<td>9.6 VDC</td>
</tr>
<tr>
<td>Io: 1, 6</td>
<td>28 mA</td>
</tr>
<tr>
<td>Po: 1, 6</td>
<td>67.2 mW</td>
</tr>
<tr>
<td>Lo: 1, 6</td>
<td>35 mH</td>
</tr>
<tr>
<td>Co: 1, 6</td>
<td>2.5 μF</td>
</tr>
</tbody>
</table>

Warning:
Substitution of components may impair intrinsic safety.

The transmitters must be installed in a suitable enclosure to meet installation codes stipulated in the Canadian Electrical Code (CEC) or for US the National Electrical Code (NEC).
Desenho de Instalação INMETRO

Para instalação segura do 5333A ou 5343A o seguinte deve ser observado. O modo deve apenas ser instalado por pessoas qualificadas que são familiarizadas com as leis nacionais e internacionais, diretrizes e padrões que se aplicam a esta área.

Ano de fabricação pode ser pego dos dois primeiros dígitos do número de série.

Certificado DEKRA 16.0014 X

Marcas
- Ex nA [ic] IIc T6..T4 Gc
- Ex ic IIc T6..T4 Gc
- Ex ic IIIC Dc

T4: -40 ≤ Ta ≤ 85°C
T6: -40 ≤ Ta ≤ 60°C

Normas
- ABNT NBR IEC 60079-0 : 2013
- ABNT NBR IEC 60079-11 : 2013
- ABNT NBR IEC60079-15 : 2012

Notas para instalação

Para a instalação em uma atmosfera de gás potencialmente explosivo, se aplicam as instruções a seguir:

- Para a instalação nA o transmissor deve ser instalado em um invólucro de metal, por exemplo, gabinete em forma B que forneça um grau de proteção de pelo menos IP54 de acordo com IEC60529 ou em um invólucro com tipo de proteção Ex n ou Ex e.

- Para a instalação Ex ic o transmissor deve ser instalado em um invólucro proporcionando um grau de proteção de IP20, pelo menos, de acordo com a norma ABNT NBR IEC 60529. E o invólucro deve ser adequado para a aplicação e corretamente instalado.

- Dispositivos de entrada de cabos e elementos de supressão devem cumprir os mesmos requisitos.

Para temperatura ambiente >= 60°C, fios de resistência ao calor devem ser usados com uma faixa de pelo menos 20K acima da temperatura ambiente.

Para a instalação em uma atmosfera de poeira potencialmente explosiva, se aplicam as instruções a seguir:

- O transmissor deve ser montado em invólucro de metal forma B de acordo com DIN43729 que está fornecendo um grau de proteção de pelo menos IP6X de acordo com ABNT NBR IEC60529.

- Para a instalação em uma atmosfera de poeira, com uma espessura até 5 mm.

---

Terminais | Ex nA [ic] | Ex ic
---|---|---
1,2 | U ≤ = 35V | U: 35V, li:110mA, li:10µH, Ci:1,0nF
3,4,6 | Uo: 5V, Io: 4mA, Po: 20mW, Lo: 900mH, Co: 1000µF
Desenho de Instalação InNMETRO

Para instalação segura do 5333D ou 5343B o seguinte deve ser observado. O modo deve apenas ser instalado por pessoas qualificadas que são familiarizadas com as leis nacionais e internacionais, diretrizes e padrões que se aplicam a esta área.

Ano de fabricação pode ser pegado dos dois primeiros dígitos do número de série.

Certificado: DEKRA 16.0014 X
Marcas: Ex ia IIC T6...T4 Ga
Ex ia IIIC Da

Normas: ABNT NBR IEC 60079-0 : 2013; ABNT NBR IEC 60079-11 : 2013

Áreas Risco
Zona 0, 1, 2, 20, 21, 22, M1

T4: -40 ≤ Ta ≤ 85°C
T5: -40 ≤ Ta ≤ 60°C
T6: -40 ≤ Ta ≤ 45°C

Areas de não Risco

Terminais: 3,4,5,6
Ui: 30 VDC
Io: 8 mA
Po: 60 mW
Lo: 35 mH
Co: 66 nF

Terminais: 1,2
Ui: 30 VDC
Ii: 120 mA
Pi: 0,84 W
Li: 10 μH
Ci: 1,0 nF
Notas de Instalação.

Em uma atmosfera de gás potencialmente explosiva, o transmissor deve ser montado em um enclousure a fim de garantir um grau de proteção de no mínimo IP20 de acordo com ABNT NBR IEC60529. Se contudo o ambiente requer um nível de proteção maior, isso deve ser levado em conta.

Se o transmissor é instalado em uma atmosfera explosiva exigindo o uso de equipamento de proteção de nível Ga e se o invólucro é feito de alumínio, ele deve ser instalado de modo que, mesmo em caso de avaria rara, fontes de ignição devido a impacto e fricção, faíscas são eliminadas; Se o enclosure é feito de materiais não metálicos, cargas eletrostáticas devem ser evitadas.

Se o enclosure é feito de materiais não metálicos, cargas eletrostáticas devem ser evitadas.

Para instalação em atmosfera de poeira potencialmente explosiva, as instruções a seguir:

O transmissor deve ser montado em invólucro de metal forma B de acordo com DIN43729 que está fornecendo um grau de proteção de pelo menos IP6X de acordo com ABNT NBR IEC60529. O invólucro deve ser adequado para aplicação e instalado corretamente.

As entradas dos cabos e os elementos de obturação que podem ser utilizados são adequados para a aplicação e corretamente instalados.

Para temperatura ambiente >= 60ºC, fios de resistência ao calor devem ser usados com uma faixa de pelo menos 20K acima da temperatura ambiente.

A temperatura da superfície do invólucro é igual à temperatura ambiente mais de 20 K, por uma camada de pó, com uma espessura até 5 mm.
Displays  Programmable displays with a wide selection of inputs and outputs for display of temperature, volume and weight, etc. Feature linearization, scaling, and difference measurement functions for programming via PReset software.

Ex interfaces  Interfaces for analog and digital signals as well as HART signals between sensors / I/P converters / frequency signals and control systems in Ex zone 0, 1 & 2 and for some devices in zone 20, 21 & 22.

Isolation  Galvanic isolators for analog and digital signals as well as HART signals. A wide product range with both loop-powered and universal isolators featuring linearization, inversion, and scaling of output signals.

Temperature  A wide selection of transmitters for DIN form B mounting and DIN rail devices with analog and digital bus communication ranging from application-specific to universal transmitters.

Universal  PC or front programmable devices with universal options for input, output and supply. This range offers a number of advanced features such as process calibration, linearization and auto-diagnosis.
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