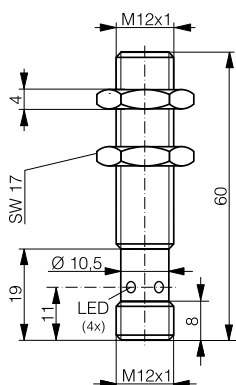
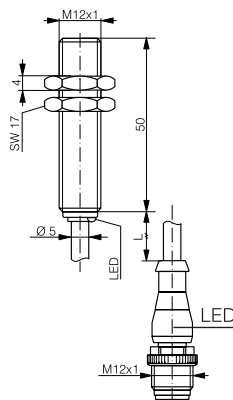


INDUCTIVE SENSOR WELD-IMMUNE DW-Ax-70x-M12-6xx

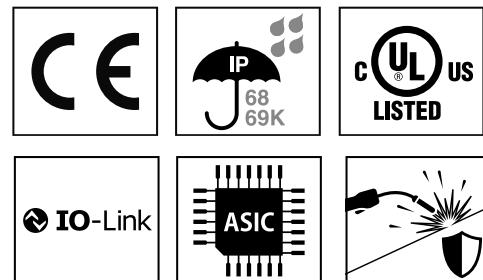
HOUSING	OPERATING DISTANCE	MOUNTING		
M12	6 mm	Embeddable	✓ Anti-spatter coating ✓ Magnetic-field immunity: medium frequency ≤ 15 kA 50 Hz fields ≤ 40 mT	✓ Robust full-metal sensor, impact resistant ✓ Long operating distance ✓ Factor 1 on Fe and Al



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 ($0 \leq s \leq S_n$)
Assured operating distance (S_a)	$\leq (0.81 \times S_n)$ mm	IO-Link	✓
Repeat accuracy	≤ 0.3 mm	MTTF (@40°C)	
Hysteresis	$3\% S_r \leq \text{Hyst} \leq 15\% S_r$		1017 y
Temperature drift	$\leq 10\% S_r$		
Standard target	18 x 18 x 1 mm ³ , FE360		

Note: $0.8S_n \leq S_a \leq 1.1S_n$

ELECTRICAL DATA		MECHANICAL DATA	
Supply voltage range (U_B)	10...30 VDC	Mounting	Embeddable
Residual ripple	$\leq 20\% U_B$	Housing material	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 ²
Switching frequency	≤ 15 Hz	Weight (cable/connector)	see page 2
Short-circuit protection	✓	Cable minimum bending radius	moving: 15 x D; Fixed: 10 x D
Voltage reversal protection	✓	Shock and vibration	IEC 60947-5-2
Cable length max.	≤ 300 m		

¹Maximum temperature according to UL: 70°C.

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

²IP67 for pigtail version (AV or AP)

CORRECTION FACTORS FOR TARGET OF

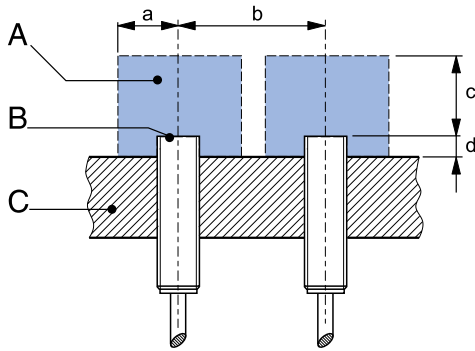
Steel FE 360	1	Copper	1	Aluminum	1.2	Brass	1.4	Stainless Steel V2A 1/2 mm	0.2 / 0.7
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CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360	0.8	Aluminum	0.85	Brass	0.65	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
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



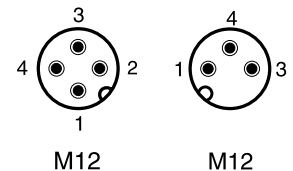
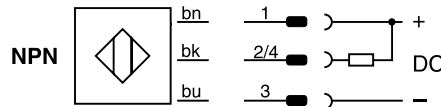
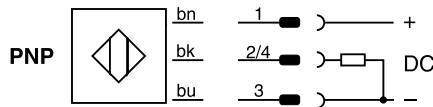
IODD files may be downloaded from

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



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
320-420-827	DW-AP-701-M12-673	-	NPN	PUR + PTFE, 0.2 m + M12 3-pin	—	Normally open (NO)	—
330-320-228	DW-AP-703-M12-673	-	PNP	PUR + PTFE, 0.2 m + M12 3-pin	—	Normally open (NO) / IO-Link	—

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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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
330-320-215	DW-AS-701-M12-693	–	NPN	M12 4-pin	–	Normally open (NO)	25 g
320-420-855	DW-AD-701-M12-693	–	NPN	PUR, 2m, 3-wire	–	Normally open (NO)	–
330-320-249	DW-AD-703-M12-693	–	PNP	PUR, 2m, 3-wire	–	Normally open (NO) / IO-Link	–
320-420-831	DW-AP-701-M12-693	–	NPN	PUR + PTFE, 0.2 m + M12 3-pin	–	Normally open (NO)	–
330-320-229	DW-AP-703-M12-693	–	PNP	PUR + PTFE, 0.2 m + M12 3-pin	–	Normally open (NO) / IO-Link	–

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