

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

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	≈ $\ominus \downarrow \Omega$

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

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 grey (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

IECEX

Identification	Ex ib IIC T6 Gb
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Certificate	IECEX PTB 16.0033X
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UKCA Ex (UKEX)

Certificate	CML 21UKEX2993X
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CCC / China-Ex

Identification	Ex ib IIC T6 Gb
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Certificate	2021322309004298
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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
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Humidity	B
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Vibration	A
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EMC	B
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Enclosure	Required protection according to the Rules shall be provided upon installation on board
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EMC data

Noise emission	IEC 61326, class B
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Standards and regulations

GB Standard

Standards/regulations	GB 3836.1
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	GB 3836.4
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Mounting

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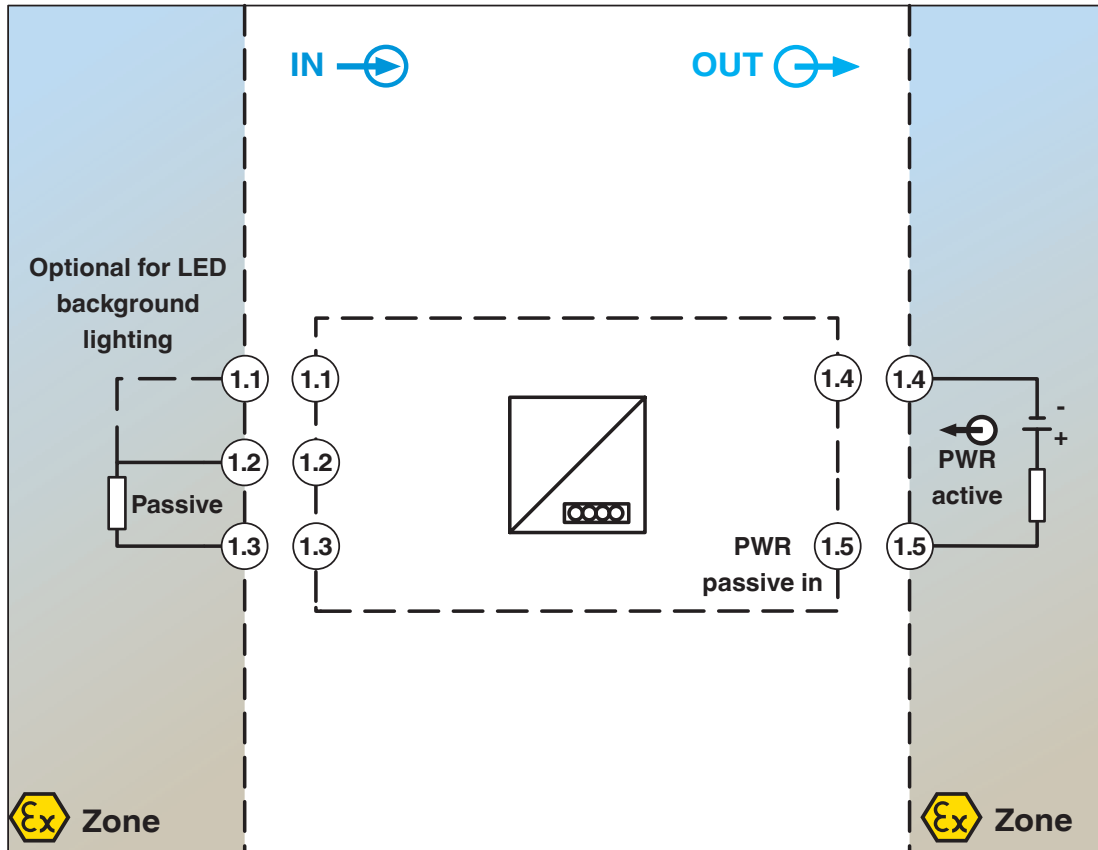
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Drawings

Block diagram



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

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2908800>



EAC

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



UL Listed

Approval ID: FILE E 330267



cUL Listed

Approval ID: FILE E 330267



DNV GL

Approval ID: TAA000013C



CCC

Approval ID: 2021322309004298



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

cULus Listed

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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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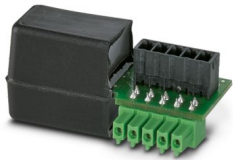
Accessories

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

<https://www.phoenixcontact.com/us/products/1032996>

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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