1. Order information DC-HI-NET SINGLE x-USB

DC-HI-NET SINGLE x-USB is interface-compatible with DC-HI-NET SINGLE x-RS. The PC connection and the power supply are made via the USB interface. SINGLE x-USB devices are delivered in a robust metal housing.

For data capture with DC-HI-NET SINGLE x-USB are necessary:

> *1. One DC-HI-NET SINGLE x-USB **Basic device** (incl. USB connection cable)*

- For digital manual measurement devices in any combination
- For measurement devices with RS232/BCD/IEEE interface (on request via special driver configuration)
- For optical-incremental transducers

SINGLE M2-USB
- 2 MULTI inputs for digital manual measurement devices with interface DIGIMATIC / OPTO / PROXIMITY / POWER
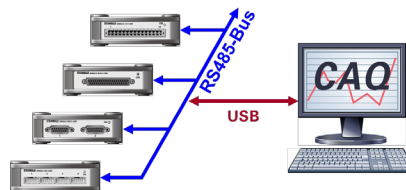 **Opt.:** RS232 / IW / bt / I/O

MULTI inputs for digital measurement devices

SINGLE M8-USB
- 8 MULTI inputs for digital manual measurement devices with interface DIGIMATIC / OPTO / PROXIMITY / POWER
  Opt.: RS232 / IW / bt / I/O

Option:
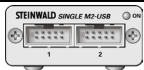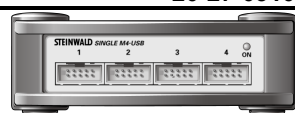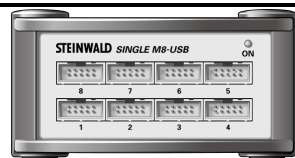Firmware cascading to upgrade up to **78 measurement device inputs**.
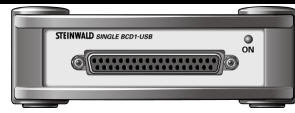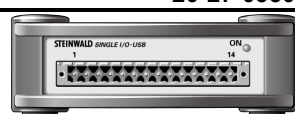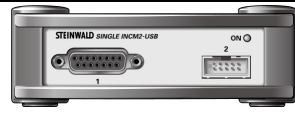

Delivery includes one USB connection cable and one manual.

Download USB-/COM device driver for Microsoft Windows® XP / Vista / 7 / 8 / 10 / 11 / Server 2008 R2 / 2012 R2 / 2016: **https://usb.steinwald.com**

> *2. Options*

- Control elements for data capture (hand or foot switch)
- Measurement device connection cables
- Software tools (driver, DLL or data capture software)

2. Producr survey DC-HI-NET SINGLE x-USB

SINGLE M1-USB	**1x digital manual measuring tools / RS232**	**20-27-0321**
Connection: 1x DIGIMATIC, OPTO / PROXIMITY / POWER Cable: from STEINWALD Data capture: Connector for foot / hand switch Size: 26 x 55 x 112 mm (H x W x D)	Interface device with one MULTI input for measurement devices with Mitutoyo DIGIMATIC type interfaces and Sylvac OPTO / PROXIMITY / POWER. **On request: Driver for connection of measurement devices with RS232 interface. Select the corresponding driver and compatible devices from the "List of measurement devices" (see app.).** Incl. USB connection cable	

SINGLE M2-USB	**2x digital manual measuring tools / RS232**	**20-27-0300**
Connection: 2x DIGIMATIC, OPTO / PROXIMITY / POWER Cable: from measurement device manufacturer or from STEINWALD Data capture: Connector for foot / hand switch Size: 26 x 55 x 112 mm (H x W x D)	Interface device with two MULTI inputs for the freely combinable connection of measurement devices with Mitutoyo DIGIMATIC type interfaces and Sylvac OPTO / PROXIMITY / POWER. **On request: Driver for connection of measurement devices with RS232 interface. Select the corresponding driver and compatible devices from the "List of measurement devices" (see app.).** Incl. USB connection cable	

