

TEMPERATURFØLERE

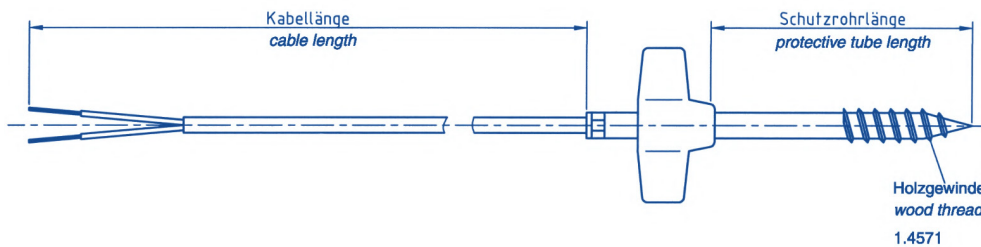


FØDEVAREINDUSTRI

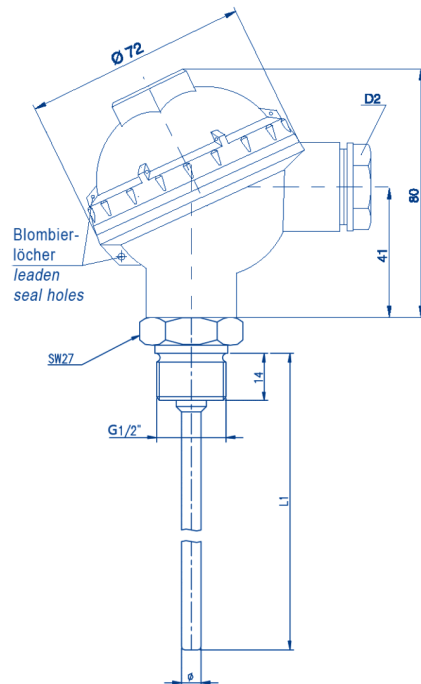
Penetration probe with stainless steel handle, e.g. Pt 100 Ω , Pt 1000 Ω , NTC



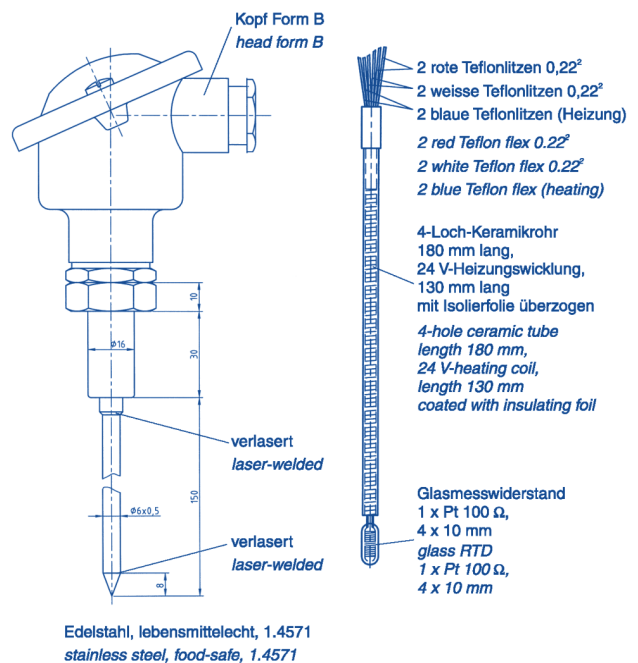
Screw-in cable probe Pt 100 Ω



Screw-in resistance thermometer with connection head NS



Penetration probe with heating Pt 100 Ω



FOOD PROBES



Food probes are used in breweries, creameries, wineries and dairies as well as in the biotechnology and pharmaceuticals. To meet the specific requirements of the food-, beverage- and pharmaceutical industry, our measuring sensors fulfil the following criteria:

