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	40-300058	Temperature transmitter	
SRC-T1-W0	40-300058-0	**0**	**Signal range: -40…60°C (-40…140°F) (Default)**
SRC-T1-W1	40-300058-1	1	Signal range: -35…35°C (-31…95°F)
SRC-T1-W2	40-300058-2	2	Signal range: 0…50°C (32…122°F)
SRC-T1-W3	40-300058-3	3	Signal range: Special – Specify in order

Accessories

Item Name	Item code	Description/Option
OPA-S	40-500006	External display module

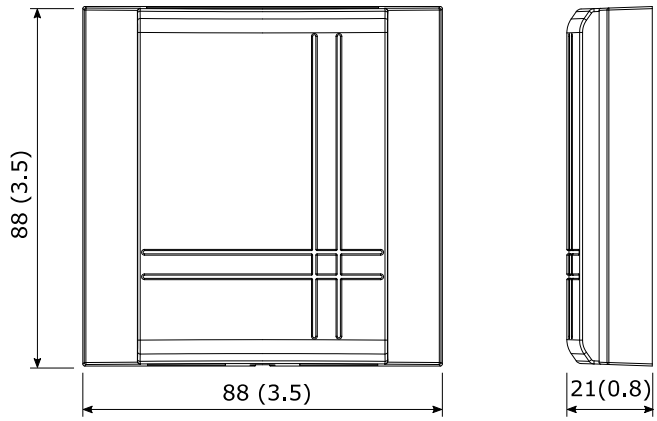
Technical Specifications

Important notice and safety advice

This device is for use as a temperature transmitter. It is not a safety device. Where a device failure could endanger human life and property, it is the responsibility of the client, installer and system designer to add additional safety devices to prevent such a device failure. Ignoring specifications and local regulations may cause equipment damage and endangers life and property. Tampering with the device and misapplication will void warranty.

Power supply	Operating Voltage Transformer	24 VAC 50/60 Hz ± 10%, 24VDC ± 10% 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): 50…60°C (122…158°F):	 0.2 K 0.5 K
	Note on accuracy: allow one hour after power up for compensation swing in	
Signal outputs	Analog Outputs Output Signal Resolution Maximum Load	 DC 0-10V or 0…20mA 10 Bit, 9.7 mV, 0.019.5 mA Voltage: ≥1kΩ Current: ≤500Ω
Environment	Operation Climatic Conditions Temperature Humidity	To IEC 721-3-3 class 3 K5 0…60°C (32…140°F) <95% R.H. non-condensing
	Transport & Storage Climatic Conditions Temperature Humidity Mechanical Conditions	To IEC 721-3-2 and IEC 721-3-1 class 3 K3 and class 1 K3 -40…70°C (-40…158°F) <95% R.H. non-condensing class 2M2
Standards	CE conformity EMC Directive Low Voltage Directive	 2014/30/EU 2014/35/EU
	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 Mounting Plate	Fire proof ABS plastic Galvanized Steel
	RoHS compliant according to	2011/65/EU
	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)

Dimension mm (inch)



Mounting location

- On a flat, easily accessible inner wall
- The following installation locations should be avoided:
  - Protect from direct exposure to sunlight
  - Do not install near heat sources, e.g. radiators or other heat-generating devices
  - Air storage spaces and niches, e.g. behind doors or shelves
  - Outside walls insufficiently insulated
  - In the direct sphere of influence of ventilation openings and fans

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

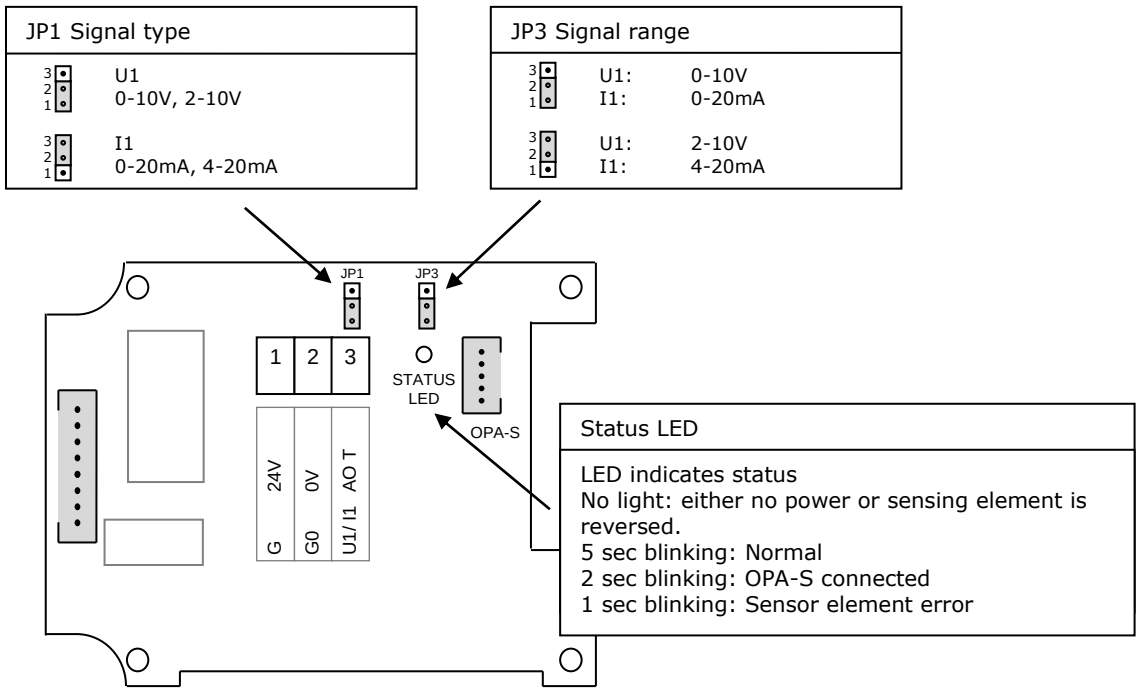
The analog output signal type may be configured with a jumper for 0-10 VDC or 0-20 mA control signals. The jumpers are located next to the terminal connector of each analog output. See table below for jumper placement. The factory setting is to 0-10 VDC.

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



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