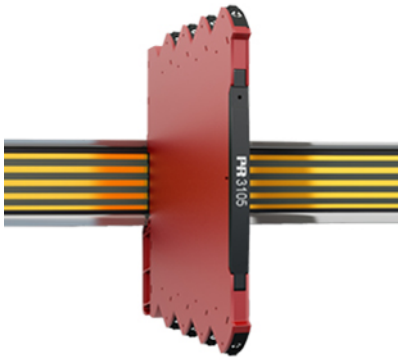
PERFORMANCE MADE SMARTER



Isolated converter

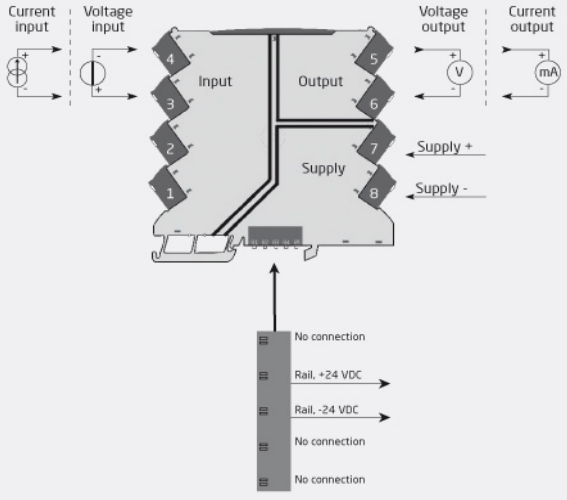
3105

– Isolation and conversion of standard DC signals
– Slimline housing of 6.1 mm
– Response time <7 ms
– Low cost
– DIP-switch configured

Application
- Isolation and conversion of standard DC signals.
- Galvanic separation of analog 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.

Applications



This page is automatically generated on the basis of information provided on www.prelectronics.com and affiliated websites. It is provided to you as a service and for information purpose only. While we have attempted to maintain the information as accurately as possible, the page may contain errors or omissions for which we disclaim any and all liability

Order

Type	Version	
3105	With power rail connector / terminals	: -
	Supplied via terminals	: -N

Example: 3105-N

Environmental Conditions

Operating temperature..... 0°C to +70°C
Storage temperature..... -40°C to +85°C
Calibration temperature..... 20...28°C
Relative humidity..... < 95% RH (non-cond.)
Protection degree..... IP20
Installation in..... Pollution degree 2 & meas. / overvoltage cat. II

Mechanical specifications

Dimensions (HxWxD)..... 113 x 6.1 x 115 mm
Weight approx..... 70 g
DIN rail type..... DIN EN 60715/35 mm
Wire size..... 0.13...2.5 mm^2 / AWG 26...12 stranded wire
Screw terminal torque..... 0.5 Nm
Vibration..... IEC 60068-2-6
2...25 Hz..... ±1.6 mm
25...100 Hz..... ±4 g

Common specifications

Supply
Supply voltage..... 16.8...31.2 VDC
Max. required power..... 0.80 W
Max. power dissipation..... 0.52 W

Isolation voltage
Isolation voltage, test / working..... 2.5 kVAC / 300 VAC (reinforced)

Response time
Response time (0...90%, 100...10%)..... < 7 ms

Programming..... DIP-switches
Signal / noise ratio..... > 60 dB
Cut-off frequency (3 dB)..... > 100 Hz
Signal dynamics, input..... Analog signal chain
Signal dynamics, output..... Analog signal chain
Accuracy..... Better than 0.2% of selected range
Temperature coefficient..... < ±0.015% of span / ˚C
EMC immunity influence..... < ±0.5% of span
Extended EMC immunity: NAMUR NE21, A criterion, burst..... < ±1% of span

Input specifications

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

Output specifications

Current output
Signal range..... 0...23 mA
Programmable signal ranges..... 0 / 4...20 mA
Load (@ current output)..... ≤ 600 Ω
Load stability..... ≤ 0.002% of span / 100 Ω
Current limit..... ≤ 28 mA

Voltage output
Signal range..... 0...10 VDC
Programmable signal ranges..... 0/1...5 and 0/2...10 V
Load (@ voltage output)..... ≥ 10 kΩ

of span..... = of the DIP-switch selected output range

Observed authority requirements

EMC..... 2014/30/EU & UK SI 2016/1091
LVD..... 2014/35/EU & UK SI 2016/1101
RoHS..... 2011/65/EU & UK SI 2012/3032
EAC..... TR-CU 020/2011

Approvals

c UL us, UL 61010-1..... E314307
DNV Marine..... TAA00001RW