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

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IOA with three-way repeater power supply with plug-in technology. HART-transparent, input or output signal 0(4)....20 mA. The device can be used in both isolator and repeater power supply operation.

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

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	4 055626 446158
GTIN	4055626446158
Weight per Piece (excluding packing)	42.900 g
Custom tariff number	85437090
Country of origin	China
Note	Made to Order (non-returnable)

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

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Technical data

Ambient conditions

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 mm² ... 1.5 mm² (with ferrule)
	0.2 mm² ... 2.5 mm² (without ferrule)
Conductor cross section flexible	0.2 mm² ... 1.5 mm²
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

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
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

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Technical data

EMC data

Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	1 %

Standards and Regulations

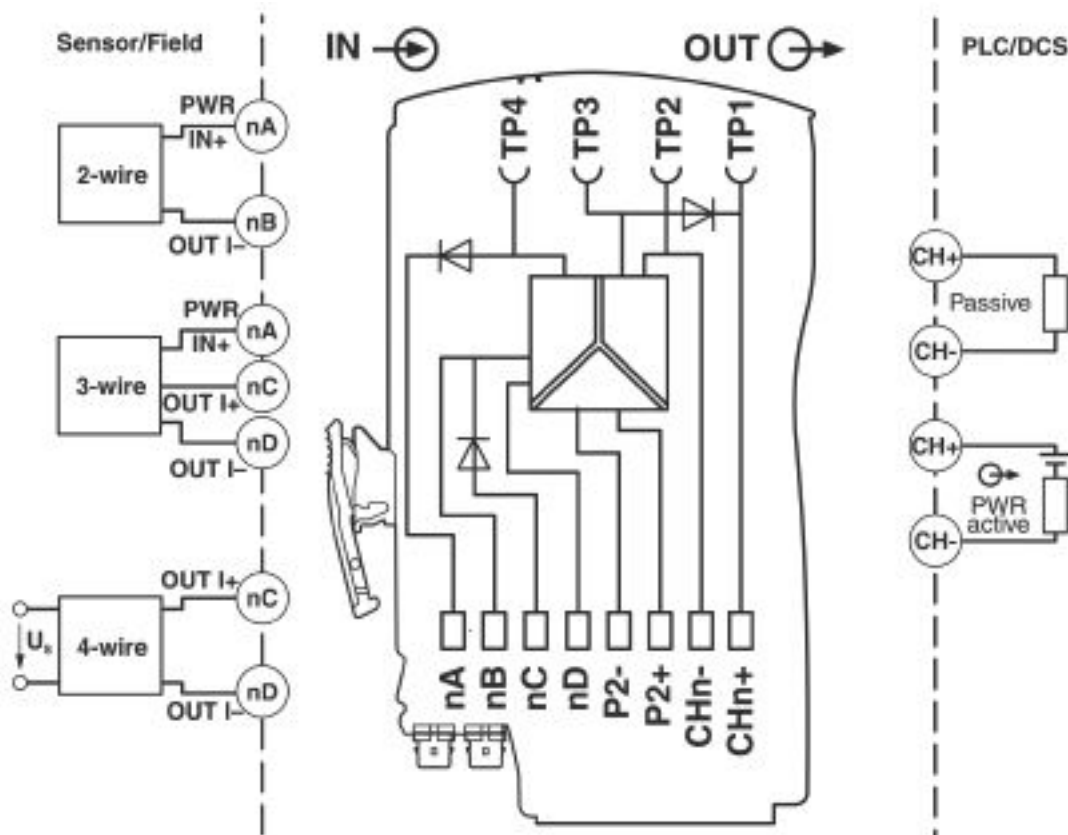| Electromagnetic compatibility	Conformance with EMC directive
Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1

Environmental Product Compliance

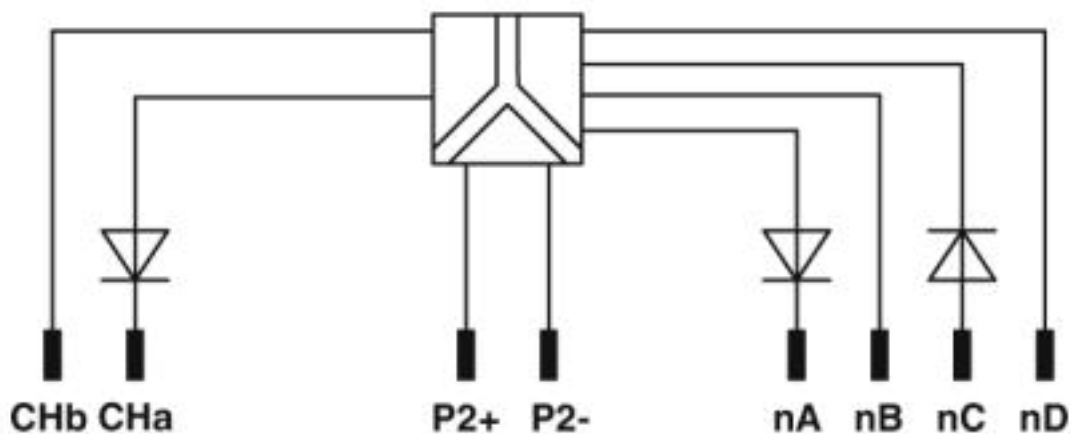| REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

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Block diagram

Circuit diagram

Classifications

eCl@ss

eCl@ss 4.0	27210100
eCl@ss 4.1	27210100
eCl@ss 5.0	27210100

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Classifications

eCl@ss

eCl@ss 5.1	27210100
eCl@ss 6.0	27210100
eCl@ss 7.0	27141152
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
ETIM 7.0	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

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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.

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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 compatable to the Foxboro I/A series DCS.

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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 compatable to the Tricon CX series DCS.