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# FA MCR-EX-FDS-I-I-OLP - Digital display

2908801

https://www.phoenixcontact.com/pc/products/2908801

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Ex i, Output loop-powered process indicator in field housing. HART

## Commercial data

| | |
|---|---|
| Item number | 2908801 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Product key | CK3312 |
| Catalog page | Page 185 (C-5-2019) |
| GTIN | 4055626364216 |
| Weight per piece (including packing) | 835.1 g |
| Weight per piece (excluding packing) | 821.5 g |
| Customs tariff number | 90328900 |
| Country of origin | DE |

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## 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 |

### 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 | ≈ ⏚ Ω |

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 Ω/$C_x$ = 2.3 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 mm² ... 1.5 mm² |
| Conductor cross section flexible | 0.14 mm² ... 1.5 mm² |
| Conductor cross section AWG | 26 ... 16 |

## Ex data

| | |
|---|---|
| Ex installation (EPL) | Gb |
| | Div. 1 |

## Interfaces

Data communication (bypass)

| | |
|---|---|
| Protocols supported | HART |

## Dimensions

| | |
|---|---|
| Width | 131 mm |
| Height | 81.5 mm |
| Depth | 55.5 mm |

## Material specifications

| | |
|---|---|
| Color | light gray (RAL 7035) |
| Housing material | Aluminum |

## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP66/IP67 |
| | NEMA 4X |
| 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 |

ATEX

| | |
|---|---|
| Identification | Ⓔx 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 |

CCC / China-Ex

| | |
|---|---|
| Identification | Ex ib IIC T6 Gb |
| Certificate | 2021322309004298 |

UL, USA/Canada

| | |
|---|---|
| Identification | UL 61010 Listed |

Shipbuilding approval

| | |
|---|---|
| Certificate | DNV GL TAA000013C |
| 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 |

## Standards and regulations

GB Standard

| | |
|---|---|
| Standards/regulations | GB 3836.1 |
| | GB 3836.4 |

## Mounting

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

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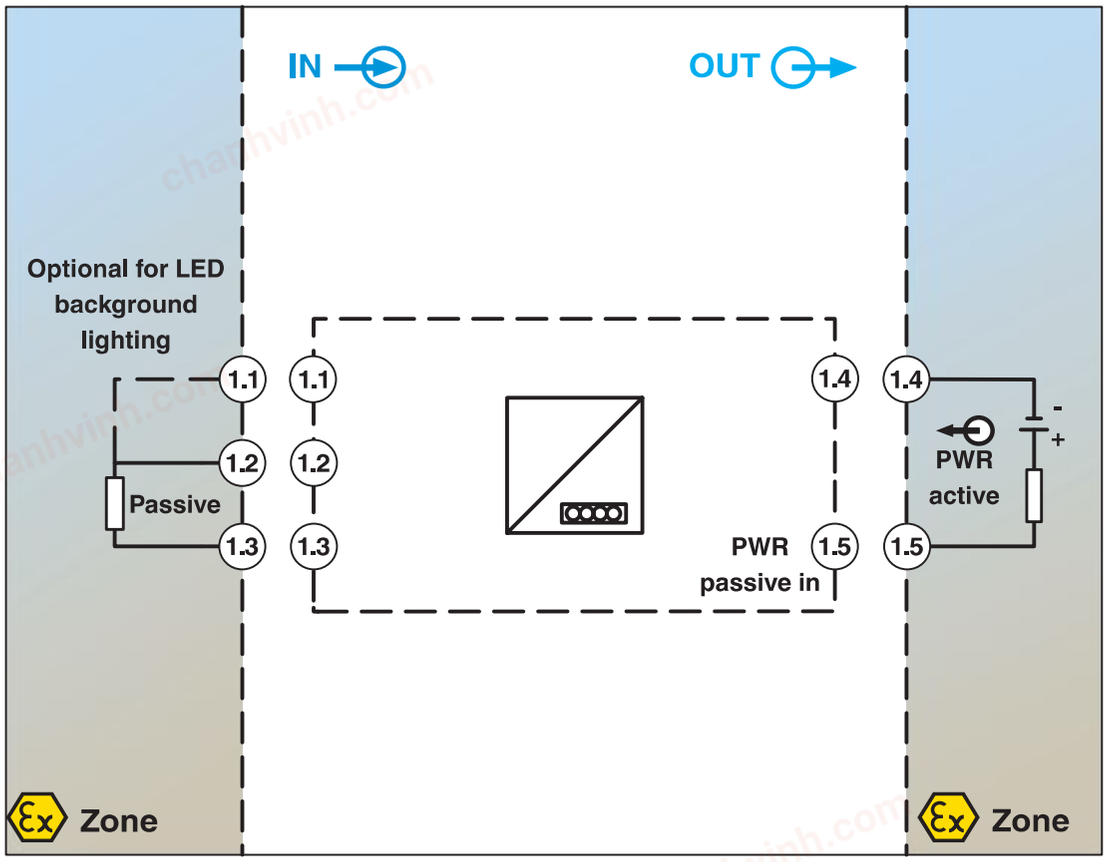
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## Drawings

Block diagram




FA MCR-EX-FDS-I-I-OLP

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## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/2908801

**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-13.0 | 27210301 |
| ECLASS-12.0 | 27210301 |

### ETIM

| | |
|---|---|
| ETIM 9.0 | EC011349 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121000 |

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## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 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.) | Lead(CAS: 7439-92-1) |

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