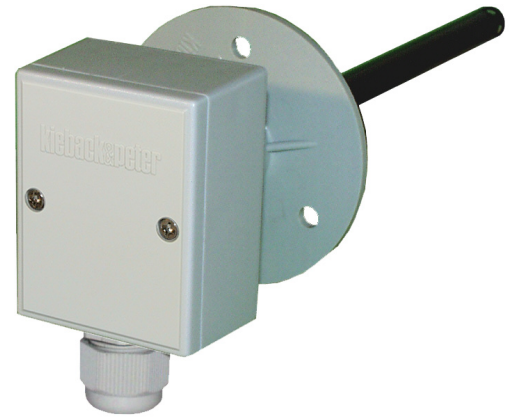


TL2/BW, TL3/BW Duct Temperature Sensor

Application

The TLx/BW duct temperature sensors are used as controlled variable sensors for duct installation in all external-temperature controlled or fixed-value controlled ventilation and air conditioning systems. They can also be used for room temperature control in industrial spaces and workshops.

The duct temperature sensors are used in conjunction with all controllers/controller systems that have a sensor connection for the standardized Pt1000 measuring element in accordance with EN 60751 or IEC 751.



Contents	Page
Important Information Regarding Product Safety	2
Item	3
Technical Data	3
Accessories	3
Dimensions	3
Connection	4
Mounting	4

Änderungen vorbehalten - Contents subject to change - Sous réserve de modifications - Reservado el derecho a modificación - Wijzigingen voorbehouden - Con riserva di modifichie - Innehåll som skall ändras - Změny vyhrazeny - Zmiany zastrzeżone - Возможны изменения - A változtatások jogát fenntartjuk - 保留未经通知而改动的权力

Important Information Regarding Product Safety

Safety Instructions

This data sheet contains information on installing and commissioning the product "TL2/BW, TL3/BW Duct Temperature Sensor". Each person who carries out work on this product must have read and understood this data sheet. If you have any questions that are not resolved by this data sheet, you can obtain further information from the supplier or manufacturer.

If the product is not used in accordance with this data sheet, the protection provided will be impaired.

Applicable regulations must be observed when installing and using the device. Within the EU, these include regulations regarding occupational safety and accident prevention as well as those from the VDE (Association for Electrical, Electronic & Information Technologies). If the device is used in other countries, it is the responsibility of the system installer or operator to comply with local regulations.

Mounting, installation and commissioning work on the devices may only be carried out by qualified technicians. Qualified technicians are persons who are familiar with the described product and who can assess given tasks and recognize possible dangers due to technical training, knowledge and experience as well as knowledge of the appropriate regulations.

Meaning of the Symbols



WARNING

Indicates a hazard of medium risk which can result in death or severe bodily injury if it is not avoided.



CAUTION

Indicates a hazard of low risk which can result in minor or medium bodily injury if it is not avoided.



NOTICE

Indicates a hazard of medium risk which can result in material damage or malfunctions if it is not avoided.



Note

Indicates additional information that can simplify the work with the product for you.

Notes on Disposal

For disposal, the product is considered waste from electrical and electronic equipment (electronic waste) and must not be disposed of as household waste. Special treatment for specific components may be legally binding or ecologically sensible. The local and currently applicable legislation must be observed.

Product Description

TL2/BW, TL3/BW Duct Temperature Sensor

Item

TL2/BW	Duct temperature sensor with Pt1000 measuring element Support tube length for measuring element is 200 mm, duct installation depth is 180 mm
TL3/BW	Duct temperature sensor with Pt1000 measuring element Support tube length for measuring element is 300 mm, duct installation depth is 280 mm

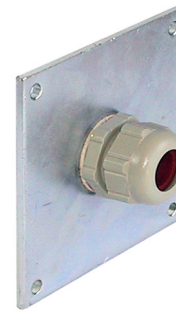
Technical Data

Function	Temperature resistance transmitter
Measured quantity	Duct temperature
Measuring element	Pt1000 in accordance with EN 60751 / IEC 751 for temperature range -30 °C to +130 °C
Measuring range	-20 °C to +130 °C
Time constant	T (0.9) = 25.5 s at 1 m/s air velocity
Connection housing	Light gray plastic housing, cable entry M16 x 1.5
Degree of protection	IP65
Weight	0.18 kg

