

Installation Instructions

Outdoor Snow Sensors with Modbus-BACnet

Communicating Electronic Snow and Ice Sensor
CS-ASM | CS-PSM | CS-GSM

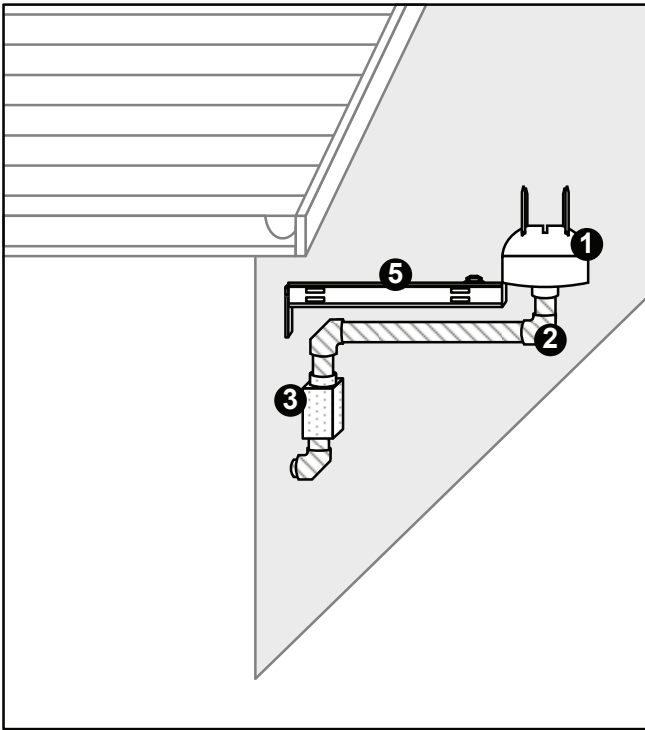


PK-603
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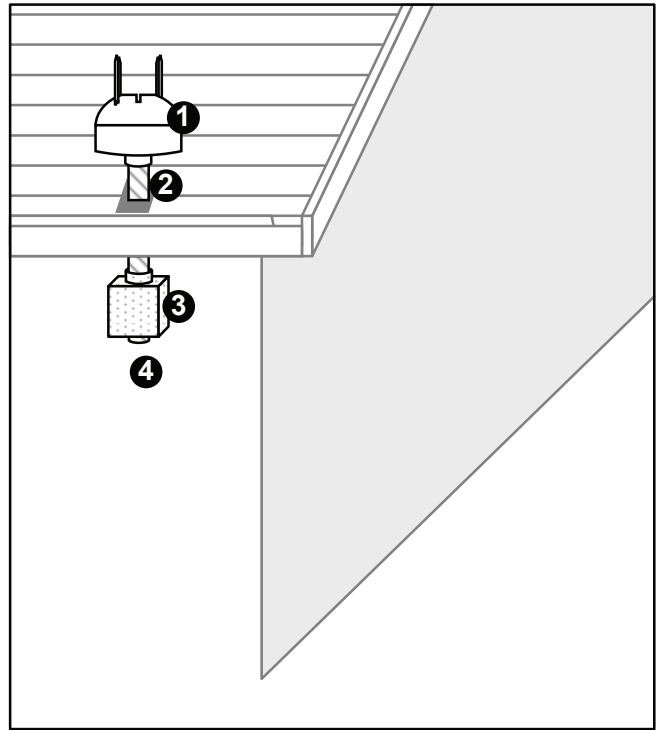
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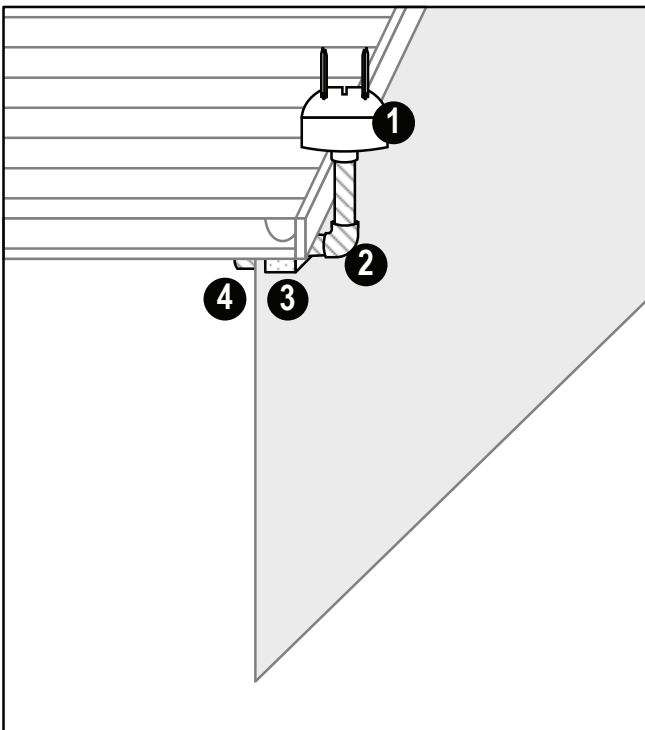
Installation and Wiring Connections - CS-ASM



