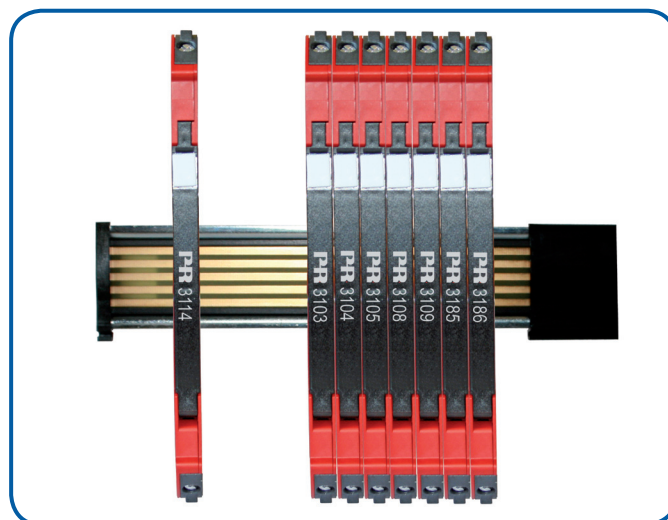


# ISOLATED CONVERTER



- Isolation and conversion of standard DC signals
- Slimline housing of 6 mm
- Power supply and signal isolator for 2-wire transmitter
- Loop supply >17 V
- DIP-switch configured



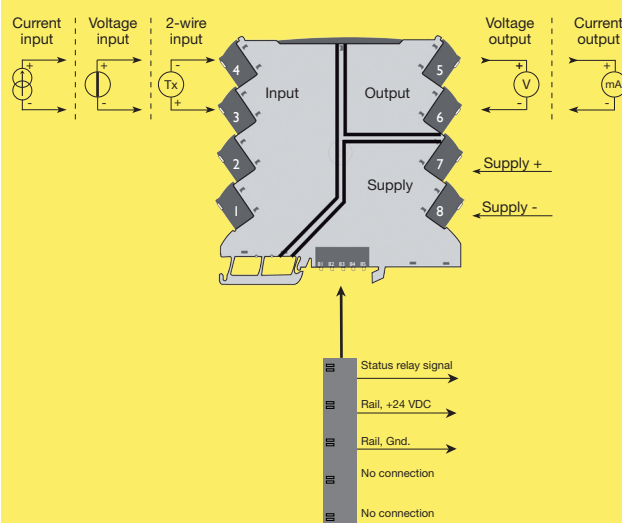
## Applications

- 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:**

**3104 = Isolated Converter**

**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 <sup>2</sup> 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 / 600 Ω
Load stability .....	≤ 0.01% of span / 100 Ω
Current limit.....	≤ 28 mA















**Voltage output:**

Signal range .....	0...10 mV
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

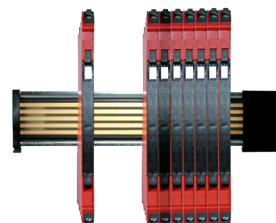
**DIP-switch configuration**

<b>Input</b> Current <b>0...20 mA</b> 	<b>Output</b> Current <b>0...20 mA</b> 
<b>Input</b> Current <b>4...20 mA</b> 	<b>Output</b> Current <b>4...20 mA</b> 
<b>Input</b> Voltage <b>0...10 V</b> 	<b>Output</b> Voltage <b>0...10 V</b> 
<b>Input</b> Voltage <b>2...10 V</b> 	<b>Output</b> Voltage <b>2...10 V</b> 
<b>Input</b> Voltage <b>0...5 V</b> 	<b>Output</b> Voltage <b>0...5 V</b> 
<b>Input</b> Voltage <b>1...5 V</b> 	<b>Output</b> Voltage <b>1...5 V</b> 
<b>Input</b> Tx (Active) <b>0...20 mA</b> 	
<b>Input</b> Tx (Active) <b>4...20 mA</b> 	

**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).