SINGLE M4-USB	**4x digital manual measuring tools / RS232**	**20-27-0310**
Connection: 4x DIGIMATIC, OPTO / PROXIMITY / POWER Cable: from measurement device manufacturer or from STEINWALD Data capture: Connector for foot / hand switch Size: 40 x 121 x 183 mm (H x W x D)	Interface device with four MULTI inputs for the freely combinable connection of measurement devices with Mitutoyo DIGIMATIC type interfaces and Sylvac OPTO / PROXIMITY / POWER. **On request: Driver for connection of measurement devices with RS232 interface. Select the corresponding driver and compatible devices from the "List of measurement devices" (see app.).** Incl. USB connection cable	

SINGLE M8-USB	**8x digital manual measuring tools / RS232**	**20-27-0311**
Connection: 8x DIGIMATIC, OPTO / PROXIMITY / POWER Cable: from measurement device manufacturer or from STEINWALD Data capture: Connector for foot / hand switch Size: 62 x 121 x 183 mm (H x W x D)	Interface device with eight MULTI inputs for the freely combinable connection of measurement devices with Mitutoyo DIGIMATIC type interfaces and Sylvac OPTO / PROXIMITY / POWER. **On request: Driver for connection of measurement devices with RS232 interface. Select the corresponding driver and compatible devices from the "List of measurement devices" (see app.).** Incl. USB connection cable	

SINGLE BCD1-USB	**1x data format BCD / IEEE**	**20-27-0500**
Connection: 1x BCD / IEEE Cable: select from "List of measurement devices" Data capture: Connector for foot / hand switch Size: 40 x 121 x 183 mm (H x W x D)	Interface device with one BCD / IEEE interface upon request. **Select the corresponding driver and compatible devices from the "List of measurement devices" (see app.)** Incl. USB connection cable	

SINGLE I/O-USB	**12 digital inputs and outputs**	**20-27-0550**
Anschluss: 12 x digital potential-free input /output (up to 24V) Kabel: special version (on request) Size: 40 x 121 x 183 mm (H x W x D)	Interface device with 12 potential-free digital inputs and outputs for control tasks like relays, end contacts, machine controllers (configuration according demand). Incl. USB connection cable	

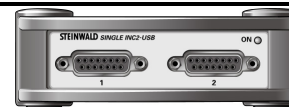| **SINGLE INCM2-USB**	**1x incremental transducer 1 Vpp** **1x digital manual measuring tool / RS232**	**20-27-0720**
Connection: 1x Connection for incremental transducer 1 Vpp 1x DIGIMATIC, OPTO / PROXIMITY / POWER Cable: at the probe (15-pin D-Sub connector) from measurement device manufacturer or from STEINWALD Data capture: Connector for foot / hand switch Siize: 40 x 121 x 183 mm (H x W x D)	Interface device with one incremental transducer with sinusoidal voltage interface 1 Vpp, sensor error detection (gauge defective / measuring speed to fast), Interpolation rate adjustable up to 200, input frequency max. 333 KHz **as well as** one MULTI input for connection of measurement devices with Mitutoyo DIGIMATIC type interfaces and Sylvac OPTO / PROXIMITY / POWER Optional: zero balancing switch Incl. USB connection cable	

DC-HI-NET SINGLE x-USB

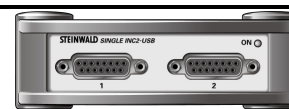| **SINGLE INC2-USB**	**2x incremental transducer 1 Vpp**	**20-27-0701**
Connection: 2x Connection for incremental transducers 1 Vpp Cable: at the probe (15-pin D-Sub connector) Data capture: Connector for foot / hand switch Siize: 40 x 121 x 183 mm (H x W x D)	Interface device for two incremental transducers with sinusoidal voltage interface 1 Vpp, Sensor error detection (gauge defective / measuring speed to fast), Interpolation rate adjustable up to 200, input frequency max. 333 KHz, Optional: zero balancing switch Incl. USB connection cable	

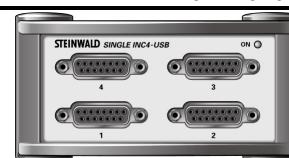| **SINGLE INC2-USB**	**2x incremental transducer 11 µApp**	**20-27-0711**
Connection: 2x Connection for incremental transducers 11 µApp Cable: at the probe (15-pin D-Sub connector) Data capture: Connector for foot / hand switch Size: 40 x 121 x 183 mm (H x W x D)	Interface device for two incremental transducers with sinusoidal current interface 11 µApp, Sensor error detection (gauge defective / measuring speed to fast), Interpolation rate adjustable up to 200, input frequency max. 333 KHz, Optional: zero balancing switch Incl. USB connection cable	

