Features

- Ranges
  AVT 2: 0-5 m/s, 0-10 m/s, 0-15 m/s or 0-20 m/s
  AVT 5: 0-1 m/s, 0-2 m/s, 0-3 m/s or 0-5 m/s
  jumper selectable
- Accuracy Air Velocity
  ± 5 % for all ranges
- Outputs for Air Velocity and Temperature
  0-10 Vdc, 4-20 mA etc (see ordering)
- Power supply 24 Vac/dc
- IP ratings
  IP65 for enclosure
  IP10 for probe

Options:

- Modbus RS485 communication
- LCD Display 12x2
- Relay output, user can set any level

Applications

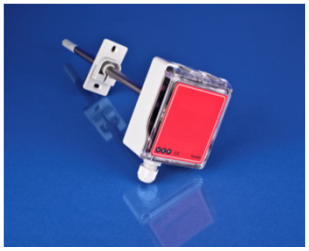
- HVAC supply or extract air measuring
- Clean room monitoring and control etc

Ordering codes

Type	Range	Air Velocity Output	Temperature Output	"Options"	Temp. options
AVT	2 = 0-5 m/s 0-10 m/s 0-15 m/s 0-20 m/s 5 = 0-1 m/s 0-2 m/s 0-3 m/s 0-5 m/s	0 = no output 1 = 0-10 Vdc 2 = 2-10 Vdc 3 = 0-5 Vdc 4 = 1-5 Vdc 5 = 4-20 mA F = 0-10 Vdc or 4-20 mA field selectable	0 = no output 1 = 0-10 Vdc 2 = 2-10 Vdc 3 = 0-5 Vdc 4 = 1-5 Vdc 5 = 4-20 mA F = 0-10 Vdc or 4-20 mA field selectable T = PT/NTC type sensor	M = Modbus RS485 D = LCD display R = Relay	T1 = -30 to +70°C T2 = 0 to +50°C T3 = 0 to +100°C T4 = PT100 T5 = PT1000 T6 = NTC 1.8K T7 = NTC 10K T8 = NTC 20K

Ordering examples

AVT 2FF
Air Velocity and Temperature transmitter
- Ranges 0-5 m/s, 0-10 m/s, 0-15 m/s or 0-20 m/s, jumper selectable
- Selectable AV output 0-10 Vdc or 4-20 mA



AVT 2FF

AVT 2FF MDR
Air Velocity and Temperature transmitter
- Ranges 0-5 m/s, 0-10 m/s, 0-15 m/s or 0-20 m/s, jumper selectable
- Selectable AV output 0-10 Vdc or 4-20 mA
- Selectable Temp output 0-10 Vdc or 4-20 mA
- Modbus RS485 communication
- LCD Display 12x2
- Relay output, user can set any level

AVT 2FF MDR

Notes

For a fine temperature measurement air velocity should be higher than 1 m/s.

Relay option to be ordered with LCD or Modbus option

Technical data

Electrical	Power Supply	24 Vac (± %5), 50-60 Hz 14-35 Vdc
	Power Consumption	< 2.5 W
Outputs	Current Output	4-20 mA, maximum 500 Ω
	Voltage Output	0-10 Vdc, minimum 1.000 Ω 4-20 mA and 0-10 Vdc is jumper selectable
	Relay Output	max. rating 1A @ 220 Vac
Accuracy	Air Velocity	± 5 % for all ranges
	Temperature	0.5°C at min 1 m/s
General Data	Sensing Element	Hotwire PT1200
	Media	Air or non-aggressive gasses
	Operating Temperature	-25 to +70°C
	Storage Temperature	-30 to +85°C
Ranges	Air Velocity	
	AVT 2	0-5 m/s 0-10 m/s 0-15 m/s 0-20 m/s
	AVT 5	0-1 m/s 0-2 m/s 0-3 m/s 0-5 m/s
	Temperature	-30 to +70°C 0 to +50°C 0 to +100°C PT100 PT1000 NTC 1.8K NTC 10K NTC 20K
Connections	Terminals	Pluggable screw terminal
	Cable	maximum 1.5mm2
	Cable Gland	M16
Protection	Enclosure	IP65
	Probe	IP10
Standards	EMC Directive	EN 61326-1
	CE Conformity	CE1708
Dimensions	Enclosure	98.0 x 81.5 x 45.5 mm
	Probe	dia 12 mm x 255 mm
Weight Packed	400 grams	

