

T18-2 Series



Washdown Sensors for Harsh Environments

- IP69K epoxy encapsulated for maximum reliability in wet, thermal shock environments
- ECOLAB™ certified FDA grade plastic housing
- Ultrasonically welded joints for superior sealing and durability
- Improved hygienic design for easier cleaning



Next Generation of Washdown Sensors



Challenge

- 1500 psi high pressure water washdown
- Harsh chemicals used in cleaning can deteriorate certain materials over time
- Temperature cycling; sensors are cleaned with 80 °C water and returned to cool environment creating condensation in the sensor
- Temperature cycling causes expansion and contraction of materials

Solution

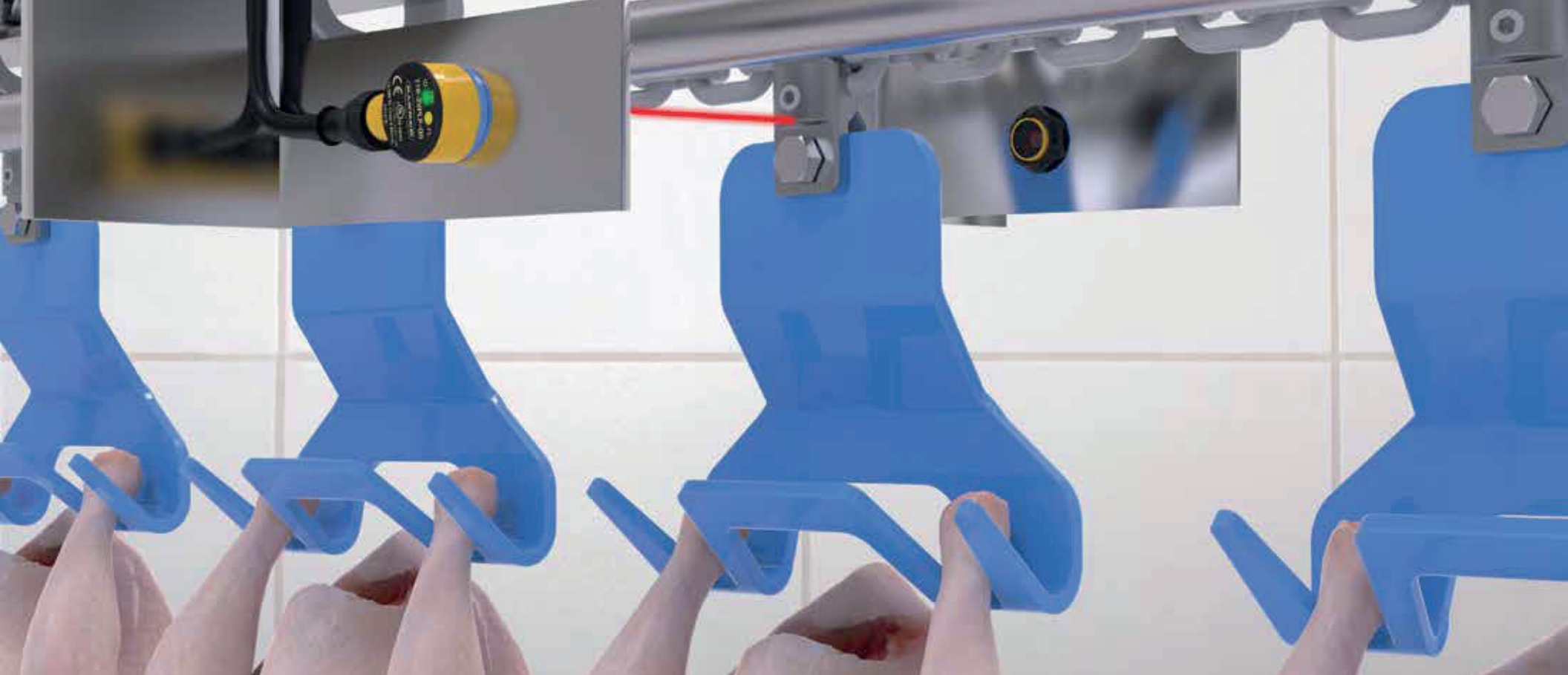
- IP67/IP69K rating with ultrasonically welded joints to prevent water ingress
- FDA approved housing passed ECOLAB™ submersion testing for 28 days in a range of chemicals
- Fully epoxy potted to eliminate internal air gaps that allow condensation
- Plastic materials, that expand and contract at the same rate and are ultrasonically welded, will not weaken due to temperature cycling

