

H7015B

Duct Humidity and Temperature Sensors

덕트 온습도 감지기



개요

덕트용 정전용량식 습도 감지기입니다.

특징

- Pt 1000, BALCO 500, or 20kW NTC temperature sensing element
- Wide sensing range
- Capacitance type sensing element for relative humidity

특성 및 규격

Model

OS-No.	Temperature Sensor Type
H7015A1006	-
H7015B1004	Pt 1000
H7015B1012	BALCO 500
H7015B1020	20kW NTC

- Power supply : 24 Vac, $\pm 20\%$ (SELV), 15° 30 Vdc
- Current consumption : 15 mA at 24 V

Ambient Limits |

- Operating temperature – Terminal box : 0...50 °C (32...122 °F)
- Transport and storage temperature : -25...+60 °C (-31...+158 °F)
- Humidity : 5...95% rh, non-condensing

Safety |

- Protection class : III as per EN60730-1
- Protection standard–Terminal box : IP54 as per EN60529
- Flame retardant terminal box : V1 as per UL94, plastic (ABS)
- Weight : 300 g
- Mounting : duct

Temperature Sensor |

- Temperature sensing range : -30...+70 °C (-22...+158 °F)
- Nominal value
 - Pt 1000 : 1000 W at 0 °C
 - BALCO 500 : 500 W at 23.3 °C
 - NTC : 20 kW at 25 °C
- Accuracy
 - Pt 1000 : $DT/K = \pm(0,3 + 0,005 \cdot |t|)$ [t in °C] as per DIN IEC 751 Class B
 - BALCO 500 : $\pm 0,4$ K at 23.3 °C
 - NTC : $\pm 0,3$ K at 25 °C

- Sensitivity
 - Pt 1000 : $\approx 3,85$ W/K
 - BALCO 500 : 2 W/K
- Characteristic : see ENOB-0476GE51
- Response time at air velocity 5 m/s
 - $\tau_{0,5}$ Pt 1000 : < 60 s
 - $\tau_{0,5}$ Balco 500 : < 45 s
 - $\tau_{0,5}$ NTC : < 85 s

Relative Humidity Sensor I

- Humidity sensing range : 5...95% rh
- Output signal : 0...1 Vdc / 0...10 Vdc, 0...100% rh
- Output Impedance : 1 V range 183 W, 10 V range 274 W
- Outputs short circuit protected
- Sensitivity : 10 mV / %rh or 100 mV / % rh
- Accuracy : at 25 °C / 24 Vac
 - 5...10% rh $\pm 10\%$
 - 10...30% rh $\pm 5\%$
 - 30...70% rh $\pm 3\%$
 - 70...90% rh $\pm 5\%$
 - 90...95% rh $\pm 10\%$
- Response time : $\tau_{0,5} \approx 6$ s at air velocity 5 m/s