Output Jumpers

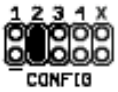
1.. There is no output jumper for the fixed output types
2.. Please check if there is any special Jumper Instruction in the enclosure
3.. Range Jumpers for AO1 and AO2 have same specifications

AO1	Output 1
no jumpers	fixed at the factory *according to your request*
	0…10V *jumper selection*
	4…20mA *jumper selection*

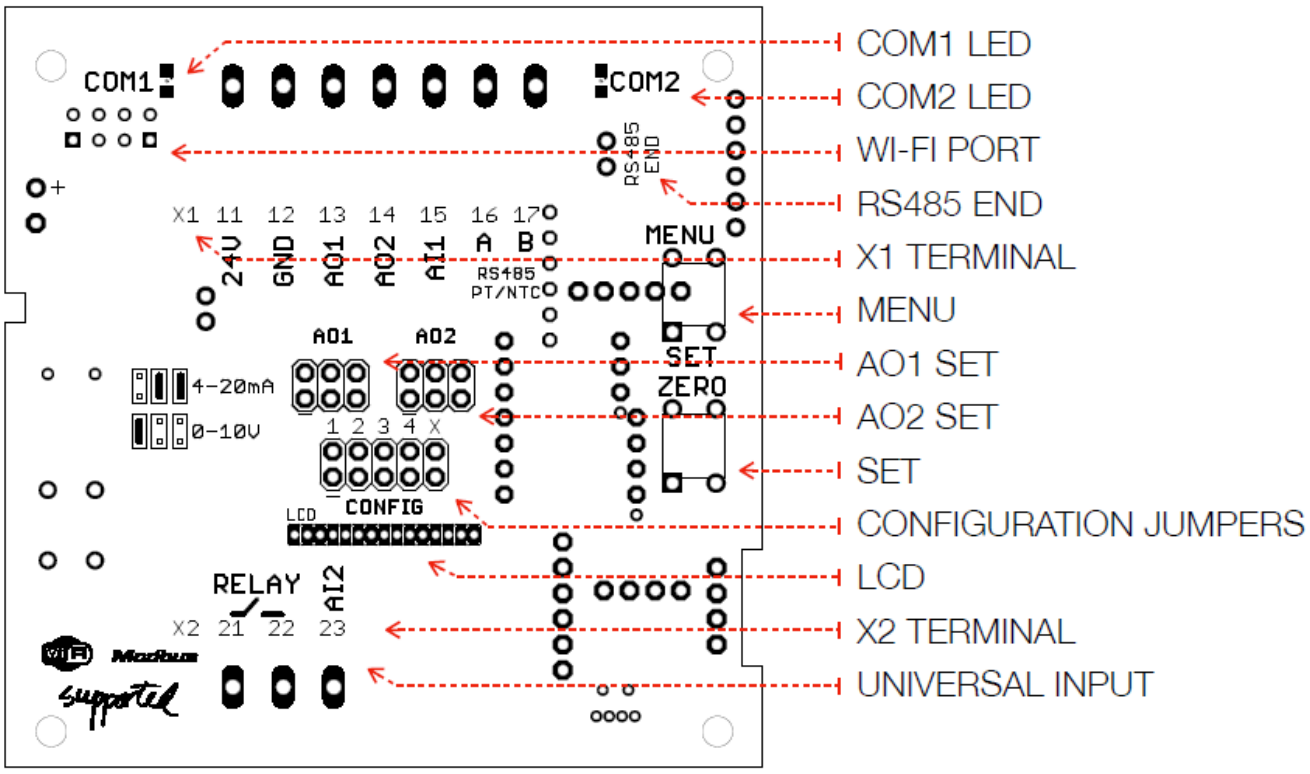
AO2	Output 2
no jumpers	fixed at the factory *according to your request*
	0…10V *jumper selection*
	4…20mA *jumper selection*

CONFIG Jumpers

1.. Never use the jumper X at CONFIG..!
2.. Please check if there is any special Jumper Instruction in the enclosure
3.. There is no jumper for fixed range model.

