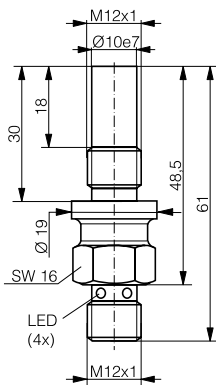
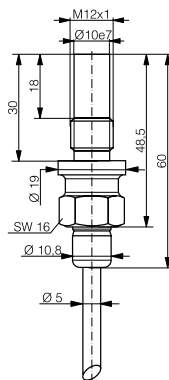


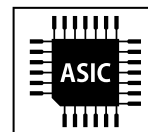
HOUSING	OPERATING DISTANCE	MOUNTING	<ul style="list-style-type: none"> <li>✓ Maritime approved: DNVGL-CG-0339: 2016</li> <li>✓ One-piece housing in stainless steel V4A</li> </ul>	<ul style="list-style-type: none"> <li>✓ Resistant up to 500 bar</li> <li>✓ Sea-water resistant</li> <li>✓ IP68, IP69K</li> <li>✓ IO-Link V1.1</li> </ul>
M12	1.5 mm	Embeddable		



DW-MS-70x-P12G



DW-MD-70x-P12G



DETECTION DATA		INTERFACE	
Rated operating distance ( $S_n$ )	1.5 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	$\leq 0.06$ mm	IO-Link	✓
Hysteresis	$3\% S_r \leq \text{Hyst} \leq 15\% S_r$	MTTF (@40°C)	948 y
Temperature drift	$\leq 10\% S_r$		
Standard target	10 x 10 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	50 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	$\leq 850$ Hz	Weight (cable/connector)	see page 2
Short-circuit protection	✓	Shock and vibration	IEC 60947-5-2
Voltage reversal protection	✓	Max. op. pressure sensing face	500 bar (peak max. 800 bar)
Cable length max.	$\leq 300$ m	Max. operating pressure cable exit	100 bar

<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

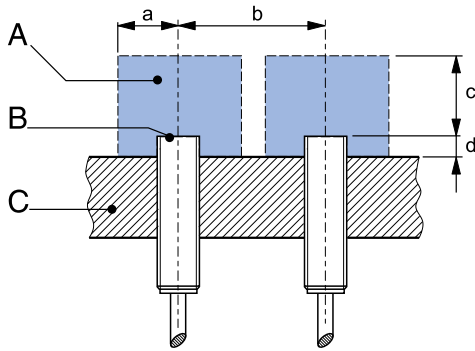
Steel FE 360	1	Copper	0.9	Aluminum	1	Brass	1.6	Stainless Steel V2A 1/2 mm	0 / 0.05
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## CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360	0.95	Aluminum	0.6	Brass	0.75	Stainless Steel V2A	0.8
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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      a : 5 mm      d : steel 0 mm  
 B : sensing face      b : 30 mm  
 C : support      c : 5 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



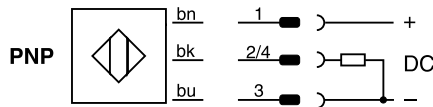
IO-Link files may be downloaded from

[www.contrinex.com/product\\_range/inductive-maritime/](http://www.contrinex.com/product_range/inductive-maritime/).

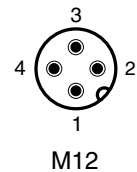
Select the product name to display the product page with corresponding downloads.

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
330-320-108	DW-MS-703-P12G	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	40 g
330-320-109	DW-MD-703-P12G	PNP	PUR, 2 m, 3 wire	-	Normally open (NO) / IO-Link	106 g
330-320-177	DW-MD-703-P12G-298	PNP	PUR, 10 m, 3 wire	-	Normally open (NO) / IO-Link	381 g
330-320-178	DW-MD-703-P12G-280	PNP	PUR, 25 m, 3 wire	-	Normally open (NO) / IO-Link	897 g

\* Further cable lengths available on request; DNV GL certified up to 25m

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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