

FA MCR-EX-DS-I-I-OLP - Digital display



2908800

<https://www.phoenixcontact.com/us/products/2908800>

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Ex i, Output loop-powered process indicator for installation in the control cabinet. HART



Commercial data

Item number	2908800
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C430
Product key	CK3312
Catalog page	Page 184 (C-5-2019)
GTIN	4055626357225
Weight per piece (including packing)	367.3 g
Weight per piece (excluding packing)	353.5 g
Customs tariff number	90328900
Country of origin	DE

Technical data

Product properties

Product type	Digital displays
Product family	Field Analog
Configuration	Keyboard
	Software

Data management status

Article revision	02
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System properties

Functionality

Configuration	Keyboard
	Software

Electrical properties

Maximum temperature coefficient	< 0.02 %/K
Maximum transmission error	0.1 % (of final value)

Supply

Supply voltage range	loop-powered, no external supply necessary
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Input data

Signal: Current

Current input signal	4 mA ... 20 mA
Max. current input signal	200 mA
Voltage drop	≤ 1 V
	≤ 3.9 V (with display lighting)
Input impedance	≈ $\oplus \downarrow \Omega$

Signal: HART

Current input signal	up to 4x HART process variables
Voltage drop	≤ 1.9 V
	≤ 4.8 V (with display lighting)
Input impedance	$R_x = 40 \Omega / C_x = 2.3 \text{ nF}$

Output data

Signal: Current

Current output signal	4 mA ... 20 mA
Number of positions displayed	5
Display	7-segment LC display, with backlight, dot matrix for text/bar graph
Display value	scalable

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Signal: HART

Current output signal	up to 4x HART process variables
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Connection data

Connection method	Push-in connection
Stripping length	9 mm
Conductor cross section rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	26 ... 16

Ex data

Ex installation (EPL)	Gb
	Div. 1

Interfaces

Data communication (bypass)

Protocols supported	HART
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Dimensions

Width	96 mm
Height	48 mm
Depth	41.5 mm

Material specifications

Color	light gray (RAL 7035)
Housing material	Aluminum / polycarbonate

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65 (Front)
	IP20 (On the rear)
Ambient temperature (operation)	-40 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	< 5000 m (Above sea level)
Climatic class	according to IEC 60654-1, class B2

Approvals

CE

Certificate	CE-compliant
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ATEX

Identification	Ⓔ II 2G Ex ib IIC T6 Gb
Certificate	PTB 17 ATEX 2025 X

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IECEX

Identification	Ex ib IIC T6 Gb
Certificate	IECEX PTB 16.0033X

UKCA Ex (UKEX)

Certificate	CML 21UKEX2993X
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CCC / China-Ex

Identification	Ex ib IIC T6 Gb
Certificate	2021322309004298

UL, USA/Canada

Identification	UL 61010 Listed
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Shipbuilding approval

Certificate	DNV GL TAA000013C
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DNV GL data

Temperature	B
Humidity	B
Vibration	A
EMC	B
Enclosure	Required protection according to the Rules shall be provided upon installation on board

EMC data

Noise emission	IEC 61326, class B
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Standards and regulations

GB Standard

Standards/regulations	GB 3836.1
	GB 3836.4

Mounting

Mounting type	Panel mount
Mounting position	Max. viewing angle range +/- 45° from the centre line of the display in every direction

