

## Engineering Specification

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

Tag \_\_\_\_\_

# Connected Roof System



## CRS-Gateway & CRS-Monitor

### Specification

Watts Connected Roof System consists of several Monitors that are installed on the roof at each roof drain. The Monitors are wireless and send data to a central Watts Gateway and have a battery life of up to 10 years. By comparing water levels, the gateway can detect if drains are clogged so maintenance staff can be called to prevent damage to the roof structure.

### Management System

Alarms are communicated in two ways. First, alarms are displayed on the Watts Gateway and can be noted if an audible alarm is connected to the relay. Second, if your Watts Gateway is connected to your Building Management System (BMS), email alerts can be generated if supported by your BMS. To increase the signal strength between the Monitors and the Gateway an external antenna can be attached to the Gateway. An external antenna is offered by Watts.

### Exclusive Features

- With Watts Connected Roof you can minimize risk of damage to construction, production, warehouse, commercial sites or stock facilities, while increasing the lifetime of the roof.
- Easy installation of the wireless Monitor allows Connected Roof to detect water levels and temperatures across the rooftop and immediately alert you as soon as drain clogging, ponding or other performance problems occur allowing for increased safety, more predictable maintenance and reduced costs.
- Connected Roof can be installed as a stand-alone system or be integrated with your BMS which allows an easy overview of your facilities.
- Relay output on the Gateway unit triggers a visual or an acoustic alarm.

### Other System Features:

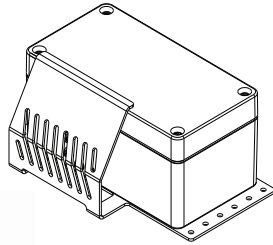
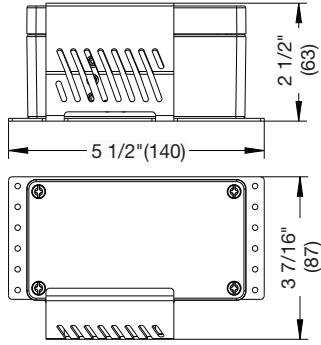
- Wireless Monitoring
- Quick Access to Information
- Easy Installation
- Lower Maintenance & Labor Costs



Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



Monitor

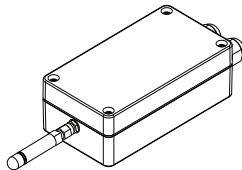
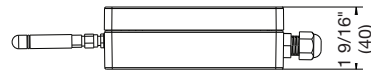
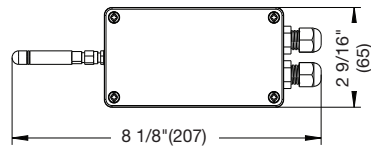


Connected Roof System Components		
Included	Description	Quantity
CRS-Gateway	Connected Roof Gateway(s)	1
Power Supply	5VDC, 1A	1
MicroSD Card	MicroSDHC, Class 4, 4GB	1
Antenna	915 MHz SMA connection	1
Quick Start Guide	Getting Started Instructions	1

Connected Roof System Components		
Included	Description	Quantity
CRS-Monitor	Connected Roof Monitor(s)	1
Mounting Bracket	Mounting frame for Monitor	1
Quick Start Guide	Getting Started Instructions	1



Gateway



Gateways & Monitors		
Ordering Code	Description	
8200875	CRS-Gateway(s)	<input type="checkbox"/>
8200874	CRS-Monitor(s)	<input type="checkbox"/>

Options		
Ordering Code	Description	
8200873	CRS-External Antenna(s) for Gateway 915 MHz SMA Connection w/8 ft (2.5 m) Cable	<input type="checkbox"/>



Exterior Antenna  
(optional)

## Gateway Specifications

Power Supply	
Voltage	5V DC 1A
Nominal power	0.5W
Electrical protection class	Class 3
Wireless	
Frequency	915 MHz
Antenna connector	SMA
Signal range	Up to 4921ft(1500m) in free line of sight
User Input	
Push Button	1
Display	
Type	0.96" OLED
Size	128*64 dot
SD Card	
Type	MicroSDHC Class 4 or higher
Size	>4 GB
Relay	
Type	1RT NO/NC
Load Limit	230VAC 5A
Connection	3 pin screw terminals (Max. 1/2" <sup>2</sup> (1.5mm <sup>2</sup> ))
MODBUS	
Physical Layer	RS485
Baud Rate	Up to 115200 Bauds
Connection	3 pin screw terminals (Max 1.5mm <sup>2</sup> )
Termination	Yes, ON/OFF jumper configuration
Cable Glands	
Size	PG7 - diameter 1/8" - 1/4"(2.5-6.5mm)
Enclosure	
IP Protection	IP30
Material	ABS
Size	4 3/4" x 2 1/2" x 1 1/2"(120 x 65 x 40mm) (without Antenna & Cable Glands)
Mounting Hole	3/16"(4mm)
Environmental	
Working Temperature	-10°C - 55°C / 14°F - 131°F
Storage Temperature	-30°C - 80°C / -22°F - 176°F
Humidity	Below 80% non-condensing

### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

## Monitor Specification

Power Supply	
Battery	Lithium battery LS 14500 3.6V (internal) AA
Battery Life	Up to 10 Years
Level Sensor	
Sensor Electrodes	Stainless A2
Enclosure	
IP Protection	IP68
Material	Anti-UV PC
Size	4 3/4" x 2 1/2" x 2 3/8"(120 x 65 x 60mm)
Environmental	
Working Temperature	-35°C - 85°C / -31°F - 185°F
Storage Temperature	-35°C - 85°C / -31°F - 185°F

### NOTICE

Watts is not responsible for the failure of alerts due to connectivity or power issues.



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