

Specifications

Input:	programmable
Pt RTD1 (w=1.385), 3/4-wire	Pt100 (850 °C), □ Pt500, □ Pt1000 (250 °C)
Cu RTD (w=1.428), 3/4-wire	Cu50/Cu100, -50...150 °C
Ni RTD (w=1.618), 3/4-wire	Ni100 (850 °C), □ Ni500, □ Ni1000 (180 °C)
RTD Minimum Range	10 °C
Thermocouples	T (400 °C), E (1000 °C), J (1200 °C), N (1300 °C), K (1372 °C) S (1768 °C), R (1768 °C), B (1820 °C)
Noble T/C	50 °C (500 °C for noble T/C)
T/C Minimum Range	-10...75 mV, □ -100...100 mV
Linear Voltage	□ -500...500 mV, □ -1000...2000 mV
Linear Resistance	0...400 Ω (min. 10 Ω), 0...2 kΩ (min. 20Ω)
Custom Input	□
Input / Output Isolation	2000 VAC for 1 min
Sensor Failure Reaction	≤ 3.8 mA, ≥ 20.5 mA, programmable
Output	4...20 mA, 2-wire HART
Resolution	0.3 μA
Manual Output Control	0...100%, programmable
Power Supply / Maximum Line Load	7.5...45 VDC / 750 Ω at 24V/20mA
Measurement Error	0.08% from span, typical
Long-term Stability	≤ 0.05% from span for 1 year
Operating Temperature / Humidity	-40...85 °C / 0...90% RH
Protection Class	IP00
Intrinsic Safety (always included)	Ex ia IIC T4 (max. 30 VDC power supply!)

Warranty and Support

..... serial number	Warranty
..... manufacturing date	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').
QC check mark(passed) (stamp)	Technical support
88 Slavyanska Str. P.O.Box 378 Plovdiv 4000, BULGARIA tel: +359 32 646523, 646524 fax: +359 32 634089, 646517 e-mail: support@comeco.org QD-8.2.4-WC	In the unlikely event that you encounter a problem with your COMECO device, please call your local dealer or contact directly our support team.

V1-06.12

HART PROGRAMMABLE TRANSMITTER

TRH

for in-head mounting

OPERATION MANUAL



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

Overview

The intelligent isolated transmitter TRH is a HART programmable 2-wire device with 2000 V in/out isolation level. This model is designed for in-head mounting and allows programming output features as input type and range, output offset and calibration, reaction at sensor failure, fixed output current, digital filter, etc. TRH is intrinsically safe for Ex applications. The transmitter is easy to program via HART modem over the current loop using free configuration software "HartTemp".

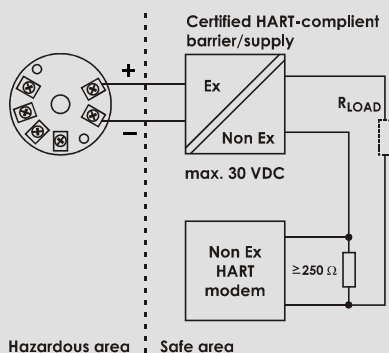
Mounting

- ◆ TRH is designed for mounting inside temperature protective heads with 33 mm mounting distance.
- ◆ Fix the transmitter with two M4 screws with appropriate length. To ensure vibration proof, use special screws with springs.
- ◆ TRH can also be mounted on 35 mm DIN rail using a special snap-on accessory, ordered separately.

Wiring

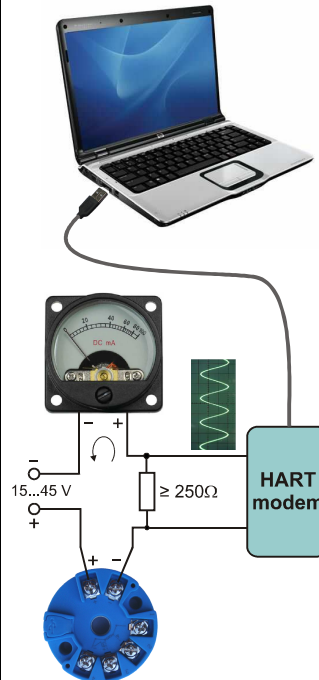


- ◆ To connect sensor or signal to the transmitter universal input, use terminals 1, 2, 3 and 4 in accordance with the wiring diagram on the left.
- ◆ In case of 2-wire resistive input, connect terminals 3 and 4 together.
- ◆ Wire transmitter current output through terminals (+) and (-).
- ◆ For Ex intrinsically safe applications, an appropriate hazardous-to-safe area separation must be used as shown below.



⚠ The total load in current loop is limited!
 $R_{LOAD} \leq (U_{SUPPLY} - 7.5) / 0.022 [\Omega]$

Configuring



- ◆ Download the latest version of "HartTemp" software from www.comeco.org/downloads and unpack it.
- ◆ Connect a HART modem to the current loop and your PC as shown on the left schematic.
- ◆ Turn the loop power on (see 'Specifications').
- ◆ Start "HartTemp" configuration software (version 2.12 or higher).
- ◆ Follow the software menus, help and hints to configure the unit.
- ◆ Consult software help file included in the package for details.

⚠ Unless you want to monitor or trim the loop current, you do not need to connect the mV-meter into the loop.