

INDUCTIVE SENSOR WELD-IMMUNE DW-Ax-70x-M8-6xx

HOUSING	OPERATING DISTANCE	MOUNTING	 ✓ Anti-spatter coating ✓ Magnetic-field immunity: medium frequency ≤ 15 kA 	✓ Robust full-metal sensor, impact resistant✓ Long operating distance
M8	3 mm	Embeddable	50 Hz fields ≤ 40 mT	✓ Factor 1 on Fe and Al
			IO-Link ASIC	C UL US LISTED
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DETECTION DATA		INTERFACE		
Rated operating distance (S _n)	3 mm	Indicator LED, yellow	Sensing state $(0 \le s \le S_r)$	
Assured operating distance (S _a)	\leq (0.81 x S _n) mm	IO-Link	\checkmark	
Repeat accuracy	≤ 0.15 mm	MTTF (@40°C)	1017 y	
Hysteresis	3% S _r ≤ Hyst ≤ 15% S _r			
Temperature drift	≤ 10% S _r			
Standard target	9 x 9 x 1 mm³, FE360			

M8x1

DW-AS-70x-M8-6x3

DW-AV-703-M8-692

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

DW-AS-70x-M8-6xx

ELECTRICAL DATA		MECHANICAL DATA		
Supply voltage range (U _B)	1030 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	8 Nm	
Power consumption (no-load)	≤ 10 mA	Ambient operating temperature	-25+85°C¹	
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			

¹Maximum temperature according to UL: 70°C.

Note: all data measured according to IEC 60947-5-2 standard with $\rm U_B=20\dots30VDC,\,T_A=23^{\circ}C\pm5^{\circ}C.$

DW-AV-70x-M8-6xx

CORRECTION FACTORS FOR TARGET OF

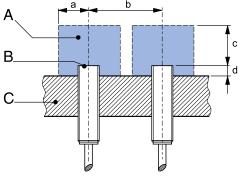
Steel FE 360 1 Copper 1 Aluminum 1 Brass 1.3 Stainless Steel V2A 1/2 mm 0.4 / 0.7

CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360 0.9 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 $S_{n,Al} = S_n \times CF_{Al}$. 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

b: 22mm c: 9mm

6mm d: steel 0m

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/.

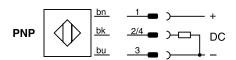
Select the product name to display the product page with corresponding downloads.

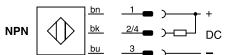
Alternatively, just click/scan the QR code on the left.

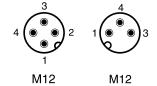
Note: additional installation information can be found in the glossary of the Contrinex General Catalog.

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
330-320-159	DW-AS-703-M8-673	xxx-694	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	17 g
320-420-777	DW-AV-701-M8-673	xxx-695	NPN	PUR, 0.2 m + M12 3-pin	=	Normally open (NO)	23 g
330-320-154	DW-AV-703-M8-673	xxx-695	PNP	PUR, 0.2 m + M12 3-pin	-	Normally open (NO) / IO-Link	23 g
330-320-147	DW-AS-703-M8-698	xxx-673	PNP	M8 3-pin	-	Normally open (NO) / IO-Link	15 g
330-320-188	DW-AV-703-M8-698	xxx-692	PNP	PUR, 0.2 m + M8 3-pin	=	Normally open (NO) / IO-Link	23 g
320-420-761	DW-AV-701-M8-698	xxx-692	NPN	PUR, 0.2 m + M8 3-pin	-	Normally open (NO) / IO-Link	23 g

COATED							
Part number	Part reference	Old ref.	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
330-320-160	DW-AS-703-M8-697	-	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	17 g
320-420-778	DW-AV-701-M8-693	xxx-696	NPN	PUR, 0.2 m + M12 3-pin	-	Normally open (NO)	23 g
330-320-164	DW-AV-703-M8-693	xxx-696	PNP	PUR, 0.2 m + M12 3-pin	=	Normally open (NO) / IO-Link	23 g
330-320-180	DW-AS-703-M8-693	-	PNP	M8 3-pin	-	Normally open (NO) / IO-Link	15 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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