

RUG35 DEW POINT TRANSMITTER

Accurate dew point analog transmitter for harsh environments. Ideal for drying process, air compressed plants, gases pipelines, etc.

RUG35 rugged, affordable instrument, based on HC series polymeric humidity sensor. Scale range within to $\pm 60^{\circ}\text{C}$ of dew point in temperature at $\pm 2^{\circ}\text{C}$ of accuracy. Two programmable outputs easily configurable by user for each measured parameter. Dew point temperature (Td), dry bulb temperature (T). One optional output can be required to control an alarm threshold referred to one of the two variable by a trimmer.

Display LCD on demand.



Self calibration

Dew point in ambient temperature range -60°C to -20°C is equivalent to 0,08...5,37% r.H. relative humidity. Conventional capacitive humidity sensor can't detect these low values. Special autocalibration procedure for offset compensation, performs high accuracy up to -60°C lower dew point temperature limit.

Installation

On option, the ball valve allowed for probe replacing without shut off air-gas flow.

Alarm output on demand.

One relay with threshold set up configurable by trimmer on card.

RUG 35 - Display execution on request

TECHNICAL SPECIFICATIONS

Dew Point range: Td = -40°C ... $+60^{\circ}\text{C}$ std $\pm 2^{\circ}\text{C}$

extra -60°C ... $+60^{\circ}\text{C}$ on option

Dry bulb temperature: T = 0°C ... $+60^{\circ}\text{C}$ std

Sensor element : hygroscopic polymer HC1000-400

Response time to 90% within -20 to -40°C = 80 sec; within -40 to -20°C = 10 sec

Temperature sensor : RTD Pt 100 DIN A

Temperature range: T = 0°C ... $+60^{\circ}\text{C}$ $\pm 0.2^{\circ}\text{C}$; 0.1°C resol.

Temperature drift : $< 0.005^{\circ}\text{C}$

Readoutput : 2 x $0\text{...}5/10\text{V}$ or $0/4\text{...}20\text{mA}$ Vdc freely selectable for Td plus T temperatures

Power supply : $8\text{...}48\text{Vdc}$ or $12\text{...}35\text{Vac}$

Consumption: 40mA nominal (100mA in autocal) as Voltage outputs
 80mA nominal (140mA in autocal) as current outputs

Pressure: $0\text{...}15\text{ barg}$ standard; $0\text{...}10\text{ bar}$ with tap valve

Case: Polycarbonate IP65 protection class. Cable gland M16x1,5

Sensor cap: SS304 sinterized filter to protection

Temperature in process: -40°C ... $+60^{\circ}\text{C}$; -20°C ... $+50^{\circ}\text{C}$ with display

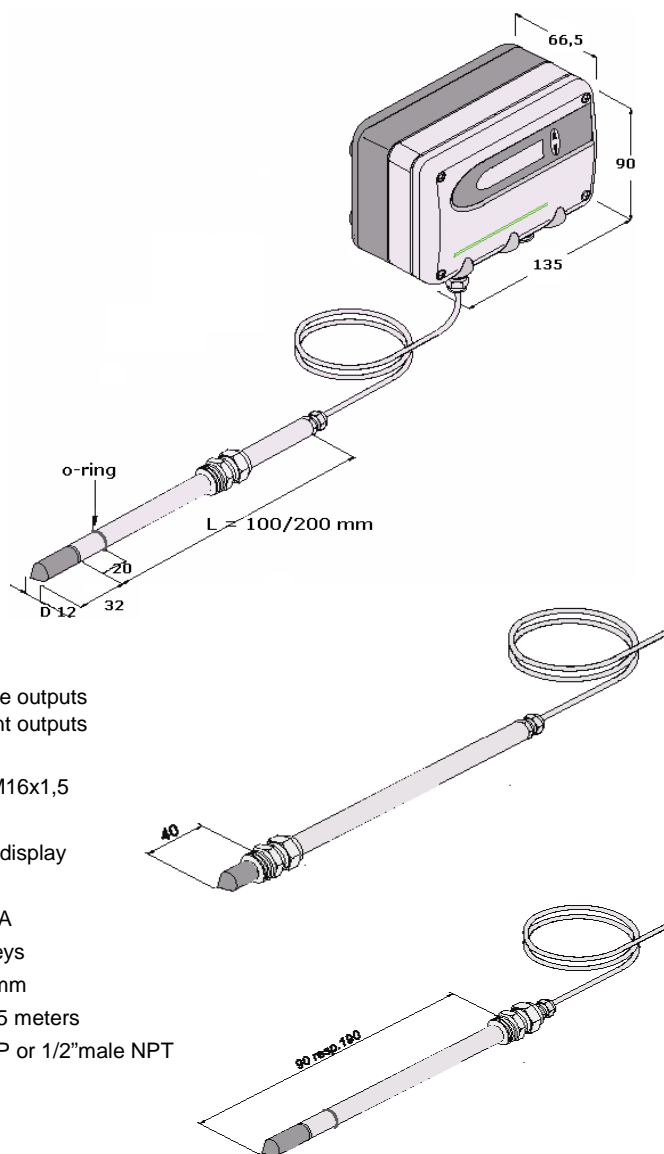
EMC conformity : EN1326-1:1997+1:1998

Alarm option: 1 relay output SPDT $250\text{Vac}/6\text{A}$ or $28\text{Vdc}/6\text{A}$

Display: graphic view on 128×32 pixels LCD with set up keys

Available versions:

- 2 probe stem L = 100 or 200 mm
- 3 cable lengthness L = 1, 2,5 meters
- 2 process fitting $1/2"$ male BSP or $1/2"$ male NPT



SATEMA

13856 VIGLIANO B.SE - Via Milano, 395

Tel. +39 015811102 - Fax 0158853029

Mail: info@satema.it <http://www.satema.it>