

Temperature & Humidity Sensor / Transmitter



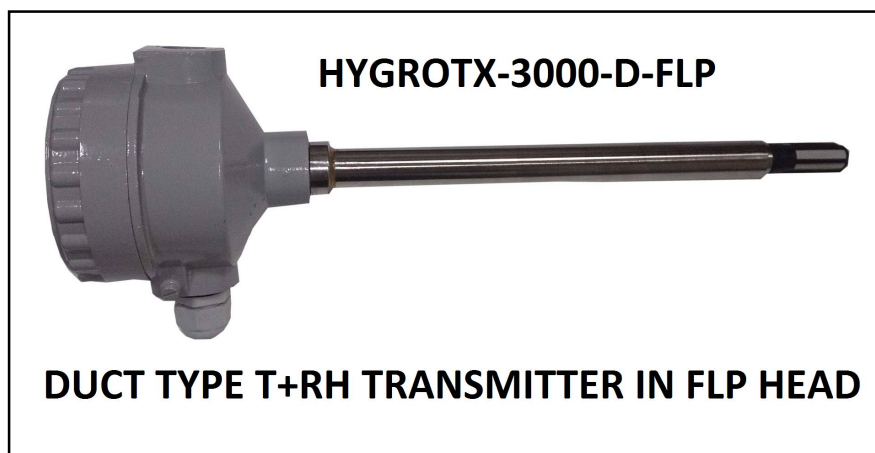
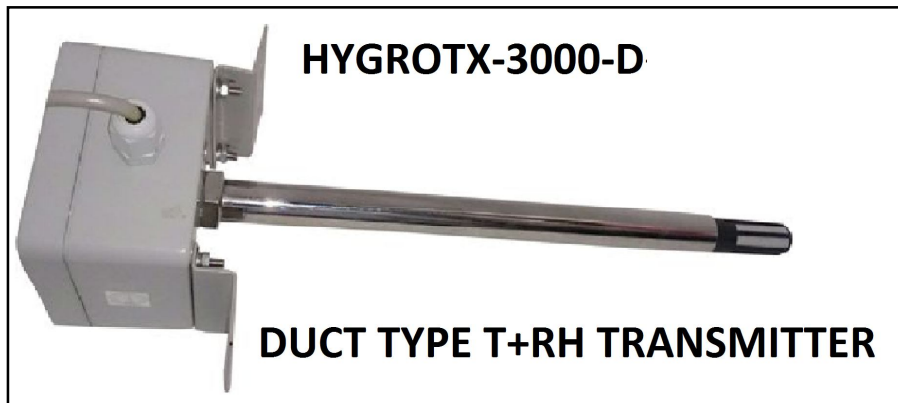
HYGROTX-3000



HYGROTX-3000-V



HYGROTX- 290



Partners in Measurement and Control (doc:250616)

401-403, Diamond Industrial Estate, Ketki Pada Road, Dahisar east, Mumbai 400068, Maharashtra, India.
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Model Wise Description:

Model	Product Description
HYGROTX-3000	T + RH Transmitter without display
HYGROTX-3000-V	T + RH Transmitter without display – for Vacuum chamber
HYGROTX-3000-D	T + RH Transmitter without display – for Duct mounting
HYGROTX-3000-D-FLP	T + RH Transmitter without display – for Duct mounting in FLP head
HYGRTOTX-290	T + RH Transmitter without display (suitable for max. Temp. 150 oC)

Features:

- Highly accurate T + Rh sensor from Rotronic-Swiss
- 4-20mA or 0-10VDC output proportional to T and RH.
- IP 65 ABS plastic enclosure or FLP head
- Duct Mount, Wall Mount and Vacuum version
- Operates on 24VDC.

Product Description:

Libratherm offers T + RH sensor with Transmitter model **HYGROTX-3000** and **HYGROTX-290** for measuring and transmitting the analogue values proportional to both T and RH Input. The signal generated by Hygroclip is of the order of 1volt DC and cannot be transmitted over very long distance and if done so the signal is likely to drop over very long cable which will result in the inaccurate measurement of temperature and %RH. The transmitter featured here converts the low level signal to equivalent 4-20mA, which can be transmitted over a long distance without loss of accuracy in the measurement. Dual output of 4-20mA proportional to T and %RH can be used for remote measurement and indication.