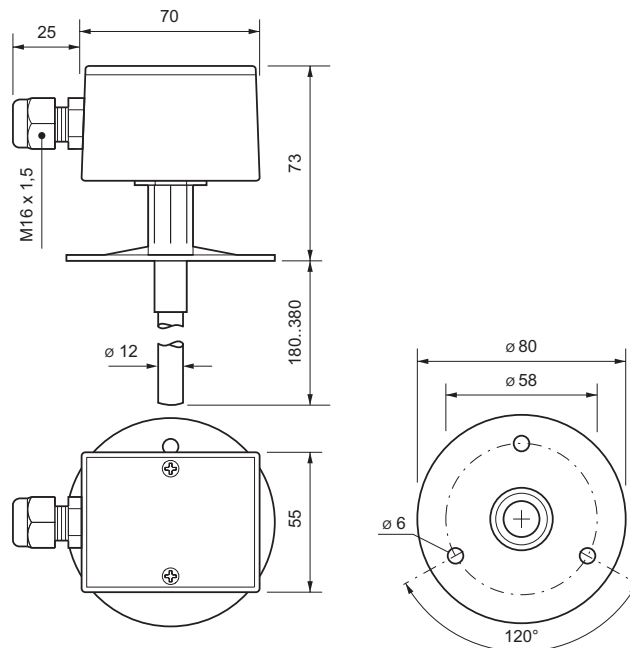
Accessories

Not included in delivery.

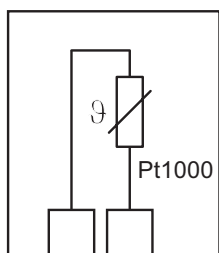
B3 Socket flange for variable installation depth



Dimensions



Connection



TL2/BW
TL3/BW

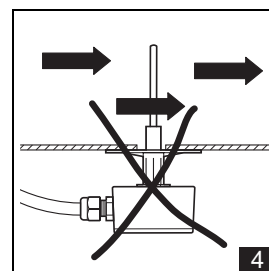
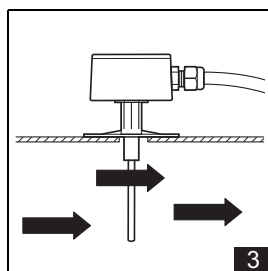
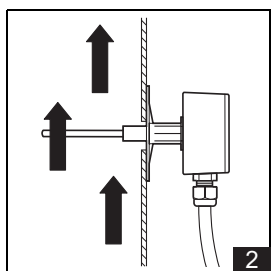
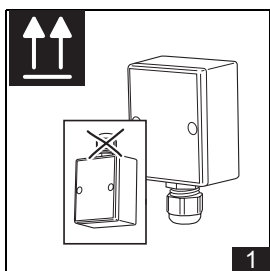
Mounting



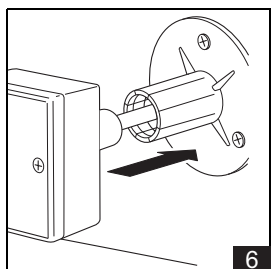
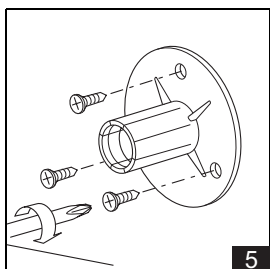
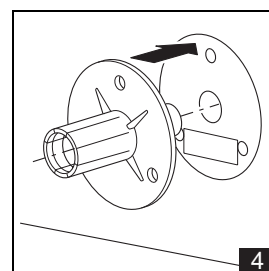
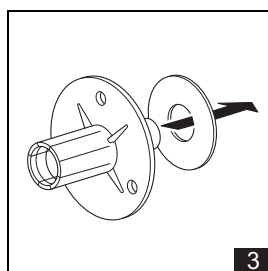
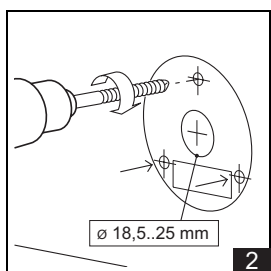
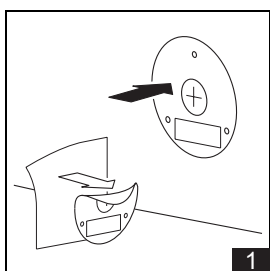
CAUTION

Mounting/demounting may only be carried out by qualified technicians when the power is switched off.

