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## UNIVERSAL SIGNAL ISOLATOR

### **TRIM** for DIN-rail mounting

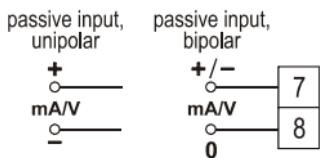
#### OPERATION MANUAL



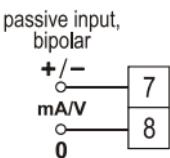
Please read this Operation Manual before mounting and operating!  
Save the Manual for future references!

TRIM is an intelligent triple-isolated transmitter with separate power supply and 1000 VAC isolation level. The input part is internally powered and may generate 24 VDC auxiliary power supply for external devices connected to the TRIM input (current loops, transmitters, etc.). The input accepts various mA, mV, V, as well as resistive linear signals. The output part is internally energized and generates standard or custom-specified linear current or voltage (positive or negative) signals. The signal conversion direction as well as the output state at input failure is user configurable.

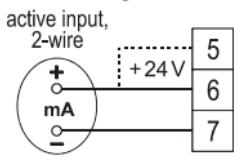
## Mounting and Wiring



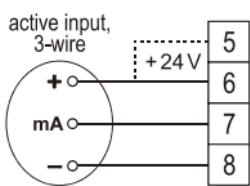
passive input,  
unipolar



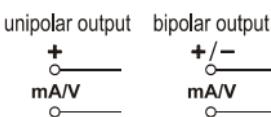
passive input,  
bipolar



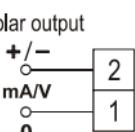
active input,  
2-wire



active input,  
3-wire



unipolar output



bipolar output

### Mounting

TRIM for DIN-rail mounting is designed to be easily mounted on every 35 mm rail conforming to EN50022.

### Wiring

- ◆ Connect the input with regard to its type (see '**Specifications**') via the respective device terminals.



*A passive input must be powered from an external source while an active input may be internally powered from a built-in excitation supply source via terminal 5 or terminal 6 (see '**Specifications**' to find if such is installed).*

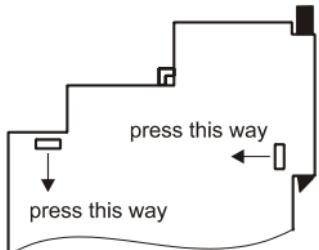
- ◆ Get the output signal from terminals 1 and 2.
- ◆ Connect 10...26 VAC or 12...32 VDC supply voltage via terminals 3(-) and 4(+).
- ◆ In order to minimize measuring errors, make sure the connecting screws are tightened enough.

## Calibration

- ◆ The device is factory calibrated and does not require initial user calibration.
- ◆ It is recommended that the calibration be checked at least once a year as well as after any malfunction and/or repair.



We recommend calibration  
at COMECO CALIBRATING  
LABORATORY.

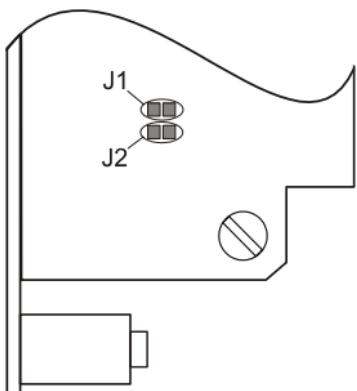


## Case Opening

- ◆ Insert the tip of appropriate screwdriver into the rectangular openings and press as shown.
- ◆ Repeat the above operation from the opposite site of the case.



*After closing the case,  
do not forget to insert  
the two black spring-type brackets.*



## Configuration



*Default configuration:*

- 'direct' conversion;
- 'over-range' output at failure.

- ◆ Open the device case.
- ◆ Find the configuration soldering jumpers J1 and J2 on the PCB.
- ◆ To set 'reverse' conversion, solder J1 pads.
- ◆ To set 'under-range' output state at input failure, solder J2 pads.
- ◆ Close the plastic case.

Input Signal	<input type="checkbox"/> 0...5 mA, <input type="checkbox"/> 0...20 mA, <input type="checkbox"/> 4...20 mA, <input type="checkbox"/> 0...50 mV, <input type="checkbox"/> 0...100 mV, <input type="checkbox"/> 0...1 V, <input type="checkbox"/> 0...2 V, <input type="checkbox"/> 0...5 V, <input type="checkbox"/> 0...10 V, <input type="checkbox"/> -1...1 V, <input type="checkbox"/> -10...10 V, <input type="checkbox"/> 0...1 kΩ <input type="checkbox"/> ..... <input type="checkbox"/> max. 10 Ω, <input type="checkbox"/> min. 1 MΩ, <input type="checkbox"/> min. 1 GΩ, <input type="checkbox"/> .....
Input Impedance	<input type="checkbox"/> .....
Output Signal	<input type="checkbox"/> 0...5 mA, <input type="checkbox"/> 1...5 mA, <input type="checkbox"/> 2...10 mA, <input type="checkbox"/> 0...20 mA, <input type="checkbox"/> 4...20 mA, <input type="checkbox"/> 0...100 mV, <input type="checkbox"/> 0...1 V, <input type="checkbox"/> 0...2 V, <input type="checkbox"/> 0...5 V, <input type="checkbox"/> 1...5 V, <input type="checkbox"/> 0...10 V, <input type="checkbox"/> 2...10 V, <input type="checkbox"/> .....
Maximum Load at Current Output	620 Ω at 24V/20mA
Minimum Load at Voltage Output	1 kΩ (50 kΩ with negative voltage output)
Power Supply	12...24 V
Consumption	max. 100 mA
Excitation Voltage	<input type="checkbox"/> 24 VDC, max. 30 mA
Input / Output / Supply Isolation	min. 1000 VAC for 1 min
Measurement Error	0.1% from span
Temperature Drift	0.01% from span for 1 °C
Ambient Temperature / Humidity	-25...70 °C / 0...95% RH
Protection Class	IP20

## Warranty and Support

.....  
serial number

.....  
manufacturing date

QC check mark .....(passed)  
(stamp)

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QD-8.2.4-WC

### Warranty

COMEKO warrants this product to be free from defects in materials and workmanship for 2 years. If your unit is found to be defective within that time, we will promptly repair or replace it. This warranty does not cover accidental damage, wear or tear, or consequential or incidental loss. This warranty does not cover any defects caused by wrong transportation, storage, installation, or operating (see '**Specifications**').

### Technical support

In the unlikely event that you encounter a problem with your COMECO device, please call your local dealer or contact directly our support team.