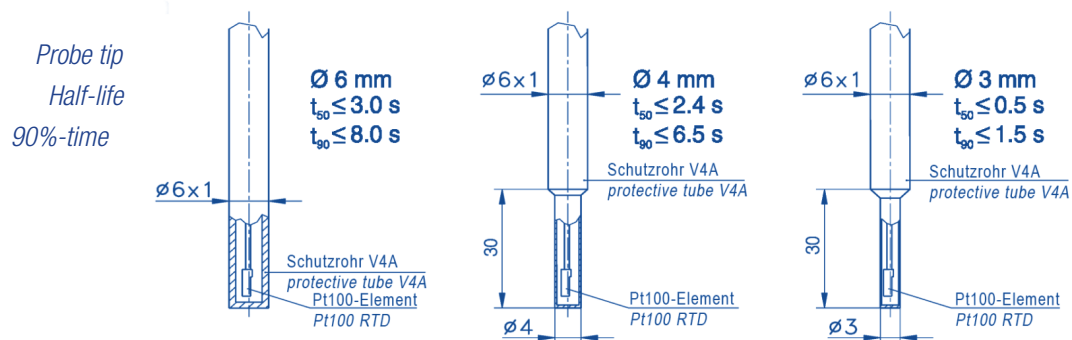
- Hygienic installation of the probes with easily sterilizable measuring point
- All product-contacting components in keeping with FDA requirements
- Food safe materials
- Suitable for CIP and SIP cleaning methods
- Resistant to biological, chemical, physical and mechanical loads
- Short response times
- Highest accuracy and long-term stability
- Comprehensive range of installation material

All sensors can be equipped with integrated head transmitter:

