

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



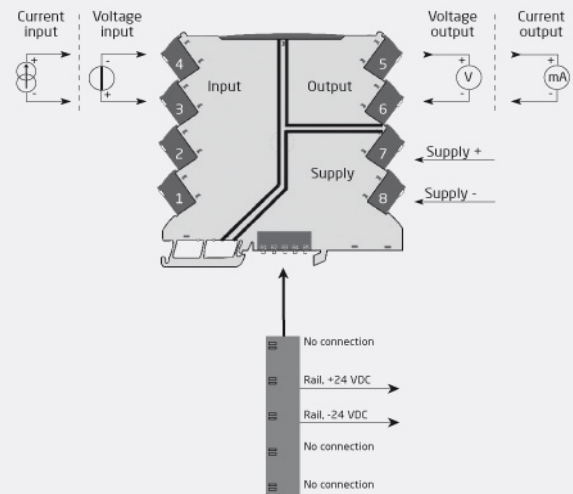
Application

- 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



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)
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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
Input resistance.....	Nom. 20 Ω + PTC 50 Ω

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