DOL 114 humidity and temperature sensor

DOL 114 is a high-precision humidity sensor for measuring relative humidity and temperature. It is intended for application in livestock houses but is also well suited for a number of industrial applications.

The sensor features two analogue outputs with very low output resistances and full protection against short circuits and wiring failures.

The special sensor element and the built-in filter enable application in livestock houses with constantly high humidity. The sensor ships with a built-in connector or cable, and with a specific adapted specification area - all according to your needs.

The sensor is microprocessor-controlled and has a two-color light emitting diode (LED) to communicate the operation status and the error diagnostic.

Sensor can be supplied with blinded LED for applications where this is needed.

Product survey

140252 DOL 114 humidity and temperature sensor, 2 m cable

140253 DOL 114 humidity and temperature sensor, 5 m cable

The DOL 114 is a dual-purpose temperature and humidity sensor that can be used for monitoring the livestock house relative air humidity and temperature.

The DOL 114 is a high-quality sensor which is especially useful under particularly harsh conditions and in areas of high air humidity, e.g. where tunnel ventilation is used.

The DOL 114 comes with a protective cap.

140256 DOL 114 humidity and temperature sensor 0-5 V

140260 DOL 114 humidity and temperature sensor 0-10V / 0-60 °C / 0-100% RH

140282 DOL 114 humidity and temperature sensor 0.5-3V / 0-60 °C / 0-100% RH

140258 DOL 114 humidity and temperature sensor w. M12 plug 0-10V

With the plug solution, the sensor can be dismounted during cleaning and disinfection of the house. This increases the lifetime of the sensor.

The DOL 114 comes with a protective cap.

140269 Cable 2 m M12 plug incl. sealing plug

2 meter cable with M12 plug and sealing plug.

140298 DOL 114 protective cap (5 pcs).

Kit including extra protection caps. Used for DOL 114 and DOL 104.

In connection with cleaning and disinfection of the livestock house, the sensor must be protected by a protection cap.

380101 Bracket for DOL 16/104/114

Mounting brackets are used if the sensor is to be mounted in an accurate position.

Technical data

140252, 140253, 140255, 140256, 140282

		Humidity measurement		Temperature measurement	
Measuring range		0 - 100	% RH	-40 – +60	°C
		17 - 100		0 - +60	
Accuracy	0 10 V	$\pm$ 2%RH (40 – 85 %) $\pm$ 3%RH (10-95%) at 0-40 ℃		+10 °C – 40 °C: $\pm$ 0.5 °C. - 30 °C – 60 °C: $\pm$ 1.5 °C	
	0 – 5 V	$\pm$3 %RH (40–85 %) $\pm$ 4 %RH (10-95 %) at 0-40 °C		+10 °C – +40 °C: $\pm$ 0.6 °C. - 30 °C – +60 °C: $\pm$ 1.5 °C	
	-0.5 – 3V	$\pm$ 3 %RH (40–85 %) $\pm$ 4 %RH (16.67-95 %) at 0-40 °C		+10 °C – +40 °C: $\pm$ 0.6 °C. 0 °C – +60 ℃ $\pm$ 1.5	
Output signal	0 10 V	0.1 V/%RH		0.1 V/°C; 0°C at 4 V	
	0 – 5 V	0.05 V/%RH		0.05 V/°C; 0°C at 2 V	
	-0.5 – 3V	0.03 V/%RH		0.042 V/°C	
Time constant T_{63}		20 sec. at 0.5 m/s air speed		6 min. at 0.5 m/s air speed	
Common					
Supply voltage	V DC	11 - 30			
Supply current 140252	mA	12 no load / 55 max. load			
Supply current 140256		12 no load / 35 max. load			
Load	Ω	> 500 Ω - <10 MΩ			
Recommended load	Ω	$\geq$ 100 kΩ			
Output current	mA	20 per output (current limited)			
Output impedance	Ω	< 1			
Temperature operation and storage	°C	-40 – +60			
IP classification	IP	67			
Cable dimensions		2 m 4 x 22AWG / 0.34 mm^2			
Max. Cable length at 0.75 mm^2	m	100			
Max. Cable length at 1.50 mm^2	m	200			
Shipment weight ex. connector	g	150			
Measurement, shipment	mm	275 x 200 x 20			

![dol SENSORS logo]

Dimensions

Dimensions in mm.