HD 32.7
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DATALOGGER

HD32.7
8 INPUTS DATA LOGGER FOR Pt100 SENSOR PROBES

The instrument **HD32.7** is a robust 8 inputs data logger for Pt100 sensor temperature probes equipped with SICRAM module and 4 wires Pt100 Probe.

- Unit of measurement °C, °F, °K configurable.
- Flash memory organized in 64 sections with a total capacity of 96.000 acquisitions for each one of the 8 inputs. Storage can be managed in two ways:
- when the available memory is full, data are overwritten by starting from the oldest ones (circular memory),
- storage stops when the available memory is full.
- Simultaneous display of the 8 inputs.
- Maximum, minimum or average of the stored values.
- Selectable storage interval: 2, 5, 10, 15, 30 seconds, 1, 2, 5, 10, 15, 20, 30 minutes and 1 hour.
- Data logging: instantaneous or postponed, with the possibility of selecting the storage start and end.
- Data download: RS232C, 1200...38400 baud or USB 1.1 – 2.0.
- DeltaLog9 software for data download and processing.
- LCD backlit graphic display 128x64 pixel.
- Instrument setup through the keyboard; no connection required to the PC.
- Security password for keyboard locking.
- Power supply: 4 1.5V alkaline C-BABY type batteries or external power supply 12VDC-1A.
- Consumption @6VDC:

  <60µA when the instrument is off
  <60µA in sleep mode with 8 probes connected
  <40mA during data logging with 8 probes connected
- Use of the HD32.7 data logger: in the field for machine or equipment measurements, plant or machine testing, production check, oven mapping.

TECHNICAL SPECIFICATIONS

Number of Inputs	8 DIN 45326 8-poles male connectors.
Instrument accuracy when storing	±0.01°C ±1digit (in the range ±199.99°C) ±0.1°C ±1digit in the remaining range
Internal watch accuracy	1min/month max drift
Unit of measurement	°C, °F, °K
Resolution	0.01°C (in the range ±199.99°C) 0.1°C in the remaining range
Measuring range	-200°C … 650°C
Display	Backlit graphic LCD 128x64 pixel.
Keyboard	15 keys, configurable also without PC.
Keyboard locking function	with password.
Memory	divided into 64 blocks.
Memory capacity	96.000 storages for each one of the inputs.
Security of data stored	unlimited
Power supply	4 per 1.5V alkaline Batteries type C-BABY External 12Vdc-1A power supply. Connector, external Ø 5.5mm, internal Ø 2.1mm.
Current consumption @6Vdc	<60µA when the instrument is off <60µA in sleep mode with 8 probes connected <40mA during data logging with 8 probes connected
Autonomy	200 hours with 7800mAh alkaline batteries and 8 probes connected
Data download	RS232C from 1200 to 38400 baud, galvanically isolated. Sub D 9-pole male connector. USB 1.1 – 2.0 galvanically isolated.

Operating conditions

Operating temperature	-5 … 50°C
Storage temperature	-25 … 65°C
Working relative humidity	0 … 90% RH no condensation
Protection degree	IP64

Instrument

Dimensions (Length x Width x Height)	220x180x50 mm
Weight	1100 g (complete with batteries)
Materials	ABS, polycarbonate and aluminium

Probes

all Delta Ohm Pt100 probes equipped with SICRAM module belonging to the series TP47..., TP49...., TP87 and 4 wires Pt100 sensor probes can be connected. Please see pages TP-7 to TP-9. Probes of different form can be supplied upon request.

ORDERING CODES

HD32.7: Instrument **Data logger** with **8 inputs** for temperature Pt100 sensor probes equipped with SICRAM module and 4 wires Pt100 probes. The kit consists of instrument HD32.7, 4 per 1.5Vdc alkaline C-Baby type Batteries, instruction manual, software DeltaLog9 and support and carrying strap. **Probes, tripod, carrying case and cables have to be ordered separately.**

DeltaLog9: Further copy of the software for download and management of data by PC for Windows operating systems.

Probes for HD32.7

All temperature Pt100 probes equipped with SICRAM module and 4 wires Pt100 sensor probes can be connected to the instrument. **Probes of different form can be supplied upon request.**

Accessories for HD32.7

9CPRS232: Connection cable with Sub D 9-pole female connectors for RS232C (null modem)
CP22: Connection cable USB 2.0 connector type A - connector type B.
BAG32.2: Carrying case for the HD32.7 instrument and accessories.
HD32CS: Support and carrying strap
SWD10: 100-240VAC/12VDC-1A stabilized mains power supply
VTRAP32: Tripod complete with 6-input head and 5 probe holders code HD3218K
HD3218K: Shaft for another probe

HD32.8.8

8 INPUTS DATA LOGGER FOR THERMOCOUPLES

HD32.8.16

16 INPUTS DATA LOGGER FOR THERMOCOUPLES

Instruments **HD32.8.8** and **HD32.8.16** are two robust data loggers with 8 inputs the first, 16 inputs the second, for K, J, T, N, R, S, B and E type thermocouple with miniature connector temperature probes.

