

SRC-T1

Indoor Temperature Transmitter

Features

- Indoor temperature measurement
- Minimum and maximum value memory
- 0...10V, 0...20mA or 2...10V, 4...20mA measuring signals selectable with jumpers
- Optional alternative signal ranges programmable
- Selectable averaging signal
- Optional external display (OPA-S)
- Status LED

Applications

- Indoor temperature measurement in heating, ventilation and air conditioning applications.
- Recording of minimum and maximum values for critical environments
- Supervision of critical temperatures



Temperature transmitter

The transmitter measures the temperature by the use of a precision sensing element. The microprocessor samples the temperature once per second. It calculates an averaging signal over a preset number of seconds and generates an output signal based on lower and upper signal range values. Standard range is -40...60°C (-40...140°F) and 10 seconds average. The measuring range and the averaging samples may be customized with the programming tool. Standard output signal range and types may be selected by jumpers. Standard signal ranges are: 0...10 VDC, 0...10 VDC, 4...20 mA and 0...20 mA. Other ranges can be defined by using a programming tool (OPA-S).

Minimum and maximum values:

Using the programming tool, the user has the option to read out and reset minimum and maximum values. The minimum and maximum values may as well be used as output signals. The minimum and maximum values are saved into the EEPROM and are available after a power interruption.

Ordering

Item Name	Item Code	Description/Option
SRC-T1	40-30 0058	Temperature transmitter
SRC-T1-W0	40-30 0058-0	0 Temperature Range: -40...60°C (-40...140°F) (Default)
SRC-T1-W1	40-30 0058-1	1 Temperature Range: -35...35°C (-31...95°F)
SRC-T1-W2	40-30 0058-2	2 Temperature Range: 0...50°C (32...122°F)
SRC-T1-W3	40-30 0058-3	3 Temperature Range: Special – Specify in order

Accessories

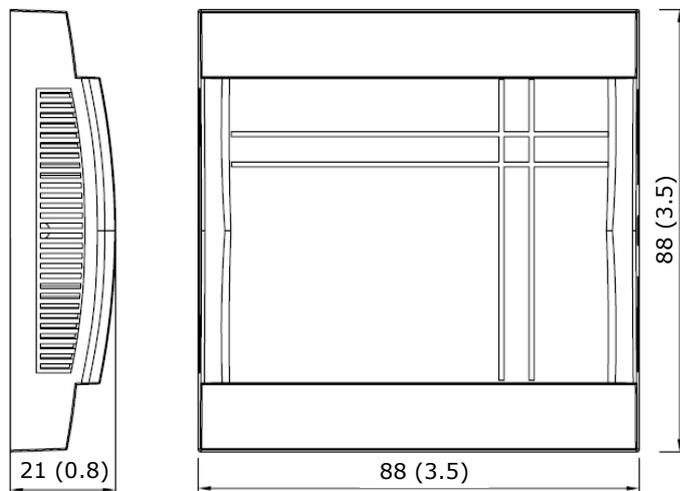
Item Name	Item Code	Description/Option
OPA-S	40-50 0006	External display module

Technical Specification

Warning! Safety advice! This device is intended to be used for comfort applications. Where a device failure endangers human life and/or property, it is the responsibility of the owner, designer and installer to add additional safety devices to prevent or detect a system failure caused by such a device failure. The manufacturer of this device cannot be held liable for any damage caused by such a failure. Failure to follow specifications and local regulations may endanger life, cause equipment damage and void warranty.

Power Supply	Operating Voltage	24 V AC 50/60 Hz \pm 10%, 24VDC \pm 10%	
	Transformer	SELV to HD 384, Class II, 48VA max	
	Power Consumption	Max 2 VA	
	Terminal Connectors	For wire 0.34...2.5 mm ² (AWG 24...12)	
Sensing Probe	Accuracy:		
	0...50°C (32...122°F):	0.2 K	
	50...60°C (122...158°F):	0.5 K	
allow one hour after power up for compensation swing in			
Signal Outputs	Analog Outputs		
	Output Signal	DC 0-10V or 0...20mA	
	Resolution	10 Bit, 9.7 mV, 0.019.5 mA	
	Maximum Load	Voltage: \geq 1k Ω Current: \leq 500 Ω	
Environment	Operation	To IEC 721-3-3	
	Climatic Conditions	class 3 K5	
	Temperature	0...60°C (32...140°F)	
	Humidity	<95% R.H. non-condensing	
	Transport & Storage	To IEC 721-3-2 and IEC 721-3-1	
	Climatic Conditions	class 3 K3 and class 1 K3	
	Temperature	-40...70°C (-40...158°F)	
	Humidity	<95% R.H. non-condensing	
Mechanical Conditions	class 2M2		
Standards		conformity	
		EMC Directive	2004/108/EC
		Low Voltage Directive	2006/95/EC
	Product standards Automatic electrical controls for household and similar use	EN 60730-1	
	Electromagnetic compatibility for domestic and industrial sector	Emissions: EN 60 730-1 Immunity: EN 60 730-1	
	Degree of Protection	IP30 to EN 60 529	
	Safety Class	III (IEC 60 536)	
General	Housing Materials	Cover	Fire proof ABS plastic
		Mounting Plate	Galvanized Steel
	Dimensions (H x W x D)		21 x 88 x 88 mm (0.8 x 3.5 x 3.5 in)
	Weight (including package)		160 g (5.6 oz)

Dimensions mm (inch)



Mechanical design and installation

The unit consists of two parts: (a) The mounting plate and (b) the cover with the transmitter.

Mounting location

Mount the transmitter on a flat interior wall of the room to be controlled. Do avoid obstructions such as shelves, curtains and recesses. Do not place near heat sources, draft channels. Do not expose to direct sunlight.

Mounting instruction

See installation sheet no. 70-000568 (www.vectorcontrols.com).

Configuration

The transmitter can be adapted to fit perfectly into any application by adjusting the software parameters. The parameters are set with the operation terminals OPA-S. The OPA-S may also be used as remote indicator.

Input configuration

Parameter	Description	Range	Default
IP 00	TI1: Celsius or Fahrenheit, C = OFF, F = ON	ON, OFF	OFF
IP 01	TI1: Samples taken for averaging control signal	1...255	10
IP 02	TI1: Calibration	-10...10	0
IP 03	TI1: Minimum temperature	-40...215 °C/F	0 °C
IP 04	TI1: Maximum temperature	-40...215 °C/F	50°C

Output configuration

Parameter	Description	Range	Default
OP 00	AO1: Configuration of output signal: 0 = Feedback temperature input, 1 = Feedback temperature minimum value 2 = Feedback temperature maximum value	0 - 2	0
OP 01	AO1: Minimum limitation of output signal	0 - Max %	0%
OP 02	AO1: Maximum limitation of output signal	Min - 100%	100%

Output signal configuration

The analog output signal type may be configured with a jumper for 0-10 VDC or 0-20 mA control signals. The jumpers are located next to the terminal connector of each analog output. See table below for jumper placement. The factory setting is to 0-10 VDC.

Signal Type	JP1
0 - 10 V	(1-2)
0 - 20 mA	(2-3)

The signal range may be set with JP3 for both analog outputs. JP3 will only operate if the output range specified with OP01 and OP02 is left at the default position of 0...100%. With any other setting the position of JP3 has no influence and the range defined with the output parameters applies.

Signal Range	JP3
0 - 10 V, 0 - 20 mA	(1-2)
2 - 10 V, 4 - 20 mA	(2-3)

Jumper Settings

