OPU-S, Operation terminal for active sensors

Features
- Display sensor values according to real values not voltage signals
- Access to programmable configuration parameters
- Display of actual voltage or current outputs on vertical bar
- Available in various designs and materials.
- Surface mounting or hand held

Functions
- Configuration and operation of active sensors controllers
- Remote supervision (communication distance over 50 m)

Ordering

Item Name	Item Code	Description/Option
OPU-S	40-50 0030	Built in display & programming module

Products that work with OPU-S

Item Name	Description/Option
SDA-Series SDA-T1, SDA-H1, SDA-H1T1, SDA-H1T SDA-P	Humidity / temperature transmitters for air ducts Differential pressure transmitter
SDC-Series SDC-T1, SDC-H1, SDC-H1T1, SDC-H1T SDC-C1	Humidity / temperature transmitters for air ducts CO2 transmitters for air ducts
SOA-Series SOA-T1, SOA-H1, SOA-H1T1, SOA-H1T	Outdoor humidity / temperature transmitters
SOC-Series SOC-T1, SOC-H1, SOC-H1T1, SOC-H1T	Outdoor humidity / temperature transmitters
SRA-Series SRA-T1, SRA-H1, SRA-H1T1, SRA-H1T	Indoor humidity / temperature transmitters
SRC-Series SRC-T1, SRC-H1, SRC-H1T1, SRC-H1T SRC-C1	Indoor humidity / temperature transmitters / Indoor CO2 transmitters

Error messages
The OPU-S may display the following error conditions:

Err1: Communication Error. Verify wiring. Make sure data lines are not mixed up or interrupted. Make sure the wire used is according to standards (See below) and no strong interference is present if unshielded cables are used.

Err2: Faulty temperature sensor. The temperature sensor may be damaged or not present.

Connection to Sensors
1. Install the mounting plate straight to the wall or the flush mounting box. Make sure that the nipple with the front holding screw is facing to the ground. Make sure the screw heads do not stand out more than 5 mm of the surface of the mounting plate.
2. Connect the wires of the terminals to the communication wires according wiring diagram
3. Slide the two latches located on the top of the front part into the hooks of the mounting plate.
4. Lower the front part until located flat on the wall and the mounting plate is not visible anymore. Make sure the connection cable does not get into the way.
5. Tighten the front holding screw to secure the front part to the mounting plate.

Operation of the OPU-S

Standard Display:
Single input transmitters: The current, minimum or maximum value is shown in the large digits. The small digits indicate the active input. (IN 1). The vertical bar on the right side indicates the actual output voltage or current in 10% steps.
Combination transmitters: The idle display mode is active if no key has been pressed during the previous 30 seconds. The current temperature (IN 1) is displayed in the large digits and the humidity or pressure (IN 2) is displayed in the small digits. Pressing the RIGHT key will step through available sensor inputs. Indicating the current, minimum or maximum value in the large digits and indication of input number in the small digits and the output signal in the vertical bar.

Indication and reset of minimum and maximum values
Activate the desired transmitter for dual transmitter by pressing the RIGHT key. Press UP to display Maximum values, press DOWN key to display minimum values.
Resetting minimum or maximum values: Pressing either UP or DOWN keys for longer than 3 seconds while the minimum or maximum values are displayed.

Configuration parameters

The SRC, SDC and SOC *intelligent* transmitters can be adapted to fit perfect into your application. The preparation of the sensing signal is defined by parameters.
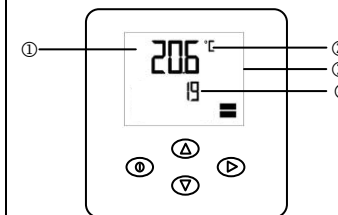The parameters are password protected. The parameters can be changed as follows:
1. Press UP and DOWN key simultaneously for three seconds. The display will indicate CODE.
2. Select a password using UP or DOWN keys. Dial **09** in order to get access to the configuration parameters. Press the RIGHT key after selecting the correct password.
3. Once logged in, choose IP for input configuration or OP for output configuration using UP or DOWN. Press the RIGHT key after selection.
4. The parameters are now displayed. The small digits show the parameter number, the large one its value.
5. Select the parameters with the UP/DOWN keys. Change a parameter by pressing the RIGHT key. The MIN and MAX symbols show up and indicate that the parameter may be modified now. Use UP and DOWN key to adjust the value.
6. After you are done, press RIGHT or LEFT key in order to return to the parameter selection level.
7. Press the LEFT key again so as to leave the menu. The unit will return to normal operation if no key is pressed for more than 5 minutes.
8. The parameters and its values depend on the transmitter. Please use the respective datasheet for the list of parameters.

Technical Specification

Power Supply	Operating Voltage	5 V DC 5%
	Power Consumption	Max 1 VA
	Electrical Connection	Pre-wired with plug
Communication	Communication Type Cable Type Max Distance	VPP (Vector Proprietary Protocol) Twisted pair 4 x 0.5…2.5 mm^2, shielded. Shielded > 50 m
Display (LCD)	Actual values and setpoint Resolution value < 1000 Resolution value > 1000 Digital Signals	4 digits 0.1 1 ON, OFF
Environment	Operation Climatic Conditions Temperature Humidity	To IEC 721-3-3 class 3 K5 0…50 °C (32…122 °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 -25…70 °C (-13…158 °F) <95 % r.H. non-condensing class 2M2
Communication	Communication Type Cable Type Max Distance	Peer to Peer Twisted pair 0.5mm^2, max 400 pF capacity Unshielded <20 m, Shielded <50 m
Standards	conform according to EMC Standard 89/336/EEC EMEI Standard 73/23/EEC	EN 61 000-6-1/ EN 61 000-6-3
	Product standards Automatic electrical controls for household and similar use Special requirement on temperature dependent controls	EN 60 730 –1 EN 60 730 – 2 - 9
	Degree of Protection	IP30 to EN 60 529
	Safety Class	III
General	Dimensions (H x W x D)	112 x 73 x 15 mm (4.4 x 2.9 x 0.7 in)
	Housing Material	Fire proof ABS plastic (UL94 class V-0)
	Mounting Plate	Zinc coated steel
	Standard Color	White RAL 9003
	Weight (including package)	140 g (4.9 oz)

Display and Keys

Legend:
1: 4-digit display of current value, Minimum, Maximum or control parameter
2: Unit of displayed value, °C, °F, % or none
3: Vertical display of output or input signal with a resolution of 10%
4: 4-digit display of current value or control parameter

Operation Keys:

LEFT key:	Exit from parameter menu	
UP key:	Display Maximum values, Press for more than 2 seconds resets Maximum value	
DOWN key:	Display Minimum values, Press for more than 2 seconds resets Minimum value	
RIGHT key:	Select transmitter, For transmitters with more than one input.	

Dimensions [mm] (in)

73 (2.9)   15 (0.6)"
112 (4.4)
OPU

Subject to alteration