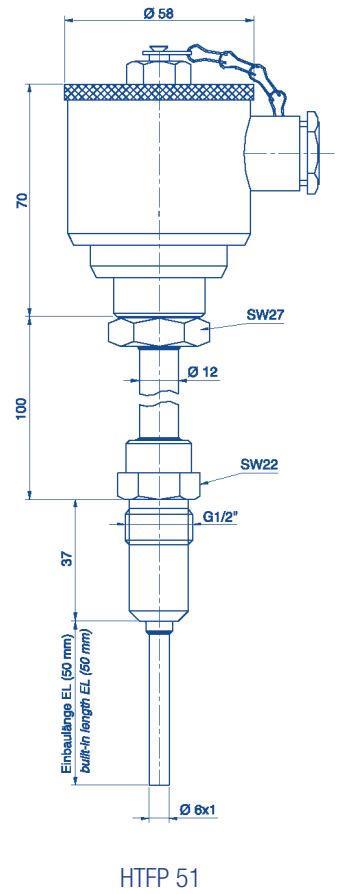
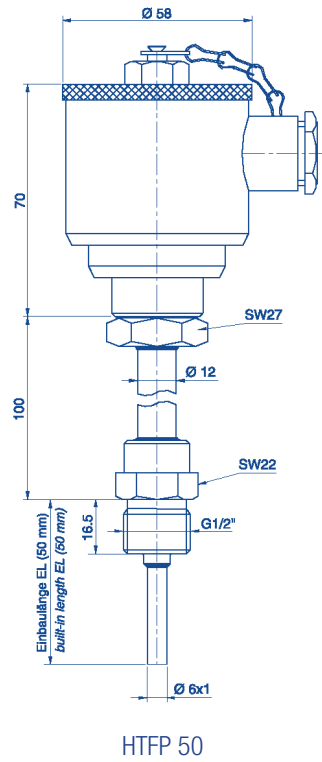
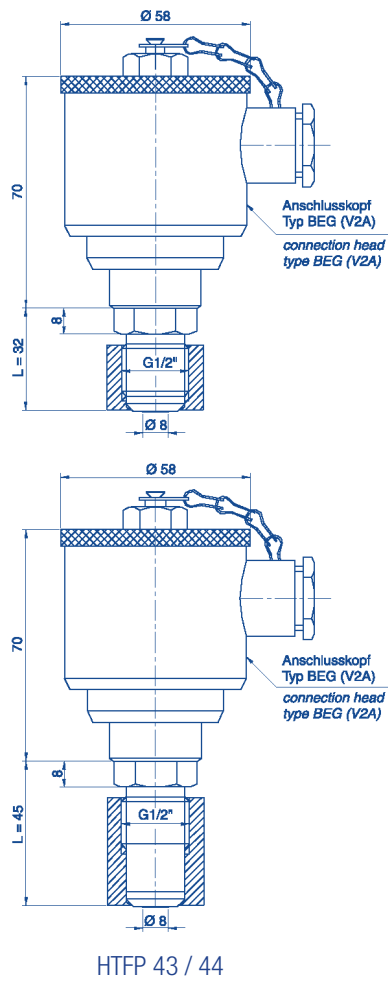
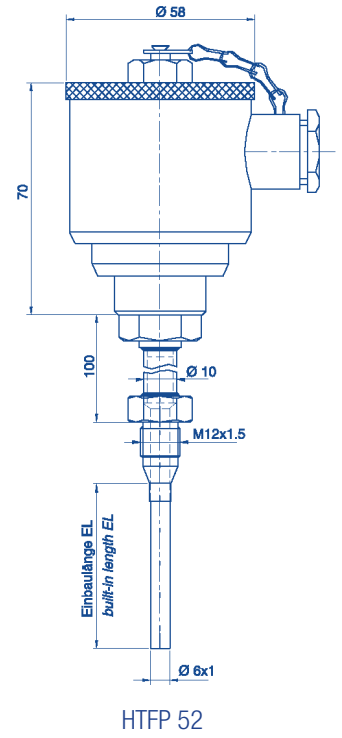
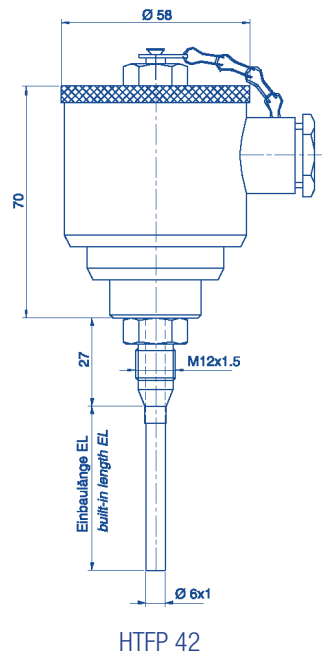
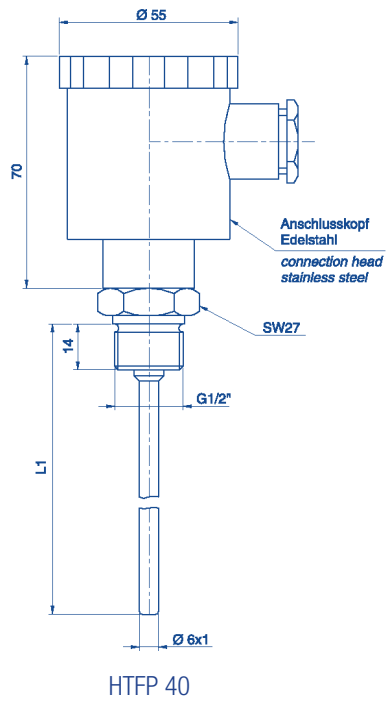
Materials

