TD11..15, TDF12..15 Room Temperature Sensors

Application

TD11..15 and TDF12..15 are used to measure the room temperature.

The temperature sensors are used in conjunction with all Kieback&Peter loop controllers and control systems that have a sensor connection for the active KP10 measuring element.

Content

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Important Information Regarding Product Safety

Safety Instructions

This data sheet contains information on installing and commissioning the product "TD11..15, TDF12..15". 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.

Legend

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.

CAUTION

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.

Item

TD11	Room temperature sensor with active KP10 measuring element
TD12	Room temperature sensor with active KP10 measuring element
TDF12	Identical to TD12, but with additional 10 kΩ setting knob
TD13	Room temperature sensor (KP10) with push-button and LED display, push-button for switching from night or stand-by mode to the day operating state. The illuminated LED indicates day mode.
TDF13	Identical to TD13, but with additional 10 kΩ setting knob
TD14	Room temperature sensor (KP10) with sliding switch (on/off)
TDF14	Identical to TD14, but with additional 10 kΩ setting knob
TD15	Room temperature sensor (KP10) with 4-position sliding switch
TDF15	Identical to TD15, but with additional 10 kΩ setting knob

Technical Data

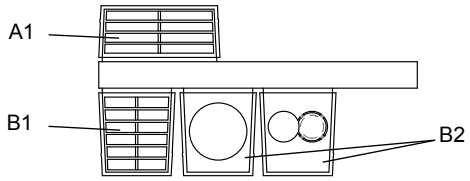
Function	Temperature voltage transmitter	
Measured quantity	Room temperature in homes or offices	
Measuring element	KP10 active measuring element; 2.73 V at 0 °C; TC = 10 mV/K	
Measuring tolerance	TD11	Verification with DDC parameterization on site
	TD12..TD15, TDF12..TDF15	Typically ±0.2 K
Measuring range	-20 °C to +60 °C	
Ambient temperature	-20 °C to +60 °C	
Ambient humidity	0% to 95% r.h.; non-condensing	
Housing	Plastic housing, RAL 9010 (pure white)	
Setting knob	TDF12..TDF15	10 kΩ potentiometer, linear, setting knob with trend arrows Setting knobs with scales available as accessories: 0 °C..50 °C, 8 °C..33 °C, 15 °C..25 °C, 0 °C..100 °C, ± 5 K
Push-button	TD13, TDF13	Floating contact, max. DC 24 V, 50 mA
LED	TD13, TDF13	LED, DC 12 V or DC 24 V
Switch	TD14, TDF14	On/Off sliding switch, floating, max. AC 24 V, 300 mA
Switch	TD15, TDF15	4-position sliding switch, floating, max. AC 24 V, 300 mA
Degree of protection	IP30	
Dimensions (WxHxD in mm)	TD11, TD12	82.5 x 82.5 x 27.7
	TD13..15, TDF12..15	82.5 x 82.5 x 28.3

Accessories (included in delivery)

The sensor cover has two ventilation inserts for quick measurement of the temperature.

The inserts plug into the cover.

- The included cover inserts may need to be exchanged for a surface-mount installation, for example



A1/B1	Inserts for increased air throughput
B2	Inserts for cable entry from below (surface mounting)

