

QS30 Specifications

Supply Voltage and Current	Emitters (High-Power): 10 to 30 V dc (10% max. ripple) at less than 70 mA Receivers (High-Power): 10 to 30 V dc (10% max. ripple) at less than 22 mA Analog Receivers (water): 15 to 30 V dc (10% max. ripple) at less than 65 mA All others: 10 to 30 V dc (10% max. ripple) at 40 mA, (exclusive of load)		Emitters (Water): 10 to 30 V dc (10% max. ripple) at less than 80 mA Receivers (Water): 10 to 30 V dc (10% max. ripple) at less than 65 mA (exclusive of load)
Supply Protection Circuitry	Protected against reverse polarity and transient voltages		
Output Configuration	Bipolar: One PNP (current sourcing) and one NPN (current sinking); Light Operate (LO) or Dark Operate (DO) selectable or configurable (depending on model)		
Output Response Time	Opposed: 5 milliseconds ON/OFF Opposed (High-Power): 30 milliseconds ON/OFF Opposed (Water): 10 x excess gain or more– Standard: 1 millisecond ON/OFF 2x to 10x excess gain– Standard: 3 milliseconds ON/OFF All others: 2 milliseconds ON/OFF		Super High-Power: 10 milliseconds ON/OFF Super High-Power: 30 milliseconds ON/OFF
Delay at Power-Up	100 milliseconds; outputs do not conduct during this time (except Opposed High-Powered and Water)		
Repeatability	Opposed: not applicable Opposed (High-Power): 5 milliseconds Opposed (Water): 10 x excess gain or more– Standard: 500 microseconds 2x to 10x excess gain– Standard: 2.5 milliseconds All others: 500 microseconds		Super High-Power: 5 milliseconds Super High-Power: 25 milliseconds
Adjustments	Opposed (High-Power and Water): Light Operate/Dark Operate—dependent on model selected Frequency via gray wire: A: Gray (+) B: Gray (-) Emitter only: LED inhibit, via white wire White (-) turns emitter LED OFF (to allow verification of sensor operation) Opposed, Retroreflective, and Polarized Retroreflective: Selectable Light/Dark Operate is achieved via the gray wire Light Operate: Low (0 to 3 V)* Dark Operate: High (open or 5 to 30 V)* Diffuse: Selectable Light/Dark Operate is achieved via the gray wire Light Operate: High (open or 5 to 30 V)* Dark Operate: Low (0 to 3 V)* Diffuse, Retroreflective, and Polarized Retroreflective (only): Single-turn sensitivity (Gain) adjustment potentiometer * Input impedance 10 kΩ See datasheet for more detailed information		
Indicators	Opposed (High-Power): 4-LED Signal Strength light bar Green LED: Power ON Frequency indicator: (A or B) Receiver only: Yellow LED: Output conducting All others (except emitters): Large, oval LED indicator on sensor back Yellow: Output conducting Small indicator on back (adjustable-field only) Blue/Red: End of travel (EOT) LED 2 indicators on top Green: Power ON Yellow: Light sensed		
Construction	ABS plastic housing; acrylic lens cover Opposed High-Power Lenses: Impact resistant lens material		
Environmental Rating	Opposed (High-Power): Cabled: IP67; NEMA 6P Opposed (High-Power) QD: IP69K per DIN 40050-9 Opposed (Water): IEC IP67 (nema 6); PW12 1200 PSI washdown per NEMA PW12 All others: IP67; NEMA 6		
Connections	5-conductor 2 m or 9 m PVC cable, or 5-pin 150 mm pigtail or integral Euro-style quick-disconnect fitting, depending on model. QD cordsets are ordered separately. See page 62.		
Operating Conditions	Opposed (Water), Opposed (High-Power): -20° to +60° C Relative humidity: 90% (non-condensing) All others: -20° to +70° C Relative humidity: 90% (non-condensing)		
Certifications			