

Y-CASE HUMIDITY AND TEMPERATURE TRANSDUCERS



Y-Case Humidity and Temperature Transducers RS485 use RS485 interface for data transfer. This wired interface allows to connect consistently up to 30 probes using a single cable line. The transducer is connected to RS485 by 5-wired scheme. It's recommended to use FTP 5e cable for networking. RS485 connection is carried out by a sealed thread M12 connector with an internal terminal block (no soldering). It allows to dismount the transducer easily, when it requires verification or calibration. The transducer is supplied with junction box CP-06 and its power supply.

Transducer's power supply is set up inside of CP-06, as well as the terminal block for easy arrangement of RS485 input and output cables. The transducer may have several sensors depending on a model. A humidity and temperature built-in SHT31 sensor is placed inside of transducer's case (2-16 and 2-17 models). In addition, it's available to connect an external temperature analogue Pt1000 temperature probe with a sealed thread M8 connector for 2-17 model, and two external temperature probes via non-sealed thread M5 connectors for 2-16 model. 2-16 and 2-17 models is supplied with magnets and mounting board with screws to mount it easily on the vertical surface.

TECHNICAL SPECIFICATIONS

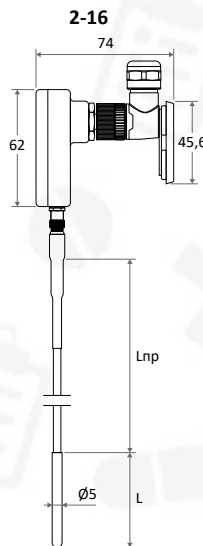
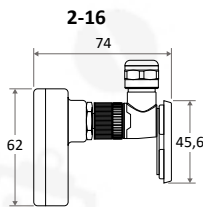
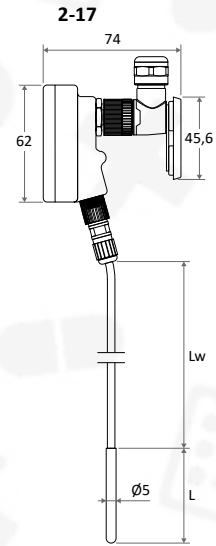
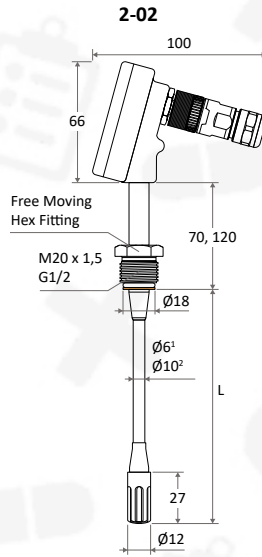
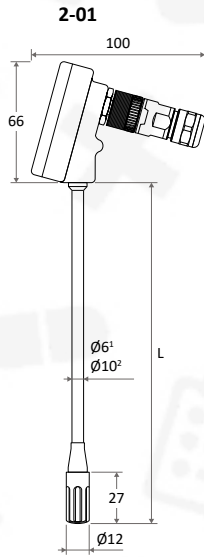
Model Name	2-01	2-02	2-16	2-17
Specifications of Transducer				
Number of Channel	2		2, 4	3
Available channel configuration ¹	EHT		IHT, IHT + 2ET	IHT + ET
Output Signal	RS485, T-bus Protocol or Modbus RTU			
Indication	OLED 0.96", resolution is 128x64 pixels, display by pressing a button			
RS485 Connection	Via junction box CP-06 and M12FA or M12FD connector (IP67)			
Magnetic Holder	N/A			Vertical
Operating Temperature, °C	-30...60			
Specifications of Internal Humidity and Temperature Sensor				
Sensor Curve	SHT31			
Operating Temperature / Humidity Range	-20...60 °C / 0...100% (at temp. 0...60 °C)			
Accuracy	0,5 °C / ≥ 4% (0...10% and 90...100%), 3% (10...90%)			
Response Time, min	4 / 12 (air, V=0 m/sec)			
Specifications of External Humidity and Temperature Probe / External Temperature Probe				
Sensor Curve	SHT31		Pt1000	Pt1000 XA (K)
Operating Temperature / Humidity Range	-30...120 °C / 0...100%		-196...100, -50...100, -50...250, -50...500	-196...100, -50...100, -50...250, -50...500 0...250, 0...500, 0...850, 0...1250
Accuracy	0,5 °C (up to 100 °C), 0,8 °C (100...120 °C) / ≥ 4% (0...10% and 90...100%), 3% (10...90%)		± (0,4 + 0,002 x T ²)	± 2,5 (до 375 °C) or ± 0,0075 x T ² (over 375 °C)
Transducer Connection	N/A		M5 (IP52)	M8 (IP67)
Response Time for Temperature, min	4 (air, V=0 m/sec)		Determines by a chosen external probe	
Response Time for Humidity, min	12 (air, V=0 m/sec)			
Thermowell Material	Steel 321 & polyamide			
Hex Fitting M20 x 1,5	N/A Free Moving			
Immersion Length, mm	100, 120, 160, 200, 250			
Thermowell / Filter Diameter, mm	Ø6 / Ø12			
Specifications of Junction Box CP-06				
Input Power Supply	12-24 V DC			
Output Power Supply for Transducer	5 V DC			
RS485 Connection	Via PG7 cable gland using terminal block on junction box microcircuit			
Transducer Connection	Using M12FA or M12FD connector (IP67) and FTP 5e cable length by 300 mm			

