

# Temperature sensor Thermolog MK2-/EK2-Desina



Fluidcontrol



The temperature sensor Thermolog MK2/EK2 designed by Bühler Technologies GmbH is produced according to the Desina standard.

Desina is a brand name of the VDW (German Machine Tool Builders' Association) and represents a technically specified standardised installation concept on machine tools, which has decentralised structures.

With the standard analogue output of 4–20 mA found nearly throughout the entire sector of temperature measuring technology, the Thermolog MK2/EK2 provides a continuous signal, which remains stable over long distances irrespective of the cable length. A Pt100 is used as the sensor. The small and compact transmitter is located inside the hexagon head.

The Thermolog MK2/EK2 measures the current temperature quickly and precisely, and converts it into an analogue signal 4–20 mA. This signal can be implemented in the system control unit in any number of threshold values.

The modular design separates “wet” and “dry” components. This allows work to be performed on the electronics even when installed below the liquid level without draining the fluid.



Simple, robust design

Small dimensions

Electrical inner part, easy to remove

M12 base connector

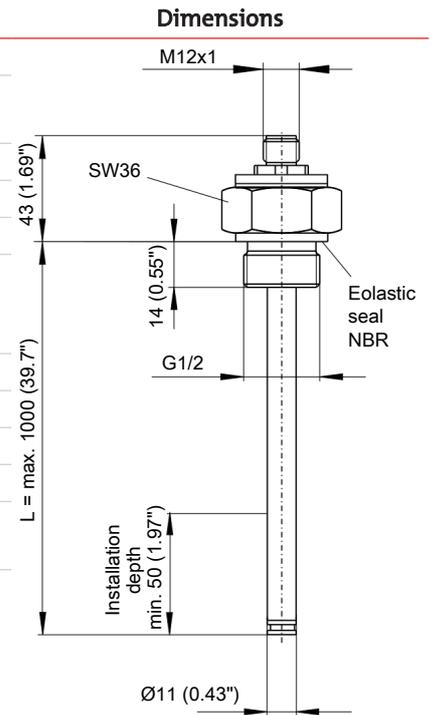
Elastic sealing ring

Desina



**Technical Data**

Technical data	
Versions:	MK2-/EK2-Desina
Sensor element:	Pt100 Class B DIN/IEC 751
Measuring range*:	-0 °C to +100 °C (23 °F to 212 °F)
Probe length (L max.):	1000 mm (39.37")
Operating voltage (U <sub>B</sub> ):	10–30 V DC
Output:	4–20 mA (0 °C = 4 mA) (100 °C = 20 mA)
Max. burden Ω:	= (U <sub>B</sub> - 7.5 V)/0.02 A
permissible operating temperature:	-20 °C to +100 °C (-4 °F to 212 °F)
Storage temperature:	-40 °C to +100 °C (-40 °F to 212 °F)
Material	
Probe:	Model MK 2 = brass Model EK 2 = 1.4571
Max. operating pressure:	Model MK 2 = 5 bar (72.5 psi) Model EK 2 = 10 bar (145 psi)



\*other measuring ranges available upon request.

**Pin assignment**

Plug connection*	M12 (base)	Pin assignment***
Dimensions:		
Number of poles:	4-pin	
IP rating:	IP67**	
Max. voltage:	24 V DC	

\*other connectors available upon request.

\*\*with respective plug top.

\*\*\*the pin assignment is based on Desina, Spec\_11 and Spec\_16.

**Ordering Instructions**

Basic version, L = variable

Item no.	Description	Connector	Length (L)
1124599	MK2-Desina	M12 (base)	L = ... mm
1124699	EK2-Desina	M12 (base)	L = ... mm

**Ordering example**

You need: Temperature sensor with M12 plug connector, length L = 520 mm (20.47"), operating pressure 2 bar (29 psi)

You order: Item no.: 1124599 Thermolog MK2-M12-Desina temperature sensor, L= 520