CONTRINEX

HOUSING	OPERATING DISTANCE	MOUNTING	
M18	**10 mm**	**Embeddable**	✓ One-piece housing in stainless steel V4A ✓ Robust and food-safe ✓ Corrosion resistant

✓ IP68 and IP69K, Ecolab
✓ Long operating distance
✓ Factor 1 on Fe and Al
✓ IO-Link v1.1

CE · IP 68 69K · c UL us LISTED
IO-Link · ASIC · ECOLAB®
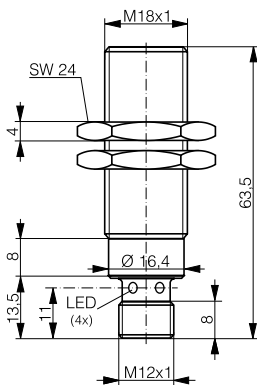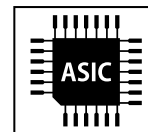
DW-LS-70x-M18-002
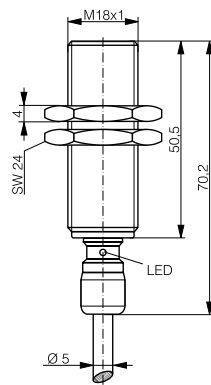
DW-LD-70x-M18

DETECTION DATA

Rated operating distance (S_n)	10 mm
Assured operating distance (S_a)	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	≤ 0.3 mm
Hysteresis	$3\% \, S_r \leq Hyst \leq 15\% \, S_r$
Temperature drift	$\leq 10\% \, S_r$
Standard target	$30 \times 30 \times 1$ mm³, FE360

Note: $0.9 S_n \leq S_r \leq 1.1 S_n$.

INTERFACE

Indicator LED, yellow	Sensing state ($0 \leq s \leq 0.8 \, S_r$)
Indicator LED, yellow, blinking	Sensing state ($0.8 \, S_r < s \leq S_r$)
IO-Link	✓
MTTF (@40°C)	1028 y

ELECTRICAL DATA

Supply voltage range (U_B)	10...30 VDC
Residual ripple	$\leq 20\% \, U_B$
Output current	≤ 200 mA
Output voltage drop	≤ 2.0 VDC
Power consumption (no-load)	≤ 10 mA
Residual current	≤ 0.1 mA
Switching frequency	≤ 200 Hz
Short-circuit protection	✓
Voltage reversal protection	✓
Cable length max.	≤ 300 m

MECHANICAL DATA

Mounting	Embeddable
Housing material	V4A / 1.4435 / AISI 316L
Sensing face material	V4A / 1.4435 / AISI 316L
Max tightening torque	50 Nm
Ambient operating temperature	-25...+85°C[1]
Enclosure rating	IP68 / IP69K
Weight (cable/connector)	see page 2
Shock and vibration	IEC 60947-5-2

[1]Maximum temperature according to UL: 70°C.

Note: all data measured according to IEC 60947-5-2 standard with U_B=20…30VDC, T_A=23°C $\pm$ 5°C.

CORRECTION FACTORS FOR TARGET OF

Steel FE 360	1	Copper	0.85	Aluminum	1	Brass	1.25	Stainless Steel V2A 1/2 mm	0.5 / 0.9

CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360	0.75	Aluminum	0.9	Brass	0.75	Stainless Steel V2A	0.8

Note: the operating distance of the sensor must be multiplied by the correction factor of the material. For example, the operating distance on Aluminum is $S_{n, Al} = S_n$ x CF_{Al}. In case of embeddable mounting, the distance is multiplied by the additional correction factor of the support, thus $S_{n, Al} = S_n$ x CF_{Al} x $CF_{emb, Al}$.

INSTALLATION CONDITIONS
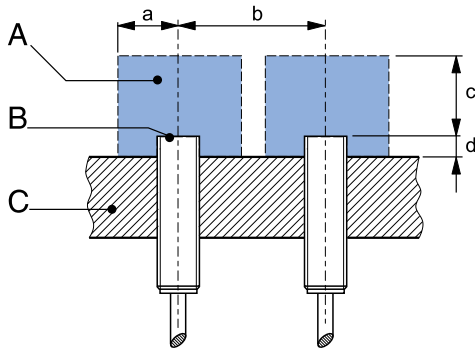
A : metal free zone   a : 25 mm   d : steel   0 mm
B : sensing face   b : 50 mm
C : support   c : 30 mm

Note: additional installation information can be found in the glossary of the Contrinex General Catalog.

IO-LINK FUNCTIONALITIES

|	
IO-Link version	1.1
SIO mode	Supported
Process data	7-bit input
Baudrate	COM2 (38.4 kBaud)
Minimum cycle time	10.4 ms
ISDU	Not supported

IODD files may be downloaded from

www.contrinex.com/product-range/inductive-sensors/.

Select the product name to display the product page with corresponding downloads.

Alternatively, just click/scan the QR code on the left.

WIRING DIAGRAM

PIN ASSIGNMENT

M12
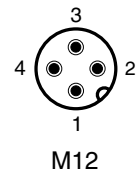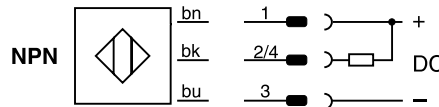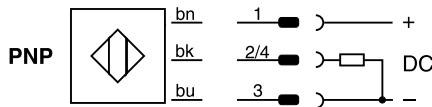
AVAILABLE TYPES

Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
320-420-283	DW-LD-701-M18	NPN	TPE-S, 2 m, 3 wire	-	Normally open (NO)	115 g
320-420-284	DW-LD-702-M18	NPN	TPE-S, 2 m, 3 wire	Normally close (NC)	-	115 g
330-320-031	DW-LD-703-M18	PNP	TPE-S, 2 m, 3 wire	-	Normally open (NO) / IO-Link	115 g
320-420-286	DW-LD-704-M18	PNP	TPE-S, 2 m, 3 wire	Normally close (NC)	-	115 g
320-420-265	DW-LS-701-M18-002	NPN	M12 4-pin	-	Normally open (NO)	53 g
320-420-302	DW-LS-702-M18-002	NPN	M12 4-pin	Normally close (NC)	-	53 g
330-320-024	DW-LS-703-M18-002	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	53 g
320-420-267	DW-LS-704-M18-002	PNP	M12 4-pin	Normally close (NC)	-	53 g

Note: part reference may include additional suffix to indicate a revision version or special version. Further information is available on request.

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