



DATA SHEET

# SMART-PLUG Smart Measurement Probes & Cables















## For KT 320 KISTOCK Data Loggers



All the probes for KT 320 KISTOCK are equipped with the SMART PLUG technology. An automatic recognition and the storage of the adjustment parameters make them 100 % interchangeable.

### Pt100 Temperature probes

The temperature probes have a Pt100 Class A (as per IEC 751 standard) sensing element. Each of these probes come with an 8-pin mini-DIN connector with SMART-PLUG technology\*.

Reference	Description	Measuring range and accuracy**
KIRGA-50 KIRGA-150	  <b>IP65 immersion probe KIRGA-50/KIRGA-150</b> Stainless steel contact tip Contact tip size: Ø6 x 50 mm (KIRGA-50) Ø6 x 150 mm (KIRGA-150) Output on PVC cable of 2 m length	Pt100 sensing element: From -40 to +120°C ±0.4% of reading ±0.3°C
KIFC-50	 <b>Immersion probe KIFC-50</b> Stainless steel contact tip Contact tip size: Ø6 x 50 mm Output on PVC flat cable of 2 m length, 3 wires. KICA-320 adaptor is required	Pt100 sensing element: From -40 to +80°C ±0.4% of reading ±0.3°C
KIRAM-150	 <b>Ambient probe 150 mm</b> Stainless steel perforated contact tip Contact tip size: Ø6 x 150 mm Output on PVC cable of 2 m length	Pt100 sensing element: From -40 to +120°C ±0.4% of reading ±0.3°C
KIRPA-150	  <b>IP65 penetration probe</b> Stainless steel contact tip Contact tip size: Ø6 x 150 mm Output on PFA cable of 2 m length	Pt100 sensing element: From -50 to 250°C ±0.4% of reading ±0.3°C
KIPI3-150-E	  <b>IP68 penetration probe with handle</b> Stainless steel contact tip Contact tip size: Ø3 x 150 mm, Ø10 mm stainless steel handle Output on PFA cable of 1 m length	Pt100 sensing element: From -50 to 250°C ±0.4% of reading ±0.3°C
KIT13-100-E	  <b>IP68 penetration probe with T-handle</b> Stainless steel contact tip Contact tip size: Ø3 x 100 mm, T-handle Output on PFA cable of 1 m length	Pt100 sensing element: From -50 to 250°C ±0.4% of reading ±0.3°C
KITBI3-100-E	  <b>IP68 penetration probe with corkscrew handle</b> Stainless steel contact tip Contact tip size: Ø8 x 100 mm, T-handle Output on PFA cable of 1 m length	Pt100 sensing element: From -50 to 250°C ±0.4% of reading ±0.3°C
KIRV-320	 <b>Velcro® probe</b> Output on PVC cable of 2 m length Contact tip size: Ø4.5 x 150 mm Velcro® length: 350 mm	Pt100 sensing element: From -20 to +90°C ±0.4% of reading ±0.3°C
KICA-320	 <b>Smart adapter for Pt100 probe</b> 3-wire, containing a connection terminal and a mini-DIN connector.	From -200 to +600°C according to the Pt100 probe



Protection against powerful water jets in any direction






Watertight to continuous immersion

\*Except KIFC-50 probe

\*\*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 compensation.




## Hygrometry and temperature probes

The temperature and hygrometry probes have a NTC for temperature or capacitive for hygrometry sensing element. Each of these probes come with an 8-pin mini-DIN connector with SMART-PLUG technology.

