

4-1

Digital Room Temp. Humidity sensor GR Series



Summary

Used to detect room Temp. / humidity in HVAC, Heating&Cooling circulating system, pharmacy factory, semi-conduct facilities. Connection available with control-center system and current Temp./humidity found on-site with LCD digital display for proper output signal transmission.

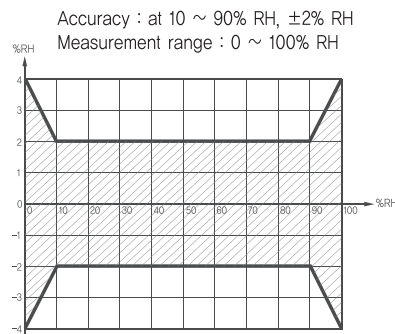
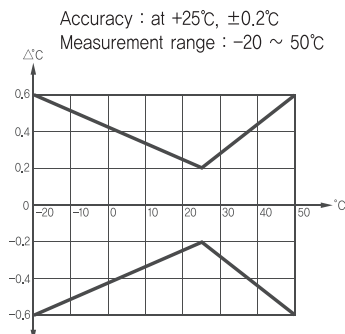
Order Specification

GR -			
		■ Range of sensor	■ Output
		1. -10 ~ +50°C	A. 0~10 VDC
		2. -20 ~ +50°C	B. 1~5 VDC
		3. 0~100%RH	C. 4~20mA
		4. -10 ~ +50°C / 0~100% RH	D. Pt100Ω
		5. -20 ~ +50°C / 0~100% RH	E. Pt1000Ω
		6. Others	F. NTC(10K, 5K, 3K)
			G. Pt100Ω / 0~10 VDC
			H. Pt1000Ω / 0~10 VDC
			I. NTC / 0~10 VDC
			J. Pt 100Ω / 1~5 VDC
			K. Pt 1000Ω / 1~5 VDC
		■ Type	L. NTC / 1~5 VDC
		1. Temp.	M. Pt100Ω / 4~20mA
		2. Humidity	N. Pt1000Ω / 4~20mA
		3. Temp.&Humidity	O. NTC / 4~20mA
			P. 1~5 VDC / 1~5VDC
			Q. 4~20mA / 4~20mA
			R. RS-232
			S. RS-422
			T. RS-485
			U. 0~10VDC/0~10VDC

※ box only for Temp., humidity

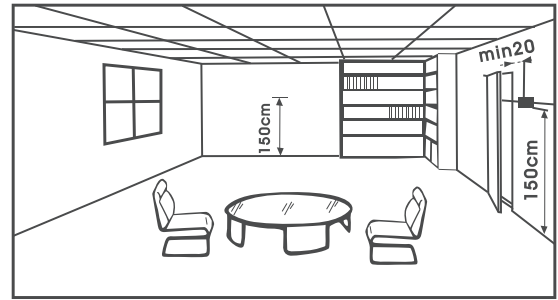
Technical Data

- Power supply : 24V AC/DC
- Out-put signal : Current 4~20mA
Voltage 0~10VDC, 1~5VDC
Serial RS-232, RS-422, RS-485
Platinum Pt100Ω, Pt1000Ω, class A
Thermistor NTC3KΩ, NTC5KΩ, NTC10KΩ-AN, CP
- Sensor : CMOS-Bandgap(SMD) digital sensor for Temp.
Capacitive polymer cell for humidity
- Range of sensor according to specifications
- Wiring : 3, 4, 5, 7
- Accuracy : within $\pm 0.2^\circ\text{C}$ at 25°C
within $\pm 2\%$ at 10~90%RH
- Hysteresis : 0.1°C Max. / 1% RH Max.
- Sensing time : 4~20sec(Response time)
- Ambient Temp. : $-20 \sim 60^\circ\text{C}$
- Ambient humidity : below 95% RH
- Protection : IP30(EN60529)
- Dimension : 80(W) x 105(H) x 31(D)
- Weight(including bracket) : 0.20kg



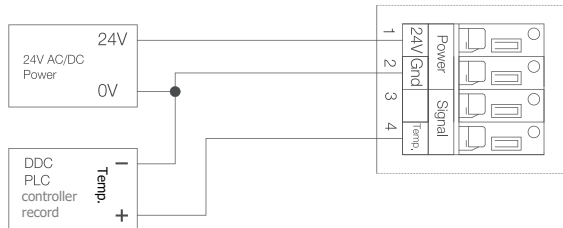
Notes

- Installation
 - on the wall of the room well in heating and HVAC (not less than 1.5m high from the floor)
- Installation not-allowed :
 - on the corner or shelf, behind the curtain, near or opposite side of heat-source
 - not to be exposed to direct sunlight
- Assure to seal the cable coming from sensor to prevent sensing error by warm air convection
- Factory setting : no-adjustment on-site