RANGE	Air Velocity	Temperature
	0…5 m/s	0…100 °C
	0…5 m/s	-30…70 °C
	0…10 m/s	0…100 °C
	0…10 m/s	-30…70 °C
	0…15 m/s	0…100 °C
	0…15 m/s	-30…70 °C
	0…20 m/s	0…100 °C
	0…20 m/s	-30…70 °C

Hardware


COM1
COM2
RS485 END
X1 11 12 13 14 15 16 17
24V GND AO1 AO2 AI1 A B
RS485 PT/NTC
MENU
SET
ZERO
AO1
AO2
4-20mA
0-10V
1 2 3 4 X
CONFIG
LCD
RELAY
AI2
X2 21 22 23
COM1 LED
COM2 LED
WI-FI PORT
RS485 END
X1 TERMINAL
MENU
AO1 SET
AO2 SET
SET
CONFIGURATION JUMPERS
LCD
X2 TERMINAL
UNIVERSAL INPUT

Definitions

COM1 LED without relay option, Bead LED, ON for one period, OFF for one period with relay option, shows the relay position, lights when contact is closed (X2:21-22)

COM2 LED modbus communication LED, blinks when there is communication

Wi-Fi PORT wi-fi port, it is an advanced option, please contact us for more details

RS485 END modbus ending jumper to connect internal 120ohm resistor to the RS485 line

X1 TERMINAL

11	power	14-35 Vdc or 24 Vac (± %5, 50-60 Hz)
12	GND	ground for power and reference for outputs and inputs
13	output 1	analog output for main measurement
14	output 2	analog output for other measurement or duplicated output1 for third party devices
15	input 1	universal input for nearby passive field devices
16	A modbus	modbus communication positive pair
17	B modbus	modbus communication negative pair

MENU BUTTON press and wait to enter MENU, click to navigate between sub menus one by one after all parameters turns back to main screen

AO1 & AO2 SET output set as 0-10 Vdc or 4-20 mA with jumpers, only for output selectable products, for the fixed output models there is no jumpers, please be sure about the output type and electrical connections

SET BUTTON click to change parameters, parameters are automatically set while exiting menu

CONFIGURATION JUMPERS jumpers to set output range and delay time
please refer to the “jumper reference” sticker on PCB or inside of cover

CAUTION **never use jumper X..!**

LCD 12x2 LCD for monitoring and setting parameters

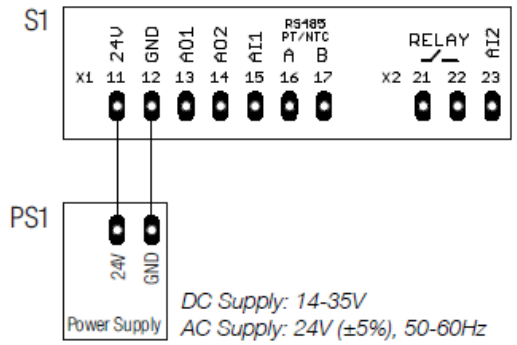
contrast	adjust the contrast from MENU for a better performance
brightness	adjust the brightness from MENU for a better performance

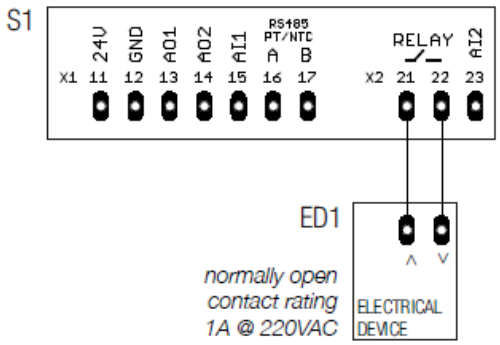
X2 TERMINAL

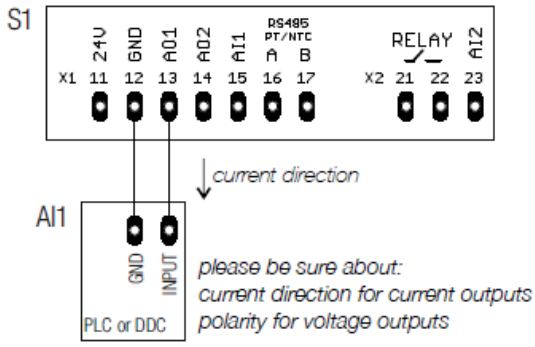
21	NO contact	relay dry contact max. rating 1A @ 220 Vac
22	NO contact	relay dry contact max. rating 1A @ 220 Vac
23	input 2	universal input for nearby passive field devices

