%RH & TEMPERATURE ONOFF CONTROLLER

2 Analog Outputs, 4 Relays, RS485 / MODBUS RTU

NEX902

2 x large displays (0.8")

Highly Accurate RH + T Measurement

RS485 / MODBUS RTU

2 Analog Outputs

Supply : 85~265V AC or 20~42V DC

IP65, IP66

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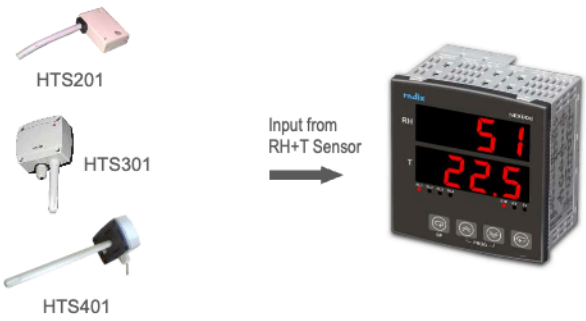
NEX902

LARGE PV DISPLAY

COMPACT DESIGN / LOW DEPTH

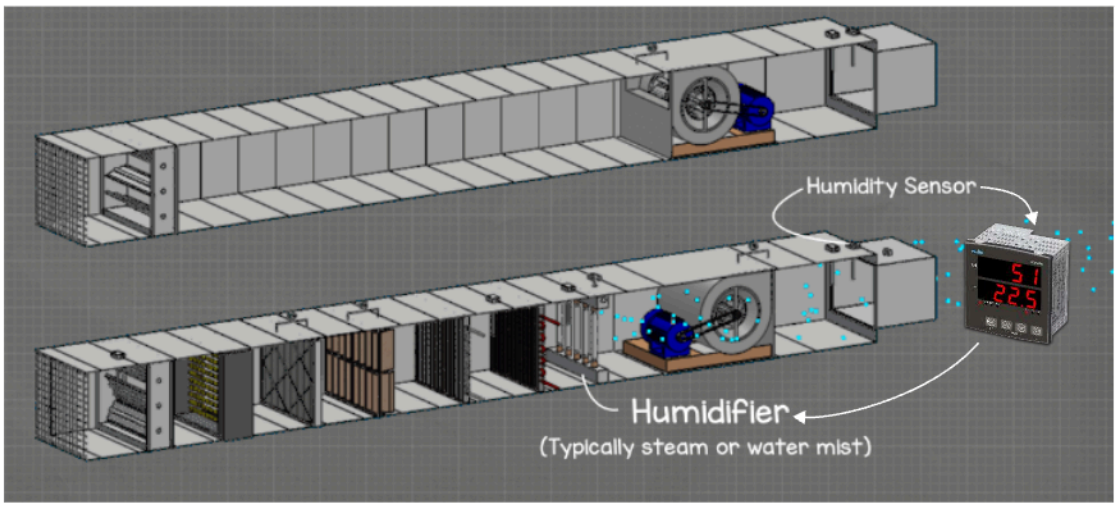
RH+T INPUT FROM SENSOR (DUCT / WALL MOUNT)



OUTPUTS

- 2 x isolated analog outputs
- 4 relays for alarm / onoff control
- Programmable alarm types

