

Data sheet



FWR116A02



FWR316A02



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Application

Used for temperature measuring in dwellings, offices, etc. They are designed for the connection to controllers used in heating, cooling and ventilation applications.

Features



- Plastic-Housing
- Screw connection
- Simple mounting
- Base plate for wall mounting
- CE-Conformity: 89/336/EWG Electromagnetic compatibility

Technical data

Housing	ABS (ASA) Color white similar RAL 9010
Ambient temperature	-20 ... 60 °C
Weight	approx. 80 g

Type	Sensor
FWR116A02	NTC10k
FWR316A02	Pt1000

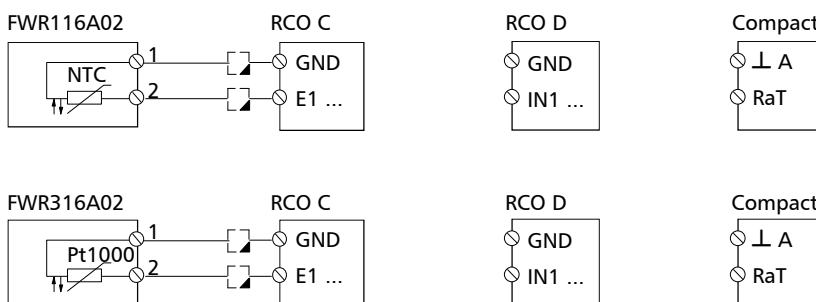
Mounting

In the main living room on the inside wall: not exposed to sun or other foreign heat sources (chimney wall, near radiators, draughts, televisions, lamps); not hidden by furniture or curtains; approx. 1,2 - 1,5 m above the floor; due to draughts seal installation conduit.

Installation

Bifurcation or plug sockets is to be avoided.
Permissible line length 200m for 2x1,0 mm². The lines are to be designed for 230 VAC.

Electrical connection



Resistance values

NTC 10k Ω -Temperature sensor (Resistance in k Ω)

°C	0	-1	-2	-3	-4	-5	-6	-7	-8	-9
-30	175,230	-	-	-	-	-	-	-	-	-
-20	96,360	102,133	108,275	114,827	121,827	129,305	137,300	145,843	154,980	164,755
-10	55,047	58,123	61,393	64,869	68,567	72,502	76,690	81,149	85,900	90,963
0	32,555	34,260	36,066	37,980	40,008	42,158	44,438	46,858	49,425	52,152

°C	0	1	2	3	4	5	6	7	8	9
0	32,555	30,944	29,423	27,984	26,625	25,339	24,123	22,971	21,882	20,850
10	19,873	18,946	18,069	17,237	16,447	15,699	14,988	14,314	13,674	13,066
20	12,488	11,939	11,417	10,921	10,449	10,000	9,573	9,166	8,779	8,410
30	8,059	7,725	7,406	7,101	6,811	6,535	6,271	6,019	5,779	5,549
40	5,330	5,121	4,921	4,729	4,547	4,372	4,205	4,045	3,892	3,745
50	3,605	3,471	3,343	3,220	3,102	2,989	2,880	2,777	2,677	2,582
60	2,490	2,402	2,318	2,237	2,159	2,084	2,013	1,944	1,878	1,814
70	1,753	1,694	1,638	1,583	1,531	1,481	1,433	1,386	1,341	1,298
80	1,256	1,216	1,178	1,141	1,105	1,070	1,037	1,005	0,974	0,944
90	0,915	0,888	0,861	0,835	0,810	0,786	0,763	0,740	0,719	0,698
100	0,677	0,658	0,639	0,621	0,603	0,586	0,569	0,553	0,538	0,523
110	0,508	0,494	0,471	0,468	0,455	0,443	0,431	0,419	0,408	0,397
120	0,387	-	-	-	-	-	-	-	-	-

Resistance in k Ω

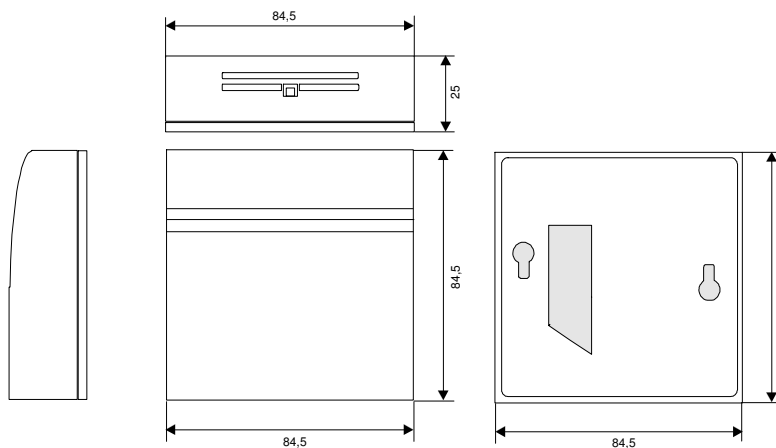
Pt1000-Temperature sensor (Resistance in Ω)

°C	0	-2	-4	-6	-8	-10	-12	-14	-16	-18
-20	921,6	913,7	905,9	898,0	890,1	882,2	-	-	-	-
0	1000,0	992,2	984,4	976,5	968,7	960,9	953,0	945,2	937,3	929,5

°C	0	2	4	6	8	10	12	14	16	18
0	1000,0	1007,8	1015,6	1023,4	1031,2	1039,0	1046,8	1054,6	1062,4	1070,2
20	1077,9	1085,7	1093,5	1101,2	1109,0	1116,7	1124,5	1132,2	1140,0	1147,7
40	1155,4	1163,1	1170,8	1178,6	1186,3	1194,0	1201,7	1209,4	1217,1	1224,7
60	1232,4	1240,1	1247,8	1255,4	1263,1	1270,8	1278,4	1286,1	1293,7	1301,3
80	1309,0	1316,6	1324,2	1331,8	1339,5	1347,1	1354,7	1362,3	1369,9	1377,5
100	1385,1	1392,6	1400,2	1407,8	1415,4	1422,9	1430,5	1438,0	1445,6	1453,1
120	1460,7	1468,2	1475,7	1483,3	1490,8	1498,3	1505,8	1513,3	1520,8	1528,3
140	1535,8	1543,3	1550,8	1558,3	1565,8	1573,3	1580,7	1588,2	1595,6	1603,1
160	1610,5	1618,0	1625,4	1632,9	1640,3	1647,7	1655,1	1662,6	1670,0	1677,4
180	1684,8	1692,2	1699,6	1707,0	1714,3	1721,7	1729,1	1736,5	1743,8	1751,2
200	1758,6	1765,9	1773,3	1780,6	1787,9	1795,3	1802,6	1809,9	1817,2	1824,6
220	1831,9	1839,2	1846,5	1853,8	1861,1	1868,4	1875,6	1882,9	1890,2	1897,5
240	1904,7	-	-	-	-	-	-	-	-	-

Resistance in Ω

Dimension drawing (mm)



Delivery scope

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