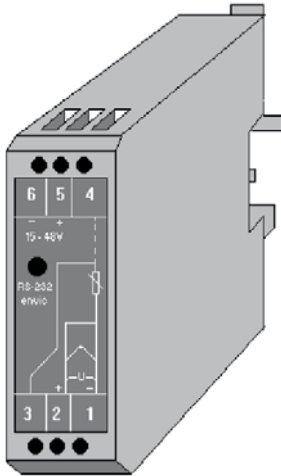


## STM-20 PROGRAMMABLE 2 WIRE TRANSMITTER



The STM-20 is a microprocessor controlled programmable 2 wire transmitter designed for process industry measurements. The output is an electrically isolated 4-20 mA current output. The input may be different temperature sensors such as Pt-100 ohm resistance sensors and different types of thermocouple. In addition program scalable voltage, current and resistance inputs may be used e.g. pressure, humidity, surface height, and other measurements are possible.

Selection of input and output scaling is done with the STM-Com or with the STMPRO4 program and a PC. Settings are stored in the non-volatile memory with calibration coefficients, which are not therefore affected by loss of power. Check of operation and change of scaling can be done without interrupting measurement.

The transmitter performs continuous self-calibration to eliminate aging effects or changes in temperature.

The STM-20 transmitter is mounted on a DIN rail in a plastic enclosure, connections are taken to the screw connectors on the outside of the enclosure.

### TECHNICAL INFORMATION

Input		
Pt-100 ohm	2, 3, 4 wire	-0210.0 ... +0850.0 °C
Resistance	2, 3, 4 wire	0-1000 ohm
Thermocouples	K-type	-0270.0 ... +1360.0 °C
	J-type	-0210.0 ... +1200.0 °C
	S-type	-0050.0 ... +1760.0 °C
	T-type	-0270.0 ... +0400.0 °C
	L-type	0000.0 ... +0900.0 °C
	N-type	-0220.0 ... +1300.0 °C
	R-type	-0050.0 ... +1760.0 °C
B-type	0400.0 ... +1820.0 °C	
Voltage		+/-1000 mV
Output	Range	4-20 mA linear
	Isolation	500 VAC input/output
	Over ranging	selectable 4mA or 20mA
	Load	15...48V / 200...1500 ohm
	D/A-conversion	resolution 2uA
	Linearisation	output non linearity <0.025%
Surroundings	Temp. effect	< 0.005%/°C
	Op. temperature	0...60°C
	Storage temp.	-40...+90°C
Other		
Supply voltage	15 - 48 VDC	
Construction	DIN rail mounting plastic enclosure, dimensions 22.5 x 75 x 90 mm	
Isolation	500 VAC electrical separation input/output	
Precision	0.1 % of the range	

### ORDERING INFORMATION

<b>STM-20</b>	Programmable 2 wire transmitter rail attachment
<b>S3.PROG</b>	PC program diskette for STM-20 transmitters

### PROGRAMMING PC

STMpro version 4.00  
Copyright (c) Envic Oy  
1991 - 1996 Turku  
FINLAND

**Menu Keys**

Start: ENTER  
Choose: ja  
Help: F10  
Quit: ESC

**Main Menu**

- Sensor Pt-100 2 wire
- Sensor Pt-100 3 wire
- Sensor Pt-100 4 wire
- Sensor resistance 2 wire
- Sensor resistance 3 wire
- Sensor resistance 4 wire
- Sensor voltage -1...+1V**
- Sensor thermocouple B
- Sensor thermocouple J
- Sensor thermocouple K
- Sensor thermocouple L
- Sensor thermocouple N
- Sensor thermocouple R
- Sensor thermocouple S
- Sensor thermocouple T
- Cold junction compensation
- Sensor fault detection

Meas. result: +0001.4  
Sensor: Voltage  
Output 04.05 mA

STMpro4 program and PC allows selection of transmitter input, scaling of output range, definition of over ranging, sensor fault message, performing calibration and reading of measurement values.

### CONNECTIONS

