

## TECHNICAL DATASHEET

# Measuring probes and cables

## for Class 300 KISTOCK dataloggers





### Thermo-hygrometry probes

Thermo-hygrometry probes for Class 300 have 2 sensing elements:

- one capacitive element to measure humidity
- one Pt100 1/3 DIN\* element to measure temperature.

Each of these probes comes with a 8-pin mini-DIN connector.

(\*) as per IEC 751 standard

Part number	Technical features
KTHP 150 	<p><b>Polycarbonate probe (PC)</b> with protective perforated tip and stainless steel filter 25µm. Probe length: 150 mm (Ref. KTHP 150) or 300 mm (Ref. KTHP 300) Output on silicone cable Ø 4.8 mm, length 2m (further lengths available on request)</p> <p><u>Measuring range:</u> -40 to +120°C and 0 to 100%RH</p> <p><u>Accuracy:</u></p> <ul style="list-style-type: none"> <li>• Humidity : 2.58%RH between 18 and 28 °C (GAL*)</li> <li>• Temperature : ±0.3% of value displayed, ±0.25°C</li> </ul> <p><u>Response time:</u> (for V<sub>air</sub>=2m/s)</p> <ul style="list-style-type: none"> <li>• Humidity : t<sub>0.63</sub> =25s (from 10 to 80%RH)</li> <li>• Temperature : t<sub>0.63</sub>=9s (with a probe without filter)</li> </ul>
KTHP 300 	<p><b>STAINLESS STEEL probe</b> with protective perforated tip and stainless steel filter 25µm. Probe length: 150 mm (Ref. KTHI 150) or 300 mm (Ref. KTHI 300). Output on silicone cable Ø 4.8 mm, length 2m (further lengths available on request)</p> <p><u>Measuring range:</u> -40 to +180°C and 0 to 100%RH</p> <p><u>Accuracy:</u></p> <ul style="list-style-type: none"> <li>• Humidity : 2.58%RH between 18 and 28 °C (GAL*)</li> <li>• Temperature : ±0.3% of value displayed, ±0.25°C</li> </ul> <p><u>Response time:</u> (for V<sub>air</sub>=2m/s)</p> <ul style="list-style-type: none"> <li>• Humidity : t<sub>0.63</sub> =25s (from 10 to 80%RH)</li> <li>• Temperature : t<sub>0.63</sub>=9s (with a probe without filter)</li> </ul>
KTHI 150 	<p><b>ABS/PC probe with ABS/PC handle</b> Output on PVC cable high temperature (HT), length 2m.</p> <p><u>Measuring range:</u> -20 to +80°C and 0 to 100%RH</p> <p><u>Accuracy:</u></p> <ul style="list-style-type: none"> <li>• Humidity : 2.58%RH between 18 and 28 °C (GAL*)</li> <li>• Temperature : ±0.3% of value displayed, ±0.25°C</li> </ul> <p><u>Response time:</u> (for V<sub>air</sub>=2m/s)</p> <ul style="list-style-type: none"> <li>• Humidity : t<sub>0.63</sub> =25s (from 10 to 80%RH)</li> <li>• Temperature : t<sub>0.63</sub>=9s (with a probe without filter)</li> </ul>
KTHI 300 	<p><b>RC-TH-2</b></p> <p><b>Additional cable meter</b> for remote probe (15m maximum length)</p>

#### \* Guaranteed Accuracy Limits

As per NFX 15-113 standard and as per the Charter «2000-2001 HYGROMETERS»  
(GAL) = ±2.58 %RH between 18 and 28°C (normal measurement range)

Measuring range 3 to 98%RH,

Short-term drift: 1%RH / year

$$GAL = E_t + E_{rh} + k (u_{rel}^2 + u_t^2 + u_s^2 + u_c^2)^{1/2}$$

E<sub>rh</sub> : linearity and hysteresis = ±1.19%RH

E<sub>t</sub> : temperature coefficient error = ± 0.31%RH with

u<sub>rel</sub> : uncertainty of calibration = ± 0.51%RH

u<sub>r</sub> : uncertainty of resolution = ± 0.003%RH

u<sub>d</sub> : manufacturing dispersion = ± 0.15%RH

u<sub>s</sub> : comparison repeatability = 0.10%RH





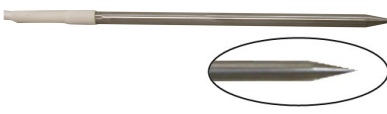
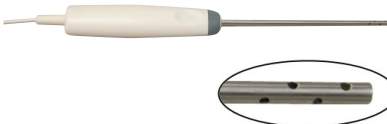
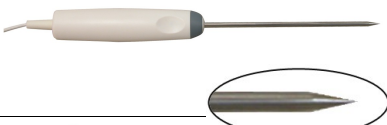


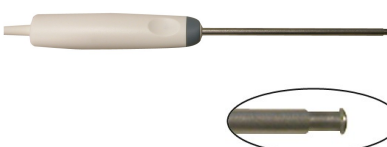

k : coverage factor value = 2

## Pt100 temperature probes

Temperature probes for Class 300 have a Class A Pt100 sensing element (as per IEC 751 standard).

