

Y-CASE WIRELESS TEMPERATURE TRANSDUCERS



Y-Case Wireless Temperature Transducers ZigBee 868 use ZigBee interface with frequency 868 MHz for data transfer. The transducer works by the following sequence: turning on, measuring, data transferring, turning off. In other words, the frequent measuring make quicker the batteries out. Transducer operation require an G2-CP Data Logger and a wireless Y6.05-K-868 Net Coordinator.

The transducer uses high contrast OLED display for indications. It displays measurements for each transducer's measuring channel. In addition, it's able to display radio signal level, battery charge, serial number and network settings. The transducer may be supplied with magnetic holder and a mounting board, that may mounted with screws.

The transducer may have one, two or three temperature sensors depending on a model. A temperature sensor TMP116 is set up inside of transducer's case. In addition, depending on a model, the transducer can be connected by one or two external temperature analogue Pt1000 probes, either one XA probe with a cable and M5/M8/M12 connectors.

TECHNICAL SPECIFICATIONS

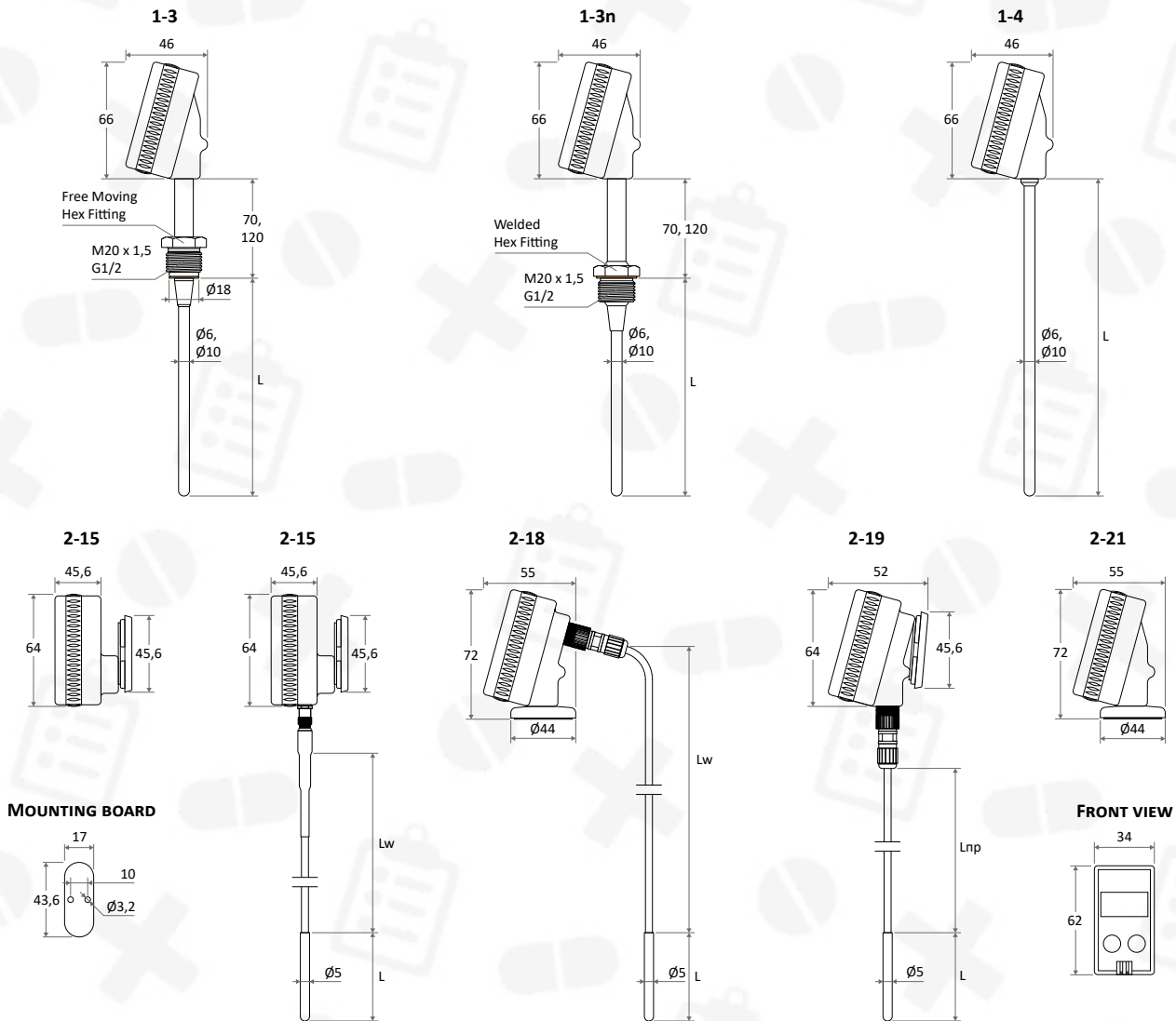
Model Name	1-3, 1-3n, 1-4		2-15	2-21	2-18	2-19		
Specifications of Transducer								
Number of Channel	1		1, 2, 3	1	1, 2		1, 2	
Available channel configuration ¹	ET		IT, 2ET, IT+2ET	IT	ET, IT + ET		ET, IT + ET	
Output Signal	ZigBee (868 MHz)							
Stable Connection Distance, meters	Up to 100 (indoor), up to 300 (outdoor, no obstacles, by any weather)							
Indication	OLED 0.96", resolution is 128x64 pixels, display by pressing a button							
Battery Type	2 batteries (½ AA 3,6 V 1Ah 14250)							