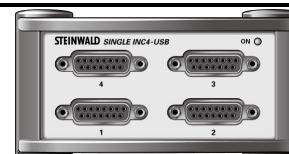| **SINGLE INC4-USB**	**4x incremental transducer 1 Vpp**	**20-27-0703**
Connection: 4x Connection for incremental transducers 1 Vpp Cable: at the probe (15-pin D-Sub connector) Data capture: Connector for foot / hand switch Siize: 62 x 121 x 183 mm (H x W x D)	Interface device for four incremental transducers with sinusoidal voltage interface 1 Vpp, Sensor error detection (gauge defective / measuring speed to fast), Interpolation rate adjustable up to 200, input frequency max. 333 KHz, Optional: zero balancing switch Incl. USB connection cable	

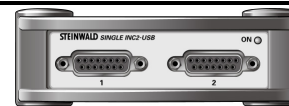| **SINGLE INC4-USB**	**4x incremental transducer 11 µApp**	**20-27-0713**
Connection: 4x Connection for incremental transducers 11 µApp Cable: at the probe (15-pin D-Sub connector) Data capture: Connector for foot / hand switch Size: 62 x 121 x 183 mm (H x W x D)	Interface device for four incremental transducers with sinusoidal current interface 11 µApp, Sensor error detection (gauge defective / measuring speed to fast), Interpolation rate adjustable up to 200, input frequency max. 333 KHz, Optional: zero balancing switch Incl. USB connection cable	

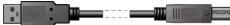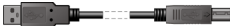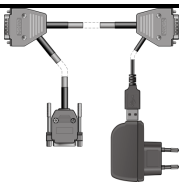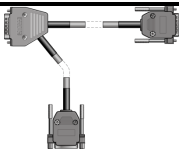| **SINGLE INC2-USB**	**2x incremental transducer TTL / RS422**	**20-27-0731**
Connection: 2x Connection for incremental transducers TTL / RS422 Cable: at the probe (15-pin D-Sub connector) Data capture: Connector for foot / hand switch Size: 40 x 121 x 183 mm (H x W x D)	Interface device for two incremental transducers with square-wave TTL / RS422 interface, Optional: zero balancing switch Incl. USB connection cable	

3. Accessories DC-HI-NET SINGLE x-USB

PC (USB)<->SINGLE x-USB		**Cable to PC**	**20-28-2810**
Connection:	1x Connection to the PC via USB interface	Host connection cable for the PC connection via USB. (**Scope of delivery**)	
Size:	Length 2 m		

PC (USB)<->SINGLE x-USB		**Cable to PC**	**20-28-2810/V**
Connection:	1x Connection to the PC via USB interface	Host connection cable (**enlarged conductor cross-section**) for the PC connection via USB.	
Size:	Length 1,8 m		

SINGLE x-USB<->SINGLE x-USB		**Cable between 2 DC-HI-NET SINGLE x-USB**	**20-28-2811**
Connection:	1x Connection between 2 DC-HI-NET SINGLE x-USB via RS485	Connection cable for serial coupling of two DC-HI-NET SINGLE x-USB via RS485. (**Not for SINGLE M1-USB / M2-USB!**)	
Size:	Length: 0,3 m		

SINGLE x-USB<->SINGLE x-USB		**Cable between DC-HI-NET SINGLE x-USB**	**20-28-2814**
Connection:	1x Connection between 2 DC-HI-NET SINGLE x-USB via RS485	Connection cable for coupling **two SINGLE x-USB** devices **incl. plug-in power supply unit (100 V - 240 V) for up to five SINGLE x-USB** and cable outlet to the next device.	
Size:	Länge 0,3 m		

SINGLE x-USB<->SINGLE x-USB		**Kabel zwischen DC-HI-NET SINGLE x-USB**	**20-28-2812**
Connection:	1x Connection between 2 DC-HI-NET SINGLE x-USB via RS485	Connection cable for coupling **two SINGLE x-USB** devices and cable outlet to the next device.	
Size:	Länge 0,3 m		

Spring clip		**Connection component for cascading**	**03-53-0503**
Function:	Housing connection	Connection component between two SINGLE x-RS / SINGLE x-USB devices	
Size:	40 x 20 x 6 mm (H x W x D)		