

# SMART SENSOR

CSS 014 | DC 24 V



- > Analog/digital interface
- > High accuracy
- > Small size
- > Large temperature and humidity range
- > Easy clip and/or screw fixing
- > Various application areas
- > Quick connection (M12 plug-in connector)
- (IEC 61010-1/DIN EN 61010-1)

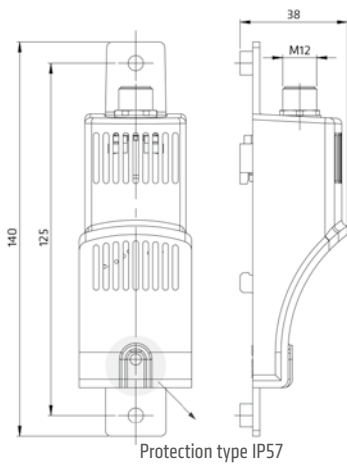
The compact Smart Sensor CSS 014 electronically records temperature and humidity and converts the measured data into a standardized analog 4-20 mA or a digital IO-Link signal. The converted value signals can be utilized or further processed by a control or monitoring unit, e.g. a PLC control. The Smart Sensor is suitable for installation inside and outside the enclosure, even in harsh environmental conditions as can be found in the wind power industry: in shielded outdoor areas and exposed to vibrations.



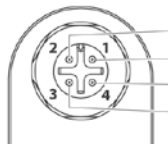
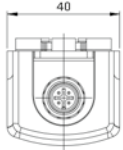
## TECHNICAL DATA

<b>Measuring signals</b> analog (4-20 mA)/digital (IO-Link) digital (IO-Link)	temperature, humidity events, diagnosis, device data
<b>Max. reaction time</b>	3 min.
<b>Load resistance (external)</b>	≤ 500 Ω (4-20 mA only)
<b>Connection</b>	M12 round plug connector, IEC 61076-2-101, 4-pin, A-coded, shielded
<b>Electrical protection</b>	Reverse-polarity, short circuit, overvoltage protection
<b>Mounting</b>	clip for 35 mm DIN rail, EN 60715 and screw fixing M5
<b>Casing</b>	plastic according to UL94 V-0, light grey
<b>Dimensions</b>	140 x 40 x 38 mm
<b>Weight</b>	approx. 50 g
<b>Fitting position</b>	vertical, connection on top
<b>Storage temperature</b>	-40 to +85 °C (-40 to +185 °F)
<b>Operating/Storage humidity</b>	max. 90 % RH (non-condensing)
<b>Protection type<sup>1</sup>/Protection class</b>	IP20 (sensor only IP57) / III (SELV)
<b>Approvals</b>	VDE, UL File No. E500143 (acc. to IEC 61010-1/DIN EN 61010-1), EAC
<b>Note</b>	other measuring ranges on request

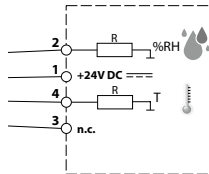
<sup>1</sup>The PCB (printed circuit board) is coated on both sides with a certified protective lacquer to protect against corrosion and for improvement of the tracking resistance.



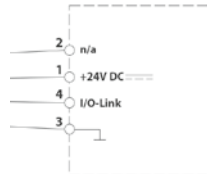
Protection type IP57



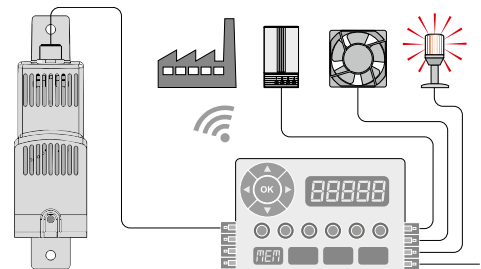
Pin assignment for 4-pin M12 round plug connector



analog 4-20 mA



IO-Link



Example of connection

Art. No.	Interface	Operating voltage	Power consumption max.	Temperature measuring range	Humidity measuring range	Operating temperature
01420.2-00	4-20 mA (analog)	DC 24 V (DC 12-30 V): 0 Ω < R < 160 Ω: (DC 12-30 V) 160 Ω < R < 500 Ω: (DC 20-30 V)	1.8 W (typically 0.4 W)	-40 to +60 °C (-40 to +144 °F) ± 1 K	0 to 100 % RH ± 4% <sup>2</sup>	-40 to +70 °C (-40 to +158 °F)
01411.2-00	IO-Link (digital, specified acc. to version 1.1)	DC 24 V (DC 18-30 V)	0.3 W	-40 to +80 °C (-40 to +176 °F) ± 0.3 K <sup>3</sup>	0 to 100% RH ± 3% <sup>2</sup>	-40 to +80 °C (-40 to +176 °F)

<sup>2</sup>Tolerance within 20 to 80 % RH / <sup>3</sup>Toleranz within +5 to +60 °C (please request diagram for tolerances outside this range).