STEGO

GHV Trading

# SENSOR HUB & SENSORS

## SHC 071 | IO-Link, DC 24 V, 4 Sensor Ports

> Digital IO-Link Interface
> Small dimensions
> Easy DIN rail and screw mounting
> M12 plug-in connector

> For 1 to 4 digital STEGO sensors
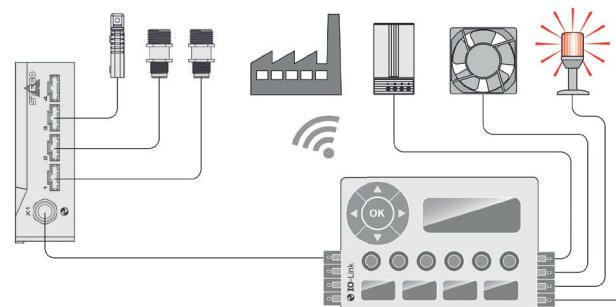> Quick connection of sensors via connectors
> 4 sensor types

The IO-Link Sensor Hub SHC 071 records measuring data from up to four external non IO-Link STEGO sensors on a process level and transmits data via an IO-Link Master for control and monitoring applications, using options such as an edge computer, cloud based system or PLC. Standard IO-Link sensors are connected to one IO-Link Master port each. By using the Sensor Hub up to four external sensors can be connected, but they only use one IO-Link Master port (see illustrations Connection Comparison). This allows you to attach up to three more IO-Link devices to an IO-Link Master. The Sensor Hub SHC 071 comes with a universal mounting bracket which offers six different DIN rail or screw mounting options (see operating instructions). Combined with other digital field devices and the STEGO CONNECT platform, the Sensor Hub can be part of a powerful IO-Link IIoT system. Please visit our website on www.stego-connect.com for more information.
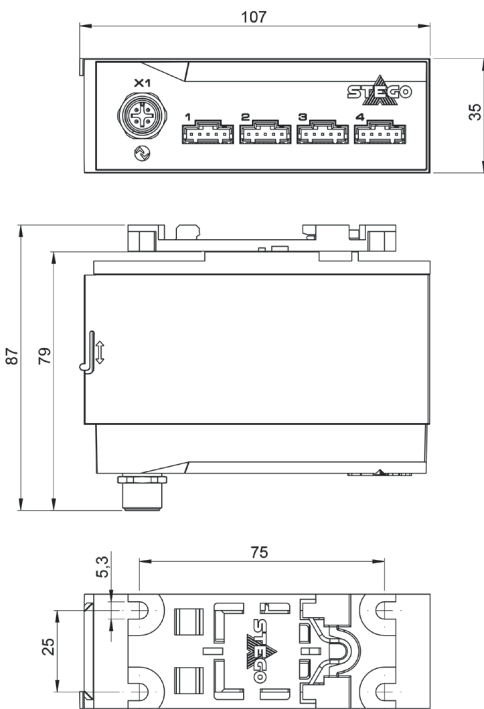
IO-Link CE RoHS 3

107

35

87

79

75

5.3

25

Universal mounting bracket for DIN rail and screw mounting

## TECHNICAL DATA

| | |
|---|---|
| Sensor connection | 4 ports with strain relief for up to 4 STEGO sensors[1] |
| IO-Link connection | M12 round plug connector, IEC 61076-2-101, 4-pin, A-coded |
| Electrical protection | Reverse-polarity, short circuit, overvoltage protection |
| Mounting | clip for 35 mm DIN rail, EN 60715 and screw mounting (M5) |
| Casing | plastic according to UL94 V-0, light grey |
| Dimensions | 107 x 35 x 79 mm (87 mm with universal mounting bracket) |
| Weight | approx. 110 g |
| Fitting position | variable |
| Operating/Storage temperature | -40 to +80 °C (-40 to +176 °F) / -40 to +85 °C (-40 to +185 °F) |
| Operating/Storage humidity | max. 90 % RH (non-condensing) |
| Operating altitude | ≤ 4,000 m above sea level |
| Protection type/Protection class | IP40 / III (SELV) |
| Certificates | CB No. DE1-63389 In conformity with IEC 61010-1 Evaluated in accordance with UL und CSA standards |

[1] Please order STEGO sensors separately.
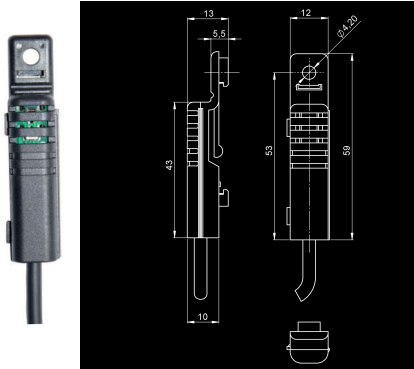
Example of connection

| Art. No. | Interface | Operating voltage | Power consumption max. |
|---|---|---|---|
| 07100.2-00 | IO-Link (digital, specified acc. to version 1.1) | DC 24 V (DC 18-30 V) | 0.5 W |

# DIGITAL PLUG & CONNECT SENSORS FOR IO-LINK SENSOR HUB SHC 071

The IO-Link Sensor Hub SHC 071 does not come with sensors and connection cables, these need to be ordered separately. The digital Plug & Connect sensors listed below are suitable for connection with the sensor hub. The sensors are pre-calibrated and ready for use; there is no need for individual calibration. Their small dimensions and offering of different cable lengths allow flexible positioning and easy mounting, mounting clips included.