Each of these probes comes with a 8-pin mini-DIN connector.

Response time:  $t_{0.63}=32s$  ( $V_{air}=2m/s$ ). Accuracy:  $\pm 0.4\%$  of value displayed  $\pm 0.3^{\circ}C$








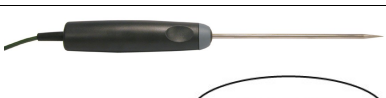

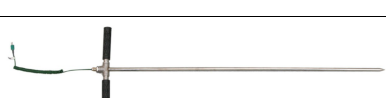
Part number		Technical features
KRG 50		<b>General use probe</b> With output on PVC HT cable, length 2m. Stainless steel probe $\varnothing 6 \times 50mm$ (Ref. KRG 50), $\varnothing 6 \times 150 mm$ (Ref. KRG 150), $\varnothing 6 \times 250 mm$ (Ref. KRG 250). <u>Measuring range</u> : $-40$ to $+120^{\circ}C$
KRG 150		
KRG 250		
KRA 150		<b>Ambient probe</b> Stainless steel probe $\varnothing 6 \times 150mm$ with perforated tip. Probe with output on PVC HT cable, length 2m. <u>Measuring range</u> : $-40$ to $+120^{\circ}C$
KRV 200		<b>Velcro probe</b> With output on PVC HT cable, length 2m. <u>Measuring range</u> : $-20$ to $+90^{\circ}C$
KRGP 150		<b>General use with handle</b> With ABS/PC handle, stainless steel probe $\varnothing 4.5 \times 150mm$ (Ref. KRGP 150), $\varnothing 4.5 \times 250mm$ (Ref. KRGP 250), $\varnothing 6 \times 500mm$ (Ref. KRGP 500) with pointer tip. Output on PVC HT cable, length 2m. <u>Measuring range</u> : $-50$ to $+400^{\circ}C$
KRGP 250		
KRGP 500		
KRP 150		<b>Food penetration probe</b> Stainless steel probe with pointer tip $\varnothing 6 \times 150mm$ . <u>Measuring range</u> : $-40$ to $+120^{\circ}C$
KRAP 150		<b>Ambient probe with handle</b> Stainless steel probe with perforated tip, with output on PVC HT cable, length 2m, $\varnothing 4.5 \times 150 mm$ . <u>Measuring range</u> : $-50$ to $+250^{\circ}C$
KRPP 150		<b>Penetration probe with handle</b> With output on PVC HT cable, length, 2m, $\varnothing 4.5 \times 150mm$ . <u>Measuring range</u> : $-50$ to $+400^{\circ}C$
KRPI 150		<b>Food penetration probe with handle</b> Stainless steel probe with pointer tip. Stainless steel « T » handle, output on PVC HT cable, length 2m, $\varnothing 4.5 \times 110mm$ . <u>Measuring range</u> : $-50$ to $+250^{\circ}C$
KRCI 1500		<b>Compost penetration probe with handle</b> With stainless steel probe with pointer tip. Stainless steel « T » handle, output on PVC HT cable, length 2m, probe $\varnothing 16 \times 1500mm$ . <u>Measuring range</u> : $-50$ to $+400^{\circ}C$
KRCP 150		<b>Contact plunger with handle</b> With ABS/PC handle and output on PVC HT cable, length 2m, probe $\varnothing 4.5 \times 150 mm$ . <u>Measuring range</u> : $-50$ to $+400^{\circ}C$
KCA		<b>Connection cable</b> for other Pt100 temperature probes. Comes with a terminal block, one mini-Din male connector, cable 10 cm long.



## ■ Thermocouple K temperature probes:

The probes below are Thermocouple K type. Each of these probes come with a miniature male connector.

**Accuracy\*\*** :  $\pm 1.1^{\circ}\text{C}$  or  $\pm 0.4\%$  of value displayed

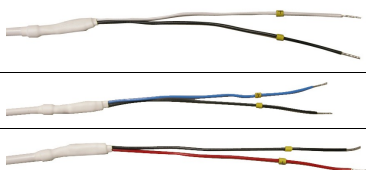
For information on Thermocouple T and J type, please contact us.

