| dimensions | **50x78x91mm** |
| | **50x78x108mm** |

| temperature | operating range | **-40 to +120°C** |

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- ✓ **sensor material – stainless steel**
- ✓ **programmable via membrane keyboard**
- ✓ **hysteresis and window function**
- ✓ **turn-on and turn-off delay**
- ✓ **display rotatable by 330°**
- ✓ **short-circuit and reverse polarity protection**
- ✓ **connection with M12-connector**

analog output 4 … 20mA
membrane keyboard

°C | DC | analog | PNP | M12
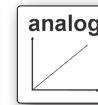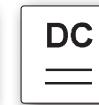
description

This compact device has an adjustable switching point as well as a scalable 4 … 20mA analog output. The measuring range is between -40 and +120°C in fluid and paste-like media. The temperature sensor offers the option of selecting a window function as an alternative to conventional limit value monitoring. Furthermore, the NC or NO contact function can be set for the switching output. Brief changes in temperature can be bridged using a turn-on and turn-off delay. In addition, the device has a volatile, resettable MIN/MAX memory.

Programming is performed using the pushbuttons on the front of the device. The set switching point as well as the programmed parameters can be called up and displayed during measurement operation.

Sensors of design 45 are used for monitoring the temperature of fluids in pipelines.

The temperature sensor can be mounted in any commercially available T-piece or in a welding socket. The sensor is sealed using the supplied gasket or other suitable sealing agent. Make sure that the seal is able to provide the required pressure resistance at high temperatures.

After installation, the display electronics can be rotated by approx. 330°. This allows the display to be read easily regardless of the sensor position.

In the case of applications with temperatures above +80°C, the device should be mounted in the side of the pipeline.

application examples

▶ temperature monitoring of fluids and paste-like media in pipelines

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article-no.	YT450024	YT450020
temperature (medium)	**-40 ... +120°C**	**-40 ... +120°C**
screw-in depth	**31mm**	**48mm**
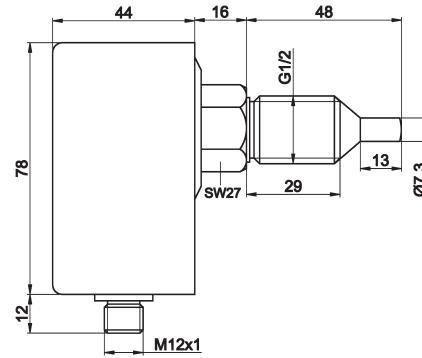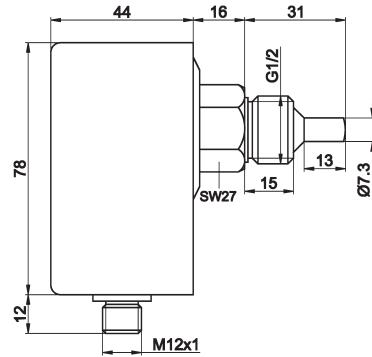
TECHNICAL DATA

|		
measuring method	contact with medium	contact with medium
output	4 ... 20mA scalable / pnp, no/nc programmable	4 ... 20mA scalable / pnp, no/nc programmable
operating voltage	24V DC ±10%	24V DC ±10%
output current (max. load)	200mA	200mA
current consumption (w/o load)	< 200mA	< 200mA
voltage drop (max. load)	< 2.5V DC	< 2.5V DC
time adjustment	0 ... 50s	0 ... 50s
readiness delay	typ. 10s	typ. 10s
adjustment range		
limit values	-39 ... +120°C	-39 ... +120°C
hysteresis	0.5 ... 99°C	0.5 ... 99°C
window	0.5 ... 99°C	0.5 ... 99°C
pressure resistance	100bar	100bar
display (signal)	yellow LED	yellow LED
display (resolution)	0.1°C	0.1°C
display (function)	LED	LED
short-circuit protection	+	+
reverse polarity protection	+	+
housing material	PBT	PBT
material (sensor head)	stainless steel	stainless steel
dimensions	50x78x91mm	50x78x108mm
operating temperature	-20 ... +60°C	-20 ... +60°C
temperature (medium)	-40 ... +120°C	-40 ... +120°C
degree of protection (EN 60529)	IP65	IP65
connection	M12-connector, 4-pin	M12-connector, 4-pin
connection accessories	e.g. **VK200325**	e.g. **VK200325**
connection (sensing element)	G½"	G½"

connection

connector device
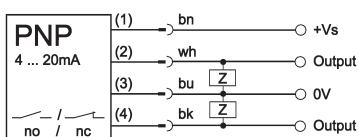
wire colors: bn = brown (1), wh = white (2), bu = blue (3), bk = black (4)

front view

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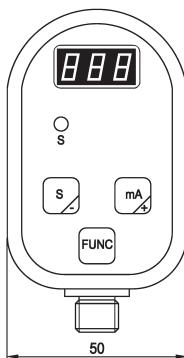
This data sheet only contains the available standard variants. For other output / connection variants, we kindly ask that you contact us.

We are happy to supply the right cable socket for the plug equipment. You will find a list in the "accessories" section of the catalog under **ipf** -*SENSORFLEX®* "cable sockets" or in the search window on our homepage www.ipf-electronic.com (using the search term "VK").

Warning: Never use these devices in applications where the safety of a person depends on their functionality.

You also find this data sheet, as well as contact details under www.ipf-electronic.com

NOTES