

THS86/87

Industrial multifunction dew point transmitter for duct/remote type



APPLICATION

Features

- With temperature compensated and linear correction.
- Physical quantity and linear correction output by computer program.
- With RS485 interface and MODBUS RTU protocol.
- Quick metal connector to easy installation.
- Industrial class sensor comes with high accuracy and long-term stability.

Applications

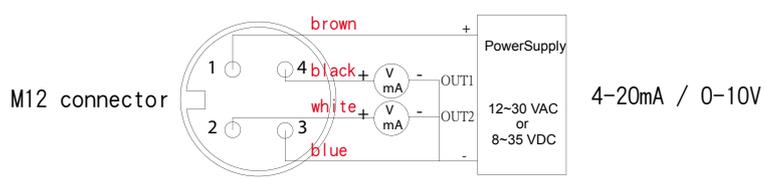
- Monitoring for storeroom/ crisper/ agriculture/ food industry.
- Monitoring for industrial process/ air conditioning/ environmental ventilation control .
- Temperature and humidity measuring in hospital/ pharmaceutical industry/ textile industry.
- Environmental monitoring for building/ factory/ clean room/ Lab /weather station.



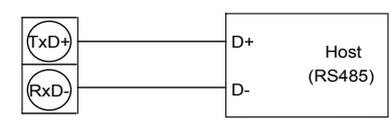
THS **87** - **T** **H** **1** **1** - **48** **00** - **1** **2M**

Installation	OUT1 Function	OUT2 Function	OUT1 Signal	OUT2 Signal	OUT1 Range	OUT2 Range	ModBus Option	Option
86 : duct-mounting type 87 : remote type	T : Temp. output D : Dewpoint temp. F : Frostpoint temp. V : Absolute humidity (ppm/v) G : Absolute humidity (ppm/w) Y : Programmable	T : Temp. output D : Dewpoint temp. F : Frostpoint temp. V : Absolute humidity (ppm/v) G : Absolute humidity (ppm/w) Y : Programmable	1 : 4-20mA 2 : 0-20mA 6 : 0-10V 7 : 0-5V 8 : 0-1V Y : Programmable	1 : 4-20mA 2 : 0-20mA 6 : 0-10V 7 : 0-5V 8 : 0-1V Y : Programmable	20 : -40~80°C 30 : 0~50°C 38 : 0~80°C 13 : -20~60°C(d.p.) 14 : -40~60°C(d.p.) 17 : -60~20°C(d.p.) 19 : -80~20°C(d.p.) 60 : -60~60°C(d.p.) WW : Special span XX : N/A YY : Programmable	20 : -40~80°C 30 : 0~50°C 38 : 0~80°C 13 : -20~60°C(d.p.) 14 : -40~60°C(d.p.) 17 : -60~20°C(d.p.) 19 : -80~20°C(d.p.) 60 : -60~60°C(d.p.) WW : Special span XX : N/A YY : Programmable	1 : RS485	2 : 2m cable(THS87) 5 : 5m cable(THS87 option) M : M12*1 Connector (4P) Q : M12*1 Connector (8P) D : Display