Reference	Description	Measuring range and accuracy*
KITHA 	<b>Interchangeable hygrometry and ambient temperature probe</b> Probe body in ABS, 94.5 mm length, capacitive sensing element, stainless steel filter and mini-DIN connector	Hygrometry (capacitive): from 0 to 100%RH Accuracy: $\pm 2\%$ RH from 10 to 80%RH at 25°C Temperature dependence: $\pm 0.04 \times (T-20)$ %RH (if $T < 15^\circ\text{C}$ or $T > 25^\circ\text{C}$ )  Temperature (NTC): from -20 to +70°C $\pm 0.4^\circ\text{C}$ from 0 to 50°C, $\pm 0.8^\circ\text{C}$ below 0°C or above 50°C
KITHP-130 	<b>Remote interchangeable hygrometry and temperature probe</b> Probe body in ABS, 130 mm length, NTC sensing element, stainless steel filter, PVC cable of 2 m length with mini-DIN connector	Hygrometry (capacitive): from 0 to 100%RH Accuracy: $\pm 2\%$ RH from 10 to 80%RH at 25°C Temperature dependence: $\pm 0.04 \times (T-20)$ %RH (if $T < 15^\circ\text{C}$ or $T > 25^\circ\text{C}$ )  Temperature (NTC): from -20 to +70°C $\pm 0.4^\circ\text{C}$ from 0 to 50°C, $\pm 0.8^\circ\text{C}$ below 0°C or above 50°C
KITHI-150 	<b>Remote interchangeable hygrometry and temperature probe</b> Probe body in stainless steel, 150 mm length, capacitive sensing element, stainless steel filter, silicone cable of 2 m with mini-DIN connector	Hygrometry** (capacitive): from 0 to 100%RH Repeatability, linearity: $\pm 1.5\%$ RH (from 15 to 25°C and from 5 to 95%RH) Hysteresis: $< 2\%$ RH at 25°C Temperature dependence: $\pm 0.04 \times (T-20)$ %RH (if $T < 15^\circ\text{C}$ or $T > 25^\circ\text{C}$ )  Temperature (Pt100): from -40 to 180°C Accuracy: $\pm 0.3\%$ of reading $\pm 0.25^\circ\text{C}$

## Current and voltage input cables and pulse input cables

The pulse, voltage and current cables have a PVC cable of 2 m and an 8-pin mini-DIN connector with SMART-PLUG technology.

Reference	Description	Measuring range and accuracy*
KICT 	<b>Voltage input cable</b> Measuring range: 0 – 5 V or 0 – 10 V	From 0 to 5/10 V $\pm 0.2\%$ of the measurement $\pm 1\text{mV}$
KICC 	<b>Current input cable</b> Measuring range: 0 – 20 mA or 4 – 20 mA	From 0/4 to 20 mA $\pm 0.2\%$ of the measurement $\pm 1\mu\text{A}$
KICI 	<b>Pulse input cable</b>	Maximal voltage: 5 V Type of input: TTL frequency counting Maximal frequency: 10 kHz Maximum number of recordable pulses: 20,000

## Ammeter clamps

The ammeter clamps have a PVC cable of 2 m and an 8-pin mini-DIN connector with SMART-PLUG technology.

Reference	Description	Measuring range and accuracy*
KIPID-50 KIPID-100 KIPID-200  	<b>KIPID-50 ammeter clamp</b> Range from 0 to 50 A	From 0 to 50 A <sub>AC</sub> $\pm 1\%$ of reading $\pm 0.1\text{A}$ Frequency range: from 40 Hz to 5000 Hz
	<b>KIPID-100 ammeter clamp</b> Range from 0 to 100 A	From 1 to 100 A <sub>AC</sub> $\pm 1\%$ of reading $\pm 0.1\text{A}$ Frequency range: from 40 Hz to 5000 Hz
	<b>KIPID-200 ammeter clamp</b> Range from 0 to 200 A	From 1 to 200 A <sub>AC</sub> $\pm 1\%$ of reading $\pm 0.2\text{A}$ Frequency range: from 40 Hz to 5000 Hz
KIPID-600  	<b>KIPID-600 ammeter clamp</b> Range from 0 to 600 A	From 1 to 600 A <sub>AC</sub> $\pm 2.5\%$ of reading $\pm 0.6\text{A}$ Frequency range: from 40 Hz to 5000 Hz

\*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 compensation.

\*\*Accuracy in RH depends on temperature: typical  $\pm 2\%$  RH below 10°C and above 50°C.