

# Safety Instructions

## Proline Prowirl 200

NEPSI: Zone 1, Zone 0/1, Zone 21  
Ex d version



Document: XA01238D  
Safety instructions for electrical apparatus for explosion-hazardous areas →  3



# Proline Prowirl 200

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## Associated documentation

All documentation is available:

- On the CD-ROM supplied (not included in the delivery for all device versions).
- Available for all device versions via:
  - Internet: [www.endress.com/deviceviewer](http://www.endress.com/deviceviewer)
  - Smart phone/tablet: *Endress+Hauser Operations App*
- In the Download Area of the Endress+Hauser web site: [www.endress.com](http://www.endress.com) → Download

This document is an integral part of the following Operating Instructions:

Measuring device	Documentation code		
	HART	FOUNDATION Fieldbus	PROFIBUS PA
Prowirl D 200	BA01153D	BA01216D	BA01221D
Prowirl F 200	BA01154D	BA01217D	BA01222D
Prowirl O 200	BA01155D	BA01218D	BA01223D
Prowirl R 200	BA01156D	BA01219D	BA01224D

### Additional documentation

Contents	Document type	Documentation code
Remote display FHX50	Special documentation	SD01007F
	Safety Instructions Zone 0, Zone 21; Ex ia	XA01076F
Explosion Protection	Brochure	CP00021Z/11

Please note the documentation associated with the device.

## Manufacturer's certificates

### NEPSI Declaration of Conformity

Certificate number:

GYJ18.1437X

Affixing the certificate number certifies conformity with the following standards (depending on the device version):

- GB3836.1-2010
- GB3836.2-2010
- GB3836.4-2010
- GB3836.20-2010
- GB12476.1-2013
- GB12476.4-2010
- GB12476.5-2013

**Manufacturer  
address**

Endress+Hauser Flowtec AG  
Kägenstrasse 7  
4153 Reinach BL  
Switzerland

## Extended order code

The extended order code is indicated on the nameplate, which is affixed to the device in such a way that it is clearly visible. Additional information about the nameplate is provided in the associated Operating Instructions.

### Structure of the extended order code

*****	_	***** ... *****	+	A*B*C*D*E*F*G*...
<i>(Device type)</i>		<i>(Basic specifications)</i>		<i>(Optional specifications)</i>

\* = Placeholder  
 At this position, an option (number or letter) selected from the specification is displayed instead of the placeholders.

#### *Device type*

The device and the device design is defined in the "Device type" section (Product root).

#### *Basic specifications*

The features that are absolutely essential for the device (mandatory features) are specified in the basic specifications. The number of positions depends on the number of features available. The selected option of a feature can consist of several positions.

#### *Optional specifications*

The optional specifications describe additional features for the device (optional features). The number of positions depends on the number of features available. The features have a 2-digit structure to aid identification (e.g. JA). The first digit (ID) stands for the feature group and consists of a number or a letter (e.g. J = Test, Certificate). The second digit constitutes the value that stands for the feature within the group (e.g. A = 3.1 material (wetted parts), inspection certificate).

More detailed information about the device is provided in the following tables. These tables describe the individual positions and IDs in the extended order code which are relevant to hazardous locations.

### Device type

Position	Order code for	Option selected	Description
1	Instrument family	7	Vortex flowmeter
2	Sensor	D, F, O, R	Sensor type
3	Transmitter	2	Transmitter type: 2-wire, compact version Remote version

Position	Order code for	Option selected	Description
4	Generation index	B	Platform generation
5, 6	Nominal diameter	D: DN 15 to 150 F: DN 15 to 300 O: DN 15 to 300  R: <ul style="list-style-type: none"> <li>▪ Reducer DN 25 to 200</li> <li>▪ Super reducer DN 40 to 250</li> </ul>	Nominal diameter of sensor

### Basic specifications

Position	Order code for	Option selected	Type of protection
1, 2	Approval	NJ	Ex d[ia] IIC T1 ~ T6 Gb
			Ex d[ia Ga] IIC T1 ~ T6 Gb <sup>1)</sup>
		N5	Ex d[ia] IIC T1 ~ T6 Gb, Ex tD [iaD 21] A21 IP6X T*
			Ex d[ia Ga] IIC T1 ~ T6 Gb, Ex tD [iaD 20] A21 IP6X T* <sup>1)</sup>

1) FHX50 is approved according to GYJ13.1123X.