¹ - ET - external temperature probe, 2ET - two external temperature probes, IHT - internal humidity and temperature probe, EHT - external humidity and temperature probe.

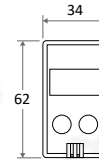
² - T - value of operating temperature, that accuracy is calculating for.

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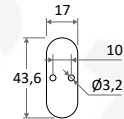
DIMENSIONS



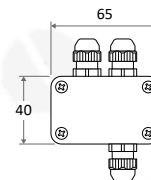
FRONT VIEW



MOUNTING BOARD



JUNCTION BOX CP-06

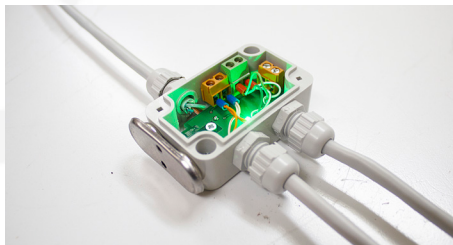


¹ - Immersion length is up to 500 mm.
² - Immersion length is over 500 mm.

FEATURES



Rechangeable external filter of a humidity & temperature sensor



Junction box with a magnetic holder



External temperature probe with a connector



Internal humidity & temperature sensor in transducer's case



Vertical magnetic holder with a mounting board

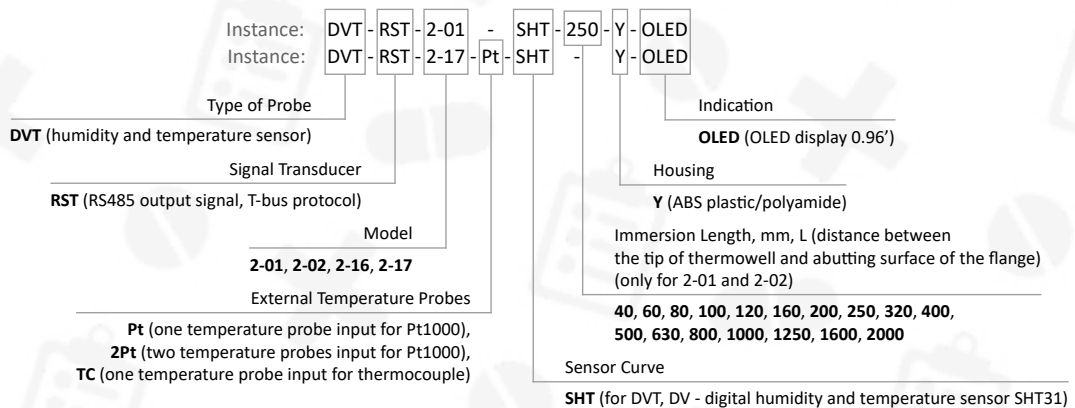


M12 connector for quick RS485 connection with a transducer

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ORDER INFO

Order Info for 2-01, 2-02, 2-16, 2-17



Order Info for External Temperature Probe for 2-16, 2-17

Instance: TSP - 1-11 - Pt1000 - B - 2 - 120 - 4 - M12x1.5 - 2000 - RE - M8 - /-50...250/
 Instance: TXA - 1-26 - K - 1 - I - 2500 - 6 - INC - 5000 - RE - M8 - /-0...1100/
 Instance: TSP - 2-8 - Pt1000 - B - 2 - - 4000 - RE - M5 - /-50...250/
 Instance: TSP - 1-6 - Pt1000 - A - 2 - 80 - 5 - - 8000 - RE - M12 - /-50...250/

An order of external probe is determined by using an instance of order info of chosen transducer's series presented in category "Temperature Probes". Any of our probes may serve as an external probe with RE cable and Pt1000 / XA (type K) sensor. The following should be specified in the order info before operating temperature range:

- For models 2-16 with two **2Pt** OUTs – IP52 a M5 (male, straight) connector for a cable: **M5**
- For models 2-17 with **Pt** OUT or **TC** OUT – IP67 a M8 (male, straight) connector for a cable: **M8**

Order Infor for a Junction Box

Instance: CP - 06 - H3 - 5B - MK