HV temperature sensor type K
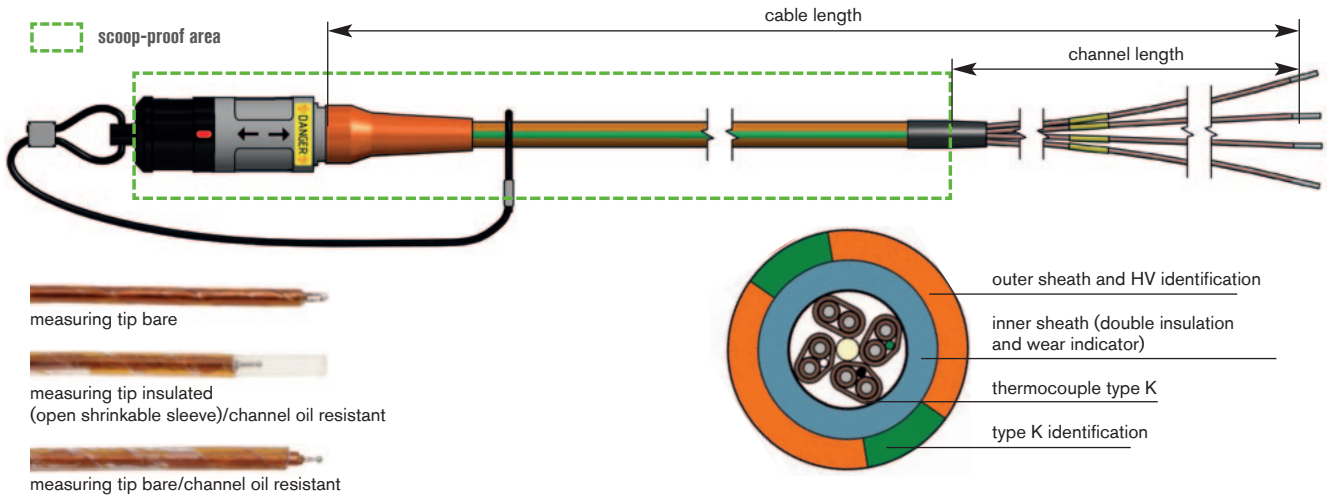
HV 4-channel thermocouple with PI (polyimide) insulated thermo channels

measuring tip bare

measuring tip insulated
(open shrinkable sleeve)/channel oil resistant

measuring tip bare/channel oil resistant

outer sheath and HV identification

inner sheath (double insulation and wear indicator)

thermocouple type K

type K identification

Application range:

Safe HV temperature measurement in HV environments

Connector:

Lemo Redel male connector with orange kink protection sleeve and black protecting cap, 8-pin, B-coded
1000 V AC voltage-stable – IP 67 when connected

Sensor:

Thermocouple:	4 x type K
Limit deviation:	class 1
Measuring point:	bare or electrically insulated (1000 V)
Temperature range single channel:	-40°C / +250°C
Response time:	on request

Cable data:

Connection cable:	HV thermo cable type K
Insulation:	PI foil
Pair sheath:	PI foil
Inner sheath:	FEP – blue acc. to RAL 5024
Outer sheath:	PUR
Sheath colour:	orange with green vertical stripes
Stranding:	optimised in layers
Outer diameter:	approx. 4,5 mm
Dielectric strength:	1000 V AC over inner sheath
Temperature range fixed laying: flexible application:	-50°C / +150°C -40°C / +150°C
Special characteristics:	small cable diameter for narrow spaces ✓

Tests:

▶ **Cable test**
over inner sheath in water bath –
5000 V AC – 5 min – with reference to EN 50264-2-1

▶ **Sensor test**
routine test of harnessed connector with reference to standard 61010-1 for measuring devices as well as VDE indications in our in-house ball bath (released by VDE). Control of contact protection towards outside – 3000 V/1 min AC

Issue of HV test certificate with reference to batch number due to optimum traceability

Optional: Test and repair of already used sensors on request

1.1.2

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CONFIGURATION EXAMPLES

item no.	connection cable length [mm]	single channel length [mm]				type of measuring tip
		channel 1	channel 2	channel 3	channel 4	measuring tip
T141-058-907	2400	400	400	400	400	bare / channel oil resistant
T141-051-415	2400	400	400	400	400	bare
T141-060-960	3000	570	620	560	385	insulated

Total cable and channel lengths can be realised on customer's request.

SAB identification:

item number, batch number