Position	Order code for	Selected option	Description
3	Output; Input	A	4-20mA HART
		B	4-20mA HART, Pulse/frequency/switch output
		D	4-20mA HART, Pulse/frequency/switch output, 4-20mA input
		E	FOUNDATION Fieldbus, Pulse/frequency/switch output
		G	PROFIBUS PA, Pulse/frequency/switch output

Position	Order code for	Selected option	Description
4	Display; Operation	A	W/o; via communication
		C	SD02 4-line; push buttons + data backup function
		E	SD03 4-line, illum.; touch control + data backup function
		L	Prepared for display FHX50 + M12 connection <sup>1)</sup>
		M	Prepared for display FHX50 + custom connection <sup>2)</sup>

1) FHX50 is approved according to GYJ13.1123X.

2) FHX50 is approved according to GYJ13.1123X.

### Optional specifications

ID	Order code for	Option selected	Description
Jx	Test, certificate	JN	Ambient temperature transmitter -50 °C



**Safety instructions:**  
**General**

- Staff must meet the following conditions for mounting, electrical installation, commissioning and maintenance of the device:
  - Be suitably qualified for their role and the tasks they perform.
  - Be trained in explosion protection.
  - Be familiar with national regulations (e.g. GB/T 3836.15-2017).
- Install the device according to the manufacturer's instructions and the following standards:
  - GB50257-2014 "Code for construction and acceptance of electric device for explosive atmospheres and fire hazard electrical equipment installation engineering"
  - GB3836.13-2013 "Explosive atmospheres - Part 13: Equipment repair, overhaul and reclamation".
  - GB/T3836.15-2017 "Explosive atmospheres – Part 15: Electrical installations design, selection and erection"
  - GB/T3836.16-2017 "Explosive atmospheres – Part 16: Electrical installations inspection and maintenance"
  - GB/T3836.18-2017 "Explosive atmospheres – Part 18: Intrinsically safe electrical systems"
  - GB15577-2007: "Safety regulations for dust explosion prevention and protection". (Only if installed in dust hazardous areas.)
  - GB12476.2-2010 "Electrical apparatus for use in the presence combustible dust – Part 2: Selection and installation". (Only if installed in dust hazardous areas.)
- Do not operate the device outside the specified electrical, thermal and mechanical parameters.
- Only use the device in media to which the wetted materials have sufficient durability.
- Refer to the temperature tables for the relationship between the permitted ambient temperature for the sensor and/or transmitter, depending on the range of application, and the temperature classes.
- Modifications to the device can affect the explosion protection and must be carried out by staff authorized to perform such work by Endress+Hauser.
- Observe all the technical data of the device (see nameplate).
- When using in hybrid mixtures (gas and dust occurring simultaneously), observe additional measures for explosion protection.

**Safety instructions:**  
**Installation**

In the event of potentially explosive vapor/air mixtures, only operate the device under atmospheric conditions.

- Temperature: -20 to +60 °C
- Pressure: 80 to 110 kPa (0.8 to 1.1 bar)
- Air with normal oxygen content, usually 21 % (V/V)

If no potentially explosive mixtures are present, or if additional protective measures have been taken, the device may also be operated

under non-atmospheric conditions in accordance with the manufacturer's specifications.

- Continuous service temperature of the connecting cable: -40 to +80 °C (-50 to +80 °C for optional specifications, ID Jx (Test, Certificate) = JN); in accordance with the range of service temperature taking into account additional influences of the process conditions ( $T_{a,min}$  and  $T_{a,max} + 20$  K).
- Only use certified cable entries suitable for the application. Observe selection criteria as per GB/T3836.15-2017. Accordingly, the connection terminal does not include any ignition sources.
- When the measuring device is connected, attention must be paid to explosion protection at the transmitter.
- Suitable certified cable entry and blanking plug for unused holes approved by ExTL according to GB3836.1-2010 and GB3836.2-2010 with Ex marking "Ex d IIC" shall be used and correctly installed (for terminal compartment).
- The external earth connection facility of the enclosure shall be connected reliably.
- In potentially explosive atmospheres:
  - Do not disconnect the electrical connection of the power supply circuit when energized.
  - Do not open the connection compartment cover when energized.
- When connecting through a conduit entry approved for this purpose, mount the associated sealing unit directly at the housing.
- Seal unused entry glands with approved sealing plugs that correspond to the type of protection. The plastic transport sealing plug supplied does not meet this requirement and must therefore be replaced during installation.
- Only use certified sealing plugs. The metal sealing plugs supplied meet this requirement.

