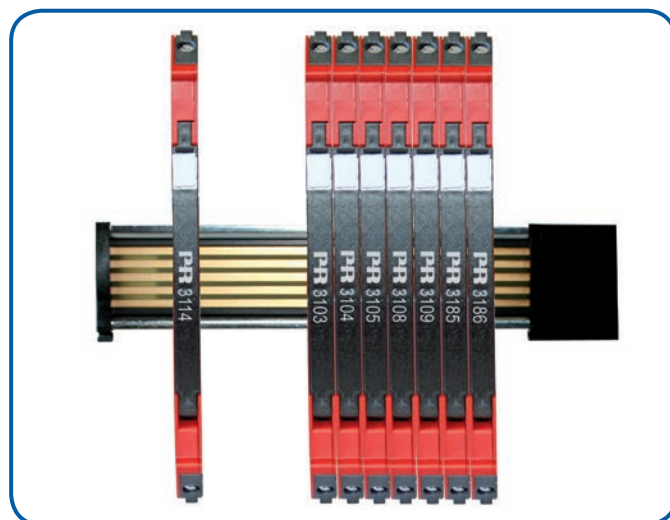


ISOLATED CONVERTER / SPLITTER



- Isolation and conversion of standard DC signals
- Slimline housing of 6 mm
- Power supply and signal isolator for 2-wire transmitter
- Splitter function: 1 in - 2 out
- DIP-switch configured



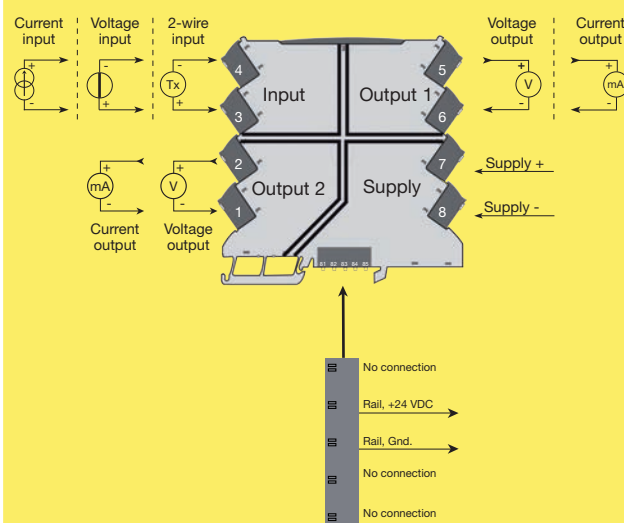
Applications

- Isolation and conversion of standard DC signals.
- Galvanic separation of analogue current and voltage signals.
- Elimination of ground loops and measurement of floating signals.
- A competitive choice in terms of both price and technology for galvanic isolation of current and voltage signals to SCADA systems or PLC equipment.
- Installation in ATEX Ex zone 2 / IECEx zone 2 / FM division 2.
- Suitable for environments with high vibration stress, e.g. ships.

Technical characteristics

- Easy configuration via DIP-switches.
- The input is protected against overvoltage and polarity error.
- Factory-calibrated measurement ranges.
- Inputs and outputs are floating and galvanically separated.

Connections



Safe Area or
Zone 2 & Cl. 1, Div. 2, gr. A-D

PR

DS
CERTIFIED

QUALITY SYSTEM AND ENVIRONMENTAL MANAGEMENT SYSTEM
DS/EN ISO 9001
DS/EN ISO 14001



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Mühlenstrasse 4, CH-8260 Stein am Rhein
Telefon +41 52-672 50 00
Telefax +41 52-672 50 01
www.mts.ch, e-mail: info@mts.ch

Order codes:

3109 = Isolated Converter / Splitter

Electrical specifications:

Specifications range..... -25°C to +70°C
 Storage temperature -40°C to +85°C
 Installation in pollution degree 2 and measurement /
 overvoltage category II.

