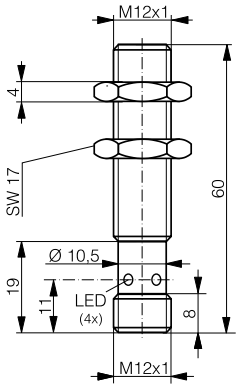
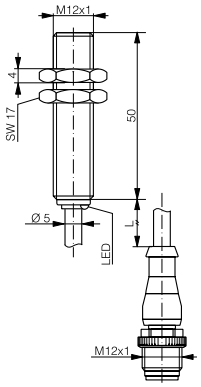
CONTRINEX

INDUCTIVE SENSOR
WELD-IMMUNE
DW-Ax-70x-M12-6xx

HOUSING	OPERATING DISTANCE	MOUNTING
M12	6 mm	Embeddable

- ✓ Anti-spatter coating
- ✓ Magnetic-field immunity: medium frequency ≤ 15 kA 50 Hz fields ≤ 40 mT
- ✓ Robust full-metal sensor, impact resistant
- ✓ Long operating distance
- ✓ Factor 1 on Fe and Al





DW-AS-70x-M12-6xx **DW-AV-70x-M12-6xx**

DETECTION DATA		INTERFACE	
Rated operating distance (S_n)	6 mm	Indicator LED, yellow	Sensing state ($0 \le s \le S_r$)
Assured operating distance (S_a)	≤ (0.81 x S_n) mm	IO-Link	✓
Repeat accuracy	≤ 0.3 mm	MTTF (@40°C)	1017 y
Hysteresis	3% S_r ≤ Hyst ≤ 15% S_r		
Temperature drift	≤ 10% S_r		
Standard target	18 x 18 x 1 mm³, FE360		

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

ELECTRICAL DATA		MECHANICAL DATA	
Supply voltage range (U_B)	10...30 VDC	Mounting	Embeddable
Residual ripple	≤ 20% U_B	Housing material	V2A / 1.4305 / AISI 303 (+ coating)
Output current	≤ 200 mA	Sensing face material	V2A / 1.4305 / AISI 303 (+ coating)
Output voltage drop	≤ 2.0 VDC	Max tightening torque	20 Nm
Power consumption (no-load)	≤ 10 mA	Ambient operating temperature	-25...+85°C[1]
Residual current	≤ 0.1 mA	Enclosure rating	IP68 / IP69K
Switching frequency	≤ 15 Hz	Weight (cable/connector)	see page 2
Short-circuit protection	✓	Shock and vibration	IEC 60947-5-2
Voltage reversal protection	✓		
Cable length max.	≤ 300 m		

[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 ± 5°C.

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CORRECTION FACTORS FOR TARGET OF

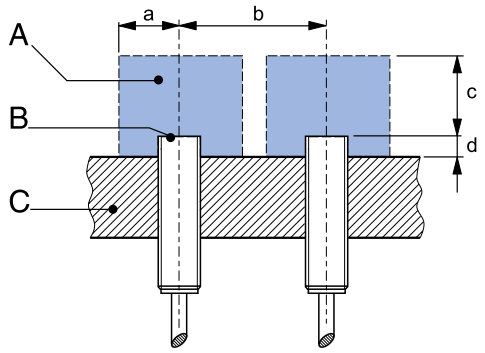
Steel FE 360	**1**	Copper	**1**	Aluminum	**1.2**	Brass	**1.4**	Stainless Steel V2A 1/2 mm	**0.2 / 0.7**

CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360	**0.8**	Aluminum	**0.85**	Brass	**0.65**	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 $S_{n,Al} = S_n \times CF_{Al}$. 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 : 12 mm
b : 40 mm
c : 18 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

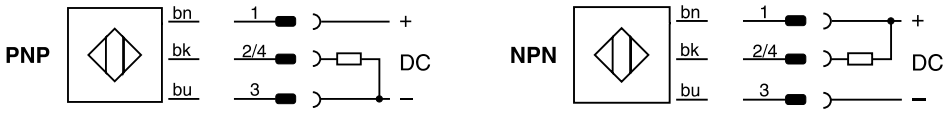
IODD files may be downloaded from

https://www.contrinex.com/product_range/inductive-weld-immune

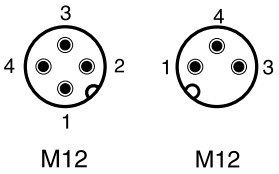
Select the product name to display the product page with corresponding downloads.

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

WIRING DIAGRAM



PIN ASSIGNMENT



AVAILABLE TYPES

UNCOATED

Part number	Part reference	Old ref.	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
330-320-146	DW-AS-703-M12-673	-	PNP	M12 4-pin	–	Normally open (NO) / IO-Link	25 g
330-320-155	DW-AS-70A-M12-673	-	PNP	M12 4-pin	Normally closed (NC)	Normally open (NO) / IO-Link	25 g
320-420-769	DW-AS-70B-M12-673	-	NPN	M12 4-pin	Normally closed (NC)	Normally open (NO)	25 g
320-420-762	DW-AV-701-M12-673	xxx-692	NPN	PUR, 0.2 m + M12 3-pin	–	Normally open (NO)	42 g
330-320-165	DW-AV-703-M12-673	xxx-695	PNP	PUR, 0.2 m + M12 3-pin	–	Normally open (NO) / IO-Link	42 g
320-420-764	DW-AS-701-M12-673	-	NPN	M12 4-pin	–	Normally open (NO)	25 g

COATED

Part number	Part reference	Old ref.	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
330-320-156	DW-AS-703-M12-693	xxx-697	PNP	M12 4-pin	–	Normally open (NO) / IO-Link	25 g
320-420-779	DW-AV-701-M12-693	xxx-696	NPN	PUR, 0.2 m + M12 3-pin	–	Normally open (NO)	42 g
330-320-166	DW-AV-703-M12-693	xxx-696	PNP	PUR, 0.2 m + M12 3-pin	–	Normally open (NO) / IO-Link	42 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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