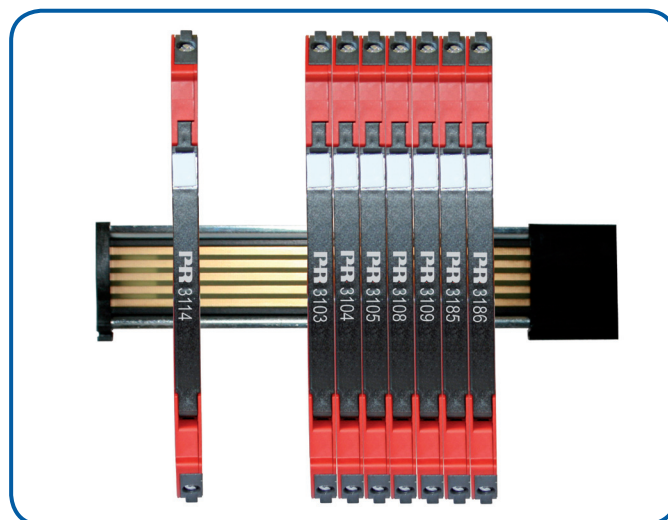


ISOLATED CONVERTER / SPLITTER



- 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



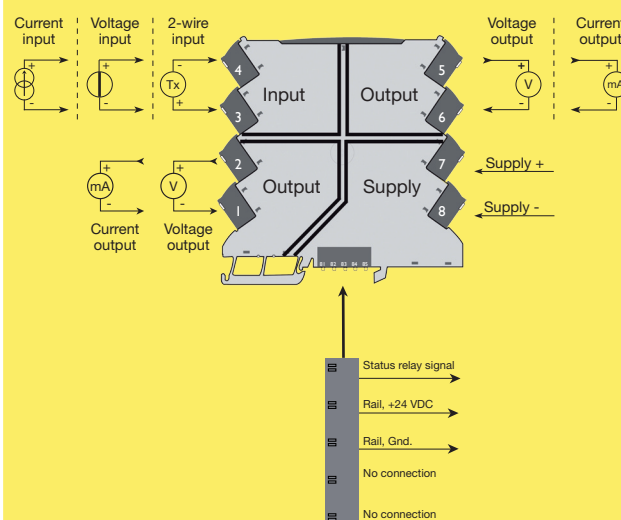
Applications

- 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



Order codes:

3109 = Isolated Converter / Splitter

3405 = Power Connector Unit (for power rail)

9400 = Power Rail

9404 = Module Stop

Electrical specifications:

Specifications range:

-25°C to +70°C

Common specifications:

| | |
|---------------------------------|----------------------------|
| Supply voltage, DC | 16.8...31.2 VDC |
| Internal consumption..... | 0.4 W (typ.) |
| | 0.65 W (max.) |
| Power consumption (max.)..... | 1.2 W |
| Isolation voltage, test | 2.5 kVAC |
| Working isolation voltage | 300 VAC |
| Accuracy | < ±0.05% of span |
| Basic accuracy, mA..... | < ±8 µA |
| Temperature coefficient..... | < ±0.01% of span / °C |
| Signal / noise ratio..... | > 60 dB (0...100 kHz) |
| Response time | |
| (0...90%, 100...10%) | < 7 ms |
| Calibration temperature..... | 20...28°C |
| EMC immunity influence | < ±1% of span |
| Wire size (max.) | 0.13 x 2.5 mm ² |
| | 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 |
| Protection degree..... | IP20 |
| Weight | 70 g |

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 | <3 VDC |

Voltage input:

| | |
|-----------------------------------|-----------------------------|
| Measurement range | 0...10.25 mV |
| Functional range..... | 0...11.5 V / 0...0.75 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:

| | |
|---------------------------------------|------------------------|
| Det Norske Veritas, Ships & Offshore. | Stand. f. Cert No. 2.4 |
| Germanischer Lloyd | V1-7-2 |
| ATEX 94/9/EC..... | EN 60079-0, -15 |
| IECEX..... | IEC 60079-0, -15 |
| c FM us..... | FM 3600, 3611, 3810 |
| | CSA E60079-0, -15 |
| | CSA 22.2 -213 |
| 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 |

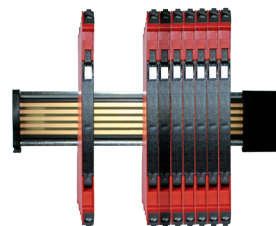
DIP-switch configuration

| | | |
|---|--|--|
| 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 DIN rail



Marking



The 3100 series can be installed on a DIN rail supported, if necessary, by a module stop (PR part number 9404).

The front cover of the 3100 series 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. Markers from Weidmüller's MultiCard System, type MF 5/7.5, are suitable (PR part number MF5/7.5).