

- **SHL20-v: Hygrometer**
0...10V voltage output
- **SHL20-mA: Hygrometer**
4...20mA current 2 wires (loop powered)
- **Option Temperature**
RTD100 or RTD1000 output
- **Application** *ambiance, air duct,
fastening by collar or flange*



Heavy-duty ambient or air duct hygrometer for hard use (dirty medium). The fully digital measure concept allows very high repeatability as well as excellent long term characteristics stability.

DESCRIPTION:

Humidity transmitter allows to measure relative humidity rate and provide, proportionally with this one, a 0...10 V or 4...20mA output signal. In option, a temperature measure directly with RTD 100/ RTD 1000 output (2, 3, 4 wires).

MOUNTING - APPLICATION - SPECIFICATION:

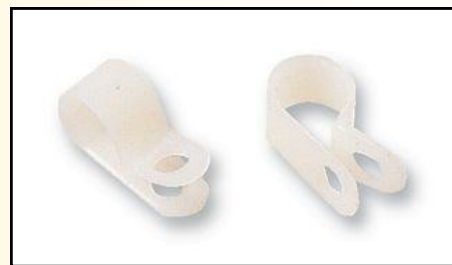
SHL20 :

- 316L Stainless steel, Ø 21,3 mm probe (IP54)
- Specific length on request (mini 55 mm without cable gland)
- Sensitive element protected by filter screen
- Fastening by collar or sliding flange (air duct)
- Output on shielded 0.5mm² cable (2 meters)
- 13 to 35V power supply
- Reverse polarity protection
- conformal coating

TEST - QUALIFYING:

- Excellent operating life, thereabouts 1000 hours in extreme environment (60°C temperature, 93% humidity).
- Water immersion resistance at 80°C, thereabouts 160 hours,
- Nitric, sulphuric and hydrochloric acid resistance at 75000 ppm.
- Salt atmosphere resistance.
- Recovery time after 150 hours of condensation thereabouts 10 seconds (measure element response without filter).
- Humidity hysteresis +/-1.5%.
- Long term stability, 0.5 % / years,
- Linearity better than 2% from 10% to 90% relative humidity scale..

Fixing : polyamide clamp (default)



**Fixing : JPC flange
(for air duct mounting or through wall crossing)**



Version and order code:

SHL20-V : Hygrometer 0...10V output

SHL20-mA : Hygrometer 4...20mA 2 wires (loop powered)

option **/T :** + temperature output PT100 2,3,4 wires

option **/JPC :** air duct flange mounting

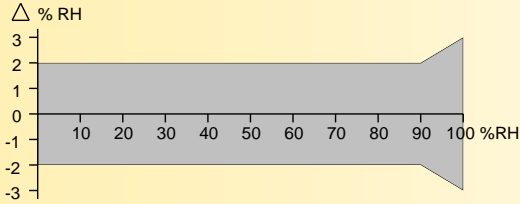
option **/L :** cable length (2m by default)

MEASURE

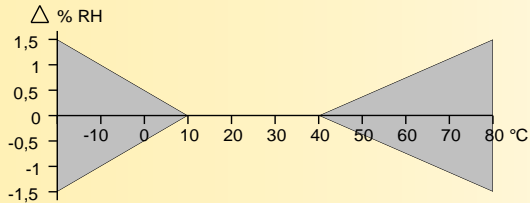
Relative Humidity:

Measure range 0 ... 100 % HR

Accuracy



Temperature influence



Response time (63 %)

at 20 °C in steady air-flow 15 s without filter

Linearity < 0.2 %

POWER SUPPLY

(voltage output and loop powered versions only)

Voltage 15 to 35 Vdc

OUTPUT

	RANGE	ACCURACY
Voltage output : Humidity	0 to 10 V	+/- 0.05 V
Loop powered (Current output) : Humidity	4...20 mA	+/- 0.1 mA

ENVIRONMENT

Operating temperature	-20 to +80 °C
Storage temperature	-25 to +85 °C
Humidity	100 %
Weight	~ 85 g
Protection rating	IP65

Electromagnetic compatibility

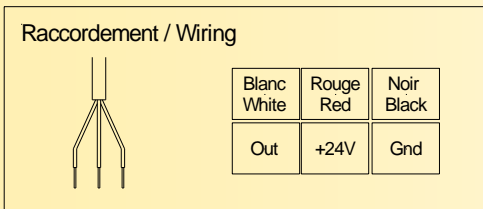
Generic standards: **NFEN50081-2 / NFEN50082-2**



EN55011	meet	group 1 / class A		
EN61000-4-2	no influence	B	ENV50140	< +/- 5 % A
EN61000-4-4	< +/- 5 %	B	ENV50141	< +/- 10 % A
EN61000-4-5	< +/- 5 %	B	ENV50204	no influence A
EN61000-4-8	no influence	A		
EN61000-4-11	< +/- 5 %	B	DBT	73/23/CEE

WIRING AND OUTLINE DIMENSIONS:

SHL20-V (0...10V output)



SHL20-mA/T (4...20mA + PT100)

