

Power/input isolating amplifier - IOA RPSS-I-I/HART/EX - 2908452

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Ex ic repeater power supply and input signal conditioner, HART for VIP I/O-Marshalling base elements: Transmits 0/4 # 20 mA signals from the potentially explosive area (zone 2, CID2) to a load (active or passive) in the safe area. 3-way electrical isolation

Product Description


The output can be operated either actively or passively via DIP switches. The module is installed on a corresponding VIP I/O-Marshalling base element by means of plug-in contact. Installation in zone 2, "ec" type of protection is permitted.

Your advantages

- Two-stage progressive release allowing for voltage checks with field-powered devices
- Channel for marking accessories
- Integrated keying reduces possible user error during replacement
- Signal disconnect with test points
- Bidirectional HART signal transmission
- 3-way electrical isolation



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 446158
GTIN	4055626446158

Technical data

Dimensions

Width	9.8 mm
Height	75.2 mm
Depth	113.2 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Power/input isolating amplifier - IOA RPSS-I-I/HART/EX - 2908452

Technical data

Ambient conditions

Maximum altitude	2000 m (max. altitude above sea level)
Permissible humidity (operation)	5 % ... 95 %
Degree of protection	IP20

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	18 V DC ... 30 V DC
Power consumption	≤ 1600 mW (at I _{OUT} = 20 mA, 24 V DC, 600 Ω load)

Connection data

Connection method	Screw connection
Stripping length	10 mm
Screw thread	M3
Conductor cross section solid	0.2 mm ² ... 1.5 mm ² (with ferrule) 0.2 mm ² ... 2.5 mm ² (without ferrule)
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 12 (flexible)

General

No. of channels	1
Maximum transmission error	< 0.1 % (of final value)
Maximum temperature coefficient	0.01 %/K
Temperature coefficient, typical	0.01 %/K
Limit frequency (3 dB)	1.75 kHz (typ.)
Step response (10-90%)	< 200 μs (typ.)
Status display	Green LED (supply voltage)
Degree of pollution	2
Overvoltage category	II
Electromagnetic compatibility	Conformance with EMC directive
Color	gray
Designation	Input/output/power supply
Electrical isolation	250 V _{rms} (Rated insulation voltage (overvoltage category II; degree of pollution 2, safe isolation as per EN 61010-1)) 2.5 kV (50 Hz, 1 min., test voltage) 60 V (Peak value in accordance with IEC/EN 60079-11)

Data communication (bypass)

HART function	Yes
Signal band width (data communication)	> 1.75 kHz (typical)
Protocols supported	HART

EMC data

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3

Power/input isolating amplifier - IOA RPSS-I-I/HART/EX - 2908452

Technical data

EMC data

Typical deviation from the measuring range final value	1 %
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	1 %
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	1 %

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Group	IIC
	IIB/IIIC/IIIB/IIIA
	IIA
	IIC
	IIB/IIIC/IIIB/IIIA
	IIA
ATEX	Sira 17ATEX4208X: II 3G Ex ec IIC T4 Gc; II 3G Ex ec [ic] IIC T4 Gc; II (3)D [Ex ic IIIC Dc]
IECEX	IECEX SIR 17.0047X: Ex ec IIC T4 Gc; Ex ec [ic] IIC T4 Gc; [Ex ic IIIC Dc]
CSA, USA/Canada	Class I, Div. 2 Groups A, B, C, D T4 ANIFW apparatus for connection to: Class I, II, III Div. 2 Groups A, B, C, D, E, F, G Class I, Zone 2, AEx ec IIC T4 Gc; AEx ec [ic] IIC T4 Gc Connection to Zone 22, [Ex ic IIIC Dc] Class I, Div.2 Groups A, B, C, D T4 Connection to: Class I, II, III Div. 2 Groups A, B, C, D, E, F, G Ex ec IIC T4 Gc; Ex ec [ic] IIC T4 Gc; [Ex ic IIIC Dc]