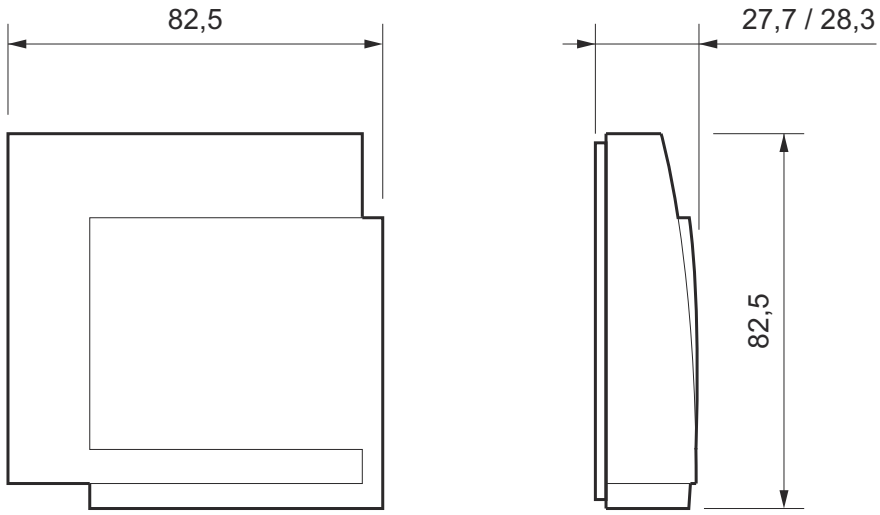
CAUTION

With B2, IP30 degree of protection only ensured when air gap at cable entry is ≤ 2.5 mm. Degree of protection without cover inserts: IP10.

Accessories (not included in delivery)

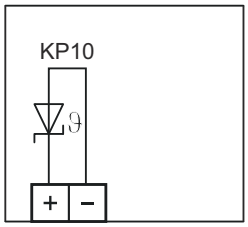
VS1	Anti-vandalism protection
BA	Ball protection cover

