

SQ-100X
& SQ-420X



Measure photosynthetically active radiation (PAR) in $\mu\text{mol m}^{-2} \text{s}^{-1}$

Output Options

- 0 to 400 mV
- 0 to 5 V
- USB
- Modbus
- 0 to 2.5 V
- 4 to 20 mA
- SDI-12
- or hand-held meter

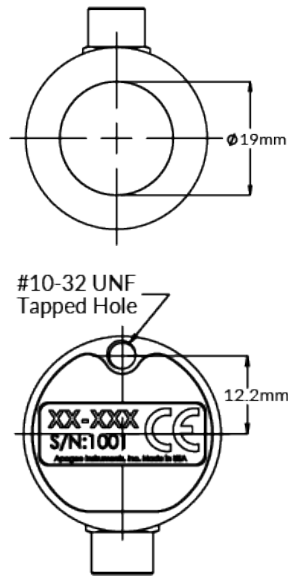
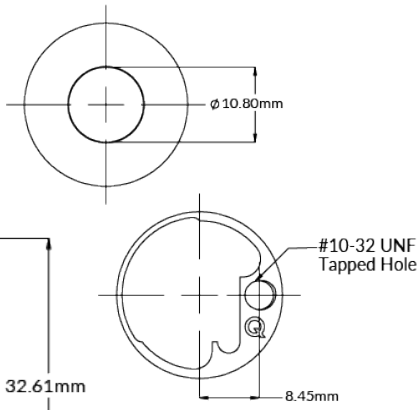
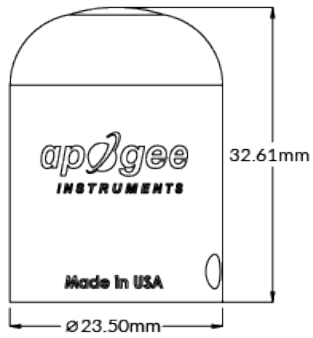
MQ-200X



Product Specifications

	SQ-100X-SS	SQ-202X-SS	SQ-204X-SS	SQ-205X-SS	SQ-420X	SQ-421X-SS	SQ-422X-SS
Power Supply	Self-powered	5 to 24 V DC	7 to 24 V DC	5.5 to 24 V DC	5 V USB power source	5.5 to 24 V DC	
Current Draw	—	10 μA	22 mA maximum; 2 mA quiescent	10 μA	61 mA when logging	1.4 mA (quiescent), 1.8 mA (active)	RS-232 37 mA; RS-485 quiescent 37 mA, active 42 mA
Output (sensitivity)	0.1 mV per $\mu\text{mol m}^{-2} \text{s}^{-1}$	0.625 mV per $\mu\text{mol m}^{-2} \text{s}^{-1}$	0.004 mA per $\mu\text{mol m}^{-2} \text{s}^{-1}$	1.25 mV per $\mu\text{mol m}^{-2} \text{s}^{-1}$	—		
Calibration Factor (reciprocal of output)	10 $\mu\text{mol m}^{-2} \text{s}^{-1}$ per mV	1.6 $\mu\text{mol m}^{-2} \text{s}^{-1}$ per mV	250 $\mu\text{mol m}^{-2} \text{s}^{-1}$ per mA	0.8 $\mu\text{mol m}^{-2} \text{s}^{-1}$ per mV	Custom for each sensor and stored in the firmware		
Calibration for Uncertainty	± 5 %						
Output Range	0 to 400 mV	0 to 2.5 V	4 to 20 mA	0 to 5 V	USB	SDI-12	Modbus
Measurement Repeatability	Less than 0.5 %					Less than 1 %	
Long-term Drift	Less than 2 % per year						
Non-linearity	Less than 1 % (up to 4000 $\mu\text{mol m}^{-2} \text{s}^{-1}$)						
Response Time	Less than 1 ms				Software updates every second	Less than 0.6 s	—
Field of View	180°						
Spectral Range	370 to 650 nm (wavelengths where response is greater than 50 % maximum)						
Directional (cosine) Response	± 5 % at 75° zenith angle						
Temperature Response	-0.04 % per C						
Operating Environment	10 to 60 C; 0 to 100 % relative humidity; can be submerged in water up to 30 m						
Dimensions	24 mm diameter, 33 mm height	30.5 mm diameter, 37 mm height			24 mm diameter, 33 mm height	30.5 mm diameter, 37 mm height	
Mass (5 m of cable)	90 g	140 g			90 g	140 g	

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All other full-spectrum quantum
and original X quantum models

