



# Intuitive handling: Temperature sensors from ifm.



Fit – set – that's it!

- Easy switch point setting using two setting rings for optimum readability.
- Excellent response time: T05 = 1 s and T09 = 3 s.
- Mechanical locking prevents inadvertent manipulation.
- Switch points freely adjustable from -20 °C to 140 °C.
- Switching independent of operating temperatures.

Easy-to-use

IP 67

Gold-plated contacts

Vibration and shock resistant

**“No need for setting by an expert.”**

The first switching temperature sensor with intuitive handling, combined with an excellent response time and a compact housing.

**Little installation complexity and maximum reliability**

The easy handling via two radial setting rings on the sensor enables quick and precise setting of the switch points for the users, also without system temperature being applied. Due to the possible mechanical locking inadvertent manipulation is excluded. The protective cap, which can be obtained as an option, ensures protection against tampering.







fluid sensors and diagnostic systems

position sensors and object recognition

bus, identification and control systems

**Temperature sensor TK**  
**Setting of the switch points using setting rings on the sensor**

Measuring range [°C / °F]	Process connection	Rod length [mm]	Switching hysteresis [K]	Response dynamics T05 / T09 [s]	Order no.
<b>M12 connector, gold-plated contacts · output function complementary </b>					
-25...140 / -13...284	G 1/4	25	adjustable	1 / 3	<b>TK6130</b>
-25...140 / -13...284	1/4 NPT	35	adjustable	1 / 3	<b>TK6330</b>
<b>M12 connector, gold-plated contacts · output function 2 x </b>					
-25...140 / -13...284	G 1/4	25	5 (fix)	1 / 3	<b>TK7130</b>
-25...140 / -13...284	1/4 NPT	35	5 (fix)	1 / 3	<b>TK7330</b>
<b>M12 connector, gold-plated contacts · output function 1 x  / 1 x </b>					
-25...140 / -13...284	G 1/2	255	5 (fix)	1 / 3	<b>TK7480</b>

• **Not only an alternative to mechanical switches**

The switching temperature sensor of the TK series has more to offer. Using mechanical switches the user must often “search” for the switch point when the system temperature is applied.

Things are much easier using the TK temperature sensor: The requested switch point can be set using the setting rings without system temperature being applied and can be directly read on site. This saves time and costs.

• **The correct sensor for each application**

As an option, the TK is available with adjustable set and reset points or two switch points with fixed hysteresis.


• **Long life and accuracy**

The pre-selected Pt1000 sensors ensure the long life and accuracy of the sensor. Furthermore, the TK temperature sensor has a very good repeatability of  $\pm 0.1$  K.

• **Everything at a glance**

Two clearly visible LEDs indicating the switching status and readiness for operation provide the required transparency.




**Accessories**

Type	Description	Order no.
	Protective cover	<b>E30094</b>

**Other technical data**

Temperature sensors TK6130, TK6330, TK7130, TK7330, TK7480		
Operating voltage	[V]	9.6...32
Current rating	[mA]	500
Perm. overload pressure	[bar]	300
Protection		IP 67, III
<b>Accuracy</b>		
Setting accuracy	[K]	$\pm 3$
Temperature influence (per 10K)	[%]	0.1
Repeatability	[K]	$\pm 0.1$
Operating temperature	[°C]	-25...70
Measuring element		Pt1000 / Class B
Shock resistance		50 g
Vibration resistance		20 g
Housing materials		high-grade stainless steel (316S12), PC (Makrolon), PBT (Pocan), FPM (Viton)
Materials (wetted parts)		high-grade stainless steel (316S12)

**Connectors and splitter boxes**

Type	Description	Order no.
	M12 socket, 2 m black, PUR cable	<b>EVC001</b>
	M12 socket, 2 m black, PUR cable	<b>EVC004</b>
	M12 socket, 2 m black, PUR cable, LED	<b>EVC007</b>