APPLICATION



%RH & TEMPERATURE ONOFF CONTROLLER

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NEX902

SPECIFICATIONS

All specifications at ambient of 25 °C, unless specified otherwise

INPUTS	
Input	Basic RH and T signals from sensor
Compatible sensors	HTS201 (General purpose / wall mount)
	HTS301 (Wall mount)
	HTS401 (Duct mount)
	HTS201, HTS301 & HTS401 must be ordered separately
Distance between sensor & instrument	Upto 50 meters
Operating / storage range	Normal : 0~100% RH, non-condensing, -20~100 °C (-4~212 °F)
	Maximum : -40~120 °C (-40~248 °F)
	Also see sensor range and Fig1
Resolution	0.1 or 1
ACCURACY	
RH	± 2% RH, ± 3% RH
	See Fig 1, Table 1 and ordering information
Temperature	± 0.5 °C for bandgap temperature sensor
PERFORMANCE	
Response time	RH : 8 seconds for $t_{63\%}$
	T : 5 to 30 seconds for $t_{63\%}$
Hysteresis	± 1 %RH
Repeatability	± 0.1 %RH & ± 0.1 °C
Long term drift (for RH+T sensor)	RH : <0.25 %RH/yr
	T : <0.02 °C/yr
Environment	Air & Neutral gas
Temperature effect on accuracy	± 0.5% of span / 25 °C
OUTPUTS	
No. of relays	Maximum 4
Relay contact type	NO-C-NC
Relay contact rating	7A/230 VAC
SSR drive	12 V DC drive signal for external SSR
No. of analog outputs	0 / 1 / 2
Current output	4~20 mA / 0~20 mA / 20~4 mA / 20~0 mA isolated from input
Maximum load for current output	500 ohms
Voltage output	0-10 V / user specified
Load for voltage output	>10 Kohms
INDICATION	
Display	2 x 4 digit, 7-segment 0.8" (20.32 mm), red LED display
COMMUNICATION	
Port	RS485
Protocol	MODBUS RTU
Slave ID	User programmable (1~247)
Baud rate	User programmable (2.4K, 4.8K, 7.2K, 9.6K, 19.2K, 38.4K, 57.6K)

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SPECIFICATIONS

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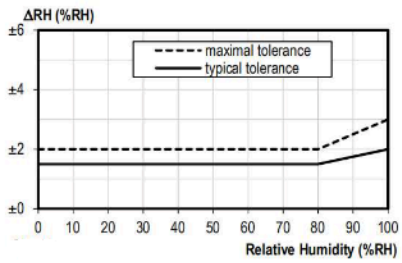
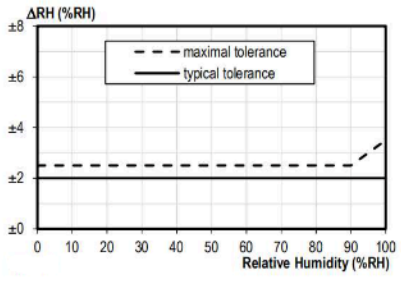
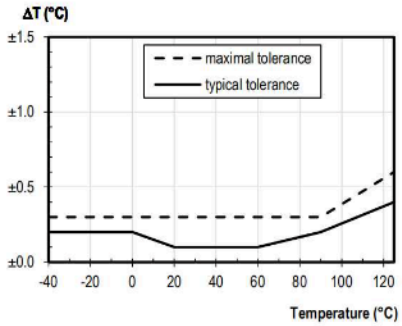
POWER SUPPLY	
Supply voltage	a. 20~42V DC
	b. 85~265V AC, 50/60hz
ISOLATION	
Mutual isolation between input, supply, relays,	1500 VAC RMS, 50hz / 1minute
analog output, digital input, RS485	
ENCLOSURE	
Housing material	ABS plastic, grade : UL94V-0
Dimensions (in mm)	96(W) x 96(H) x 60(D)
Protection	Front IP66 (IEC) / NEMA 4X
Mounting	Panel
Terminals	M3 screw, suitable upto 2 mm^2 wire
TEMPERATURE, HUMIDITY	
Ambient operating temperature	-10 to 50 °C
Ambient operating humidity	Below 90% RH, non-condensing

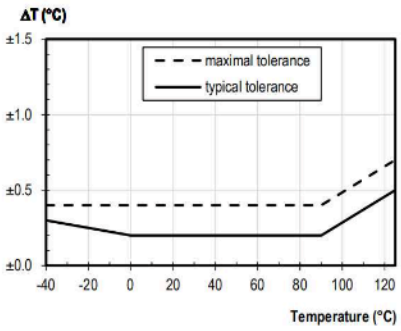
ACCURACY OF RH & T

Fig 1









For 3028 XXX2X order code (2% RH)	For 3028 XXX3X order code (3% RH)