Wall mount installation



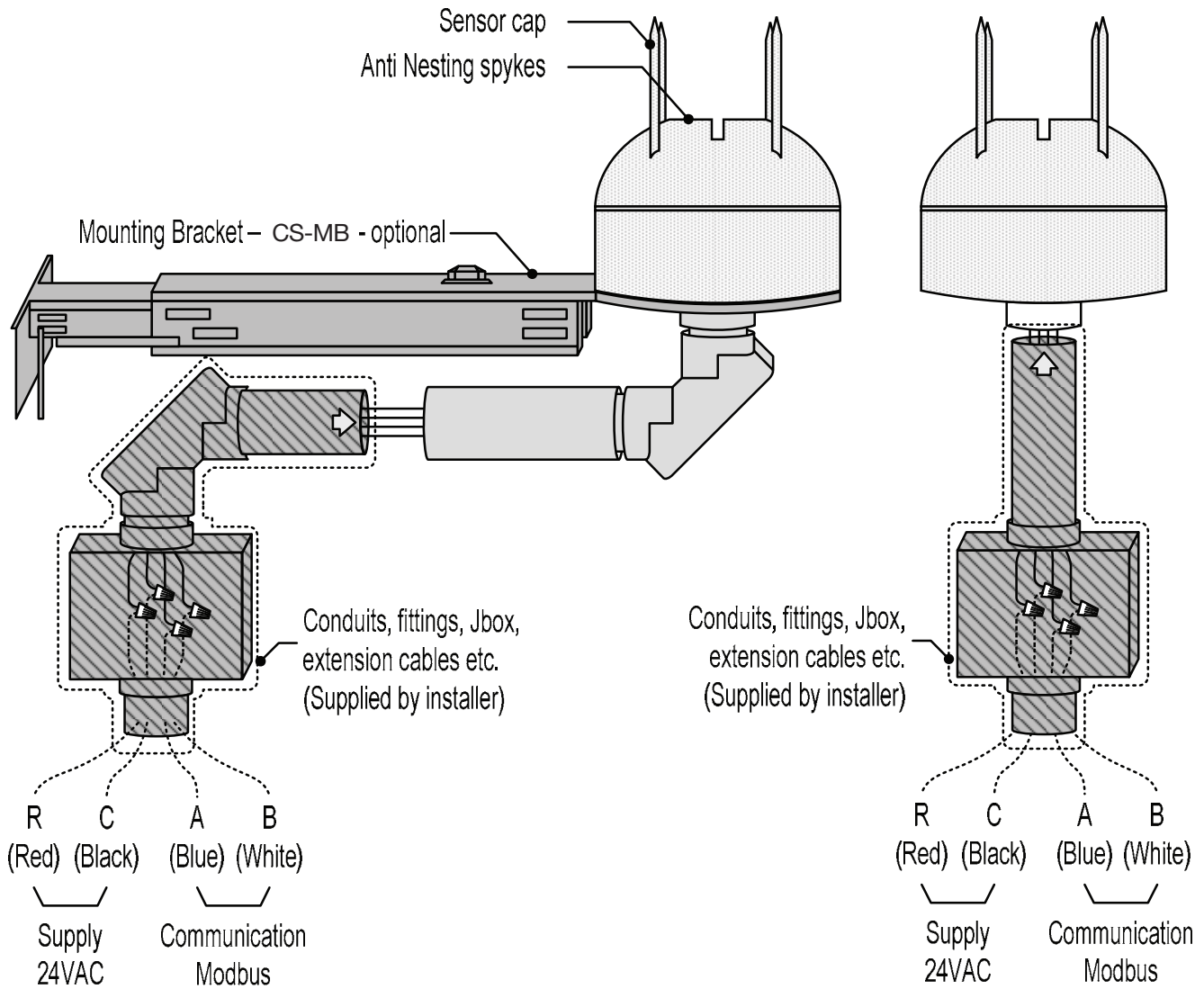
Roof installation



Roof side installation

- 1** CS-ASM
- 2** Waterproof conduit (Supplied by installer).
Use non-metallic, UL listed, flexible conduit 3/4".
Maximal length between the CS-ASM and the JBOX should not exceed 24".
- 3** JBOX - Junction box (Supplied by installer)
- 4** Wiring (2 x 24VAC supply, 2 x Communication - Modbus or BACnet)
- 5** Mounting Bracket - CS-MB - optional