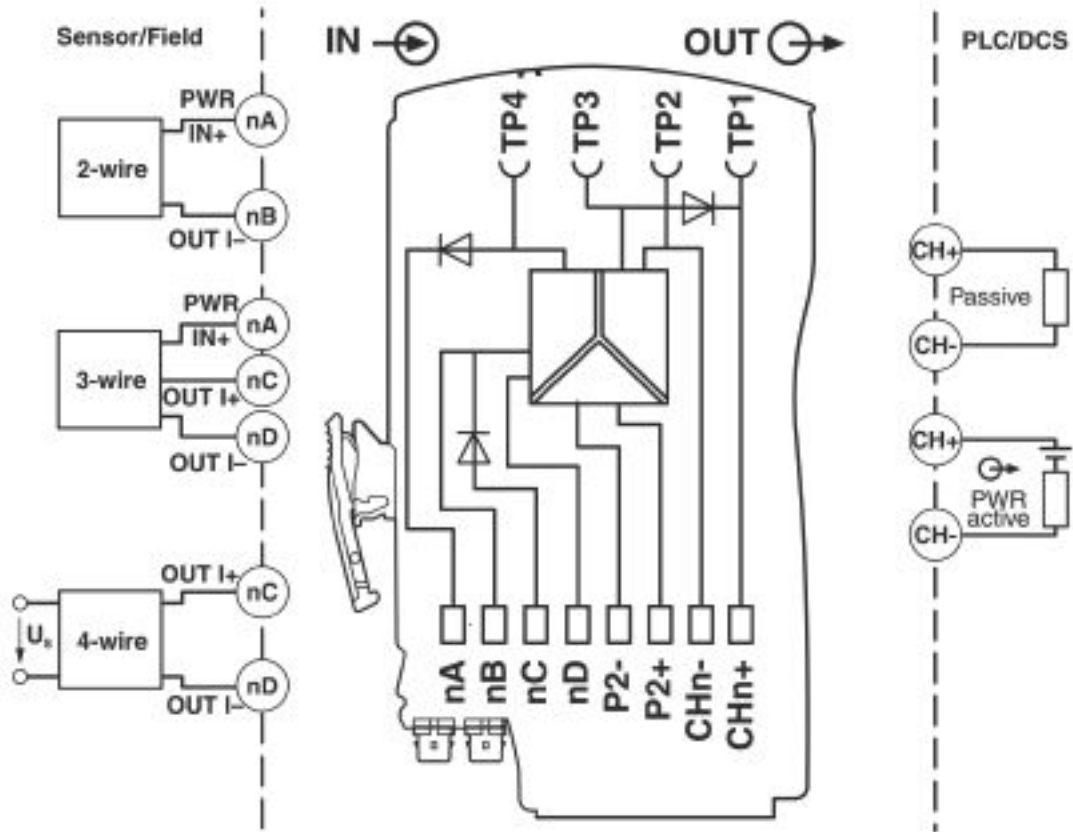
Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

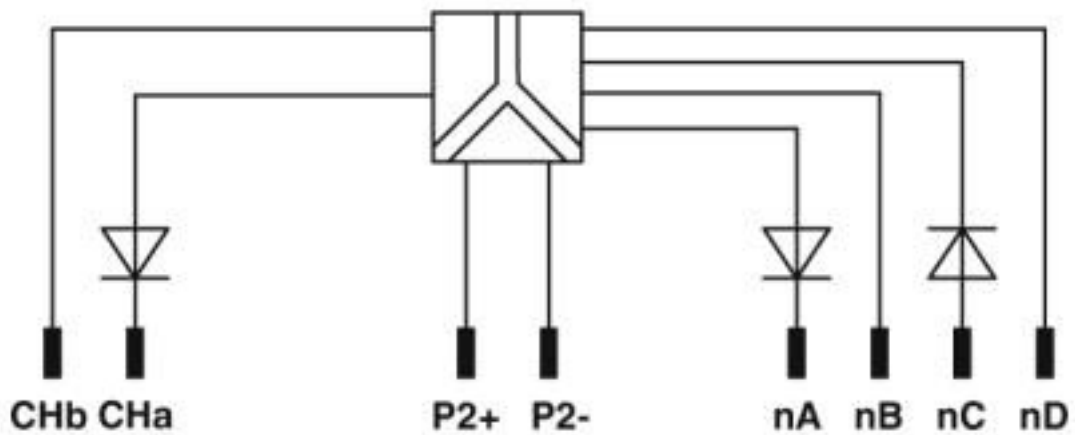
Drawings

Power/input isolating amplifier - IOA RPSS-I-I/HART/EX - 2908452

Block diagram



Circuit diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27141152
eCl@ss 4.0	27210121
eCl@ss 4.1	27210121

Power/input isolating amplifier - IOA RPSS-I-I/HART/EX - 2908452

Classifications

eCl@ss

eCl@ss 5.0	27210121
eCl@ss 5.1	27210121
eCl@ss 6.0	27210120
eCl@ss 7.0	27210120
eCl@ss 8.0	27141152
eCl@ss 9.0	27141152