### **Intrinsic safety**

- The device can be connected to the Endress+Hauser FXA291 service tool: refer to the Operating Instructions.
- The device can be connected to the remote display FHX50 with Ex ia explosion protection; refer to the Special Documentation and Ex documentation.

### **Potential equalization**


- Integrate the device into the local potential equalization .
- If the ground connection has been established via the pipe as specified, it is also possible to integrate the sensor into the potential equalization system via the pipe.

**Safety instructions:**  
**Zone 0**

*Basic specification, position 1, 2 (Approval) = N5*

The intrinsically safe version of the device can be used in the measuring pipe in Zone 0.

**Safety instructions:**  
**Zone 21**

- To ensure dust-tightness, securely seal the transmitter housing, cable entries and sealing plugs.
- Only open the transmitter housing briefly, ensuring that no dust or moisture enters the housing.
- Only use certified cable entries. The metal cable entries, extensions and sealing plugs supplied meet this requirement.
- If the transmitter is connected to the remote display FHX50, the circuit has type of protection Ex iaD 21.  
Connection values →  17

**Temperature tables**

**Ambient temperature**

*Minimum ambient temperature*

*Basic specification, position 3 (Output; Input) = A, B, D in conjunction with optional specification, ID Jx (Test, Certificate) = JN*  
 $T_a = -50\text{ °C}$

*Basic specification, position 3 (Output; input) = A, B, C, D, E, G:*  
 $T_a = -40\text{ °C}$

Maximum ambient temperature:

- Compact version  
 $T_a = +70\text{ °C}$  depending on the medium temperature and temperature class
- Transmitter remote version  
 $T_a = +75\text{ °C}$  depending on the medium temperature and temperature class
- Sensor remote version  
 $T_a = +85\text{ °C}$  depending on the medium temperature and temperature class

**Medium temperature**

The following relationship of ambient temperature to medium temperature applies when  $T_m < -50\text{ °C}$ :

$T_m\text{ [°C]}$	-50	-100	-150	-200
$T_a\text{ [°C]}$	-50	-47	-44	-39

### Compact version

Basic specification, position 3 (Output; Input) = A

Version with max. $T_m = 280\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
40	80	95	130	195	280	–
60	–	95	130	195	280	–
65	–	–	130	195	280	–
70	–	–	130	–	–	–

Basic specification, position 3 (Output; Input) = B

Version with max. $T_m = 280\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
40	80	95	130	195	280	–
55	–	95	130	195	280	–
65	–	–	130	195	280 <sup>1)</sup>	–
70	–	–	130	195 <sup>2)</sup>	280 <sup>2)</sup>	–

- 1)  $T_a = 65\text{ °C}$  for pulse/frequency/switch output  $P_1 = 0.7\text{ W}$
- 2)  $T_a = 70\text{ °C}$  for pulse/frequency/switch output  $P_1 = 0.7\text{ W}$

Basic specification, position 3 (Output; Input) = C

Version with max. $T_m = 280\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
40	80	95	130	195	280	–
55	–	95	130	195	280	–
60	–	–	130	195	280	–
65	–	–	130	195	280 <sup>1)</sup>	–
70	–	–	130	–	–	–

- 1)  $T_a = 65\text{ °C}$  for pulse/frequency/switch output  $P_1 = 0\text{ W}$

*Basic specification, position 3 (Output; Input) = D*

Version with max. $T_m = 280\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
35	80	95	130	195	280	-
50	-	95	130	195	280	-
55	-	-	-	195	280	-
60	-	-	-	195	-	-

*Basic specification, position 3 (Output; Input) = E, G*

Version with max. $T_m = 280\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
40	80	95	130	195	280	-
50 <sup>1)</sup>	-	95	130	195	280	-
60	-	-	130	195	280	-
65	-	-	130	195	280 <sup>2)</sup>	-
70	-	-	130	195 <sup>3)</sup>	280 <sup>3)</sup>	-