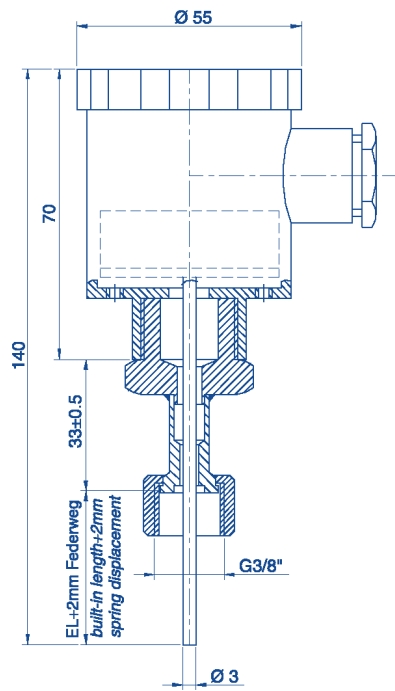
Typ Type	Ausführung Specification
mpu-2 mpu-3 mpu-4	Mit Ausgang 4 ... 20 mA, 2-Leiter With output 4 ... 20 mA, 2-wire
mpu-4p	Programmierbarer Kopftransmitter Programmable head transmitter
mpu-p	Programmieradapter Programming device
mpu-10	Kopftransmitter Profibus PA Head transmitter Profibus PA
mpu-H	HART-Protokoll HART-protocol
mpu-4ex	Ex-Ausführung Ex-specification
doh-VA	Vor-Ort-Anzeige im Anschlusskopf On site indicator in the connection head

Werkstoff-Nr. Material no.	Stahlsorte Steel grade
1.4401	X5CrNiMo17-12-2
1.4404	X2CrNiMo17-12-2
1.4435	X2CrNiMo18-14-3
1.4541	X6CrNiTi18-10
1.4571	X6CrNiMoTi17-12-2