Battery Life Time	5 years (request each 1 min, T = 25°C), 9 years (request each 2 mins, T = 25°C)							
Response Time	Between 1 and 60 mins							
Magnetic Holder	N/A		Vertical	Horizontal	Horizontal		Vertical	
Operating Temperature, °C	-30...60							
Specifications of External Temperature Probe								
Sensor Curve	Pt1000		XA (K)	Pt1000	Pt1000		XA (K)	Pt1000
Operating Temperature Range, °C	-196...100, -50...100, -50...250, -50...500		0...850	-196...100, -50...100, -50...250, -50...500	-196...100, -50...100, -50...250, -50...500		0...250, 0...500, 0...850, 0...1250	-196...100, -50...100, -50...250, -50...500
Accuracy, °C	± (0,4 + 0,002 x T ²)		± 2,5 (up to 375 °C) or ± 0,0075 x T ² (over 375 °C)	± (0,4 + 0,002 x T ²)	± (0,4 + 0,002 x T ²)		± 2,5 (up to 375 °C) or ± 0,0075 x T ² (over 375 °C)	± (0,4 + 0,002 x T ²)
Transducer Connection	N/A		M5 (IP52)	N/A				
Response Time, sec	15 (Ø6 mm), 25 (Ø10 mm), (water, V=0,2 m/sec)		Determines by a chosen external probe					
Thermowell Material	Steel 321							
Hex Fitting M20 x 1,5	Free moving (1-3), welded (1-3n), N/A (1-4)							
Immersion Length, mm	80, 100, 120, 160, 200, 250, 320, 400, 500, 630, 800, 1000, 1250, 1600, 2000							
Thermowell Diameter, mm	By default - Ø6 (up to 500mm), Ø10 (over 500 mm)		Determines by a chosen external probe					
Specifications of Internal Temperature Sensor								
Sensor Curve	N/A		TMP116					
Operating Temperature Range, °C	N/A		-30...60					
Accuracy, °C	N/A		0,5					
Response Time, sec	N/A		240 (air, V=0 m/sec)					

¹ - ET - external temperature probe, 2ET - two external temperature probes, IT - internal temperature sensor

