

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)

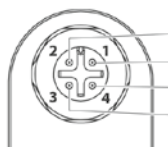
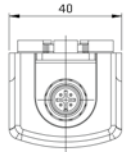
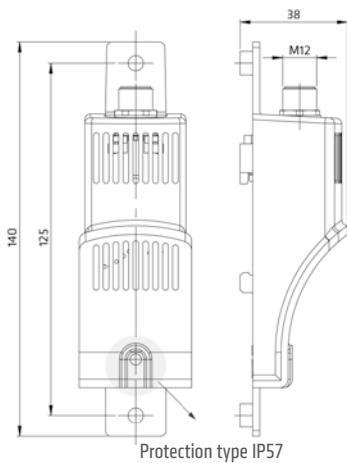
The compact Smart Sensor CSS 014 electronically records temperature and humidity and converts the measured data into a standardized analog 4-20 mA or a digital IO-Link signal. The converted value signals can be utilized or further processed by a control or monitoring unit, e.g. a PLC control. The Smart 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.



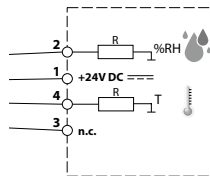
TECHNICAL DATA

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

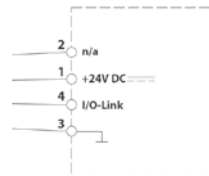
¹The PCB (printed circuit board) is coated on both sides with a certified protective lacquer to protect against corrosion and for improvement of the tracking resistance.



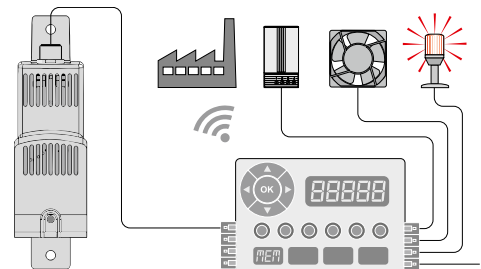
Pin assignment for 4-pin M12 round plug connector



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 (Max. reaction time t ₆₀ 195 s)	0 to 100 % RH ± 4% ² (Max. reaction time t ₆₀ 8 s)	-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 ³ (Max. reaction time t ₆₀ 195 s)	0 to 100% RH ± 3% ² (Max. reaction time t ₆₀ 14 s)	-40 to +80 °C (-40 to +176 °F)

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