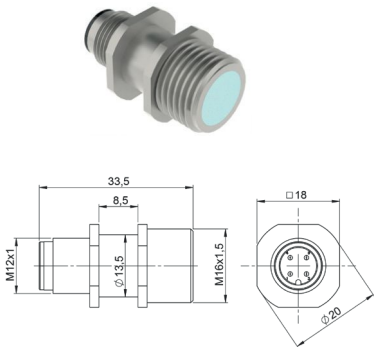## DIGITAL PLUG & CONNECT TEMPERATURE AND HUMIDITY SENSOR SEN 073, IP20

### TECHNICAL DATA

| | |
|---|---|
| Mounting | clip for 35 mm DIN rail, EN 60715 and screw mounting (M4) |
| Casing | plastic according to UL94 V-0, black |
| Dimensions/Weight | 59 x 12 x 13 mm |
| Fitting position | variable |
| Response time $T_{63}$ | 1.5 min. (Temperature), 7 sec. (Humidity) |
| Operating/Storage temperature | -40 to +85 °C (-40 to +185 °F) |
| Operating/Storage humidity | 100 % RH / max. 90 % RH (non-condensing) |
| Operating altitude | ≤ 4,000 m above sea level |

| Art. No. | Sensor | Connection | Temperature measuring range | Humidity measuring range | Weight (approx.) | Protection type |
|---|---|---|---|---|---|---|
| 07300.1-00 | Temperature + rel. Humidity | cable with connector, shielded, 1.0 m | -40 to +80 °C (-40 to +176 °F) ±0.2 K | 0 to 100 % RH ±2 % | 40 g | IP20 |
| 07300.1-01 | Temperature + rel. Humidity | cable with connector, shielded, 2.0 m | -40 to +80 °C (-40 to +176 °F) ±0.2 K | 0 to 100 % RH ±2 % | 70 g | IP20 |

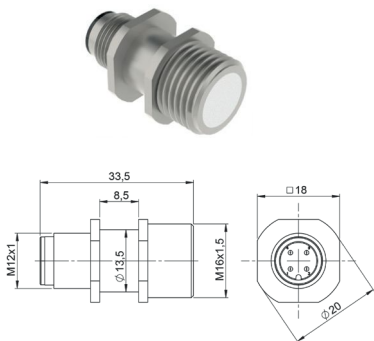## DIGITAL PLUG & CONNECT TEMPERATURE AND HUMIDITY SENSOR SEN 073, IP64

### TECHNICAL DATA

| | |
|---|---|
| Mounting | incl. mounting clip for screw mounting, Ø 3 mm, see photo |
| Casing | stainless steel |
| Dimensions/Weight | 33.5 x Ø 20 mm / approx. 25 g |
| Fitting position | variable |
| Response time $T_{63}$ | 2 min. (Temperature), 20 sec. (Humidity) |
| Operating/Storage temperature | -40 to +70 °C (-40 to +158 °F) / -40 to +85 °C (-40 to +185 °F) |
| Operating/Storage humidity | 100 % RH / max. 90 % RH (non-condensing) |
| Operating altitude | ≤ 4,000 m above sea level |

| Art. No. | Sensor | Temperature measuring range | Humidity measuring range | Connection | Protection type |
|---|---|---|---|---|---|
| 07300.0-00 | Temperature + relative Humidity | -40 to +70 °C (-40 to +158 °F) ±0.2 K | 0 to 100 % RH ±2 % | M12 plug IEC 61076-2-101, 4-pin, A-coded | IP64 |

Photo: Mounting clip
for screw mounting, Ø 3 mm
(included)

## DIGITAL PLUG & CONNECT PRESSURE AND TEMPERATURE SENSOR SEN 073, IP64

### TECHNICAL DATA

| | |
|---|---|
| Mounting | incl. mounting clip for screw mounting, Ø 3 mm, see photo |
| Casing | stainless steel |
| Dimensions/Weight | 33.5 x Ø 20 mm / approx. 25 g |
| Fitting position | variable |
| Response time $T_{63}$ | 5 sec. (Absolute Pressure), 2.5 min. (Temperature) |
| Operating/Storage temperature | -40 to +70 °C (-40 to +158 °F) / -40 to +85 °C (-40 to +185 °F) |
| Operating/Storage humidity | 100 % RH / max. 90 % RH (non-condensing) |
| Operating altitude | ≤ 4,000 m above sea level |

| Art. No. | Sensor | Pressure measuring range[1] | Temperature measuring range[2] | Connection | Protection type |
|---|---|---|---|---|---|
| 07301.0-00 | Absolute Pressure + Temperature | 300 to 1100 hPa | -40 to +70 °C (-40 to +158 °F) | M12 plug IEC 61076-2-101, 4-pin, A-coded | IP64 |