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

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DIMENSIONS



FEATURES



Two rechargeable batteries LS14250



External antenna 3dBi with a magnetic holder



External probe with a connector



Horizontal magnetic holder



Vertical magnetic holder with a mounting board

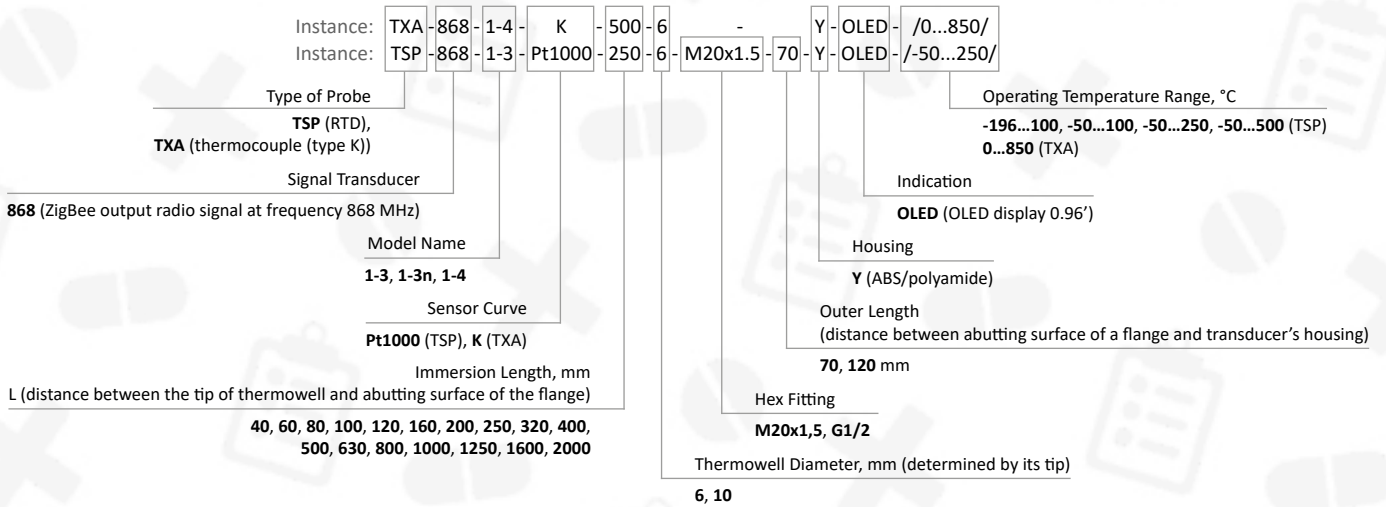


Protective rubber case

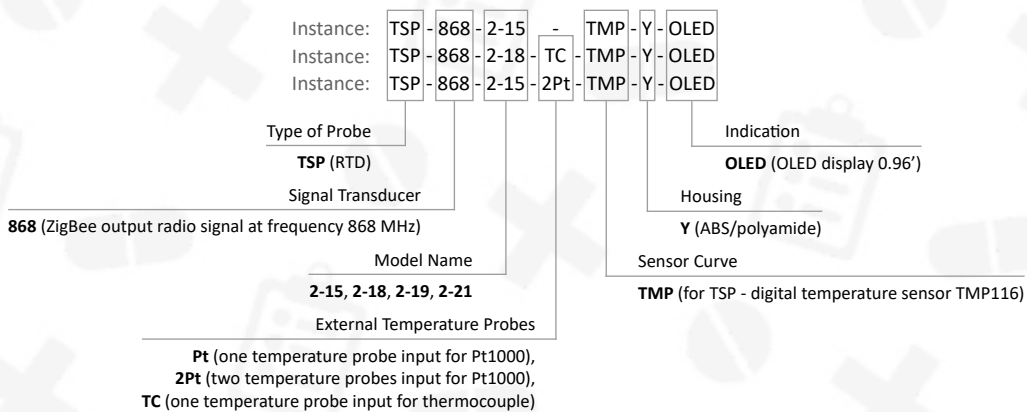
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ORDER INFO

Order Info for 1-3, 1-3n, 1-4



Order Info for 2-15, 2-18, 2-19, 2-21



Order Info for External Temperature Probe for 2-15, 2-18, 2-19

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 2-15 with two 2Pt OUTs – IP52 a M5 (male, straight) connector for a cable: **M5**
- For model 2-18 with Pt OUT – IP67 a M12 (female, straight) connector for a cable: **M12**
- For models 2-19 with Pt OUT or TC OUT – IP67 a M8 (male, straight) connector for a cable: **M8**

Order Info for calibration and verification

Instance: VERIFICATION, MODUL B+F
 Instance: VERIFICATION IN OPERATION
 Instance: CALIBRATION, 4 POINTS
 Instance: CALIBRATION BY ISO 17025, 3 POINTS

Number of calibration points
2, 3, 4, 5 ...