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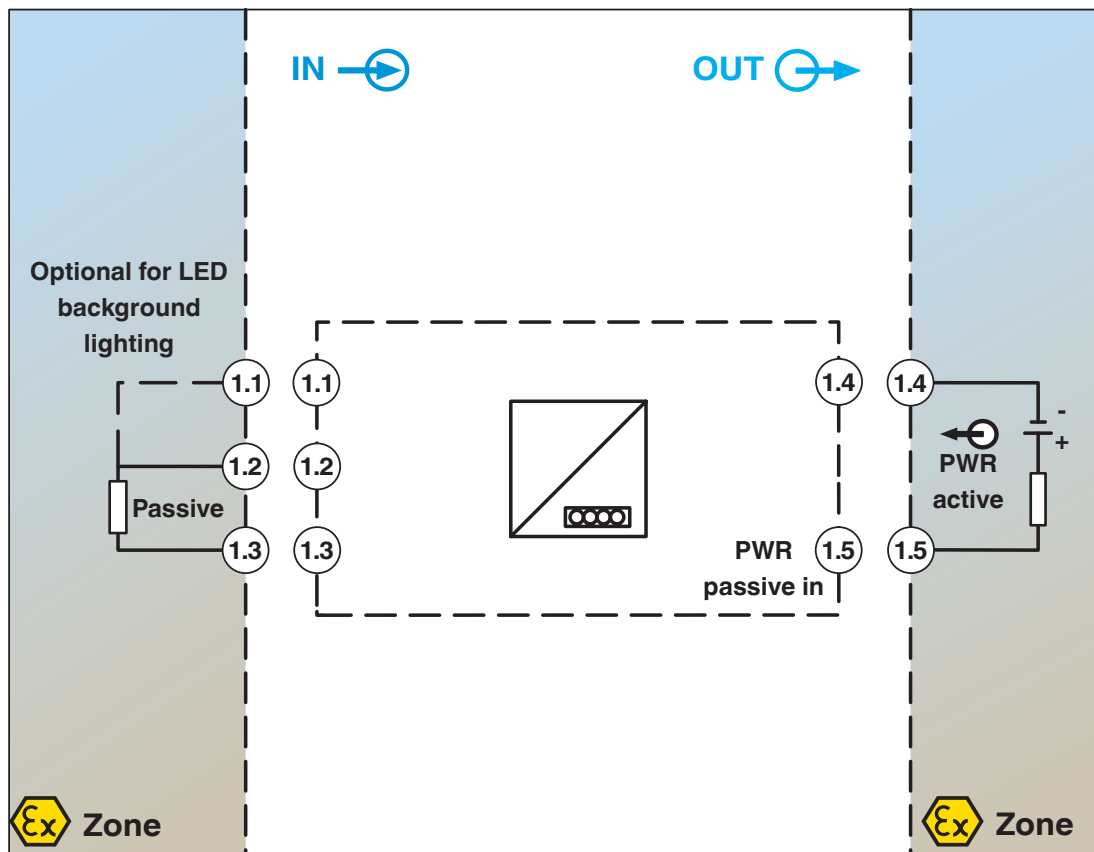
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Drawings

Block diagram



Block diagram FA MCR-EX-DS-I-I-OLP

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Approvals

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EAC

Approval ID: RU*DE.*08.B.01522/19



UL Listed

Approval ID: E330267



cUL Listed

Approval ID: FILE E 330267



DNV GL

Approval ID: TAA000013C



CCC

Approval ID: 2021322309004298

DNV

Approval ID: TAA000013C



IECEx

Approval ID: IECEx PTB 16.0033X



ATEX

Approval ID: PTB 17 ATEX 2025 X



CSA

Approval ID: 70106894



FM approved

Approval ID: FM16US0464



CSAus

Approval ID: 70106894

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cULus Listed

cCSAus

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Classifications

ECLASS

ECLASS-11.0	27210301
ECLASS-12.0	27210301
ECLASS-13.0	27210301

ETIM

ETIM 9.0	EC011349
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UNSPSC

UNSPSC 21.0	39121000
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	7(c)-I
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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Accessories

FA MCR-FDS-R250 - Resistor

2908802

<https://www.phoenixcontact.com/us/products/2908802>

HART® communication resistor, 250 Ω , in combination with digital display 2908781 FA MCR-DS-I-I-OLP, 2908782 FA MCR-FDS-I-I-OLP, 2908800 FA MCR-EX-DS-I-I-OLP or 2908801 FA MCR-EX-FDS-I-I-OLP



FA MCR-D-RM - DIN rail mounting frame

1032996

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The DIN rail mounting frame can be used to mount a display on a DIN rail, e.g., in the control cabinet. The DIN rail mounting frame can be used with the following digital displays: FA MCR-(EX)-DS-I-I-OLP, FA MCR-(EX)-D-TUI-UI-2REL-UP

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