SMART SENSOR ANALOG

CSS 014 | DC 24 V

> - > Analog interface
> - > Small size
> - > Easy clip and/or screw fixing
> - > Quick connection (M12 plug-in connector)

> - > High accuracy
> - > Large temperature and humidity range
> - > Various application areas (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 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

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Measuring signals analog (4-20 mA)	temperature, humidity
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	~ 50 g
Fitting position	vertical, connection on top
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	< 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

[1] 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.
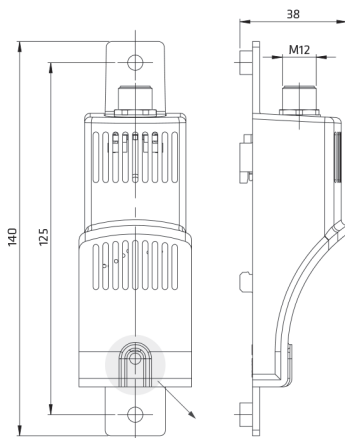
Protection type IP57
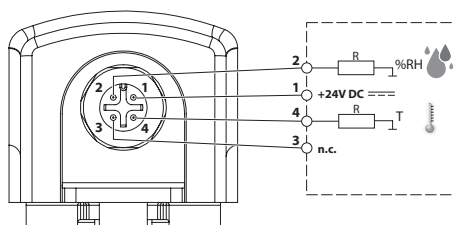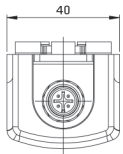
Pin assignment for 4-pin M12 round plug connector
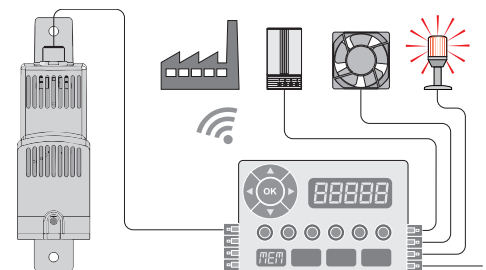
Example of connection

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 +140 °F) ± 1 K[2] (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)

[2] Tolerance data measured at nominal voltage DC 24 V and 500 Ω load resistance.