1)  $T_a = 60\text{ °C}$  for pulse/frequency/switch output  $P_i = 0\text{ W}$

2)  $T_a = 65\text{ °C}$  for pulse/frequency/switch output  $P_i = 0\text{ W}$

3)  $T_a = 70\text{ °C}$  for pulse/frequency/switch output  $P_i = 0\text{ W}$

**High-temperature version***Basic specification, position 3 (Output; Input) = A*

Version with max. $T_m = 440\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
40	80	95	130	195	290	440
60	-	95	130	195	290	440
70	-	-	130	195	290	440

*Basic specification, position 3 (Output; Input) = B*

Version with max. $T_m = 440\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
40	80	95	130	195	290	440
55	-	95	130	195	290	440
65	-	-	130	195	290	440
70	-	-	130	195 <sup>1)</sup>	290 <sup>1)</sup>	440 <sup>1)</sup>

- 1)  $T_a = 70\text{ °C}$  for pulse/frequency/switch output  $P_1 = 0.85\text{ W}$

*Basic specification, position 3 (Output; Input) = C*

Version with max. $T_m = 440\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
40	80	95	130	195	290	440
55	-	95	130	195	290	440
65	-	-	130	195	290	440
70	-	-	130	195 <sup>1)</sup>	290 <sup>1)</sup>	440 <sup>1)</sup>

- 1)  $T_a = 70\text{ °C}$  for pulse/frequency/switch output  $P_1 = 0\text{ W}$

*Basic specification, position 3 (Output; Input) = D*

Version with max. $T_m = 440\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
35	80	95	130	195	290	440
50	-	95	130	195	290	440
55	-	-	-	195	290	440
60	-	-	-	195	290	440
65	-	-	-	-	290	-

Basic specification, position 3 (Output; Input) = E, G

Version with max. $T_m = 440\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
40	80	95	130	195	290	440
50 <sup>1)</sup>	–	95	130	195	290	440
65	–	–	130	195	290	440
70	–	–	130	195 <sup>2)</sup>	290 <sup>2)</sup>	440 <sup>2)</sup>

1)  $T_a = 60\text{ °C}$  for pulse/frequency/switch output  $P_i = 0\text{ W}$

2)  $T_a = 70\text{ °C}$  for pulse/frequency/switch output  $P_i = 0\text{ W}$

## Remote version

### Transmitter

Basic specification, position 3 Output; Input	Basic specification, position 1, 2 Approval	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]
A	All	40	60	75
B	All	35 <sup>1)</sup>	50 <sup>2)</sup>	70 <sup>3)</sup>
C	All	40	55	70 <sup>4)</sup>
D	All	35	50	65
E	All	40	55	70 <sup>4)</sup>
G				

- 1)  $T_a = 40\text{ °C}$  for pulse/frequency/switch output  $P_1 = 0.85\text{ W}$
- 2)  $T_a = 60\text{ °C}$  for pulse/frequency/switch output  $P_1 = 0.85\text{ W}$
- 3)  $T_a = 75\text{ °C}$  for pulse/frequency/switch output  $P_1 = 0.85\text{ W}$
- 4)  $T_a = 75\text{ °C}$  for pulse/frequency/switch output  $P_1 = 0\text{ W}$

### Sensor

Version with max. $T_m = 280\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
55	80	95	130	195	280	–
70	–	95	130	195	280	–
85	–	–	130	195	280	–

### High-temperature version

Version with max. $T_m = 440\text{ °C}$						
$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
55	80	95	130	195	290	440
70	–	95	130	195	290	440
85	–	–	130	195	290	440



**Explosion hazards arising from gas and dust**

**Determining the temperature class and surface temperature with the temperature table**

- In the case of gas: Determine the temperature class as a function of the maximum ambient temperature  $T_a$  and the maximum medium temperature  $T_m$ .
- In the case of dust: Determine the maximum surface temperature as a function of the maximum ambient temperature  $T_a$  and the maximum medium temperature  $T_m$ .