Common specifications:

Supply voltage, DC 16.8...31.2 VDC
 Internal consumption, typ./max. 0.4 W / 0.65 W
 Power consumption (max.)..... 1.2 W
 Isolation voltage, test 2.5 kVAC
 Working isolation voltage 300 VAC / 250 VAC (Ex)
 Accuracy < ±0.05% of span
 Temperature coefficient..... < ±0.01% of span / °C

EMC immunity influence < ±0.5% of span
 Extended EMC immunity:
 NAMUR NE 21, A criterion, burst..... < ±1% of span

Signal / noise ratio..... > 60 dB
 Response time (0...90%, 100...10%)... < 7 ms
 Calibration temperature..... 20...28°C
 Wire size (max.) 0.13 x 2.5 mm² / AWG
 26...12 stranded wire
 Screw terminal torque 0.5 Nm
 Relative humidity..... < 95% RH (non cond.)
 Dimensions (H x W x D)..... 113 x 6.1 x 115 mm
 DIN rail type..... EN 60715 - 35 mm
 Protection degree..... IP20
 Weight 70 g

of span = of the DIP-switch selected output range

Accessories:

3405 = Power Connector Unit (for power rail)

9400 = Power Rail

9404 = Module Stop

Current input:

Measurement range 0...20.5 mA
 Functional range..... 0...23 mA
 Programmable measurement ranges . 0...20 and 4...20 mA
 Input voltage drop < 1.5 VDC
 2-wire transmitter supply..... > 17 V / 20mA

Voltage input:

Measurement range 0...10.25 V
 Functional range..... 0...11.5 V / 0...5.75 V
 Programmable measurement ranges . 0...5/1...5/0...10/2...10 V
 Input resistance ≥ 500 kΩ

Current output:

Signal range (span)..... 0...20.5 mA
 Programmable signal ranges..... 0...20 and 4...20 mA
 Load (max.)..... 23 mA / 300 Ω
 Load stability ≤ 0.01% of span / 100 Ω
 Current limit..... ≤ 28 mA

Voltage output:

Signal range 0...10 V
 Programmable signal ranges..... 0...10/2...10/0...5/1...5 V
 Load (min.)..... > 10 kΩ

Approvals:

EMC 2004/108/EC EN 61326-1
 LVD 2006/95/EC EN 61010-1
 UL, Standard for Safety..... UL 61010-1
 Safe Isolation..... EN 61140
 GOST R

Marine:

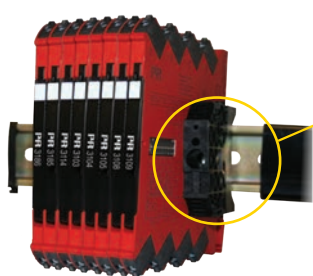
Det Norske Veritas, Ships & Offshore Stand. f. Certific. No. 2.4
 Germanischer Lloyd VI-7-2

Ex:

ATEX 94/9/EC KEMA 10ATEX0147 X
 IECEx KEM 10.0068 X
 c FM us..... 3041043-C

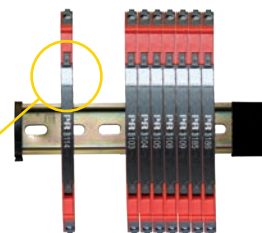
DIP-switch configuration:

Input Current 0...20 mA		Output ch.1 Current 0...20 mA		Output ch.2 Current 0...20 mA	
Input Current 4...20 mA		Output ch. 1 Current 4...20 mA		Output ch. 2 Current 4...20 mA	
Input Voltage 0...10 V		Output ch. 1 Voltage 0...10 V		Output ch. 2 Voltage 0...10 V	
Input Voltage 2...10 V		Output ch. 1 Voltage 2...10 V		Output ch. 2 Voltage 2...10 V	
Input Voltage 0...5 V		Output ch. 1 Voltage 0...5 V		Output ch. 2 Voltage 0...5 V	
Input Voltage 1...5 V		Output ch. 1 Voltage 1...5 V		Output ch. 2 Voltage 1...5 V	
Input Tx (Active) 0...20 mA					
Input Tx (Active) 4...20 mA					



Installation on a 35 mm DIN rail

The system 3000 devices must be supported by module stops for marine applications - PR part number 9404.



Marking

The front cover of the system 3000 units has been designed with an area for affixation of a click-on marker. The area assigned to the marker measures 5 x 7.5 mm. Weidmüller's MultiCard System markers, type MF 5/7.5, are suitable.