# TECHNOLOGY

**K-Series Instrumentation Solutions** 

2023 - V1.2

# Out the box dataloggers



# connect, simply configure and go





# Handling IEPE and PT Sensors

# Influx K-IEPE

# **K-IEPE**

# **Measuring IEPE Sensors**



P/N: INF2213

### Advantages

- Wide frequency range
- Linear amplitude characteristics in wide dynamic range
- Ability to operate in severe ambient conditions (temperature, humidity, radiation and magnetic fields)
- High mechanical reliability and durability at expense of moving parts in the sensor
- High vibration and shock resistance
- No need of other power supply for sensors
- Compact structure and a large ratio of sensitivity to mass



Our K-IEPE module is designed to connect IEPE sensors to a K-Box or K-AN8 voltage measurement device that normally cannot support IEPE sensors.

The powered K-IEPE module simply enables IEPE sensors to be connected via the BNC terminals and will output the signal voltages to Analogue measurement device.

Calibration and sampling rates can be configured using the freely distributed K-Cal software.

### **Key Features**

- Connects to the K-Series K-Box/K-AN8 via the Analogue inputs
- Refresh rates achievable (4 channels 1kHz)
- ABS enclosure

# Influx K-IEPE

## **Technical Data**

Technical Data	Description
Measurement inputs	4
Type of measured sensors	PT100/1000
Measurement range	-200degC to +850degC
Linearization	Standard tables for different types of ALPHA
Internal resolution	18 Bit
Internal sampling rate per channel.	6.25kHz
Measurement data rate per channel.	1, 2, 5, 10, 20Hz
HW input filter	Input filter common mode; Output filter on the amplifier; Differential-Mode Corner Frequency 7.6Hz, Common-Mode Corner Frequency: 159Hz
SW input filter	A digital filter in the ADC module is automatically adjusted to the sampling rate. With the current setting (sampling at 6.25kHz), the filter has a frequency of 3kHz
Broken sensor detection	Yes
Measurement current	The current changes, depending on the resistance of the sensor, within the range: $212\text{-}224\mu\text{A}$
Technical Data	Description
Gain error at 25degC	± 0.1% of measured value
Offset and scaling error	±1K
Gain drift	±10ppm/K of measured value
Zero drift	±5mK/K
CAN channel Isolation	1000VDC minimum
CAN power supply Isolation	CAN and Power are galvanically connected
CAN interface	CAN 2.0B, up to 1Mbit/s
Configuration	Configuration with K-Box Cal application by company protocol
Power supply	4.5V to 36V DC.
Power consumption	Тур. 1.9W
Designation housing	ABS
Protection class	IP65
Weight	450g
Dimensions	115x46x105mm
CAN power supply	Two 9 pin D-type connectors with duplicate signals
Signal inputs	Two channels are integrated into a 9 pin D-type connector
Operation temperature range	-40degC to +85degC

# Linflux K-PT 100/1000

# K-PT 100/1000

### **Measuring PT Sensors**



P/N: INF2212

### Advantages

- Accuracy, excellent stability and repeatability
- Relatively immune to electric noise
- Well suited and widely used for temperature measurements in industrial environments. Especially around motors, generators and other high voltage equipment
- Easily configurable software

Our K-PT module is designed to connect PT100/1000 sensors to a K-Box or K-AN8 voltage measurement device that normally cannot support these sensors. The powered K-PT module simply enables PT100/1000 sensors to be connected via the D-Sub 9 terminals and will output the signal voltages to an Analogue measurement device.

Calibration and sampling rates can be configured using the freely distributed K-Cal software.

### **Key Features**

- Connects up to 4 RTD sensors to the K-Series K-Box/K-AN8 via the Analogue inputs
- Simple signal configuration using a DBC file
- Supplied with configuration software Influx K-Cal for Windows<sup>®</sup>
- Refresh rates achievable (4 channels 20Hz)
- ABS enclosure



# **Influx** K-PT 100/1000

## **Technical Data**

Technical Data	Description
Measurement inputs	4
Internal resolution	18 bit
Internal sampling rate per channel	6.25kHz
Measurement data rate per channel	4 channels: 1kHz. CAN bus: 1Mbit/s
SW input filter	A digital filter in the ADC module is automatically adjusted to the sampling rate
High pass filter	13.8Hz
Bandwidth	21.8Hz
Operational safety	-0.7V to +24V permanent, additional
Device safety	-0.7V to +24V permanent, additional ESD protection
Input impedance	>10K
Broken sensor detection	Yes
Typical SNR @ 30kHz Band Width	Sampling @6.25Hz: 102dB
Linearity	ADC ±0.75 LSB
Current source	5.1mA ± 2%
Voltage	24V
Output power	Maximum total (for 4 channel) current: 60mA
Channel/ power supply Isolation	1000 VDC minimum
Sensor excitation/ power supply Isolation	1000 VDC minimum
CAN channel Isolation	1000 VDC minimum
CAN power supply Isolation	CAN and power are galvanically connected
Configuration	Configuration with K-Box Cal application by company protocol
Power supply	4.5V to 36V DC.
Power consumption	Тур. 2.6W
Housing	ABS
Dimensions/ Weight/ Protection Class	D: (128x46x105mm); W: 450g; PC: IP65
CAN/ Power supply	Two 9-pin D-Type connections with duplicate signals
Signal Inputs	BNC Connector
Operating temperature range	-40degC to +85degC

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# **K-Series Instrumentation Solutions**

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