

Indoor Sensors

DSW

Temperature

Humidity

Temperature/
Humidity



Sensor Type

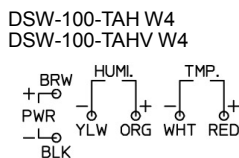
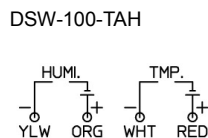
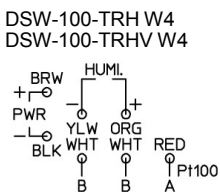
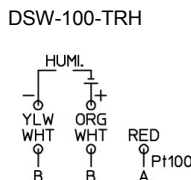
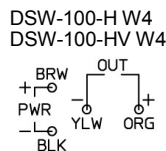
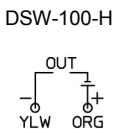
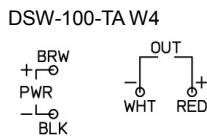
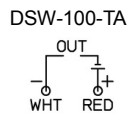
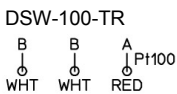
Measurement Target	Measurement Range	Output	Color of Wire	Model	Supply Voltage
Temperature	0 to 50°C	Pt100 (3-wire)	Red, White, White	DSW-100-TR	No power needed
		4 to 20 mA DC (2-wire)	Red, White	DSW-100-TA	24V DC ± 10%
		4 to 20 mA DC (4-wire)	Red, White, Brown, Black	DSW-100-TA W4	
Humidity	5 to 95%RH	4 to 20 mA DC (2-wire)	Orange, Yellow	DSW-100-H	24V DC ± 10%
		4 to 20 mA DC (4-wire)	Orange, Yellow, Brown, Black	DSW-100-H W4	
		0 to 1 V DC (4-wire)	Orange, Yellow, Brown, Black	DSW-100-HV W4	
Temperature Humidity	0 to 50°C 5 to 95%RH	Temperature: Pt100 (3-wire) Humidity: 4 to 20 mA DC (2-wire)	Red, White, White Orange, Yellow	DSW-100-TRH	24V DC ± 10%
		Temperature: Pt100 (3-wire) Humidity: 4 to 20 mA DC (4-wire)	Red, White, White Orange, Yellow, Brown, Black	DSW-100-TRH W4	
		Temperature: Pt100 (3-wire) Humidity: 0 to 1 V DC (4-wire)	Red, White, White Orange, Yellow, Brown, Black	DSW-100-TRHV W4	
		Temperature: 4 to 20 mA DC (2-wire) Humidity: 4 to 20 mA DC (2-wire)	Red, White Orange, Yellow	DSW-100-TAH	
		Temperature: 4 to 20 mA DC (2-wire) Humidity: 4 to 20 mA DC (4-wire)	Red, White Orange, Yellow, Brown, Black	DSW-100-TAH W4	
		Temperature: 4 to 20 mA DC (2-wire) Humidity: 0 to 1 V DC (4-wire)	Red, White Orange, Yellow, Brown, Black	DSW-100-TAHV W4	
		Temperature: 4 to 20 mA DC (2-wire) Humidity: 0 to 1 V DC (4-wire)	Red, White Orange, Yellow, Brown, Black	DSW-100-TAHV W4	

Specifications

Output	Temperature: Pt100 3-wire type 4 to 20 mA DC (Linear conversion corresponding to 0 to 50°C), Max allowable load: 500 Ω or less Humidity: 4 to 20 mA DC (Linear conversion corresponding to 0 to 100%RH), Max allowable load: 500 Ω or less 0 to 1 V DC (Linear conversion corresponding to 0 to 100%RH), Max allowable load: 500 Ω or less									
Power Consumption	Approx. 550 mW (2-wire type) Approx. 4 W (4-wire type)									
Element Type	Temperature: RTD Pt100 Humidity: Polymer thin film resistance change-type									
Performance	<table border="1"> <thead> <tr> <th></th> <th>Accuracy</th> <th>Response Characteristics</th> </tr> </thead> <tbody> <tr> <td>Temperature</td> <td>Pt100 output: $\pm(0.1+0.005 t)^{\circ}\text{C}$ (Pt100 Class 1/3B) 4 to 20 mA DC output: $\pm 0.5^{\circ}\text{C}$</td> <td>63% of response within 1 minute (at 1.5m/s wind velocity)</td> </tr> <tr> <td>Humidity</td> <td>$\pm 5\%RH$ (at 25°C)</td> <td>Within 1 minute (90% change can be reached within 1 minute in 30-85%RH range.)</td> </tr> </tbody> </table>		Accuracy	Response Characteristics	Temperature	Pt100 output: $\pm(0.1+0.005 t)^{\circ}\text{C}$ (Pt100 Class 1/3B) 4 to 20 mA DC output: $\pm 0.5^{\circ}\text{C}$	63% of response within 1 minute (at 1.5m/s wind velocity)	Humidity	$\pm 5\%RH$ (at 25°C)	Within 1 minute (90% change can be reached within 1 minute in 30-85%RH range.)
	Accuracy	Response Characteristics								
Temperature	Pt100 output: $\pm(0.1+0.005 t)^{\circ}\text{C}$ (Pt100 Class 1/3B) 4 to 20 mA DC output: $\pm 0.5^{\circ}\text{C}$	63% of response within 1 minute (at 1.5m/s wind velocity)								
Humidity	$\pm 5\%RH$ (at 25°C)	Within 1 minute (90% change can be reached within 1 minute in 30-85%RH range.)								
Dimensions, Weight	Dimensions: W90 x H90 x D32 mm (excluding lead wire) Weight: Approx. 90g									
Mounting	To the outlet box (inside wall), via outlet box cover: mounting dimension: 66.7 mm (JIS-C8340: 1999). (JIS: Japan Industrial Standards)									
Operating Environment	Temperature: 0 to 50°C Humidity: 5 to 95%RH (non-condensing) [Caution] Do not use this sensor in an environment where dew condensation occurs. Do not use this sensor in an environment where chlorinated and sulfidizing gases are being generated, otherwise the thin film of the humidity sensor will deteriorate.									
Storage Environment	Temperature: -20 to 60°C Humidity: 5 to 95%RH (non-condensing)									
Accessories	Sensor main unit mounting screw: M3 x 4 (4 pieces) Mounting Plate, Mounting Plate screw: M4 x 8 (2 pieces), Spring washer (2 pieces)									

Wiring

Lead wire: 300 mm Cross-section: 0.5 mm²



External Dimensions (Scale: mm)