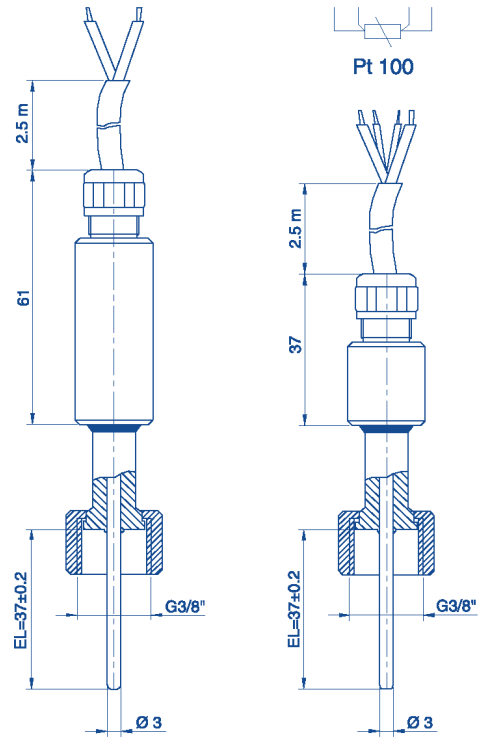


Probe tips and response times

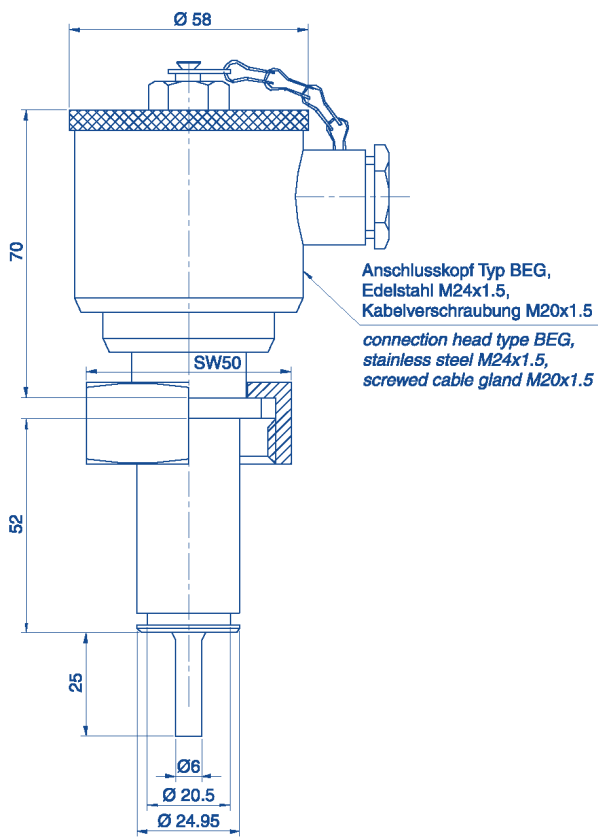




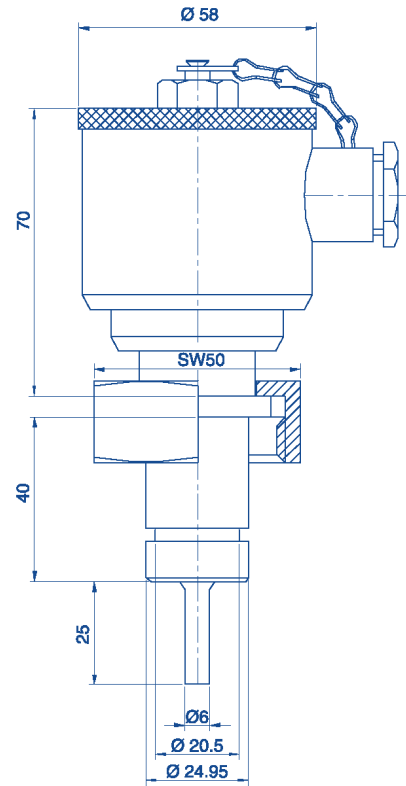
HTFP 58



HTFP 188



HTFP 90 / 052



HTFP 90 / 040

Abstract food probes - built-in length acc. to order

Type	HTFP 40	HTFP 42	HTFP 52	HTFP 43	HTFP 44
Application	• in tubes and tanks (without product contact of the sensor)	• in tubes DN15 ... DN80 • in thin-walled tubes and tanks		• variable fitting flush at the front or fitted from outside	
CIP- / SIP compliant	no	yes		yes	
Connection head	type HEK Ø 55 mm	type BEG Ø 58 mm, stainless steel V2A (1.4401 / 1.4541)			
Protective tube	Ø 6 x 1 mm (1.4571 oder 1.4435)	Ø 6 x 1 mm (1.4404)		-	
Thread	G1/2"	M12		G1/2"	
Process connection	external thread G1/2"	without gaps via weld-in socket			
Sensor	1 x Pt 100 class W0.15 / W0.1 acc. to DIN EN 60751 (optional also with 2 sensors)	1 x Pt 100 class W0.15 / W0.1 acc. to DIN EN 60751 (optional also with 2 sensors and restricted tolerances)		1 x Pt 100 class W0.15 / W0.1 acc. to DIN EN 60751	
Temperature ranges ambience sensor tip	-50 °C ... +90 °C -50 °C ... +250 °C	-50 °C ... +90 °C -50 °C ... +250 °C		-20 °C ... +90 °C -20 °C ... +150 °C	
Electrical connection	screwed cable gland M16x1.5; optional cable connection M12-plug				
Operating pressure	max. 10 bar	max. 16 bar		max. 6 bar	
Protection class	IP 67	IP 69		IP 67	

