

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

HOUSING	OPERATING DISTANCE	MOUNTING	✓ Anti-spatter coating✓ Magnetic-field immunity:	Robust full-metal sensor, impact resistant
M8	3 mm	Embeddable	medium frequency \leq 15 kA 50 Hz fields \leq 40 mT	Long operating distance Factor 1 on Fe and Al



















DW-AS-70x-M8-6xx

LED

DW-AV-70x-M8-6xx

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	✓	
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			

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

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 / 7.4	
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 $\rm U_8=20\dots30VDC,\,T_A=23^{\circ}C\pm5^{\circ}C.$

CORRECTION FACTORS FOR TARGET OF

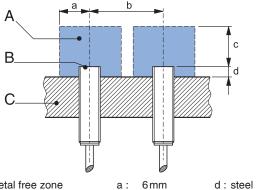
Steel FE 360 0.4 / 0.7 1.3 Stainless Steel V2A 1/2 mm Copper Aluminum **Brass**

CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360 Aluminum 0.9 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 x CF_a. 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: 22 mm 9mm d : steel

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



 $\ensuremath{\mathsf{IODD}}$ files may be downloaded from

www.contrinex.com/product-range/inductive-sensors/.

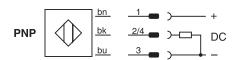
Select the product name to display the product page with corresponding downloads.

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

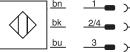
Note: additional installation information can be found in the glossary of the Contrinex General Catalog.

WIRING DIAGRAM

PIN ASSIGNMENT



NPN







AVAILABLE TYPES

UNCOATED							
Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight	
320-420-775	DW-AS-703-M8-694	PNP	M12 4-pin	-	Normally open (NO)	17 g	
320-420-777	DW-AV-701-M8-695	NPN	PUR, 0.2 m + M12 3-pin	-	Normally open (NO)	23 g	
330-320-154	DW-AV-703-M8-695	PNP	PUR, 0.2 m + M12 3-pin	-	Normally open (NO) / IO-Link	23 g	

COATED							
Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight	
320-420-776	DW-AS-703-M8-697	PNP	M12 4-pin	-	Normally open (NO)	17 g	
320-420-778	DW-AV-701-M8-696	NPN	PUR, 0.2 m + M12 3-pin	-	Normally open (NO)	23 g	
330-320-164	DW-AV-703-M8-696	PNP	PUR, 0.2 m + M12 3-pin	-	Normally open (NO) / IO-Link	23 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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