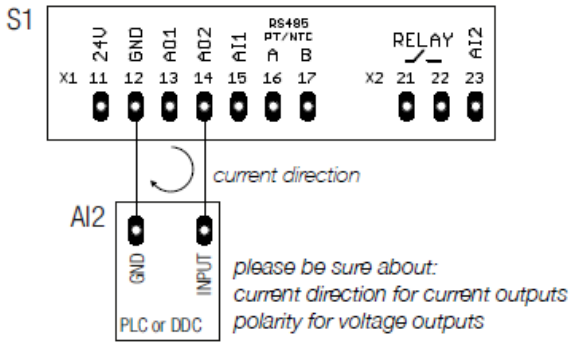
UNIVERSAL INPUT universal inputs (X1:15 and X2:23) can be digital input as dry contact or analog input as NTC10k, PT1000, 0-10 Vdc or 0-5 Vdc.
universal input is an advanced option, please contact us for more details

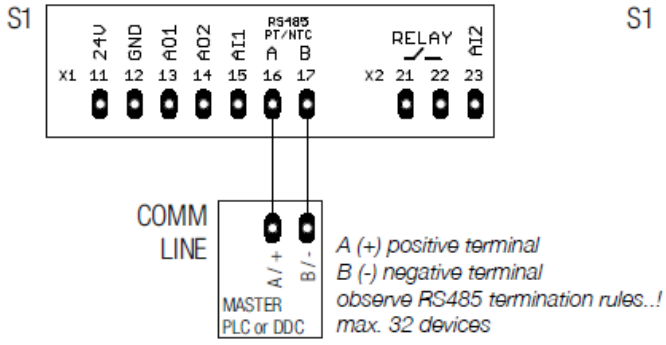
Electrical connection

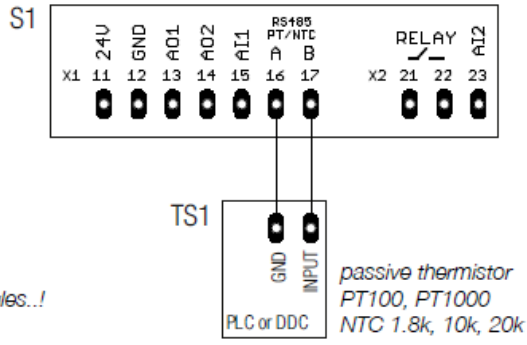


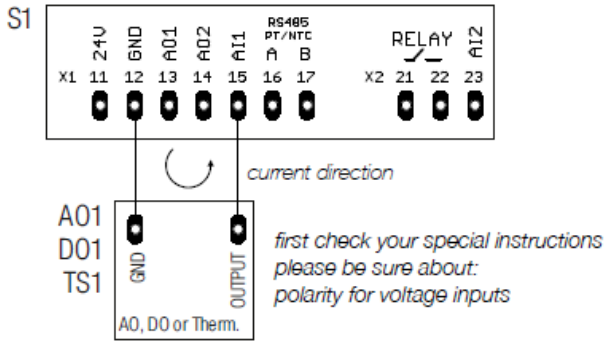


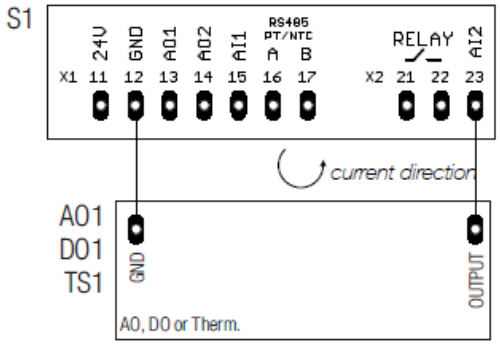




