

## Analog Signal Isolator TRIL

- ◆ Low cost
- ◆ Passive and active variants
- ◆ 4...20 to 4...20 mA conversion
- ◆ 3750 VAC isolation level
- ◆ Increased input protection

COMEKO's signal isolator TRIL is a compact 2-wire current-to-current transmitter providing optical isolation of 3750 VAC between the input and output current loops. It is designed for mounting on a 35 mm DIN rail according to EN 50022, and is available in 2 variants:

- passive: an entirely passive device, which does not generate any supply voltages and does not need any additional supply to operate; the input part is powered by the input current loop (4...20 mA), and the output part is powered by the output current loop;
- active: uses the energy of the output loop power supply (3-wire connection) to generate an isolated supply voltage for the input loop; provides an increased input over-voltage and over-current protection.



### Technical specifications

Input	'0'	'1'
<b>Input current</b>	4...20 mA	4...20 mA
<b>Operating range</b>	3.5...21 mA	3.5...21 mA
<b>Maximum admissible current</b>	50 mA	50 mA
<b>Loop supply voltage</b>	4...36 VDC	10...30 VDC
<b>Surge-voltage protection</b>	6.8 V <sup>(1)</sup>	6.8 V <sup>(1)</sup>
<b>Over-voltage protection</b>	none	39 V <sup>(1)</sup> , 90 V <sup>(2)</sup>
<b>Over-current protection</b>	none	40 mA
Output	'0'	'1'
<b>Output current</b>	4...20 mA	4...20 mA
<b>Operating range</b>	3...22 mA	3...22 mA
<b>Over-scale limit</b>	32 mA	32 mA
<b>Loop supply voltage</b>	8...32 VDC, 2-wire	24 VDC ± 10%, 3-wire max. 2 W
<b>Consumption</b>	-	
<b>Maximum line load</b>	620 Ω at 24V/20mA	620 Ω at 24V/20mA
<b>Output signal at input failure</b>	< 2 mA	< 2 mA
<b>Over-voltage protection</b>	39 V <sup>(1)</sup>	39 V <sup>(1)</sup>
<b>Input / output isolation</b>	3750 VAC for 1 min	3750 VAC for 1 min

<sup>(1)</sup> Surge Zener diode

<sup>(2)</sup> Gas-discharge arrester

### Accuracy

<b>Total measurement error</b>	0.35% from span
<b>Temperature drift</b>	0.03% from span for 1 °C
<b>Loop supply influence</b>	negligible
<b>Operating conditions</b>	
<b>Ambient temperature</b>	-20...70 °C
<b>Ambient humidity</b>	0...95 %RH, non-condensing
<b>Storage temperature</b>	-40...85 °C
<b>Design and materials</b>	
<b>Case material</b>	plastic
<b>Wiring</b>	screw terminals
<b>Mounting</b>	on 35 mm DIN rail
<b>Dimensions</b>	18x90x58 mm
<b>Weight</b>	50 g
<b>Protection class</b>	IP20

### Ordering code TRIL\*

Code	Feature or option	Code values
*	Variant	0 - passive, 1 - active