**Example**

- Measured maximum ambient temperature:  $T_{ma} = 58\text{ }^\circ\text{C}$
- Measured maximum medium temperature:  $T_{mm} = 108\text{ }^\circ\text{C}$

$T_a$ [°C]	T6 [85 °C]	T5 [100 °C]	T4 [135 °C]	T3 [200 °C]	T2 [300 °C]	T1 [450 °C]
40	80	95	130	195	280	-
60	-	95	130	195	280	-
65	-	-	130	195	280	-

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**1 Procedure for determining the temperature class and surface temperature**

1. In the column for the maximum ambient temperature  $T_a$  select the temperature that is immediately greater than or equal to the maximum ambient temperature  $T_{ma}$  that is present.
  - ↳  $T_a = 65\text{ }^\circ\text{C}$ .  
The row showing the maximum medium temperature is determined.
2. Select the maximum medium temperature  $T_m$  of this row, which is immediately greater than or equal to the maximum medium temperature  $T_{mm}$  that is present.
  - ↳ The column with the temperature class for gas is determined:  
 $108\text{ }^\circ\text{C} \leq 130\text{ }^\circ\text{C} \rightarrow T_4$ .
3. The maximum temperature of the temperature class determined corresponds to the maximum surface temperature for dust:  $T_4 = 135\text{ }^\circ\text{C}$ .

**Connection data: Signal circuits**

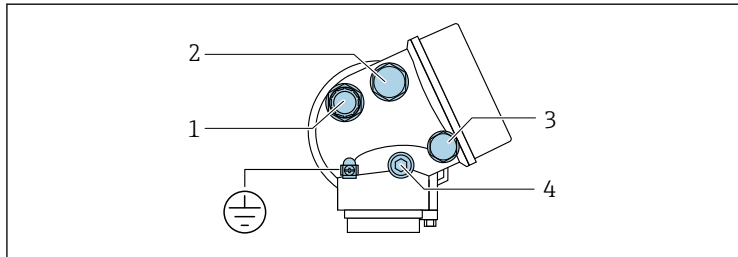
The following tables contain specifications which are dependent on the transmitter type and its input and output assignment. Compare the following specifications with those on the nameplate of the transmitter.

**Cable specification: Connecting cable for remote version**

The sensor cable connection between the sensor and the transmitter has Ex ia type of protection.

Cable parameter:  $L/R \leq 38.2 \mu\text{H}/\Omega$

The cable supplied by Endress+Hauser complies with this value.

**Connecting the transmitter**

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Position		Basic specification, position 1, 2: Approval	Type of protection used for cable entry	Description
1	Cable entry for output 1	NJ N5	Ex d Ex d/Ex tD	<p>Plastic sealing plugs act as safeguards during transportation and must be replaced by suitable, individually approved installation material.</p> <p>The metal extensions and dummy plugs supplied are tested and certified as part of the housing for explosion protection Ex d IIC. The various threaded versions are labeled as follows for identification purposes:</p> <ul style="list-style-type: none"> <li>■ Md: M20 x 1.5</li> <li>■ NPTd: NPT ½"</li> <li>■ Gd: G ½"</li> </ul>
2	Cable entry for output 2	NJ N5	Ex d Ex d/Ex tD	<p>Plastic sealing plugs act as safeguards during transportation and must be replaced by suitable, individually approved installation material.</p> <p>The metal extensions and dummy plugs supplied are tested and certified as part of the housing for explosion protection Ex d IIC. The various threaded versions are labeled as follows for identification purposes:</p> <ul style="list-style-type: none"> <li>■ Md: M20 x 1.5</li> <li>■ NPTd: NPT ½"</li> <li>■ Gd: G ½"</li> </ul>
3	Cable entry of the remote display and operating module FHX50	NJ N5	Ex ia Ex ia/Ex tD <sup>1)</sup>	<p>The following applies for devices with basic specification, position 1, 2 (Approval) = N5:</p> <p>In the case of device versions with metal extensions and sealing plugs, the latter are part of the device approval and meet the requirements of the explosion protection indicated on the nameplate.</p> <p>In the case of device versions with a cable entry, this entry has a separate component approval and meets the requirements of the explosion protection indicated on the nameplate.</p>
Position		Description		
4	Pressure compensation plug	<p><b>NOTICE</b></p> <p><b>Housing degree of protection voided due to insufficient sealing of the housing.</b></p> <p>► Do not open - not a cable entry.</p>		
⊕	Potential equalization	<p><b>NOTICE</b></p> <p><b>Terminal for connection to potential equalization.</b></p> <p>► Pay attention to the grounding concept of the facility.</p>		

1) The labeling changes according to whether "Display; Operation" = "L" or "M": Ex iaD 21 T\*.

