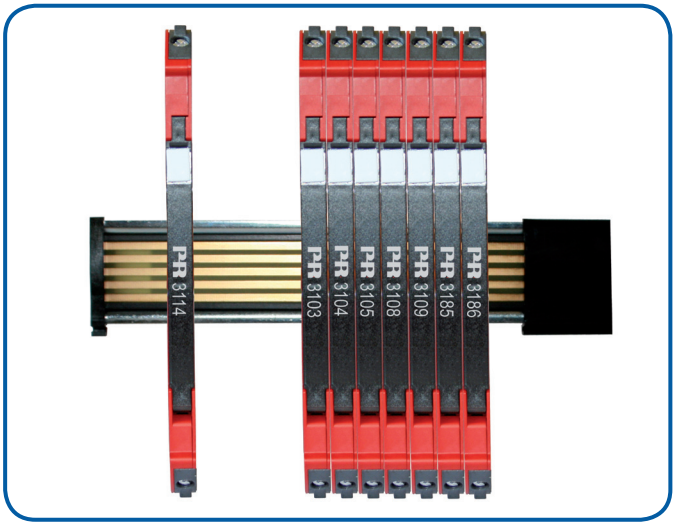
ISOLATED CONVERTER



- **Isolation and conversion of standard DC signals**
- **Slimline housing of 6 mm**
- **Response time <7 ms**
- **Low cost**
- **DIP-switch configured**

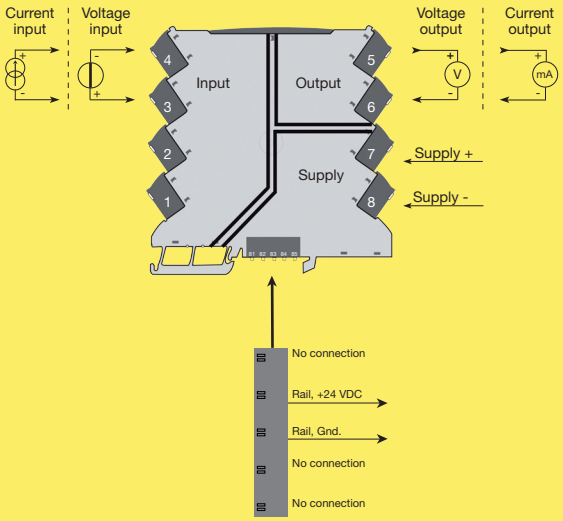
Applications

- 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.
- 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



PR electronics A/S
Lerbakken 10 . DK-8410 Rønde
Tlf. 8637 2677 . Fax. 8637 3085
www.prelectronics.dk . sales@prelectronics.dk

Order codes:

3105 = Isolated Converter

Electrical specifications:

Specifications range	0°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.	0.8 W
Isolation voltage, test	2.5 kVAC
Working isolation voltage	300 VAC
Accuracy	< ±0.2% of span
Temperature coefficient	< ±0.015% 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

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 / 600 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

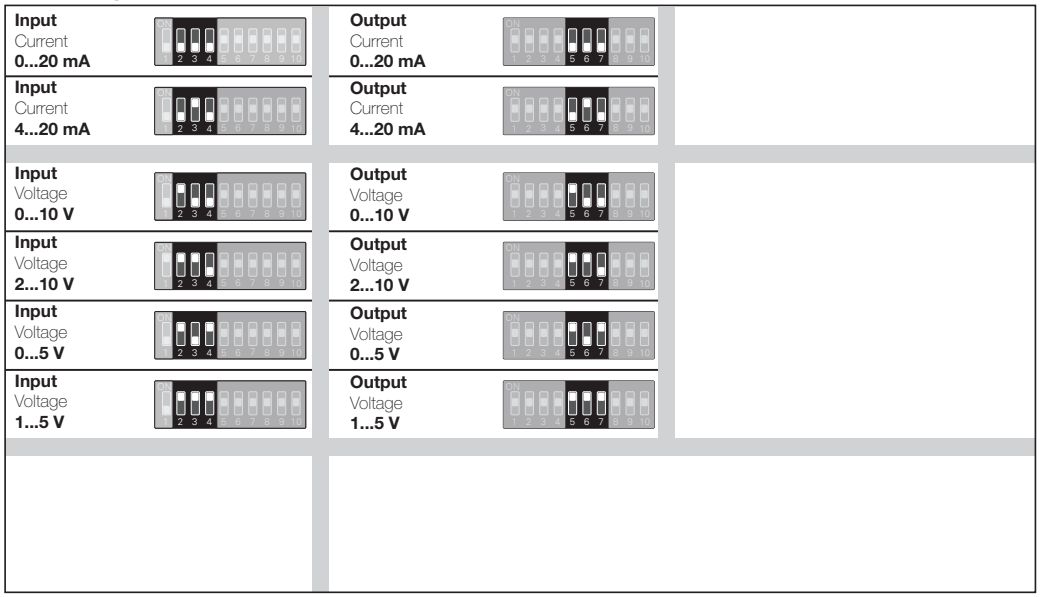
Approvals:

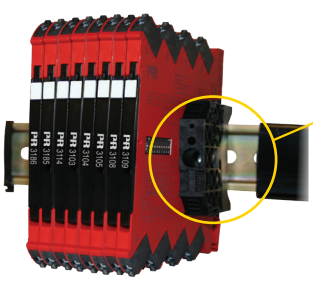
EMC 2004/108/EC	EN 61326-1
LVD 2006/95/EC	EN 61010-1
UL, Standard for Safety	UL 61010-1
Safe Isolation	EN 61140
GOST R	

Marine:

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

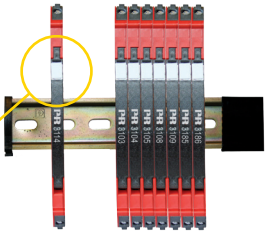
DIP-switch configuration:





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.