To suit industrial requirement more advanced transmitters model **HTX-3000** are also available with local display. To facilitate interface with PLC or DCS or with any other process controller – digital serial communication on RS485 bus with MODBUS RTU protocol in slave mode is also provided.



Advance version HTX-3000

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Technical Specification (HYGROTX-3000):

Model	HYGROTX-3000 / HYGROTX-3000-V/HYGROTX-3000-D / HYGROTX-3000-D-FLP
Sensor Make	Hygroclip CP – Rotronic Swiss make
Sensor Cable	1 meter long
Sensor Dimension	L = 140 mm. & D = 15 mm. (Length = 200mm – for HYGROTX-3000-D and FLP)
For Vacuum chamber	L= 185 mm. & OD = 20 mm. with ½" BSP Male thread
Temp. Range	-40 to 60 °C
Temp. O/P	4 – 20 mA proportional to desired temp. range as given below (Any one - As per user's requirement)
Temp. Accuracy	+/- 0.3 °C
%RH Range	0 to 100%
%RH O/P	4 – 20 mA or 0-10VDC proportional to 0 to 100%Rh,
%Rh Accuracy	+/- 1.0%
Loop Resistance	RLmax = 400 Ohms @ 24VDC
Supply Voltage	24VDC +/- 10% @ 50mA max.
Enclosure	ABS plastic IP-65 with suitable wall mounting clamps and glands
Enclosure Size	85 x 80 x 55 mm.
FLP Head Size	90 mm Dia. in Aluminum die cast head.

Technical Specification (HYGROTX-290):

Model	HYGROTX-290
Sensor Make	H290 – Rotronic Swiss make
Sensor Cable	1 meter long
Sensor Dimension	L = 200 mm. & D = 15 mm.
Temp. Range	-40 to 200 °C
Temp. O/P	4 – 20 mA proportional to -40 to 150oC or 0 to 150oC. (Any one - As per user's requirement)
Temp. Accuracy	+/- 0.3 °C
%RH Range	0 to 100% Rh
%RH O/P	4 – 20 mA or 0-10VDCproportional to 0 to 100%Rh.
%Rh Accuracy	+/- 1%
Loop Resistance	RLmax = 400 Ohms @ 24VDC
Supply Voltage	12 - 36VDC @ 50mA
Enclosure	Polycarbonate IP-65 with suitable wall mounting clamps.
Enclosure Size	120 x 80 x 55 mm.

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Ordering Information:

Model	A - Temperature Range	B - % RH Range
HYGROTX-3000	A1 - (-40 to 60 °C) A2 - (0 to 80 °C)	B1 - (0 to 100 %)
HYGROTX-3000-V		
HYGROTX-3000-D		
HYGROTX-3000-D-FLP		
HYGRTOTX-290	A3 - (0 to 150 °C) A4 - (0 to 200 °C) A5 - (-40 to 150 °C)	

Examples:

Model	A - Temperature Range	B - % RH Range
HYGROTX-3000	A1	B1
HYGROTX-3000-D-FLP	A2	B1

Model	A - Temperature Range	B - % RH Range
HYGROTX-290	A3	B1
HYGROTX-290	A5	B1

Example	Ordering Code	Description
1	HYGROTX-3000-A1-B1	This is T + RH transmitter giving 4-20mA proportional to -40 to 60°C and 0 to 100% RH
2	HYGROTX-3000- D-FLP - A2-B1	This is T + RH transmitter duct type with FLP head giving 4-20mA proportional to 0 to 80°C and 0 to 100% RH
3	HYGROTX-290-A3-B1	This is T + RH transmitter giving 4-20mA proportional to 0 to 150°C and 0 to 100% RH
4	HYGROTX-290-A5-B1	This is T + RH transmitter giving 4-20mA proportional to -40 to 150°C and 0 to 100% RH