[1] Resolution: 0.1 hPa; Accuracy, absolute: ±1.7 hPa within temperature range -20 to 0°C (-4 to +32 °F), ±1.0 hPa within temperature range 0 to +65°C (+32 to +149 °F);
[2] Resolution: 0,1 °C; Accuracy, absolute: ±1.0 °C within temperature range 0 to +65°C (+32 to +149 °F), ±0.5 °C at +25 °C (+77 °F);

## DIGITAL PLUG & CONNECT LIGHT SENSOR SEN 073

In 2021 we can also offer an ambient light sensor, measuring the intensity of visible light. The spectral response of the sensor will tightly match the photopic response of the human eye. Please contact us for more information.

| Sensor | Illuminance range | Accuracy, relative | Connection |
|---|---|---|---|
| Visible Light | 0.01 to 83,865 lx | 0.2 % | M12 plug IEC 61076-2-101, 4-pin, A-coded |

## ACCESSORIES FOR DIGITAL PLUG & CONNECT SENSORS SEN 073

### CABLES

These cables are needed for the connection of the IO-Link Sensor Hub SHC 071 and the digital Plug & Connect Sensors SEN 073 Temperature and Humidity IP64 (Art. No. 07300.0-00) and Pressure and Temperature IP64 (Art. No. 07301.0-00). The standard cable is 2.0 m long and fully assembled. Sensor cables in lengths of 5.0 m and 20.0 m can be ordered for individual adjustments of the cable length for an application.

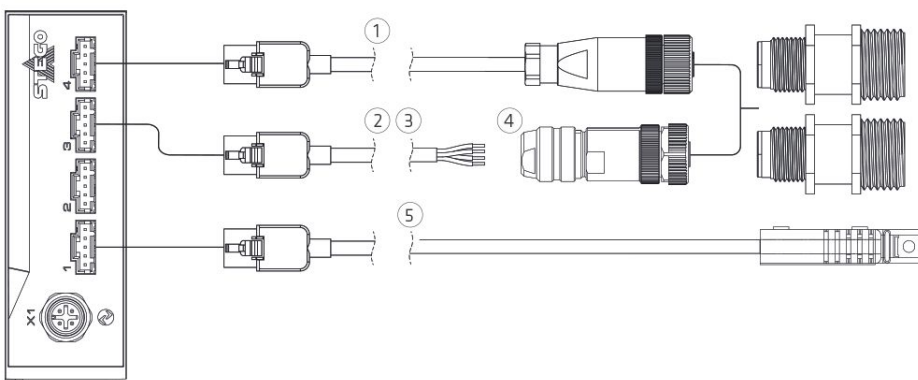| Art. No. | Cable | Length | Connection |
|---|---|---|---|
| 244445 | Sensor cable with connector, interlocking, shielded | 2.0 m | fully assembled with female M12 plug IEC 61076-2-101, 4-pin, A-coded, shielded |
| 244446 | | 5.0 m | for self-assembly, incl. female M12 plug IEC 61076-2-101, 4-pin, A-coded, shielded |
| 244447 | | 20.0 m | for self-assembly, incl. female M12 plug IEC 61076-2-101, 4-pin, A-coded, shielded |

Photo: Fully assembled sensor cable with connector and female M12 plug, 2.0 m long (Art. No. 244445)

Photo: Sensor cable with connector incl. female M12 plug for self-assembly, 5.0 m long (Art. No. 244446) and 20.0 m long (Art. No. 244447)

## CONNECTION EXAMPLE

The illustration shows the IO-Link Sensor Hub SHC 071 with different sensors and connection cables (from top down):
(1) Cable with connector and female M12 plug in 2.0 m length (Art. No. 244445)
(2) Cable with connector in 5.0 m length (Art. No. 244446) and (3) 20.0 m length (Art. No. 244447), each incl. (4) female M12 plug for self-assembly
(5) Temperature and Humidity Sensor SEN 073, IP20, in 1.0 m or 2.0 m cable length with connector

## CONNECTION COMPARISON IO-LINK SENSOR HUB SHC 071 VS. IO-LINK SENSORS

Even with four external sensors connected, the Sensor Hub SHC 071 only uses one IO-Link Master port. This may possibly add a (cost) savings effect on the port capacities of the IO-Link Master. The illustrations also show that the cable lengths can be extended from 20 m to 2 x 20 m when using the Sensor Hub.

IO-Link Master

≤ 20 m

IO-Link

4 x IO-Link Smart Sensors
CSS 014

IO-Link Master

≤ 20 m

IO-Link Sensor Hub
SHC 071

IO-Link

≤ 20 m

Digital Plug & Connect Sensors SEN 073
for IO-Link Sensor Hub SHC 071