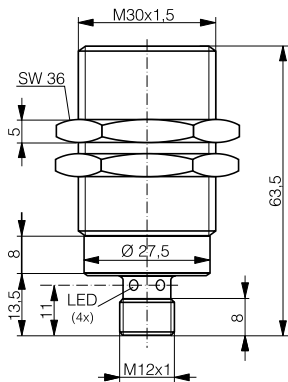
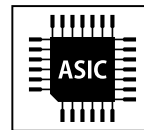
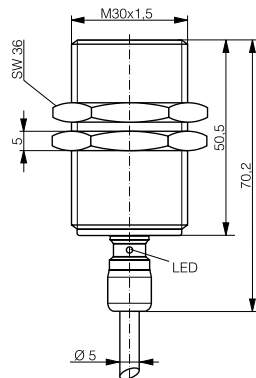


HOUSING	OPERATING DISTANCE	MOUNTING	✓ One-piece housing in stainless steel V4A	✓ IP68 and IP69K, Ecolab
M30	20 mm	Embeddable	✓ Robust and food-safe	✓ Long operating distance
			✓ Corrosion resistant	✓ Factor 1 on Fe and Al
				✓ IO-Link v1.1



DW-LS-70x-M30-002



DW-LD-70x-M30

DETECTION DATA		INTERFACE	
Rated operating distance ( $S_n$ )	20 mm	Indicator LED, yellow	Sensing state ( $0 \leq s \leq 0.8 S_r$ )
Assured operating distance ( $S_a$ )	$\leq (0.81 \times S_n)$ mm	Indicator LED, yellow, blinking	Sensing state ( $0.8 S_r < s \leq S_r$ )
Repeat accuracy	$\leq 0.7$ mm	IO-Link	✓
Hysteresis	$3\% S_r \leq \text{Hyst} \leq 15\% S_r$	MTTF (@40°C)	1028 y
Temperature drift	$\leq 10\% S_r$		
Standard target	60 x 60 x 1 mm <sup>3</sup> , FE360		

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

ELECTRICAL DATA		MECHANICAL DATA	
Supply voltage range ( $U_B$ )	10...30 VDC	Mounting	Embeddable
Residual ripple	$\leq 20\% U_B$	Housing material	V4A / 1.4435 / AISI 316L
Output current	$\leq 200$ mA	Sensing face material	V4A / 1.4435 / AISI 316L
Output voltage drop	$\leq 2.0$ VDC	Max tightening torque	150 Nm
Power consumption (no-load)	$\leq 10$ mA	Ambient operating temperature	-25...+85°C <sup>1</sup>
Residual current	$\leq 0.1$ mA	Enclosure rating	IP68 / IP69K
Switching frequency	$\leq 125$ Hz	Weight (cable/connector)	see page 2
Short-circuit protection	✓	Shock and vibration	IEC 60947-5-2 / 7.4
Voltage reversal protection	✓		
Cable length max.	$\leq 300$ m		

<sup>1</sup>Maximum temperature according to UL: 70°C.

Note: all data measured according to IEC 60947-5-2 standard with  $U_B=20 \dots 30$ VDC,  $T_A=23^\circ\text{C} \pm 5^\circ\text{C}$ .

## CORRECTION FACTORS FOR TARGET OF

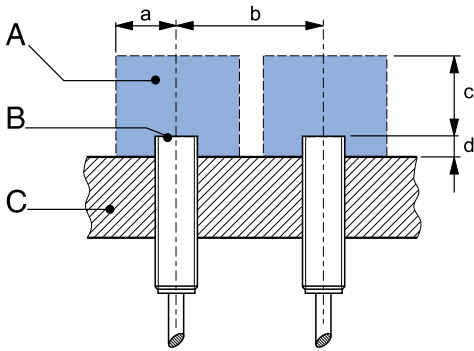
Steel FE 360	1	Copper	0.85	Aluminum	1	Brass	1.3	Stainless Steel V2A 1/2 mm	0.35 / 0.7
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## CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360	0.8	Aluminum	0.7	Brass	0.6	Stainless Steel V2A	1
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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  $S_{n,Al} = S_n \times CF_{Al}$ . In case of embeddable mounting, the distance is multiplied by the additional correction factor of the support, thus  $S_{n,Al} = S_n \times CF_{Al} \times CF_{emb,Al}$ .

## INSTALLATION CONDITIONS



A : metal free zone  
 B : sensing face  
 C : support

a : 45 mm  
 b : 110 mm  
 c : 60 mm

d : steel 0 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



IO-Link files may be downloaded from

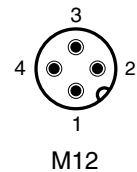
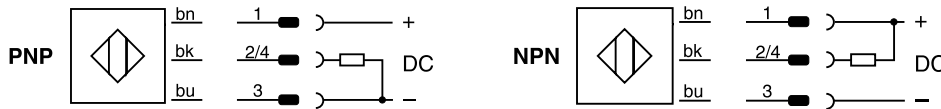
[www.contrinex.com/product-range/inductive-sensors/](http://www.contrinex.com/product-range/inductive-sensors/).

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



## AVAILABLE TYPES

Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
320-420-291	DW-LD-701-M30	NPN	TPE-S, 2 m, 3 wire	-	Normally open (NO)	190 g
320-420-292	DW-LD-702-M30	NPN	TPE-S, 2 m, 3 wire	Normally close (NC)	-	190 g
330-320-033	DW-LD-703-M30	PNP	TPE-S, 2 m, 3 wire	-	Normally open (NO) / IO-Link	190 g
320-420-294	DW-LD-704-M30	PNP	TPE-S, 2 m, 3 wire	Normally close (NC)	-	190 g
320-420-270	DW-LS-701-M30-002	NPN	M12 4-pin	-	Normally open (NO)	137 g
320-420-305	DW-LS-702-M30-002	NPN	M12 4-pin	Normally close (NC)	-	137 g
330-320-026	DW-LS-703-M30-002	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	137 g
320-420-306	DW-LS-704-M30-002	PNP	M12 4-pin	Normally close (NC)	-	137 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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