

## Industrial built-in duct sensor IKF1 (design B)

with active output (measuring transducer 0–10 V or 4–20 mA)



### Technical data

<b>Measuring range:</b>	–50 ... +50 °C IKF1M/1 ... 0 ... +100 °C IKF1M/2 ...
<b>Sensor:</b>	PT 100, DIN EN 60751, class B, 3 conductors
<b>Outputs:</b>	0 ... 10 V or 4 ... 20 mA
<b>Electrical connections:</b>	0.14 up to 1.5 mm <sup>2</sup>
<b>Operating voltage:</b>	24 V =
<b>Housing material:</b>	aluminium, design B
<b>Ambient temperature:</b>	max. +100 °C
<b>Degree of protection:</b>	IP 43
<b>Sensor tube:</b>	V2A 1,4301/6 mm Ø regarding length, see table below
<b>Admissible air moisture:</b>	< 95 % r.h., non condensing
<b>Dip sleeves:</b>	nickel-plated brass or V4A for overview/lengths, see page 165

### Application

For the measuring of temperatures in liquids and gases that flow in pipes, conduits, air ducts, reservoirs, tanks or containers used in the machine-, apparatus and plant engineering sphere. The temperature-dependant resistance of the sensor is, in a temperature-linear manner, being transduced to a current signal of 4 to 20 mA or to a voltage signal of 0 to 10 V. The measuring transducer is delivered tuned to the following measuring ranges: –50 ... +50 °C or 0 ... +100 °C. A special installation flange (MF) is required when installing the sensor in an air duct. If the sensor is to be used in liquids, nickel-plated brass dip sleeves (THMs) are required. In aggressive media, the use of stainless steel (V4A) dip sleeves (THV) is recommended. The dip sleeves or the installation flange are not included in the scope of the delivery and **need to be ordered separately** as an accessory.

Please pay regard to the EMC directives. Avoid parallel laying of sensor line and mains supply cables or use shielded sensor lines.

Sensor tube	Measuring range: –50 ... +50 °C		Measuring range: 0 ... +100 °C		PG
	Output 0 ... 10 V	Output 4 ... 20 mA	Output 0 ... 10 V	Output 4 ... 20 mA	
<b>65 mm (NL)</b> (for 50 mm dip sleeve)	<b>IKF1M/1/0-10/50</b> Item No.: G 9150660	<b>IKF1M/1/4-20/50</b> Item No.: G 9150670	<b>IKF1M/2/0-10/50</b> Item No.: G 9150760	<b>IKF1M/2/4-20/50</b> Item No.: G 9150770	III
<b>115 mm (NL)</b> (for 100 mm dip sleeve)	<b>IKF1M/1/0-10/100</b> Item No.: G 9150680	<b>IKF1M/1/4-20/100</b> Item No.: G 9150690	<b>IKF1M/2/0-10/100</b> Item No.: G 9150780	<b>IKF1M/2/4-20/100</b> Item No.: G 9150790	III
<b>165 mm (NL)</b> (for 150 mm dip sleeve)	<b>IKF1M/1/0-10/150</b> Item No.: G 9150700	<b>IKF1M/1/4-20/150</b> Item No.: G 9150710	<b>IKF1M/2/0-10/150</b> Item No.: G 9150800	<b>IKF1M/2/4-20/150</b> Item No.: G 9150810	III
<b>215 mm (NL)</b> (for 200 mm dip sleeve)	<b>IKF1M/1/0-10/200</b> Item No.: G 9150720	<b>IKF1M/1/4-20/200</b> Item No.: G 9150730	<b>IKF1M/2/0-10/200</b> Item No.: G 9150820	<b>IKF1M/2/4-20/200</b> Item No.: G 9150830	III
<b>265 mm (NL)</b> (for 250 mm dip sleeve)	<b>IKF1M/1/0-10/250</b> Item No.: G 9150740	<b>IKF1M/1/4-20/250</b> Item No.: G 9150750	<b>IKF1M/2/0-10/250</b> Item No.: G 9150840	<b>IKF1M/2/4-20/250</b> Item No.: G 9150850	III
<b>315 mm (NL)</b> (for 300 mm dip sleeve)	<b>IKF1M/1/0-10/300</b> Item No.: G 9151880	<b>IKF1M/1/4-20/300</b> Item No.: G 9151890	<b>IKF1M/2/0-10/300</b> Item No.: G 9151900	<b>IKF1M/2/4-20/300</b> Item No.: G 9151910	III

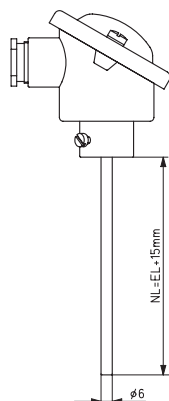
  

Accessory	Item No.	Equipment	PG
<b>MF</b>	G 9990160	Installation flange for built-in duct sensor	III

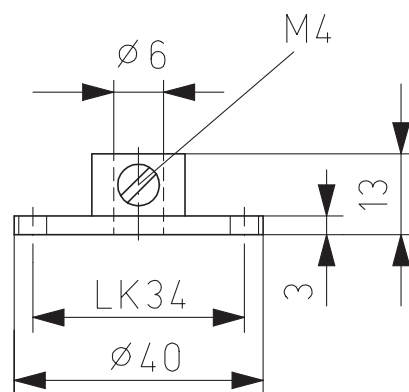
# Industrial built-in duct sensor IKF1 / IKF1M (design B)

with passive or active output (transducer 0–10 V or 4–20 mA)

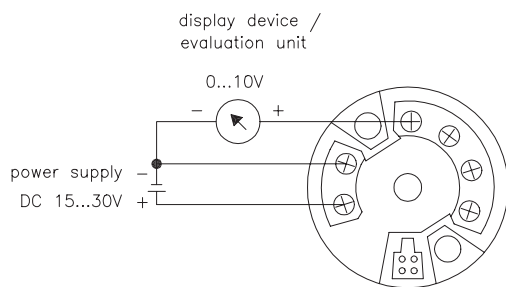
Industrial built-in duct sensor, dimensioned drawing



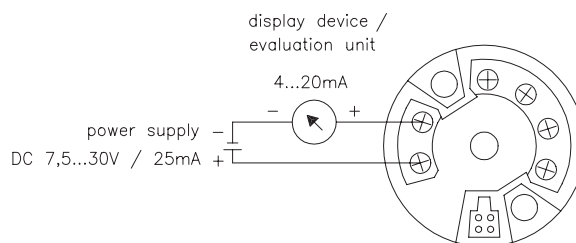
Installation flange MF, dimensioned drawing



IKF1M 0...10 V, connection scheme



IKF1M 4...20 mA, connection scheme



IKF, connection diagram

