

## Specifications

Version (Mounting)

Input Signal

Pt100 (w=1.385)

T/C "B"

T/C "E"

T/C "J"

T/C "K", T/C "N"

T/C "R", T/C "S"

T/C "T"

Input Range

Output Signal

Output Linearity

Sensor Failure Reaction

Power Supply

Output Load (Current)

Output Load (Voltage)

Measurement Error

Self-heating Error

Temperature Drift

Cold-junction Compensation

RTD 3-wire Line Compensation

Operating Temperature / Humidity

Protection Class

Approvals

☐ 'B' (in-head), ☐ 'C' (DIN-rail)  
selectable

min. -200...max. 600 °C

min. 200...max. 1800 °C

min. -20...max. 600 °C

min. -20...max. 900 °C

min. -20...max. 1200 °C

min. 0...max. 1700 °C

min. -40...max. 400 °C

programmable

☐ 0...20 mA, ☐ 4...20 mA, ☐ 0...10 V

fully temperature linearized

downscale or upscale, programmable

☐ 9...36 VDC, ☐ 13...36 VDC

max. 750 Ω at 24V/20mA

min. 1 MΩ

0.3% from span

0.005%/mA at 24 V

0.01% from span for 1 °C

automatic software, ± 0.5 °C

up to 25 Ω per wire

-30...70 °C / 0...95% RH

IP20

CE, UL

v3-01.12



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## 3-WIRE PROGRAMMABLE TRANSMITTER

### TRC3

#### OPERATION MANUAL



## Warranty and Support

.....  
serial number

.....  
manufacturing date

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

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QD-8.2.4-WC

### Warranty

COMECO 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

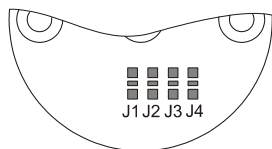
In the unlikely event that you encounter a problem with your COMECO device, please call your local dealer or contact directly our support team.

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

## Overview

TRC3 is a cost-saving programmable 3-wire transmitter with universal input for Pt100 and 8 thermocouples. The device allows on-site selection of the input signal through jumpers or micro switches and fast configuration via serial interface and the "TraCon" software.

## Configuring



Input Type	J1	J2	J3	J4
Pt100				
T/C E, J, K, N				
T/C B, R, S, T				

### Important notes:

- ◆ Make sure the version of the configuration program used supports your device.
- ◆ It is recommended to turn off Transient Filter by setting Gradient = 0. You can program the filter later if needed.

### Input configuration for version 'C'

- ◆ Find the 8-key DIP switch on the right side of the unit.
- ◆ To set the desired input type, adjust the DIP switch keys according to the chart next to them.

### Input configuration for version 'B'

- ◆ Open the plastic cap to expose the 4 soldering jumpers, each of which consisting of 3 solder pads.
- ◆ To set the desired input type, solder the J1 to J4 jumper pads according to the left chart.

### Software configuration

- ◆ Download the latest version of "TraCon" software from [www.tracon.bz](http://www.tracon.bz) and unpack it.
- ◆ Connect TRC3 to power supply as described in 'Wiring'.
- ◆ Connect TRC3 to your PC via the programming connector and the proper communication cable (see [www.comecogroup.com/corp/english/pdf/icables\\_e.pdf](http://www.comecogroup.com/corp/english/pdf/icables_e.pdf)).



With version 'B', plug the cable connector only with its key strictly in the direction illustrated on the wiring diagram!

- ◆ Start "TraCon" configuration software.
- ◆ Select profile type 'C' from 'Configuration' menu and follow the software menus, help and hints to configure the unit.

## Mounting and Wiring



### Important note:

Always use the protective cover to prevent the electronics from getting dirt on the soldering pads as well as getting electrostatic discharge by accidental touch.

### Mounting version 'C'

TRC3 for DIN-rail mounting is designed to be easily mounted on every 35 mm rail conforming to EN50022.

### Mounting version 'B'

- ◆ TRC3 for in-head mounting is designed to be incorporated inside protective heads with 33 mm distance between centers of the female threaded openings.
- ◆ Install the transmitter into the temperature probe head using two M4 screws with appropriate length. To ensure vibration proof, use special screws with springs.
- ◆ Your TRC3 can also be easily mounted on every 35 mm rail conforming to EN50022 by the means of a special snap-on accessory, offered separately.

### Wiring version 'C'

- ◆ Connect the Pt100 or T/C sensor to the transmitter input via terminals 4, 5, and 6, as illustrated on the device front panel.
- ◆ Wire the power supply through terminals 3(+) and 1(-).
- ◆ Get the output between terminals 2(+) and 1(-).

### Wiring version 'B'

- ◆ Connect the Pt100 or T/C sensor to the transmitter input via terminals 1, 2, and 3, as shown on the wiring diagram.
- ◆ Wire the power supply through terminals 4(+) and 6(-).
- ◆ Get the output between terminals 5(+) and 6(-).