ETIM

ETIM 2.0	EC001431
ETIM 3.0	EC001596
ETIM 4.0	EC002653
ETIM 5.0	EC002780
ETIM 6.0	EC002780

Accessories

Accessories

Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

Terminal marking

Marker for terminal blocks - UC-TM 6 - 0818085



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

Marker for terminal blocks - UC-TM 6 BU - 0818344



Marker for terminal blocks, Sheet, blue, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

Power/input isolating amplifier - IOA RPSS-I-I/HART/EX - 2908452

Accessories

Zack marker strip - ZB 5,08:UNBEDRUCKT - 0809793



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 5.08 mm, lettering field size: 4.98 x 10.5 mm, Number of individual labels: 10

Necessary add-on products

Base module - VIP/S/MC/BASE 1-8/L/EX - 2906596



VIP base module with input/output accessories (IOA) provide universal channel configuration. This module has markings for channels 1-8.

Base module - VIP/S/MC/BASE 9-16/L/EX - 2906630



VIP base module with input/output accessories (IOA) provide universal channel configuration. This module has markings for channels 9-16.

Base module - VIP/S/MC/BASE 17-24/L/EX - 2907024



VIP base module with input/output accessories (IOA) provide universal channel configuration. This module has markings for channels 17-24.

Base module - VIP/S/MC/BASE 25-32/L/EX - 2907025



VIP base module with input/output accessories (IOA) provide universal channel configuration. This module has markings for channels 25-32.

Power/input isolating amplifier - IOA RPSS-I-I/HART/EX - 2908452

Accessories

Base module - VIP/S/MC/BASE 1-8/L/C/EX - 2907186



VIP base module with input/output accessories (IOA) provide universal channel configuration. This module has markings for channels 1-8 and includes conformal coating of the printed circuit board assembly.

Base module - VIP/S/MC/BASE 9-16/L/C/EX - 2907187



VIP base module with input/output accessories (IOA) provide universal channel configuration. This module has markings for channels 9-16 and includes conformal coating of the printed circuit board assembly.

Base module - VIP/S/MC/BASE 17-24/L/C/EX - 2907209



VIP base module with input/output accessories (IOA) provide universal channel configuration. This module has markings for channels 17-24 and includes conformal coating of the printed circuit board assembly.

Base module - VIP/S/MC/BASE 25-32/L/C/EX - 2907210



VIP base module with input/output accessories (IOA) provide universal channel configuration. This module has markings for channels 25-32 and includes conformal coating of the printed circuit board assembly.

Base module - VIP/S/D25M/BASE 1-8/L/C/EX - 2906595



VIP base module with input/output accessories (IOA) provide universal channel configuration. This module with the D-SUB 25 connector is pin compatible to the Foxboro I/A series DCS.

Power/input isolating amplifier - IOA RPSS-I-I/HART/EX - 2908452

Accessories

Base module - VIP/MSTB/D50M/BASE/16CH/CX/EX - 2908788



VIP base module with input/output accessories (IOA) provide universal channel configuration. This module with the D-SUB 50 connector is pin compatible to the Tricon CX series DCS.

Phoenix Contact 2020 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [I/O Modules](#) category:

Click to view products by [Phoenix Contact](#) manufacturer:

Other Similar products are found below :

[70L-IDC5S](#) [70L-OAC-L](#) [70Z3289-4](#) [G21960000700](#) [G21960002700](#) [G34960002700](#) [G88104401](#) [OACU](#) [C4SWOUT](#) [PB16H](#)
[G34960001700](#) [G3TA-OA101SZ-1](#) [DC24](#) [G77-S](#) [G78-16-E](#) [5607189](#) [DA5](#) [ODC-24A](#) [IDC5P](#) [FC6A-N16B1](#) [6421](#) [70MRCQ32-HL](#)
[G3TAOD201SDC24](#) [C200H-LK201-V1](#) [G3TA-OA202SZ-US](#) [DC12](#) [GT1-OD16](#) [GT1-AD04CST](#) [B7AM-6BS](#) [70GRCQ24-HS](#) [6422](#)
[84110410](#) [GT1-OD16MX](#) [G7VC-OC16-B7](#) [70MRCK24-DIN](#) [6202](#) [6402](#) [PI/NI-2D/24](#) [FC6A-J2C1](#) [FC6A-KC1C](#) [FC6A-R081](#) [FC6A-](#)
[J8CU1](#) [GP32900003700](#) [641-480-5022](#) [PB16H](#) [84145010](#) [84110210](#) [FRUSB1601](#) [PCL-720+-BE](#) [FRRJ451601](#) [AP24MX3DB25F](#) [ADAM-](#)
[5053S-AE](#)