%RH & TEMPERATURE ONOFF CONTROLLER

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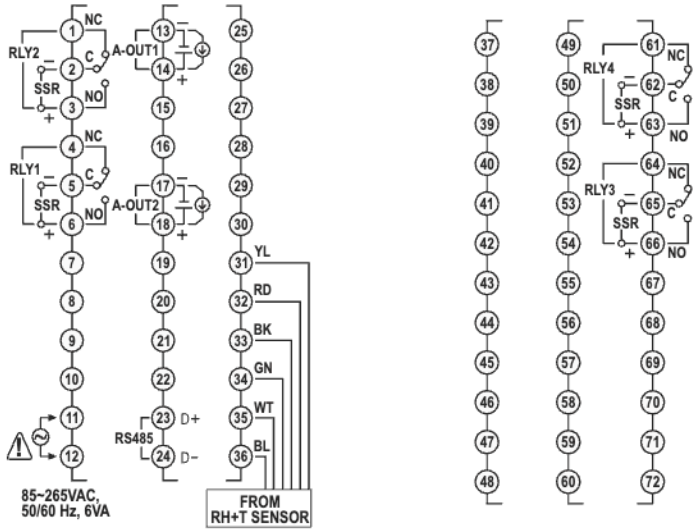
NEX902

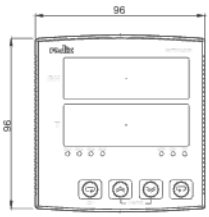
CONNECTION DIAGRAM

Fig 1

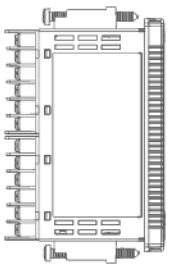


DIMENSIONS mm

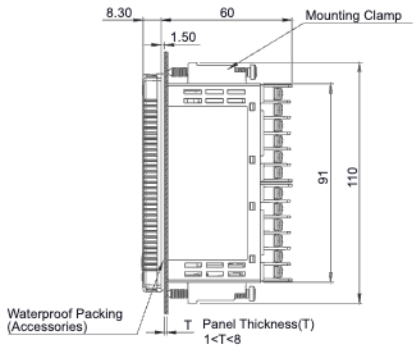
Fig 2 : NEX902



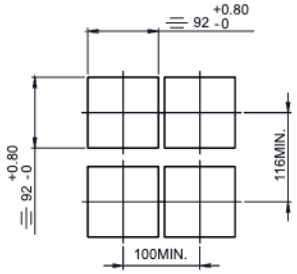
Front View



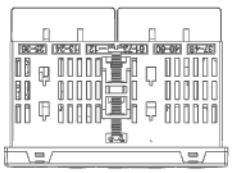