Dimensions

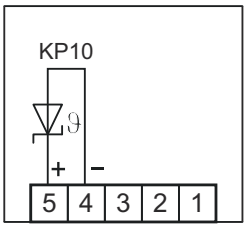


Connection

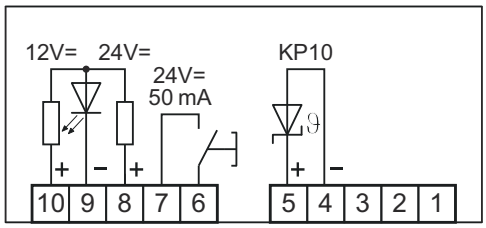
TD11



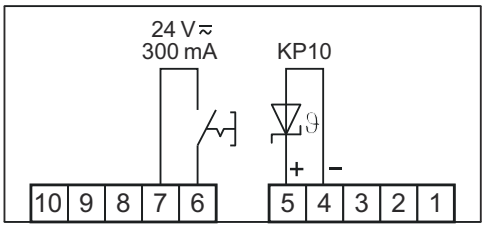
TD12



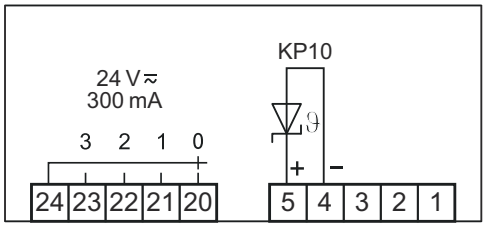
TD13



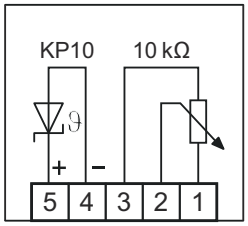
TD14



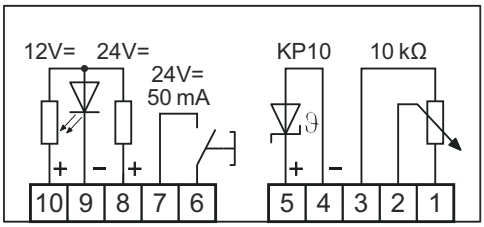
TD15



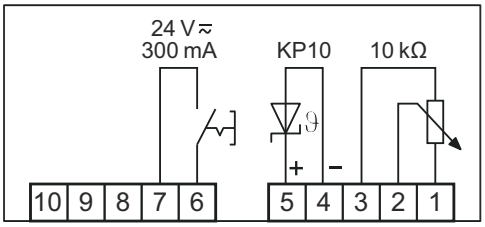
TDF12



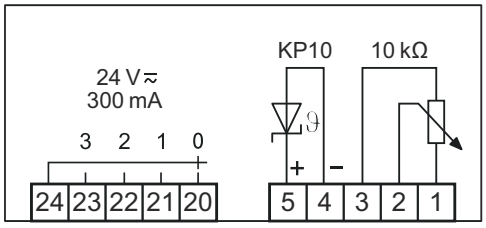
TDF13



TDF14



TDF15

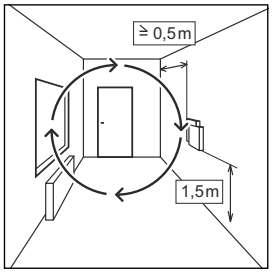


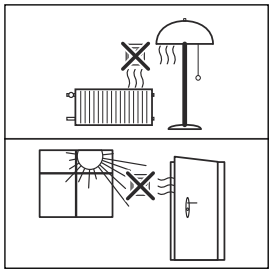
Mounting

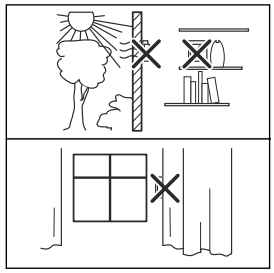
CAUTION

Installation and removal may only be carried out by qualified technicians when the power is switched off.

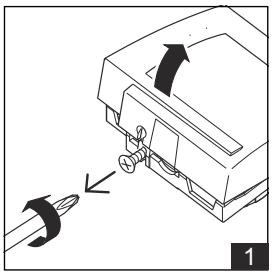
To ensure fast and accurate measurement of the room temperature, select an installation location within the room's air flow. The ventilation slots on the cover should be positioned vertically above one another.

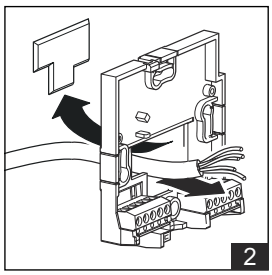


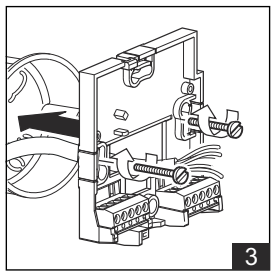


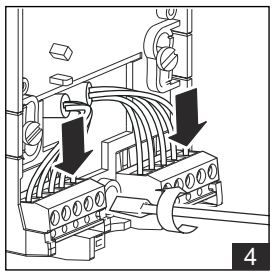


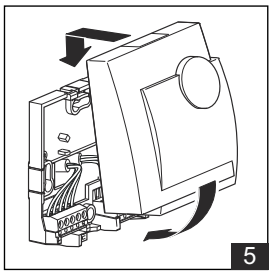
► Install the room temperature sensor on the wall or on flush-mounted boxes.

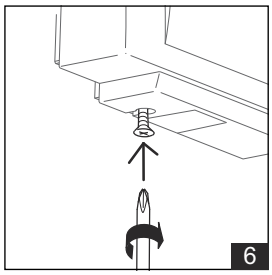












The sensor is uninstalled in reverse order.

Temperature and Voltage Table

Temperature and Voltage Table for the KP10 Measuring Element

T (°C)	V (V)	T (°C)	V (V)	T (°C)	V (V)	T (°C)	V (V)
-20	**2.53**	**0**	**2.73**	**20**	**2.93**	**40**	**3.13**
-19	2.54	1	2.74	21	2.94	41	3.14
-18	2.55	2	2.75	22	2.95	42	3.15
-17	2.56	3	2.76	23	2.96	43	3.16
-16	2.57	4	2.77	24	2.97	44	3.17
-15	2.58	5	2.78	25	2.98	45	3.18
-14	2.59	6	2.79	26	2.99	46	3.19
-13	2.60	7	2.80	27	3.00	47	3.20
-12	2.61	8	2.81	28	3.01	48	3.21
-11	2.62	9	2.82	29	3.02	49	3.22
-10	**2.63**	**10**	**2.83**	**30**	**3.03**	**50**	**3.23**
-9	2.64	11	2.84	31	3.04	51	3.24
-8	2.65	12	2.85	32	3.05	52	3.25
-7	2.66	13	2.86	33	3.06	53	3.26
-6	2.67	14	2.87	34	3.07	54	3.27
-5	2.68	15	2.88	35	3.08	55	3.28
-4	2.69	16	2.89	36	3.09	56	3.29
-3	2.70	17	2.90	37	3.10	57	3.30
-2	2.71	18	2.91	38	3.11	58	3.31
-1	2.72	19	2.92	39	3.12	59	3.32
0	**2.73**	**20**	**2.93**	**40**	**3.13**	**60**	**3.33**