## Terminal assignment

### Transmitter



The order code is part of the extended order code. Detailed information on the features of the device and on the structure of the extended order code → 6.

### Connection versions

Order code for "Output"	Terminal numbers					
	Output 1		Output 2		Input	
	1 (+)	2 (-)	3 (+)	4 (-)	5 (+)	6 (-)
Option <b>A</b>	4-20mA HART (passive)		-		-	
Option <b>B</b> <sup>1)</sup>	4-20mA HART (passive)		Pulse/frequency/switch output (passive)		-	
Option <b>C</b> <sup>1)</sup>	4-20mA HART (passive)		4-20mA analog (passive)		-	
Option <b>D</b> <sup>1) 2)</sup>	4-20mA HART (passive)		Pulse/frequency/switch output (passive)		4-20mA current input (passive)	
Option <b>E</b> <sup>1) 3)</sup>	FOUNDATION Fieldbus		Pulse/frequency/switch output (passive)		-	
Option <b>G</b> <sup>1) 4)</sup>	PROFIBUS PA		Pulse/frequency/switch output (passive)		-	

- 1) Output 1 must always be used; output 2 is optional.
- 2) The integrated overvoltage protection is not used with option D: Terminals 5 and 6 (current input) are not protected against overvoltage.
- 3) FOUNDATION Fieldbus with integrated reverse polarity protection.
- 4) PROFIBUS PA with integrated reverse polarity protection.

### Intrinsically safe values



The order code is part of the extended order code. Detailed information on the features of the device and on the structure of the extended order code → 6.

### Safety-related values



The order code is part of the extended order code. Detailed information on the features of the device and on the structure of the extended order code → 6.

*Type of protection Ex d*

Order code for "Output"	Output type	Safety-related values
Option A	4-20mA HART	$U_{nom} = DC\ 35\ V$ $U_{max} = 250\ V$
Option B	4-20mA HART	$U_{nom} = DC\ 35\ V$ $U_{max} = 250\ V$
	Pulse/frequency/switch output	$U_{nom} = DC\ 35\ V$ $U_{max} = 250\ V$ $P_{max} = 1\ W^{1)}$
Option C	4-20mA HART	$U_{nom} = DC\ 30\ V$
	4-20mA analog	$U_{max} = 250\ V$
Option D	4-20mA HART	$U_{nom} = DC\ 35\ V$ $U_{max} = 250\ V$
	Pulse/frequency/switch output	$U_{nom} = DC\ 35\ V$ $U_{max} = 250\ V$ $P_{max} = 1\ W^{1)}$
	4 to 20 mA current input	$U_{nom} = DC\ 35\ V$ $U_{max} = 250\ V$
Option E	FOUNDATION Fieldbus	$U_{nom} = DC\ 32\ V$ $U_{max} = 250\ V$ $P_{max} = 0.88\ W$
	Pulse/frequency/switch output	$U_{nom} = DC\ 35\ V$ $U_{max} = 250\ V$ $P_{max} = 1\ W^{1)}$
Option G	PROFIBUS PA	$U_{nom} = DC\ 32\ V$ $U_{max} = 250\ V$ $P_{max} = 0.88\ W$
	Pulse/frequency/switch output	$U_{nom} = DC\ 35\ V$ $U_{max} = 250\ V$ $P_{max} = 1\ W^{1)}$

1) Internal circuit limited by  $R_i = 760.5\ \Omega$

## Remote display FHX50

Basic specification, position 1, 2 Approval	Cable specification	Basic specification, position 4 Display; operation Option L, M
Option NJ, N5	Max. cable length: 60 m (196.85 ft)	$U_o = 7.3 \text{ V}$
		$I_o = 327 \text{ mA}$
		$P_o = 362 \text{ mW}$
		$L_o = 149 \text{ } \mu\text{H}$
		$C_o = 388 \text{ nF}$
		$C_c \leq 125 \text{ nF}$
		$L_c \leq 149 \text{ } \mu\text{H}$



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