Abstract food probes - built-in length acc. to order

Type	HTFP 50	HTFP 51	HTFP 58	HTFP 188	HTFP 90 / 052	HTFP 90 / 040
Application	in tubes and tanks (without product contact of the sensor)		in tubes with narrow diameters DN10 ... DN100 (disassembling of the sensor without process opening, without electrical disconnection)		- in plants of the pharmaceutical industry - in ferment fittings	
CIP- / SIP compliant	no	I yes	yes		yes	
Connection head	type BEG Ø 58 mm		type HEK I -		type BEG Ø 58 mm	
Protective tube	Ø 6 x 1 mm stainless steel (1.4404)		Ø 3 mm stainless steel (1.4404)		Ø 6 mm stainless steel (1.4404)	
Thread	G1/2"		G3/8"		G1/4"	
Process connection	without gaps via weld-in socket		immersion sleeve with external thread		ferment socket DN25 with external thread	
Sensor	1 x Pt 100 class W0.15 / W0.1 acc. to DIN EN 60751 (optional also with 2 sensors and restricted tolerances)		1 x Pt 100 class W0.15 / W0.1 acc. to DIN EN 60751 (optional with restricted tolerances)		1 x Pt 100 class W0.15 / W0.1 acc. to DIN EN 60751	
Temperature ranges ambience sensor tip	-50 °C ... +80 °C -50 °C ... +250 °C		-50 °C ... +80 °C -50 °C ... +200 °C		-50 °C ... +90 °C -50 °C ... +250 °C	
Electrical connection	screwed cable gland M16x1.5; optional cable connection M12-plug		firm cable (teflon), 2.5 m		screwed cable gland M16x1.5	cable connection M12-plug
Operating pressure	50 bar *	I max. 10 bar	max. 40 bar		max. 10 bar	
Protection class	IP 69		IP 69		IP 69	

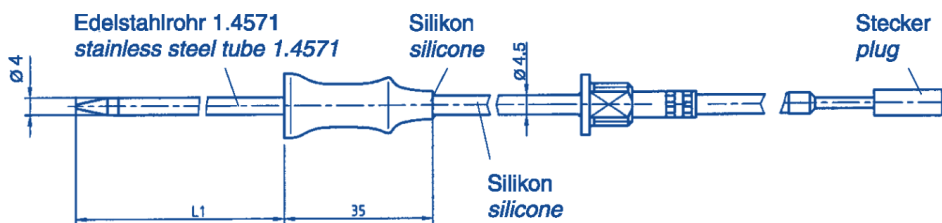
* with weld-in sleeve

CORE TEMPERATURE PROBES

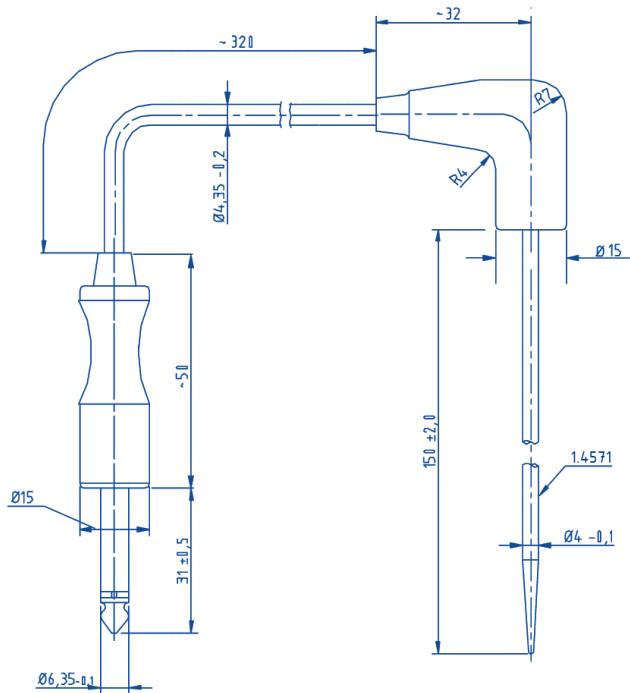


Core temperature probe

as Pt 100, Pt 1000, NTC, SAW resonator, thermocouple (with one or several sensors)



