

Isolated repeater

3103

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



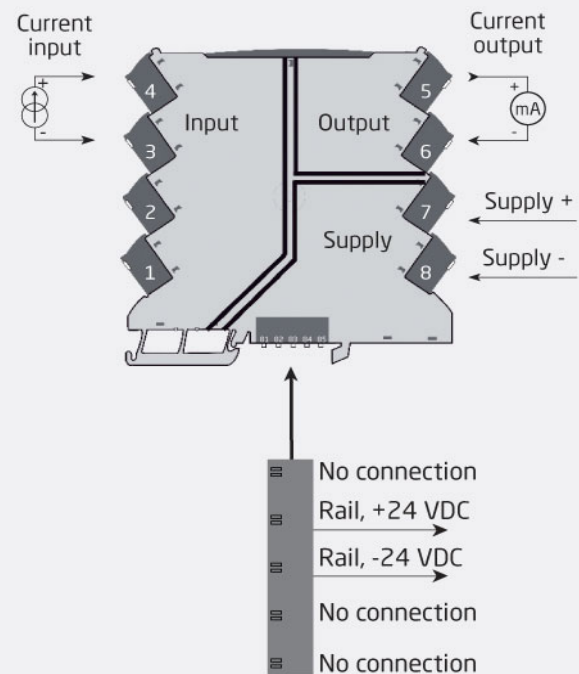
Application

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

Order:

Type
3103

Environmental Conditions

Specifications range.....	-25°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 & measurement / 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 x 2.5 mm ² / AWG 26...12 stranded wire
Screw terminal torque.....	0.5 Nm
Vibration: 2...25 Hz.....	±1.6 mm
Vibration: 25...100 Hz.....	±4 g

Common specifications**Supply**

Supply voltage.....	16.8...31.2 VDC
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Isolation voltage

Isolation voltage, test / working.....	2.5 kVAC / 300 VAC (reinforced)
Zone 2 / Div. 2.....	250 VAC

Response time

Response time (0...90%, 100...10%).....	< 7 ms
Max. required power.....	0.8 W
Internal consumption.....	0.4 W (typ.) / 0.65 W (max.)
Signal / noise ratio.....	> 60 dB
Accuracy.....	Better than 0.05%
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

Input specifications**Current input**

Measurement range.....	0...23 mA
Input voltage drop.....	< 1.5 VDC

Output specifications**Current output**

Signal range.....	0...23 mA
Load (@ current output).....	≤ 600 Ω
Load stability.....	≤ 0.01% of span / 100 Ω
Current limit.....	≤ 28 mA
*of span.....	= 0...20 mA

Observed authority requirements

EMC.....	2014/30/EU
LVD.....	2014/35/EU
RoHS.....	2011/65/EU

Approvals

ATEX 2014/34/EU.....	KEMA 10ATEX0147 X, II 3 G Ex nA IIC T4 Gc
IECEx.....	KEM 10.0068X
FM.....	3041043-C
UL.....	UL 61010-1
DNV Marine.....	Stand. f. Certific. No. 2.4
GL.....	V1-7-2
EAC.....	TR-CU 020/2011
EAC Ex TR-CU 012/2011.....	RU C-DK.GB08.V.00410
CCOE.....	P337347/1