Data USB Trend Data Memory for IPS Detect

Data USB trend data memory is a user-friendly way to store and analyze the vibration data acquired via the IPS Detect sensor. Data USB can be used as a stand-alone device or integrated into a DCS system. Technicians can log condition data to a USB flash drive for three years for long-term storage. Using Vibrosoft software, technicians can analyze condition data to evaluate the current condition of the equipment and determine if further action is required at an early stage.

Vibration data in correlation to the production process
Real-time online trend data analysis (date, time) is available to reduce lifecycle cost, increase plant availability and optimize process efficiency.

Long-term data memory
With the flash drive, technicians can log and store condition data continually for 1000 days.

Direct USB communication
Using a standard USB interface, a PC or laptop can be connected directly to the Data USB logger. Technicians can use Vibrosoft software to configure the IPS Detect sensor and conduct data analysis.

Quickly assess trend data
Using a USB flash drive, it’s easy to save condition data for use on other systems. The data can be easily analyzed using the Vibrosoft data viewer.

Modbus TCP
Interface for direct data transfer, e.g., PI server

Simple power supply
As an alternative to the industrial 24 VDC power supply, the Data USB can be powered by the USB interface (USB-Micro, USB-B), and all standard USB power supply units can be used. The Data USB powers the IPS Detect sensor directly.
Connections:

- Terminal block for connection of the **IPS Detect** sensor and 24 Volt (18 to 30 VDC) power supply
- Control LEDs
- USB-Micro for optional power supply
- USB-B communication port for **Vibrosoft** software and optional power supply
- USB-A flash drive
- Additional USB-A port
- Modbus TCP

Terminal block connections:

```
18...30 VDC
18 VDC
HART
250 Ohm
HART
0 V

1

+ 24V (18...30 VDC)

or supply via Micro-USB or USB-B

2

- 0 V

3

IPS Detect

4

5

6

7

Internal supply

IPS Detect

3

4

5

6

7

External supply

Ext. Supply Voltage for 4...20mA

```
**Technical data**

**Power supply:**
- Input voltage: VDC (18 to 30 VDC); 500 mA; terminal 1+ / 2-.
- Power supply for electronic devices class A (industrial operation)
- Alternative input voltage 1: USB-Micro power supply unit 5 VDC / 500 mA
- Alternative input voltage 2: USB-B for PC communication 5 VDC / 500 mA
- Detect output voltage: 18 VDC ±5% / 20 mA short-circuit-proof; terminal 4+ / 7-
- Internal resistance: 250 Ohm; terminal 4 / 6

**Ambient conditions:**
- Storage temperature: \( T_a = -25^\circ\text{C} \text{ to } 60^\circ\text{C} (-13^\circ\text{F} \text{ to } 140^\circ\text{F}) \)
- Ambient temperature: \( T_a = -20^\circ\text{C} \text{ to } 60^\circ\text{C} (-4^\circ\text{F} \text{ to } 140^\circ\text{F}) \)
- Lifetime: >50,000 h
- Protection degree: IP20
- Relative air humidity: 5 to 95% no condensation
- EMC requirements: IEC 61326

**Mechanical specifications:**
- Housing: Plastics polycarbonate gray
- Dimensions: 118 x 45 x 138 mm
- Weight: 200 g
- Mounting: 32 mm mounting rail EN 60715

**Trend data memory:**
- Storage type: Ring buffer to 1000 days
- USB stick: ≥1 GB (scope of supply includes 4 GB)
- Number of files: 0–99 (factory setting: 99)
- File size: 100–7500 kB (+100) (factory setting: 4500 kB)
- Log interval: Min. 30 seconds (+30 sec. incremental steps) (factory setting: 30 sec.)
- Measurement: ~0.26 kB per measurement
- Data format: TXT in CVS format, e.g., Excel or Vibrosoft DataViewer
- Configuration: Vibrosoft

**Real-time clock:**
- Configuration: Vibrosoft
- Operation real-time clock without power supply: >5 days

* – By use of the provided USB sticks. Other USB sticks can have a higher power consumption.
** – The provided USB stick or a USB stick with a power consumption <200 mA has to be used.
  Further, it is recommended to use only cable lengths <1.5 m.