Part number		Technical features
STKF 05		<b>Wire probe</b> Teflon cable, length 50 cm (Ref. STKF 05), 1m (Ref. STKF 1), 2m (Ref. STKF 2), 5m (Ref. STKF 5), 10 m (Ref. STKF 10), 25 m (Ref. STKF 25), with miniature male connector. <u>Measuring probe</u> : -50 to +250°C
STKF 5		
STKF 1		
STKF 10		
STKF 2		
STKF 25		
STKG 150		<b>General use probe with handle</b> Probe $\varnothing$ 4.5 x 150 mm (Ref. STKG 150), $\varnothing$ 4.5 x 250 mm (Ref. STKG 250), $\varnothing$ 6 x 500mm (Ref. STKG 500). ABS/PC handle and output on retractable cable with miniature male connector. <u>Measuring range</u> : -50 to +400°C.
STKG 250		
STKG 500		
STKG 1000		
STKG 1500		
STKG 2000		
STKA 110		<b>Ambient probe with handle</b> ABS/PC handle and output on retractable cable with miniature male connector $\varnothing$ 4.5 x 110 mm <u>Measuring range</u> : -40 to +80°C
STKA 150		<b>Ambient probe with handle</b> ABS/PC handle and output on retractable cable with miniature male connector $\varnothing$ 4.5 x 150 mm. <u>Measuring range</u> : -50 to +250°C
STKC 150		<b>Contact probe (spring) with handle</b> Plunger $\varnothing$ 4.5 x 150 mm (Ref. STKC 150) $\varnothing$ 4.5 x 250 mm (Ref. STKC 250). ABS/PC handle and output on retractable cable with miniature male connector <u>Measuring range</u> : -50 to +400°C
STKC 250		
STKCC 150		<b>Elbow contact probe with handle</b> ABS/PC handle and output on retractable cable with miniature male connector $\varnothing$ 4.5 x 150 mm <u>Measuring range</u> : -50 to +400°C
STKC-R		<b>Contact probe (strip) with handle</b> ABS/PC handle and output on retractable cable with miniature male connector $\varnothing$ 4.5 x 150 mm <u>Measuring range</u> : -50 to +400°C
STKP 150		<b>Penetration probe</b> ABS/PC handle and output on retractable cable with miniature male connector $\varnothing$ 4.5 x 150 mm. <u>Measuring range</u> : -50 to +400°C
STKP 150/A		<b>Food penetration probe</b> ABS/PC handle and output on retractable cable with miniature male connector $\varnothing$ 4.5 x 150 mm. <u>Measuring range</u> : -50 to +400°C
STKP 1000		<b>Compost penetration probe</b> Probe $\varnothing$ 16 x 1000 mm (Ref. STKP 1000), $\varnothing$ 16 x 1500 mm (Ref. STKP 1500), $\varnothing$ 16 x 2000 mm (Ref. STKP 2000). Stainless steel « T » handle, output on retractable cable with miniature male connector. <u>Measuring range</u> : -50 to +400°C
STKP 1500		
STKP 2000		


Part number	Technical features	
STKV 150		<b>Velcro probe</b> Output on straight cable, length 1,5 m (Ref. STKV 150), 3m (Ref. STKV 300), 5m (Ref. STKV 500) with miniature male connector. <u>Measuring range:</u> -20 to +90°C
STKV 300		
STKV 500		
CEK 150		<b>Extension for Thermocouple K probe</b> with miniature connectors (male and female). Cable lengths: 1.5 m (Ref. CEK 150), 3m (Ref. CEK 300), 5m (Ref. CEK 500)
CEK 300		
CEK 500		

(\*\*) As per IEC 584-1 standard, the accuracy is expressed either in degrees Celsius, or in percentage of the temperature. We rely on the bigger value (only one to be confirmed).

## ■ Current and voltage input cables

Part number	Technical features	
KCTD 25		PVC cable, length 2m. <u>Measuring range:</u> 0 to 2.5V ; <u>Accuracy:</u> ±0.002V
KCTD 10		<u>Measuring range:</u> 0 to 4/20 mA ; <u>Accuracy:</u> ±0.05 mA
KCCD 02		<u>Measuring range:</u> 0 to 10 V ; <u>Accuracy:</u> ±0.02V

## ■ Ammeter clamps

Part number	Technical features		
KPID 20	 <p>KPID 20 / 50 / 100 / 200</p> <p>KPID 600</p>	PVC cable, length 2m.	
KPID 50		<u>Measuring range:</u> 0 to 20A	<u>Accuracy:</u> ±1% of value displayed ±0.1A
KPID 100		0 to 50A	±1% of value displayed ±0.1A
KPID 200		0 to 100A	±1% of value displayed ±0.2A
KPID 600		0 to 200A	±1% of value displayed ±0.3A
		0 to 600A	±2,5% of value displayed ±0.6A

All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

### EXPORT DEPARTMENT

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