

Temperature sensors KTY81-xxx



Temperature sensors KTY81 are available in following versions - interior, outdoor, duct, screw-in, surface contact, cable sensors. The transducer's head is made of the plastic material, cover is provided with quick-locking screws, all metallic parts are made of class DIN 1.4301 stainless steel. The operation conditions are met by conventional, chemically non aggressive environment, in which neither attendance nor maintenance is required by the transducers.

Basic technical parameters

Measurement error	see table
Ambient temperature	-30 ÷ 80°C
Relative humidity	< 80%
Degree of protection	IP65*
Max. wire diameter	2,5 mm ²
Terminal board	COB 5/2
Recommendet diametr of connecting cable	4 ÷ 8 mm
KTY81-110-xx	xx = KA
KTY81-210-xx	xx = KC
KTY81-121-xx	xx = KD

^{*}Interior sensors - IP30

Technical description, execution

P10xx, RK-xx P11xx, PL11xx

- sensor for temperature measuring in interior applications
- sensor are designed for temperature measuring of outdoor air. They are provided with a plastics console for attaching to a wall;

P12xx-L1

- sensor execution for mounting into air conditioning ducts

P13xx-L2

- the sensors are designed for measuring operations in pipelines. As an accessory, a part of the transducer is a stainless steel well fitted with a thread G 1/2: of length L2 mm, which was tested for pressure of 4,0 MPa.

P14xx, P15xx

- surface contact transducers

SK2xx-2SS-x, SK2xx-2PS-x

SK2xx-2LN-x

- sensors 6x60mm, stainless steel, x= length of the cable, Silicon cable - SS, PVC cable - PS into 80°C or PVC cable -LN into 105°C

Method of ordering

State the quantity of pieces and the sensors type in your order.

An example of the order: 5 pieces transducer P13xx-100

Sensor type ______

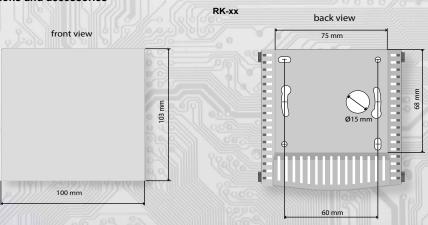
wiring



Standard length L1 & L2

	0.0	
L1 (mm)	L2(mm)	
120	100	
180	160	
240	220	
300	280	
360	340	
420	400	

Dimensions and accessories





Temperature sensors KTY81-xxx

KTY81-110

RESISTANCE TEMP. (Ω) (°C) **ERROR** (K) TYP. MAX. MIN. ±2.55 -30 609 624 638 -20 669 684 698 ±2.35 -10 747 761 ±2.14 733 0 802 815 ±1.91 828 10 874 886 898 ±1.67 10 950 961 972 ±1.41 20 990 1000 1010 ±1.27 30 1029 1040 1051 ±1.39 40 1108 1122 1136 ±1.64 1192 1225 50 1209 ±1.91 60 1278 1299 1319 ±2.19 70 1369 1392 1416 ±2.49 80 1462 1490 1518 ±2.8 90 1559 1591 1623 ±3,12 100 1659 1696 1733 ±3.46 110 1762 1805 1847 ±3.83 1963 120 1867 1915 ±4.33 125 1919 1970 2020 ±4.66 1970 2023 130 2077 ±5.07 140 2065 2124 2184 ±6.28 2145 2211 150 2277 ±8.55

KTY81-121

(°C)	RESISTANCE (Ω)			TEMP. ERROR
(0)	MIN.	TYP.	MAX.	(K)
-30	603	617	632	±2.55
-20	662	677	691	±2.35
-10	726	740	754	±2.14
0	794	807	820	±1.91
10	865	877	889	±1.67
20	941	951	962	±1.41
25	980	990	1000	±1.27
30	1018	1029	1041	±1.39
40	1097	1111	1125	±1.64
50	1180	1196	1213	±1.91
60	1266	1286	1305	±2.19
70	1355	1378	1402	±2.49
80	1447	1475	1502	±2.8
90	1543	1575	1607	±3.12
100	1642	1679	1716	±3.46
110	1745	1786	1828	±3.83
120	1849	1896	1943	±4.33
125	1900	1950	2000	±4.66
130	1950	2003	2056	±5.07
140	2044	2103	2162	±6.28
150	2124	2189	2254	±8.55

KTY81-210

(°C)	RESISTANCE (Ω)			TEMP. ERROR
18	MIN.	TYP.	MAX.	(K)
-30	1218	1247	1277	±2.55
-20	1338	1367	1396	±2.35
-10	1467	1495	1523	±2.14
0	1603	1630	1656	±1.91
10	1748	1772	1797	±1.67
20	1901	1922	1944	±1.41
25	1980	2000	2020	±1.27
30	2057	2080	2102	±1.39
40	2217	2245	2272	±1.64
50	2383	2417	2451	±1.91
60	2557	2597	2637	±2.19
70	2737	2785	2832	±2.49
80	2924	2980	3035	±2.8
90	3118	3182	3246	±3.12
100	3318	3392	3466	±3.46
110	3523	3607	3691	±3.93
120	3722	3817	3912	±4.7
125	3815	3915	4016	±5.26
130	3901	4008	4114	±6
140	4049	4166	4283	±8.45
150	4153	4280	4407	±14.63

Surface contact temperature P₁₂xx **Thermowell** Central holder sensor- P14xx 74 OK 22 55 87 G 1/2 39 L2 3 holes of 4,5mm diameter Ø10 **Contact sensor** Side holder A - for P11x with a cable - P15xx interior type - P10xx 39 Ø6 25 46 64 2 holes Ø 4,5 mm Maximum temperature of the measured surface tp< 120°C

Remark:

- 1) Subject of an order, also non/standard transducer lengths or other well thread types may be delivered, such as M20x1,5.
- 2) Subject to customer wish, detailed temperature characteristics in the form of an equation or a table of values are supplied by the manufacturer.