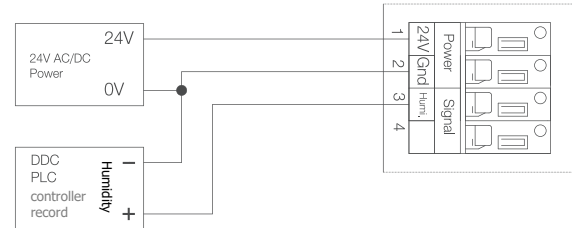


Wiring Diagram

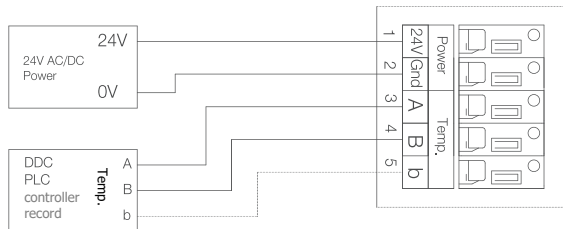
► Temp. : 4~20mA, 0~10VDC, 1~5VDC



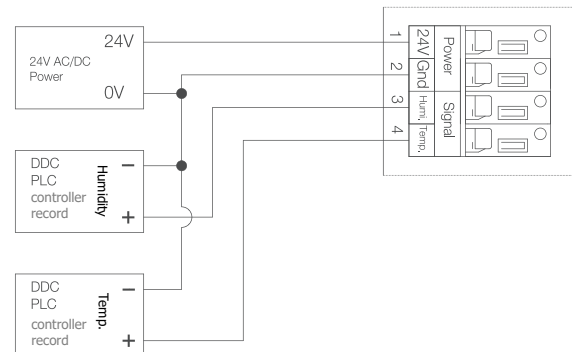
► Humidity : 4~20mA, 0~10VDC, 1~5VDC



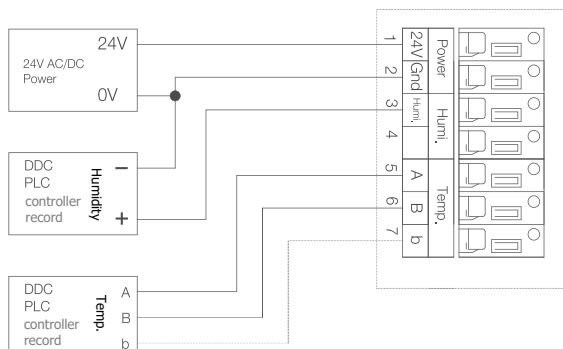
► Temp. : PT(100, 1000Ω), NTC(3K, 5K, 10KΩ)



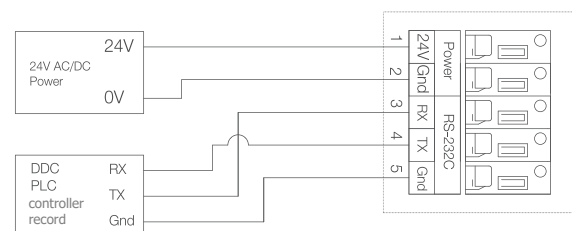
► Temp./Humidity : 4~20mA, 0~10VDC, 1~5VDC



► Temp. : PT ► Humidity : 4~20mA, 0~10VDC, 1~5VDC
 ► Temp. : NTC ► Humidity : 4~20mA, 0~10VDC, 1~5VDC

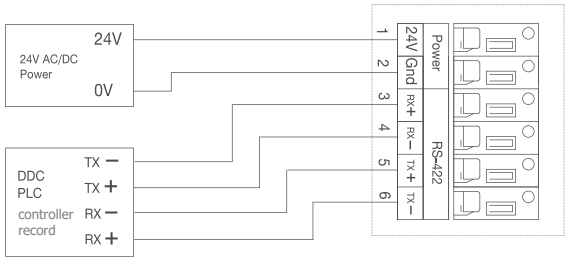


► Temp., Humidity or Temp.&Humidity : RS ~ 232

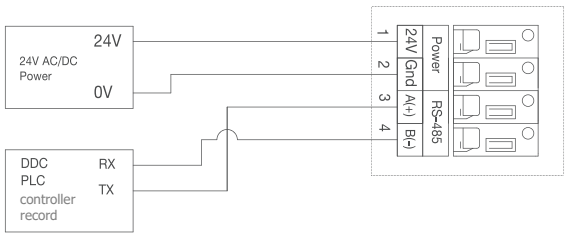


Wiring Diagram

▶ Temp., Humidity or Temp.&Humidity : RS ~ 422



▶ Temp., Humidity or Temp.&Humidity : RS ~ 485



Shape Dimension