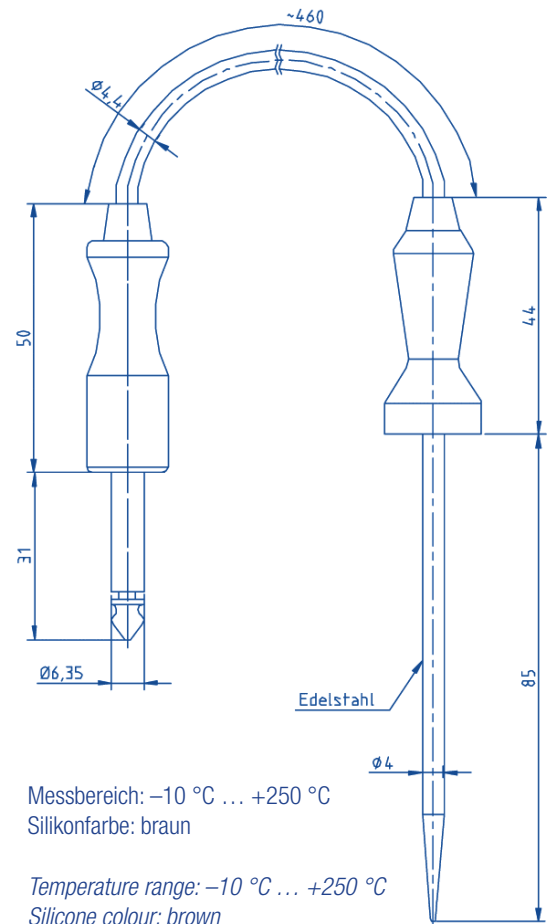
Core temperature probe (bended)



Shore 60 - 65
Messbereich: -10 °C ... +250 °C
Silikonfarbe: ähnlich RAL 8019

Shore 60 - 65
Temperature range: -10 °C ... +250 °C
Silicone colour: like RAL 8019

Core temperature probe (straight)



Messbereich: -10 °C ... +250 °C
Silikonfarbe: braun

Temperature range: -10 °C ... +250 °C
Silicone colour: brown

Core temperature probe wireless

Passive wireless probes 260 °C

CORE TEMPERATURE PROBE FOR OVENS

This thermometer is particularly eligible for wireless temperature measurements in which the ambient temperature of the sensor is above the functional range of conventional semiconductor devices and batteries.

The passive wireless thermometer consists of a passive, nonwired temperature sensor and an evaluation unit. The sensor element of the temperature sensor is on passive SAW resonator. The evaluation unit determines from the Impulse response of the surface wave temperature sensor, the resonant frequency of the resonator and calculates the temperature of the measuring point.

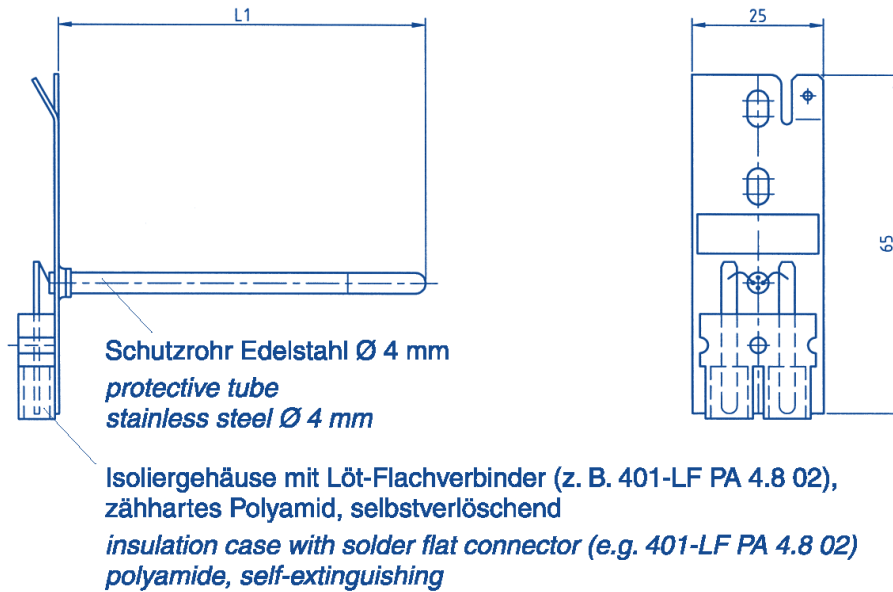
The maximum range of the passive wireless thermometer depends on the transmit power used, the antenna design and the electromagnetic environment conditions. Currently ranges of 0 - 5 m can be reached.