Advantage of All Plastic Housing vs. Metal



Emitter/Receiver

Type	Range (m)	Output	Model
Emitter	25 m (82 ft)	None	T18-2NAEL-Q8
	25 m (82 ft) with beam inhibit		T18-2NAEJ-Q8
	25 m (82 ft) with LED adjustment potentiometer		T18-2NAES-Q8
Receiver	25 m (82 ft)	Complementary NPN	T18-2VNRL-Q8
		Complementary PNP	T18-2VPR-L-Q8
	25 m (82 ft) with gain adjustment potentiometer	Complementary NPN	T18-2VNRS-Q8
		Complementary PNP	T18-2VPRS-Q8



Polarized Retroreflective

Range (m)	Output	Model
6 m (19.7 ft) with BRT-84 reflector	Complementary NPN	T18-2VNLP-Q8
	Complementary PNP	T18-2VPLP-Q8
6 m (19.7 ft) with BRT-84 reflector, with gain adjustment potentiometer	Complementary NPN	T18-2VNLP-Q8
	Complementary PNP	T18-2VPLP-Q8

Diffuse

Range (m)	Output	Model
750 mm (29.5 in) with adjustment	Complementary NPN	T18-2VNDL-Q8
	Complementary PNP	T18-2VPDL-Q8
300 mm (11.8 in) with gain adjustment potentiometer	Complementary NPN	T18-2VNDS-Q8
	Complementary PNP	T18-2VPDS-Q8

Fixed Field

Range (m)	Output	Visible Red Emitter Models	Infrared Emitter Models
30 mm	Complementary NPN	T18-2VNFF30-Q8	T18-2VNFF30IR-Q8
	Complementary PNP	T18-2VPFF30-Q8	T18-2VPFF30IR-Q8
50 mm	Complementary NPN	T18-2VNFF50-Q8	T18-2VNFF50IR-Q8
	Complementary PNP	T18-2VPFF50-Q8	T18-2VPFF50IR-Q8
75 mm	Complementary NPN	T18-2VNFF75-Q8	T18-2VNFF75IR-Q8
	Complementary PNP	T18-2VPFF75-Q8	T18-2VPFF75IR-Q8
100 mm	Complementary NPN	T18-2VNFF100-Q8	T18-2VNFF100IR-Q8
	Complementary PNP	T18-2VPFF100-Q8	T18-2VPFF100IR-Q8
150 mm	Complementary NPN	T18-2VNFF150-Q8	T18-2VNFF150IR-Q8
	Complementary PNP	T18-2VPFF150-Q8	T18-2VPFF150IR-Q8
200 mm	Complementary NPN	T18-2VNFF200-Q8	T18-2VNFF200IR-Q8
	Complementary PNP	T18-2VPFF200-Q8	T18-2VPFF200IR-Q8



Supply Voltage

10 V dc to 30 V dc for ambient temperature $\leq 55^{\circ}\text{C}$
10 V dc to 24 V dc for ambient temperature $> 55^{\circ}\text{C}$

Construction

PBT Polyester: Housing, M12 QD, cover, indicator cover and gain pot driver
PMMA Acrylic: Indicator light pipes

Indicators

Two LEDs (1 green, 1 amber)
Green Solid: Indicates power applied and sensor ready
Green flashing: Indicates marginal sensing signal
Amber solid: Indicates Pin-4 (black wire) conducting

Environmental Rating

IEC IP67 per IEC60529
IEC IP68 per IEC60529
IEC IP69K per DIN 40050-9

Operating Conditions

Temperature: -40 to $+70^{\circ}\text{C}$

Certifications



ECOLAB

Accessories



SMB18A



SMBAMS22P
add -SS to model number
for stainless steel models



SMB18FA



ACC-T18-2-GSK-FDA-10
sold in packs of 10

BRT-2X2



BRT-84



4-Pin Euro-Style
Straight connector models listed; for right-angle models, add RA to the end of model number (example, MQDC-406RA)

MQDC-406
2 m (6.5')
MQDC-415
5 m (15')
MQDC-430
9 m (30')



4-pin M12 Euro-Style
Washdown IP69K
Straight stainless steel connector models listed

MQDC-WDSS-0406
2 m (6.5')
MQDC-WDSS-0415
5 m (15')
MQDC-WDSS-0430
9 m (30')



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