Left Side View



Right Side View

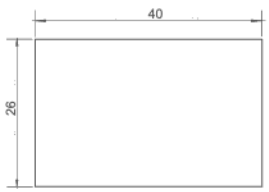


Panel Cutout



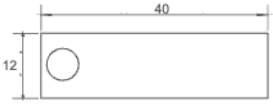
Top View

Fig 3 : HTS201



Front View

Side View



Bottom View

%RH & TEMPERATURE ONOFF CONTROLLER

2 Analog Outputs, 4 Relays, RS485 / MODBUS RTU

NEX902

DIMENSIONS mm

Fig 4 : HTS301

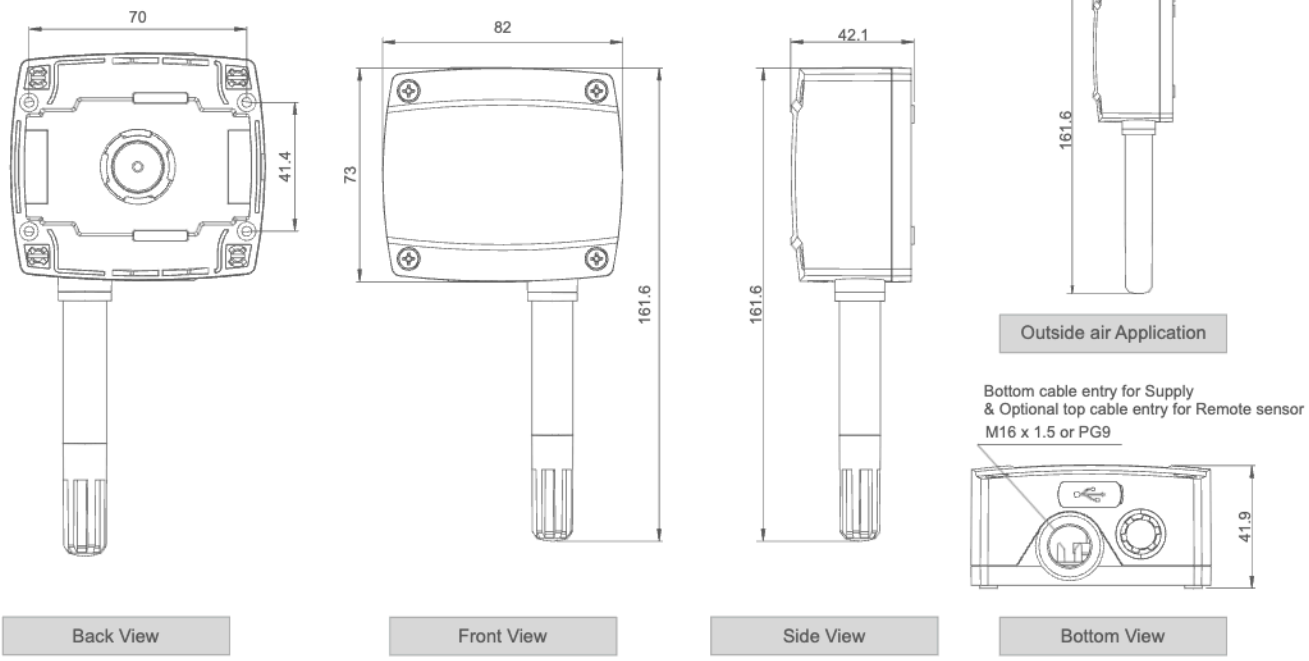
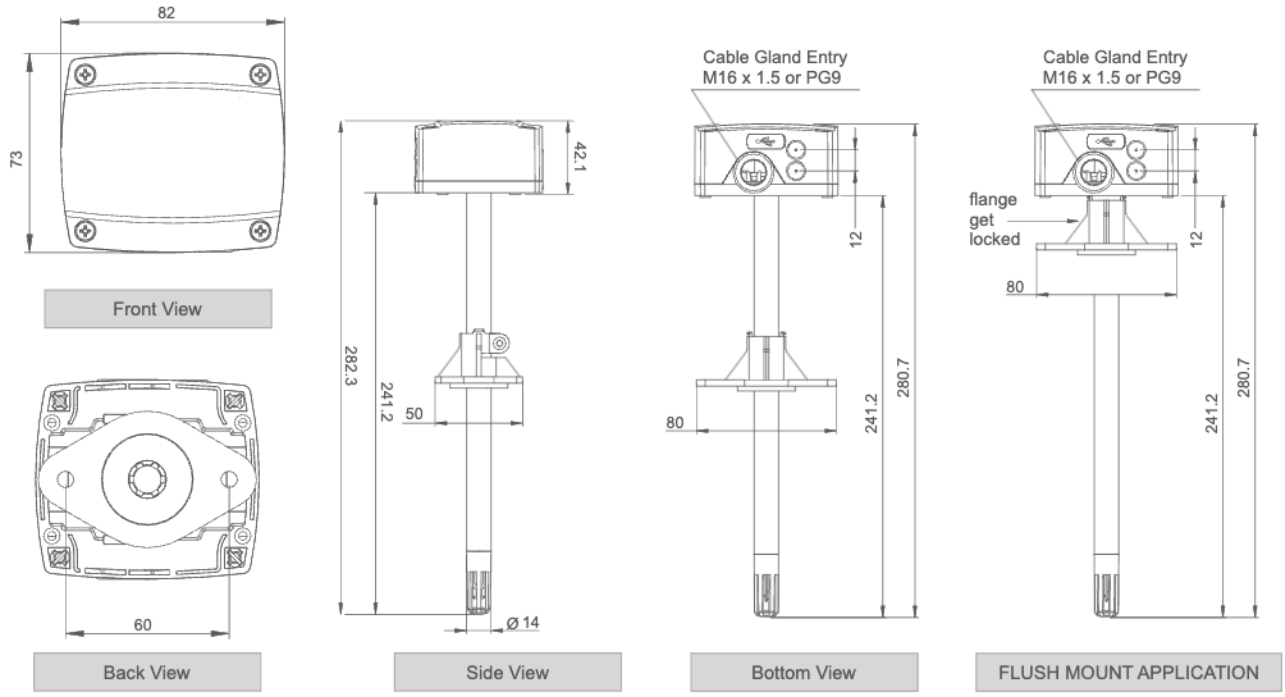