- 1** Funkfühler mit Silikongriff
für Lebensmittel geeignet
*Wireless sensor with silicone grip
suitable for food*
- 2** Funkfühler mit T-Silikongriff
für Lebensmittel geeignet
*Wireless sensor with T-silicone grip
suitable for food*
- 3** Einstechfühler mit 1 ... 3 Sensoren
für den Temperaturbereich von -40 °C bis $+120\text{ °C}$
Umgebungstemperatur des Griffes 260 °C
*Penetration probe with 1 ... 3 sensors
for the temperature range from -40 °C to $+120\text{ °C}$
Ambient temperature of the handle 260 °C*
- 4** Einstechfühler mit 1 ... 3 Sensoren
für den Temperaturbereich von -40 °C bis $+120\text{ °C}$
Umgebungstemperatur des Griffes 260 °C
*Penetration probe with 1 ... 3 sensors
for the temperature range from -40 °C to $+120\text{ °C}$
Ambient temperature of the handle 260 °C*



Technische Daten <i>Parameters</i>	Wert <i>Value</i>
Messgenauigkeit nach Kalibrierung <i>Measurement accuracy after calibration</i>	$\pm 1,0\text{ °C}$
Temperaturmessbereich <i>Temperature measuring range</i>	120 °C
Umgebungstemperatur des Griffes <i>Ambient temperature of the handle</i>	260 °C
Arbeitsfrequenz des passiven Resonators <i>Operating frequency of the passive resonator</i>	433 MHz
Reichweite <i>Reach</i>	0 – 5 m
Ohne Batterie <i>Without battery</i>	ja <i>yes</i>
Spülmaschinengeeignet, lebensmittelecht <i>Dishwasher safe, food safe</i>	ja <i>yes</i>
Möglich mit 1, 2 oder 3 Sensoren <i>Possible with 1, 2 or 3 sensors</i>	ja <i>yes</i>

OVEN PROBE (L = 60-150 MM)





ELVARME

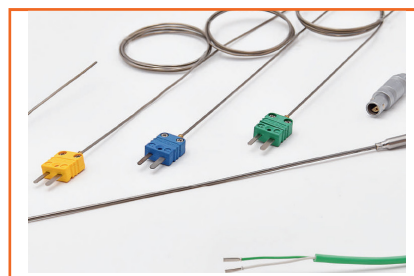
VORES PRODUKTSORTIMENT INKLUDERER:



ELPATRONER



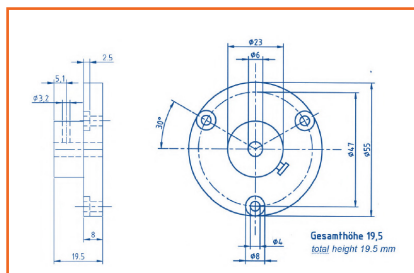
PROCESS HEATERS



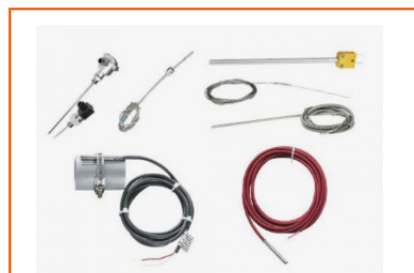
TERMOFØLERE



HIBC/A



TILBEHØR



TEMPERATURFØLERE

VI FØRER PRODUKTER INDENFOR KATEGORIERNE:



AUTOMATIK



**HVAC & BYGNINGS-
AUTOMATIK**



KØLEPROFILER

NEWTRONIC

Ove Jensens Alle 35 F
DK-8700 Horsens
Denmark
www.newtronic.eu
www.newtronic.dk
+45 7669 7090