Wiring Connections - CS-ASM

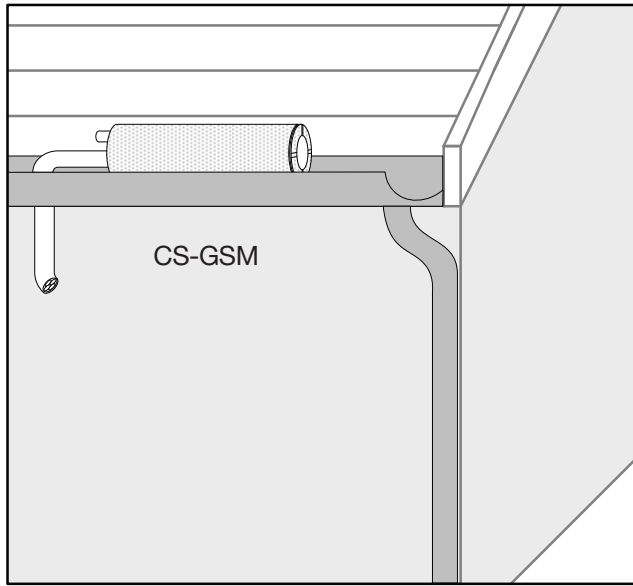


The sensor cap helps to keep the sensing area clean from dust and dirt during summer time and when the snow melting system is not used.

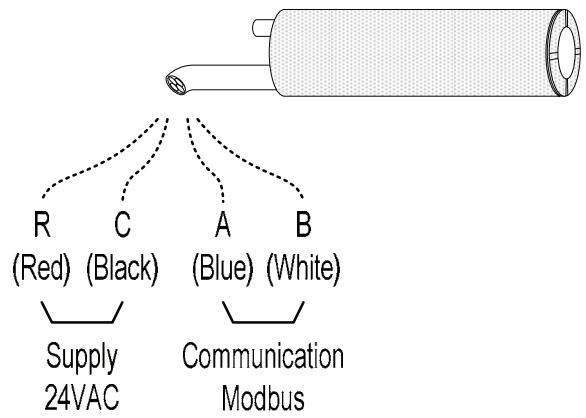
Make sure to remove it before using the sensor.

The 4 holes around the sensors are designed to hold the Anti Nesting spykes, keeping birds away from the sensor.

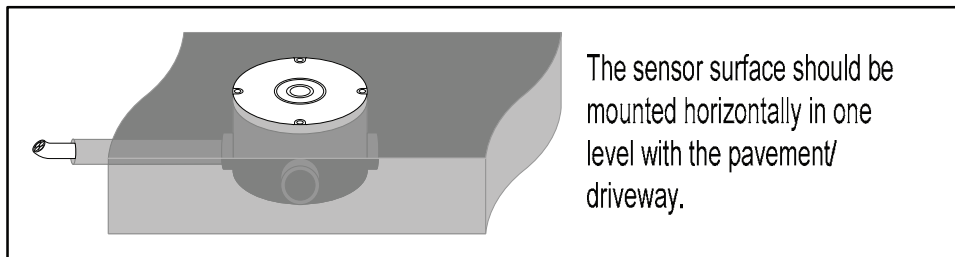
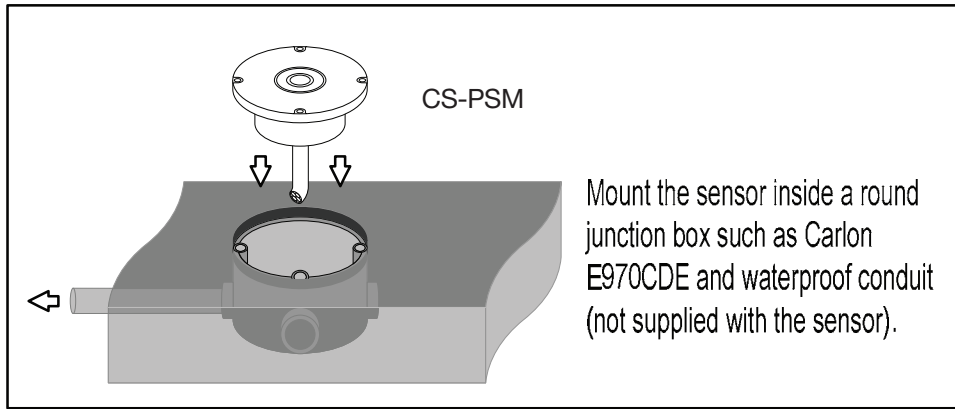
Installation and Wiring Connections - CS-GSM