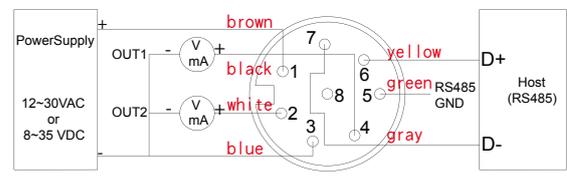
CONNECTION DIAGRAM



SIGNAL CONNECTOR



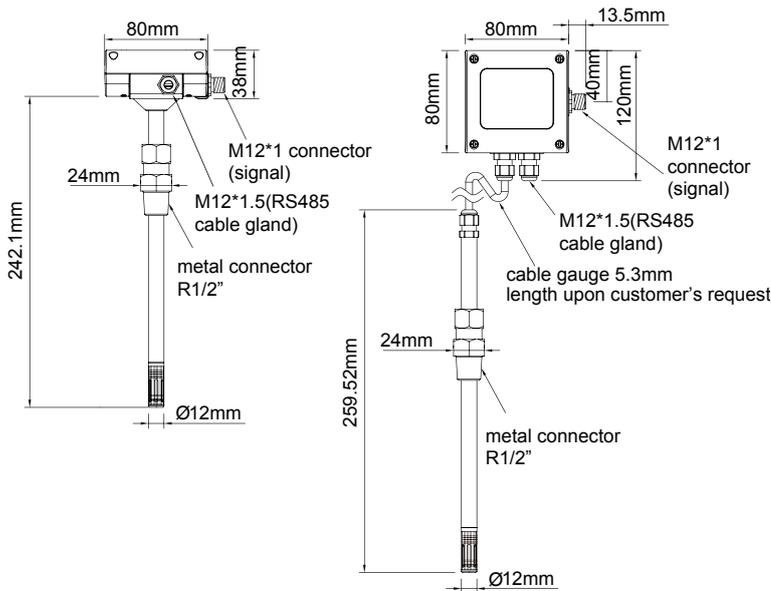
RS485 Signal connector



8P M12 connector

Analog + RS485

DIMENSION



THS84

THS85

OPTION LIST

Order No.	Products	Order No.	Products
THSA-0303	Radiation shield 	4425000011	SUS sintered filter 
4415000022	Metal Flange 	8203104011	metal grid filter 
HS-S	DIN Rail bracket 	4435000005	L board 

TECHNICAL SHEET

Input

Input Capacitive Humidity Sensor & PT 100 Ω
Measuring range list

Physical quantity	code	Min	Max	unit
Temperature	T	-80	80	°C
Dew point	D	-80	60	°C
Frost point	F	-80	0	°C
Absolute humidity	V	0	50000	ppm/v
Absolute humidity	G	0	50000	ppm/w

Suggestion working range
Temperature -40~+80°C
Dewpoint -60~+60°C
Frost point (F) 、 Absolute humidity-volume (V) 、
Absolute humidity-wight (G)
..... please refer to the measuring range list

Output

Output 0~20mA/4~20mA/0~1VDC/0~5VDC/0~10VDC
Signal Connection 3-wire
ModBus RS485 (Programable)
Linear accuracy (at+25°C)
..... Temp. : ±0.15°C ±0.002°C***t**actual
.....Dewpoint: ±3°C ± (0.02%F. S./°C)
Temperature influence of body (at+25°C) ... 0.02%F. S./°C
Load resistance Current output max. 500Ω
..... Voltage output min. 10KΩ
Output calibration (ZERO & SPAN) adjustment range
..... Software
Response time t90 (temperature+25°C ; wind speed ≥1m/s)
..... <30S (SUS sintered filter); <20S (Metal net filter)
Display type LCD Module with back light
..... double line character
Display range upon request, two decimal place
Height of character 5.56mm

Environment

Media measured air
Working temperature of body -20~+60°C
Working humidity of body 0~95% (non-cond.)
Working temperature for LCD housing 0~60°C
Working temperature of probe -40~+80°C
Storage temperature -25~+60°C
Bearable pressure for probe 10bar
CE Certification ... EN 61326-1:2006 、 EN 61326-2-2:2006
Emissions
EN55011:2009/A1:2010
Immunity
IEC 61000-4-2:2008
IEC 61000-4-3:2006/A1:2007/A2:2010
IEC 61000-4-8:2009

Electrical

Power supply 8~35VDC/12~30VAC
Current consumption
DC 24V: 60mA / DC 12V: 120mA
AC 24V: 140mA / AC 12V: 230mA
Electrical connection
..... M12 connector (Signal)+2P connector (RS485)

Installation

Installation metal connector R1/2"
Protection degree body: IP65 (Probe: IP20)
Electric protection
... ■Polarity protection ■over-voltage ■short circuit
Housing PC fire-proof class (PC-110)
Probe stainless steel (SUS304)+PTFE
Cable Teflon
Option Fitting thread / Metal mounting flange /
..... Shield / Metal grid filter without mesh
Weight THS86: 425g / 451g (display);
..... THS87: 450g / 477g (display)