

# P19 TEMPERATURE AND HUMIDITY TRANSDUCER

**FEATURES:**

- eCon Program
- MOD BUS
- RS 485

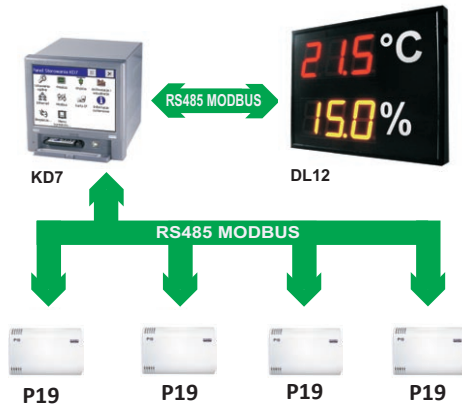


- Built-in temperature and humidity sensor.
- Calculation of selected physical quantities (dew-point temperature, absolute humidity).
- Storage of measured and calculated maximum and minimum values.
- Interface RS-485 galvanically isolated (Modbus protocol).

**INPUT:**



**EXAMPLE OF APPLICATION**



Measurement and recording of temperature and humidity.

**OUTPUTS:**



**INPUTS**

Measured value	Measuring range	Error
Temperature	-30 .. -20 .. 60 .. 80°C	+/- 0.6°C in range 10...40°C +/- 1°C in the remaining range
Relative humidity	0 .. 100%	+/- 3% for RH = 10 .. 90% +/- 5% for RH in the remaining range

**DIGITAL INTERFACE**

Interface type	Transmission mode	Baud rate	Remarks
RS-485 Modbus RTU	8N1, 8N2, 8E1, 8O1	4,8; 9,6; 19,2; 38,4; 57,6 kbit/s	galvanic isolation 1kV

**EXTERNAL FEATURES**

Overall dimensions	120 × 80 × 25 mm
Weight	125 g
Protection grade	ensured by the casing: IP20
Fixing	on a wall

**RATED OPERATING CONDITIONS**

Supply voltage	9 .. 24 V d.c./a.c	power consumption < 0.3 VA
Temperature	ambient: -20...23...60°C	
Humidity	< 95%	inadmissible condensation

Operating position

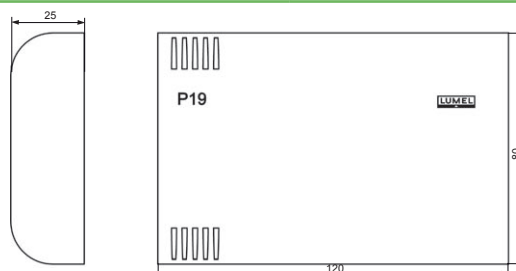


Fig. 1. Operating position and overall dimensions of P19 transducer.

Preheating time 15 minutes

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**SAFETY AND COMPATIBILITY REQUIREMENTS**

Electromagnetic compatibility	noise immunity	acc. to EN 61000-6-2
	noise emissions	acc. to EN 61000-6-4
Isolation between circuits	basic	acc. to EN 61010-1
Pollution level	2	
Installation category	III	
Maximal phase-to-earth operating voltage	50 V	
Altitude a.s.l.	< 2000 m	

**CONNECTION DIAGRAM**

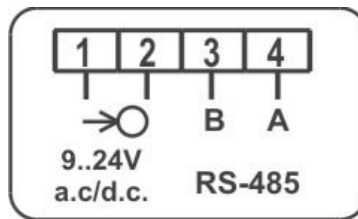


Fig. 2. Connection diagram of P19.

**ORDERING**

P19 -	XX	X	X
<b>Version:</b>			
standard	00		
custom-made*	XX		
<b>Language:</b>			
Polish		P	
English		E	
other*		X	
<b>Acceptance tests:</b>			
without extra quality requirements			0
with an extra quality inspection certificate			1
according to customer's request*			X

\* only after agreeing with the manufacturer

**Order example:**

The code: **P19 - 00E0** means:  
 P19 – temperature and humidity transducer of P19 type  
 00 – standard version  
 E – English version  
 0 – without extra quality requirements.

**SEE ALSO:**



KD7 recorder.



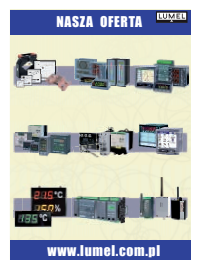
Interface converter USB/RS-485 - PD10.



Tricolour digital display for outdoor application -DL21.



LUMEL-PROCES software.



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