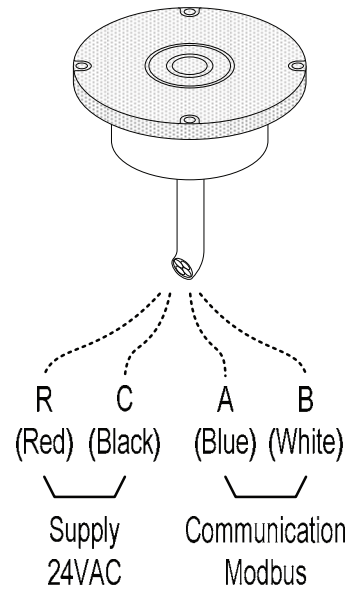
Gutter sensor installation



Installation and Wiring Connections - CS-PSM



Ground sensor installation



Object List

MODBUS RTU Mode, Address Slave 1-127,
Baud rate: 9600, 19200, 38400, 76800, 115200, n, 8, 1

Auto detection of protocol and baud rate!

Supported Commands:

0x03 = Read Holding Registers (for all)

0x06 = Preset Single Register (For R/W registers only)

0x2B = Command 0x2B is used to identify controller

Vendor Url = "meitavtec.com"

Product Name = "CS-ASM"

Model Name = "SnSen-01"

"SnSen Ground"

"SnSen Gutter"

User Application Name = "CS-ASM"

N°	Address	Value (Range)	Description	Default	Read/Write
1	0x0000	-35...50°C -31...122°F	Ambient Temperature	3°C 37°F	R/W for Ground sensor R for all other sensors
2	0x0001	0 – sensor is dry 1 – sensor is wet	Precipitation: Dry/Wet	-	R
3	0x0002	-20...15°C -4...59°F	Temperature Set-Point to Detect Snow	3°C 37°F	R/W
4	0x0003	0 – no snow 1 – snow detected	Snow Detection (Calculated)	-	R
5	0x0004	0 - 60 min.	Threshold Time to Detect Snow	30 min. for Ground sensor 1 min. for all other sensors	R/W
6	0x0005	0 – disable 1 – enable	Enable Low Limit Temperature to Detect Snow	1	R/W
7	0x0006	-35...-5°C -31...23°F	Low Limit Temperature to Detect Snow	-20°C -4°F	R/W
8	0x0007	0...10°C 0...18°F	Over Set-Point Temperature High Limit To Detect Humidity	3°C 6°F	R/W
9	0x0008	20...80%	Sensor Sensitivity	50%	R/W
10	0x0009	0 – °F 1 – °C	Scale °C/°F	1 – °C	R/W
11	0x000A	0 – work mode 1 – commissioning mode	Commissioning Mode	0	R/W
12	0x000B	1...127	MAC Address	1	R/W
13	0x000C	0...2880	Time Delay Counter	0	R/W
14	0x000D	0...1	Time Delay Counter Done	-	R
15	0x000E	0/1	Restore Default	0	R/W

The MODBUS Register No. X is addressed in the MODBUS Register Address (PDU) X-1.

All Registers are signed Integer 16 bit.

Object List

BACnet MSTP

Baud rate: 9600, 19200, 38400, 76800 no parity, 8 data bits, 1 stop bit

Auto detection of protocol and baud rate!

N°	Address	Value (Range)	Description	Default	Read/Write
1	AnalogValue_#0	-20...+15°C -4...+59°F	Temp. set-point	3°C 37°F	R/W
2	AnalogValue_#1	20...80%	Sensor sensitivity	50 %	R/W
3	AnalogValue_#7	-35...50°C -31...122°F	Ambient Temp	-	R/W for Ground sensor R for all other sensors
4	AnalogValue_#10	1...4194303	BacnetDeviceInstanceNumber	315000	R/W
5	AnalogValue_#11	-35...5°C -31...23°F	Low Limit Temp	-20°C 4°F	R/W
6	AnalogValue_#12	0...10°C 0...18°F	TSetPointDetectHighLimitDiff	3°C 6°F	R/W
7	AnalogValue_#13	0...60 min.	Threshold time	30 min. for Ground sensor 1 min. for all other sensors	R/W
8	AnalogValue_#17	1...127	MACAddress	1	R/W
9	AnalogValue_#18	0...2880 min.	TimeDelayCounter	0 min.	R/W
10	BinaryValue_#1	1 - °C 0 - °F	C_F_Scale	1 - °C	R/W
11	BinaryValue_#2	1 - Yes 0 - No	SnowDetection	-	R
12	BinaryValue_#5	1 - On 0 - Off	Test/Commissioning mode	0 - Off	R/W
13	BinaryValue_#9	1 - On 0 - Off	RestoreDefault	0 - Off	R/W
14	BinaryValue_#10	1 - Yes 0 - No	Precipitation	-	R
15	BinaryValue_#11	1 - On 0 - Off	Low Limit Enable	1 - On	R/W
16	BinaryValue_#12	1 - Yes 0 - No	TimeDelayCounterDone	-	R

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