

STEGO Elektrotechnik GmbH, Schwaebisch Hall, June 20<sup>th</sup>, 2018:

## Press Release No. 05\_2018

### SHORT VERSION

(593 characters)

## Smart Sensor for Monitoring Temperature and Humidity

The importance of knowing what's going on in your control cabinet: Condition monitoring is playing a growing role in industrial applications. The compact Smart Sensor CSS 014 from STEGO electronically records temperature and humidity. It converts the measured data into a standardized analog 4-20 mA signal. This signal users can further process and convert the measured values within a control or monitoring unit, e.g. a PLC. The CSS 014 Smart Sensor provides two measurement channels. The measuring range is -40 to +60 °C and 0 to 100% RH.

### MEDIUM LONG VERSION

(1.275 characters)

## Smart Sensor for Monitoring Temperature and Humidity

Condition monitoring is an essential part of predictive maintenance. STEGO's Smart Sensor CSS 014 measures two important parameters - temperature and humidity - and helps to maintain an optimal climate within switch cabinets. The CSS 014 measures ambient temperatures with high sensitivity within a range of -40 to +60 °C while keeping a close eye on the relative humidity range from 0 to 100% RH.

The CSS 014 Smart Sensor transmits the data it acquires as a standardized analog 4-20 mA signal. This signal users can further process and convert the measured values within a control or monitoring unit, e.g. a PLC. Due to high measuring accuracy and signal strength connection wires with a maximum length of 30 m can be used.

The sensor unit of the CSS 014 is thermally decoupled and encapsulated with a circumferential seal. A shielded M12 round plug ensures a fast connection and safely transmits the signals of the two measuring channels for processing. The operating voltage is DC 24 V (DC 12 - 30 V) with a maximum power consumption of 1.8 W (typically 0.4 W). Tested safety is certified for the Smart Sensor CSS 014 through successful approvals with VDE and UL according to the standard IEC 61010-1 / DIN EN 61010-1.

## LONG VERSION

( 2.563 characters)

# Smart Sensor for Condition Monitoring

## Smart Sensor CSS 014 Measures Temperature and Humidity

**Condition monitoring is an essential part of predictive maintenance. This applies not only to enclosures and switch cabinets in industrial plants, but also to a large number of different applications in which regulated processes take place. STEGO's Smart Sensor CSS 014 measures two important parameters - temperature and humidity - and helps to maintain an optimal climate.**

### **Key Parameters: Temperature and Humidity**

Condition Monitoring is all about paying attention to detail. The key parameters within the switch cabinet should always be under control. The permanent measurement of temperature and humidity in the switch cabinet is an important element in preventing condensation, which leads to corrosion and thus failure of components. And this is where STEGO's CSS 014 Smart Sensor comes into play, combining three functions in one compact device: a sensor, interface and transmitter all in one. The CSS 014 measures ambient temperatures with high sensitivity within a range of -40 to +60 °C while keeping a close eye on the relative humidity range from 0 to 100% RH.

### **Smart Sensor, Smart User**

The CSS 014 Smart Sensor transmits the data it acquires as a standardized analog 4-20 mA signal. This signal users can further process and convert the measured values within a control or monitoring unit, e.g. a PLC. Due to high measuring accuracy and signal strength connection wires with a maximum length of 30 m can be used. Thus, scenarios beyond the classic control cabinet application can be

implemented. In principle, any larger, spatially sealed application with a defined atmosphere is suitable.

### **Inner Values for Demanding Applications**

The sensor unit of the CSS 014 is thermally decoupled and encapsulated with a circumferential seal. Rewards of this effort: a high vibration resistance and compliance with the IP20 degree of protection. The protective lacquer-coated board of the CSS 014 incorporates microcontrollers, interface drivers and EMC protection units in a heat-optimized arrangement so that any influence on the measured values due to waste heat is ruled out. A shielded M12 round plug ensures a fast connection and safely transmits the signals of the two measuring channels for processing. The operating voltage is DC 24 V (DC 12 - 30 V) with a maximum power consumption of 1.8 W (typically 0.4 W). Tested safety is certified for the Smart Sensor CSS 014 through successful approvals with VDE and UL according to the standard IEC 61010-1 / DIN EN 61010-1.

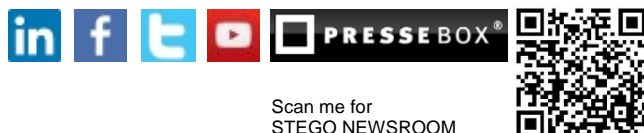
### **STEGO - Perfect Thermal Management**

Since it was founded in 1980, STEGO Elektrotechnik in Schwaebisch Hall, Germany, has been developing, producing and selling an ever-growing range of products for the protection of electric and electronic components. All STEGO products for cabinets and enclosures – heaters, fan heaters, filter fans, LED-lamps, thermostats, hygrometers and accessories - are aimed at reaching optimum climatic conditions in the most varied environments, ensuring that all sensitive components work reliably at all times. STEGO is now represented at 12 locations and by more than 200 sales partners worldwide.

**[www.stego.de](http://www.stego.de)**

#### **Press contact:**

Siegfried Oerthel | [soerthel@stego.de](mailto:soerthel@stego.de) | Tel. +49 791 95058-181  
STEGO Elektrotechnik GmbH  
Kolpingstrasse 21  
74523 Schwaebisch Hall, Germany



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