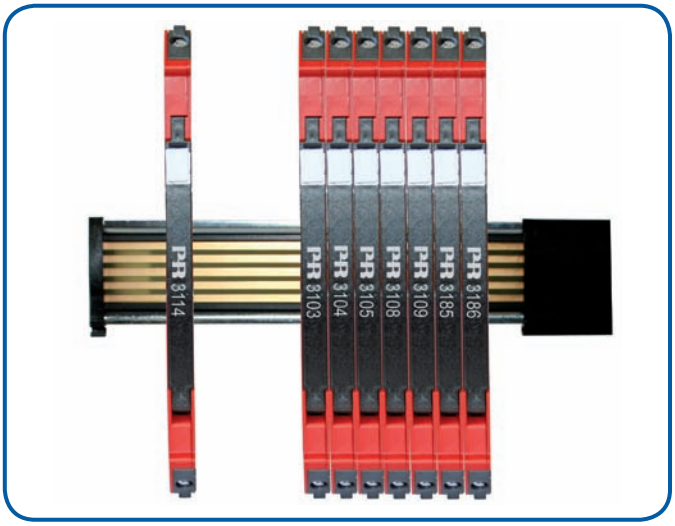
# 3103 Slim Series
# Isolated Repeater




- **Isolation and 1:1 conversion of standard current signals**
- **Slimline housing of 6 mm**
- **Response time < 7 ms**
- **Low cost**
- **Simple - no setup needed**

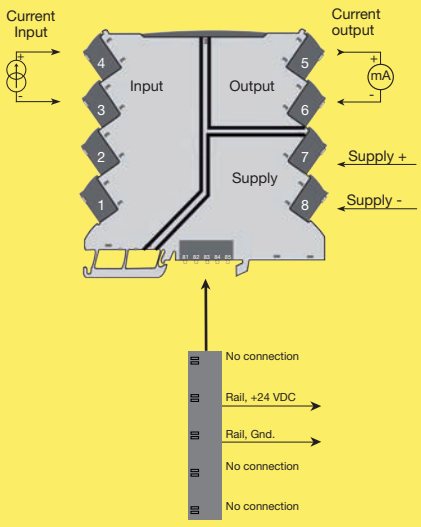
## Applications

- Isolation and 1:1 conversion of standard current signals.
- Galvanic separation of analogue current 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 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

- 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***

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

For pricing or any further information, please contact Omni Instruments Ltd.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## Order codes:

**3103 = Isolated Repeater**

## Accessories:

**3405 = Power Connector Unit (for power rail)**
**9400 = Power Rail**
**9404 = Module Stop**

### 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 | 0.8 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 |

### Current input:

| | |
|---|---|
| Measurement range | 0...20.5 mA |
| Functional range | 0...23 mA |
| Input voltage drop | < 1.5 VDC |

### Current output:

| | |
|---|---|
| Signal range (span) | 0...20.5 mA |
| Load (max.) | 23 mA / 600 Ω |
| Load stability | ≤ 0.01% of span / 100 Ω |
| Current limit | ≤ 28 mA |

of span = 0...20 mA

### Approvals:

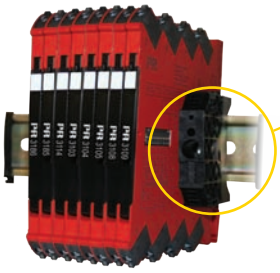
| | |
|---|---|
| EMC 2004/108/EC | EN 61326-1 |
| LVD 2006/95/EC | EN 61010-1 |
| UL, Standard for Safety | UL 61010-1 |
| Safe Isolation | EN 61140 |
| GOST R | |

### Marine:

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

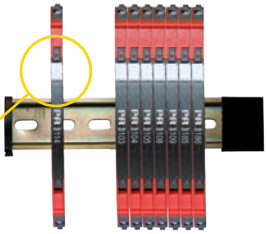
### Ex / I.S.:

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



**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.