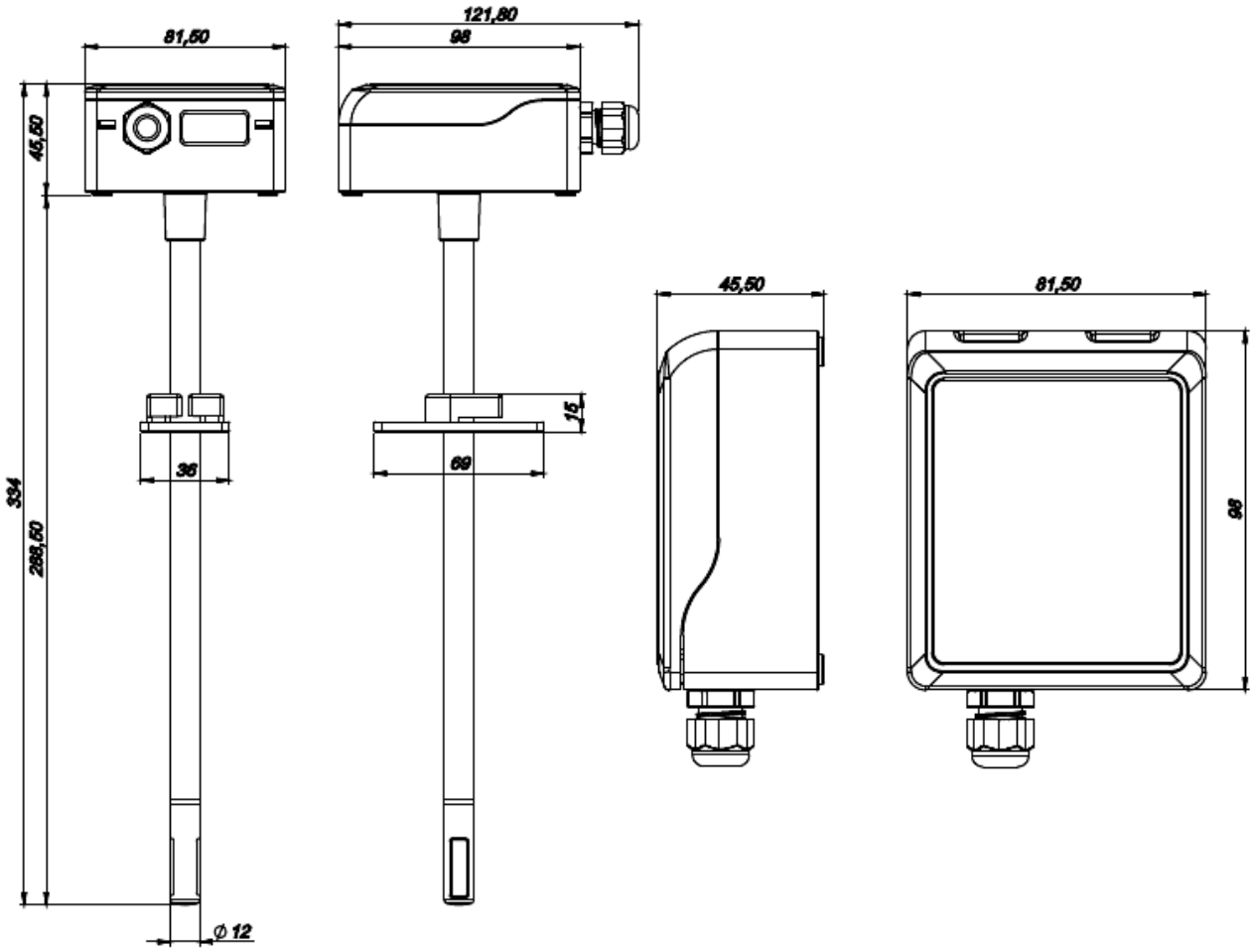








Dimensions (mm)



General Notes

High density humidity may effect the reading.

Observe maximum permissible cable lengths.

If cable runs parallel to the mains cable: Use shielded cables.

Never test AVT with flammable gasses.

The cable entry of AVT always should have to be pointing downwards.

The data indicated under ‘Technical Data’ apply only to vertically mounted AVT.

AVT should be far away from humidifiers, min. 2 meters.