- Unit of measurement °C, °F, °K configurable.
- Flash memory organized in 64 sections with a total capacity of 800.000 acquisitions to be divided among all the present inputs. Storage can be managed in two ways:
  - when the available memory is full, data are overwritten by starting from the oldest ones (circular memory),
  - storage stops when the available memory is full
- Simultaneous display of 4 inputs.
- Maximum, minimum or average of the stored values.
- Selectable storage interval: 2, 5, 10, 15, 30 seconds, 1, 2, 5, 10, 15, 20, 30 minutes and 1 hour.
- Data logging: instantaneous or postponed, with the possibility of selecting the storage start and end.
- Data download: RS232C, 1200...38400 baud or USB 1.1 – 2.0.
- DeltaLog9 software for data download and processing.
- LCD backlit graphic display 128x64 pixel.
- Instrument setup through the keyboard; no connection required to the PC.
- Security password for keyboard locking.
- Power supply: 4 1.5V alkaline C-BABY type batteries, or external power supply 12VDC-1A or by means of the USB port of the PC.
- Consumption @6VDC: <60µA when the instrument is off
  <60µA in sleep mode with all the probes connected
  <40mA during data logging with all the probes connected
- Use of data loggers HD32.8.8 and HD32.8.16: in field for measurement campaigns on complex systems with many measurement points, testing facilities, in pharmaceutical and food sectors, ovens mapping, air conditioning centrals etc.

TECHNICAL SPECIFICATIONS

Number of inputs

8 for HD32.8.8
16 for HD32.8.16

Connection

Miniature female socket for thermocouple

Measuring range and accuracy of the instrument

Tc: K	-200…+1370°C / ±0.1°C up to 600°C ±0.2°C over 600°C
Tc: J	-100…+750°C / ±0.1°C up to 400°C ±0.2°C over 400°C
Tc: T	-200…+400°C / ±0.1°C
Tc: N	-200…+1300°C / ±0.1°C up to 600°C ±0.2°C over 600°C
Tc: R	+200…+1480°C / ±0.3°C
Tc: S	+200…+1480°C / ±0.3°C
Tc: B	+200…+1800°C / ±0.4°C
Tc: E	-200…+750°C / ±0.1°C up to 300°C ±0.2°C over 300°C

Accuracy is referred to the instrument only; error due to the thermocouple or to the cold junction reference sensor is not included.

Resolution

0.05°C in the range ±199.95°C
0.1°C in the remaining range

Drift in temperature @20°C

0.02%/°C

Drift after 1 year

0.1°C/year

Internal watch accuracy

1min/month max drift

Unit of measurement

°C, °F, °K

Display

LCD backlit graphic display 128x64 pixel.

Keyboard

15 keys; the instruments can be configured also without a PC.

HD 32.8.16

HD 32.8.8

Keyboard locking function	
	with password.
Memory	
Memory capacity	divided into 64 blocks up to 800.000 acquisitions to be divided among all the present inputs. For example, when one probe is connected you get 800.000 acquisitions. When 8 probes are connected you get 96.000 acquisitions each probe.
Security of data stored	
	Unlimited.
Power supply	
	4 per 1.5V 4 1.5V alkaline C-BABY type batteries External power supply 12VDC-1A. Connector, external Ø 5.5mm, internal Ø 2.1mm. Power supply via the PC USB port.
Current consumption @6Vdc	
	<60µA when the instrument is off <60µA in sleep mode with all probes connected <40mA during data logging with all probes connected
Autonomy	
	200 hours with 7800mAh alkaline batteries and all probes connected
Data download	
	RS232C from 1200 to 38400 baud, galvanically isolated. Sub D 9-pole male connector. USB 1.1 – 2.0 galvanically isolated.
Operating conditions	
Operating temperature	-5 … 50°C
Storage temperature	-25 … 65°C
Working relative humidity	0 … 90% RH no condensation
Protection degree	IP64
Instrument	
Dimensions (Length x Width x Height)	220x180x50 mm
Weight	1100 g (complete with batteries)
Materials	ABS, polycarbonate and aluminium
Probes	
	All thermocouples K, J, T, N, R, S, B and E type probes with male miniature connector can be connected. Further to the K probes available on the catalogue from page TP-15 to TP-19, Delta Ohm can supply other kind of probes with different forms as well, upon request.

ORDERING CODES

HD32.8.8: Instrument **Data logger with 8 inputs** for thermocouples K, J, T, N, R, S, B and E type temperature probes. The kit consists of instrument HD32.8.8, 4 per 1.5Vdc alkaline C-Baby type batteries, instruction manual, software DeltaLog9 and support and carrying strap. **Probes, tripod, carrying case and cables have to be ordered separately.**

HD32.8.16: Instrument **Data logger with 16 inputs** for thermocouples K, J, T, N, R, S, B and E type temperature probes. The kit consists of instrument HD32.8.16, 4 per 1.5Vdc alkaline C-Baby type batteries, instruction manual, software DeltaLog9 and support and carrying strap. **Probes, tripod, carrying case and cables have to be ordered separately**

DeltaLog9: Further copy of the software for download and management of data by PC for Windows operating systems.

Probes for HD32.8.8 and for HD32.8.16

All thermocouples K, J, T, N, R, S, B and E type temperature probes with miniature standard connector can be connected to the instruments.

Probes of different form can be supplied upon request.

Accessories for HD32.8.8 and for HD32.8.16

9CPRS232: Connection cable with Sub D 9-pole female connectors for RS232C (null modem)

CP22: Connection cable USB 2.0 connector type A - connector type B.

BAG32.2: Carrying case for the HD32.7 instrument and accessories.

HD32CS: Support and carrying strap

SWD10: 100-240VAC/12VDC-1A stabilized mains power supply

VTRAP32: Tripod complete with 6-input head and 5 probe holders code HD3218K

HD3218K: Shaft for another probe

HD32CS

SWD10