Precision Manufacturing

DT722
Rugged Industrial Relative Humidity and Temperature Transmitter, Duct Mount

The DT722 is a rugged industrial relative humidity and temperature transmitter designed for process applications where accurate, stable measurement and control of humidity and temperature is required.
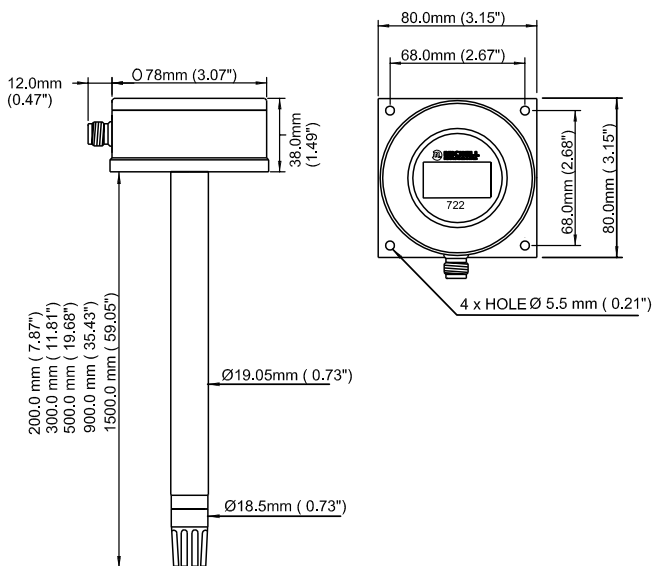
Highlights

- Designed for accurate measurement in a harsh environment
- Can withstand temperatures up to 150°C (300°F)
- Stainless steel housing
- Calculated moisture signal output, optional

Technical Specifications

Performance

Measurement range (RH)	0–100% RH
Measurement range (T)	-40 to +150°C (-40 to +302°F)
Accuracy at 25°C (77°F) Humidity	<±2% RH (5-95% RH)
Accuracy at 25°C (77°F) Temperature	±0.2°C (±0.36°F) typical
Stability – RH Sensor	±1% RH/year
Response time – RH Sensor	<10 sec typical (for 90% of the step change)

Electrical output/input

Output signal	4–20 mA
Supply voltage	8–35 V DC
Supply voltage influence	±0.01 % RH/V typical

Operating conditions

Operating humidity Probe, Housing, Storage	10–95% RH (non-condensing)
Operating temperature Probe Housing Storage	-40 to +150°C (-40 to +302°F) -30 to +70°C (-22 to +158°F) -40 to +75°C (-40 to +167°F)

Mechanical specification

Ingress protection	IP65 (NEMA 4 level)
Housing material	Stainless steel
Weight	200mm: 800g (7.87": 28.22oz) 300mm: 900g (11.81": 31.75oz) 500mm: 1040g (19.69": 2.29lb)
Electrical connections	4 pin, M12

Dimensions

Accessories and Spare Parts

19mm (0.75") Slotted protection cap black	A000002
19mm (0.75") PVDF filter	A000014
19mm (0.75") PVDF filter w/ protection cap black	A000015
19mm (0.75") Mesh filter w/ protection cap black	A000021
19mm (0.75") Arrow SS sintered filter 5µm / 10µm / 20µm	A000025/26/27
19mm (0.75") connector, no cable, w/screw terminal	A000030
19mm (0.75") Connector, with cable (customer spec length)	A000030XM
19mm (0.75") connector with 2m (6.5') cable	A000031
19mm (0.75") connector with 5m (16') cable	A000032
19mm (0.75") Foil filter 2µm w/protection cap black	A000040
Oleophobic foil filter 0.7µm w/prot cap black	A000042
19mm (0.75") Foil filter 1.5µm w/protection cap black	A000044
3/4" NPT SS adj. fitting for SS probes	A000100
Al mounting flange for ø19mm (0.75") SS probes (outside ø80mm (3.15"))	A000110
You can check your hygrometer with the Control Kit HKC which is based on the principle of non-saturated salt solutions. Refer to technical data sheet CONTROL KIT	HKC

MICHELL Instruments

www.michell.com

DT722

Electrical Connections

Connections		
Cable	**Pin**	
White	Pin 1	Output RH +
Brown	Pin 3	Output RH -
Green	Pin 4	Output T +
Yellow	Pin 2	Output T -
Connect RH + with T + by user		

Ordering Example

DT722-BASE-SX-A-HT0-03-CA-F02
RH & temp transmitter DT722, no display, Output 1 - calc absolute humidity, Output 2 - temp output 0 to +100ºC (+32 to +212ºF), 300mm (11.81") probe length, no cable, 19mm slotted protection cap black

Order Codes

DT722 - Rugged Industrial Relative Humidity and Temperature Transmitter, Duct Mount		
Feature	**Item**	**Description**
Base Model	**DT722-BASE**	Base unit
Display	DT722-SD	Display
	DT722-**SX**	No display
Moist. Sig	DT722-H	RH
	DT722-D	Calculated dp temp & temp output (Range (Td) -40 to +60ºC (-40 to +140ºF)) (Choose only HT0)
	DT722-**A**	Calc absolute humidity (Abs) & temp output (Range Abs from 0-200g/m3) (Choose only HT0)
	DT722-W	Calculated wetbulb temp & temp output (Range (Tw) -40 to +60ºC (-40 to +140ºF)) (Choose only HT0)
Temp	DT722-**HT0**	0 to +100ºC (+32 to +212ºF)
	DT722-**HTS**	-40 to +150ºC (-40 to +302ºF)
	DT722-TX	Other output scaling available on request
Length	DT722-02	200mm (7.87") probe length
	DT722-**03**	300mm (11.81") probe length
	DT722-05	500mm (19.69") probe length
	DT722-09	900mm (35.43") probe length
	DT722-15	1500mm (50.06") probe length
Cable	DT722-**CA**	No cable
	DT722-CB	19mm (0.75") connector, no cable, w/screw terminal
	DT722-CC	19mm (0.75") connector with 2m (6.5') cable
	DT722-CD	19mm (0.75") connector with 5m (16') cable
Filter	DT722-**F02**	19mm (0.75") slotted protection cap black
	DT722-F15	19mm (0.75") PVDF filter with protection cap black
	DT722-F21	19mm (0.75") Mesh filter with protection cap, black
	DT722-F25	19mm (0.75") Arrow SS sintered filter 5µm
	DT722-F26	19mm (0.75") Arrow SS sintered filter 10µm
	DT722-F27	19mm (0.75") Arrow SS sintered filter 20µm
	DT722-F40	19mm (0.75") Foil filter 2µm with protection cap black
	DT722-F42	Oleophobic foil filter 0.7µm with protection cap black
	DT722-F44	19mm (0.75") Foil filter 1.5µm w/protection cap black

MICHELL Instruments