Fig 5 : HTS401



%RH & TEMPERATURE ONOFF CONTROLLER

2 Analog Outputs, 4 Relays, RS485 / MODBUS RTU

NEX902

FEATURES SUMMARY

- Input : RH and T signals from sensor
- 0 / 1 / 2 / 3 / 4 setpoints corresponding to temperature or humidity
- Accuracy : ± 2% RH, ± 0.5 °C
- 20~42V DC or 85~265V AC SMPS supply
- Sensor break indication
- 2 x isolated 4~20 mA outputs corresponding to temperature and/or humidity
- RS485 / MODBUS RTU

ORDERING INFORMATION

CODE	SPECIFICATIONS	1	2	3	4	5
3028						
1	**Relay outputs - Note1**					
	None	A				
	2 SSR drive	B				
	2 Relays - (NO1-C1-NC1, NO2-C2-NC2)	C				
	4 Relays - (NO1-C1-NC1, NO2-C2-NC2, NO3-C3-NC3, NO4-C4-NC4)	D				
2	**Analog outputs**					
	None		1			
	1 x 4~20 mA		2			
	1 x 0~10V		3			
	2 x 4~20 mA		4			
	2 x 0~10V		5			
	1 x 4~20 mA + 1 x 0~10V		6			
3	**RS485**					
	None			N		
	RS485 / MODBUS RTU			A		
4	**%RH Accuracy**					
	2%				2	
	3%				3	
5	**Power supply**					
	20~42V DC					A
	85~265V AC					B

Note1 : Relay outputs : Contact sales for SSR drive outputs.

See Preferred Order Codes list. For order codes outside this list, larger MOQ will apply. Contact sales.

Order Code Format : CODE-1-2-3-4-5
XXXX-X-X-X-X-X

Example

NEX902, 2 Relays, 2% accuracy, SMPS
3028-C-1-N-1-B

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ORDERING INFORMATION

COMPATIBLE SENSORS

CODE	SPECIFICATIONS	1
3029	HTS201 : wall mount, 40(W)x26(H)x12(D) mm	
3030	HTS301 : wall mount, 82(W)x162(H)x42.1(D) mm	
3031	HTS401 : duct mount, 82(W)x282.3(H)x42.1(D) mm	
1	Cable Length	
	5 metres	05
	10 metres	10
	15 metres	15
	User specified in metres (maximum : 25 metres)	XX

HTS201

HTS301

HTS401

PREFERRED ORDER CODES

Sr. No.	Order Code	Brief Specification	Power Supply
1	3028 C1N2B	2 Relays	SMPS
2	3028 C2N2B	2 Relays+Iout	SMPS
3	3028 C1A2B	2 Relays+Modbus	SMPS

ENQUIRIES

Instruments : sales@radix.co.in • + 91 9324934061
Sensors : sensors@radix.co.in • + 91 9321415829
Gauges : gauges@radix.co.in • + 91 8591305907
Automation : automation@radix.co.in • + 91 9320997925
Level : level@radix.co.in • + 91 8591305907
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