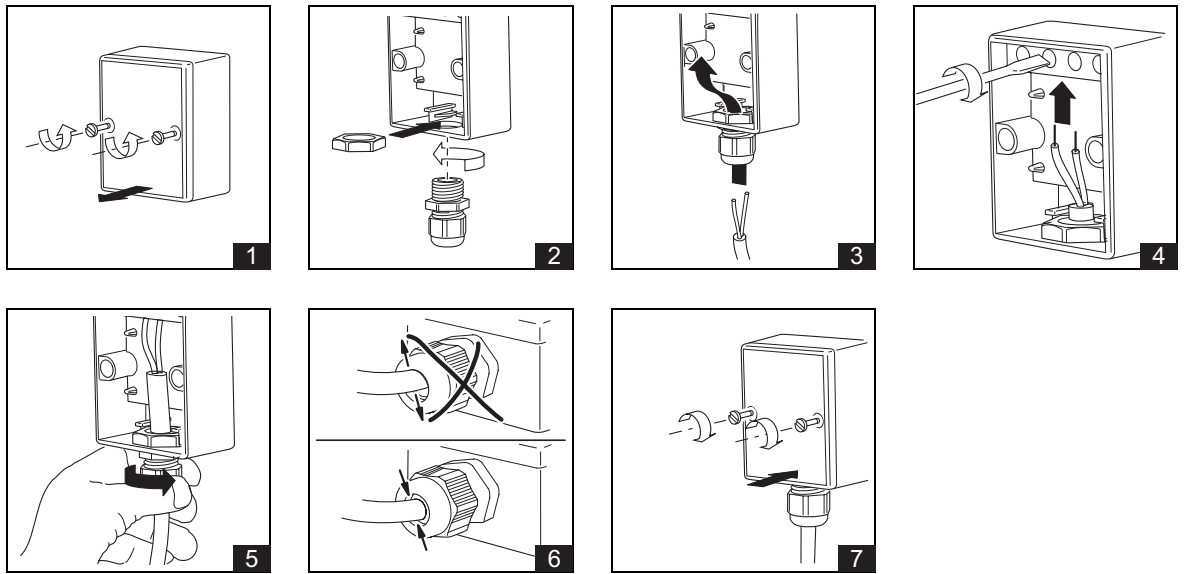
Installation instructions



Mounting the socket flange



Connecting the duct temperature sensors



Temperature/resistance table for Pt1000 measuring element

T (°C)	R (Ω)	T (°C)	R (Ω)	T (°C)	R (Ω)	T (°C)	R (Ω)
-50	803.07	0	1000.00	50	1193.95	100	1385.00
-49	807.04	1	1003.91	51	1197.80	101	1388.79
-48	811.01	2	1007.81	52	1201.65	102	1392.58
-47	814.98	3	1011.72	53	1205.50	103	1396.37
-46	818.94	4	1015.62	54	1209.34	104	1400.16
-45	822.91	5	1019.53	55	1213.19	105	1403.95
-44	826.87	6	1023.43	56	1217.03	106	1407.73
-43	830.83	7	1027.33	57	1220.87	107	1411.52
-42	834.79	8	1031.23	58	1224.71	108	1415.30
-41	838.75	9	1035.13	59	1228.55	109	1419.08
-40	842.71	10	1039.02	60	1232.39	110	1422.86
-39	846.67	11	1042.92	61	1236.23	111	1426.64
-38	850.63	12	1046.81	62	1240.07	112	1430.42
-37	854.58	13	1050.71	63	1243.90	113	1434.20
-36	858.53	14	1054.60	64	1247.74	114	1437.97
-35	862.48	15	1058.49	65	1251.57	115	1441.75
-34	866.43	16	1062.38	66	1255.40	116	1445.52
-33	870.38	17	1066.27	67	1259.23	117	1449.30
-32	874.33	18	1070.16	68	1263.06	118	1453.07
-31	878.28	19	1074.04	69	1266.89	119	1456.84
-30	882.22	20	1077.93	70	1270.72	120	1460.61
-29	886.17	21	1081.81	71	1274.54	121	1464.38
-28	890.11	22	1085.70	72	1278.37	122	1468.14
-27	894.05	23	1089.58	73	1282.19	123	1471.91
-26	897.99	24	1093.46	74	1286.02	124	1475.67
-25	901.93	25	1097.34	75	1289.84	125	1479.44
-24	905.87	26	1101.22	76	1293.66	126	1483.20
-23	909.80	27	1105.09	77	1297.48	127	1486.96
-22	913.74	28	1108.97	78	1301.30	128	1490.72
-21	917.67	29	1112.84	79	1305.11	129	1494.48
-20	921.60	30	1116.72	80	1308.93	130	1498.24
-19	925.53	31	1120.59	81	1312.74	131	1501.99
-18	929.46	32	1124.46	82	1316.56	132	1505.75
-17	933.39	33	1128.33	83	1320.37	133	1509.50
-16	937.32	34	1132.20	84	1324.18	134	1513.26
-15	941.25	35	1136.07	85	1327.99	135	1517.01
-14	945.17	36	1139.94	86	1331.80	136	1520.76
-13	949.10	37	1143.80	87	1335.61	137	1524.51
-12	953.02	38	1147.67	88	1339.41	138	1528.26
-11	956.94	39	1151.53	89	1343.22	139	1532.00
-10	960.86	40	1155.39	90	1347.02	140	1535.75
-9	964.78	41	1159.25	91	1350.83	141	1539.50
-8	968.70	42	1163.11	92	1354.63	142	1543.24
-7	972.62	43	1166.97	93	1358.43	143	1546.98
-6	976.53	44	1170.83	94	1362.23	144	1550.72
-5	980.45	45	1174.69	95	1366.03	145	1554.46
-4	984.36	46	1178.54	96	1369.82	146	1558.20
-3	988.27	47	1182.40	97	1373.62	147	1561.94
-2	992.18	48	1186.25	98	1377.41	148	1565.68
-1	996.09	49	1190.10	99	1381.21	149	1569.41
0	1000.00	50	1193.95	100	1385.00	150	1573.15