

INDUCTIVE SENSOR WELD-IMMUNE DW-Ax-70x-C23-6xx

HOUSING
32 x 20 (C23)
(C23)

OPERATING DISTANCE

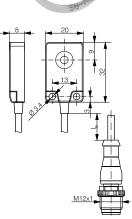
7 mm

MOUNTING

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 AI

















DW-Ax-70x-C23-6xx

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

DETECTION DATA		INTERFACE		
Rated operating distance (S _n)	7 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	≤ 0.3 mm	MTTF (@40°C)	1017 y	
Hysteresis	3% S _r ≤ Hyst ≤ 15% S _r			
Temperature drift	≤ 10% S _r			
Standard target	21 x 21 x 1 mm³, FE360			

ELECTRICAL DATA		MECHANICAL DATA		
Supply voltage range (U _B)	1030 VDC	Mounting	Embeddable	
Residual ripple	\leq 20% U_B	Housing material	V4A / 1.4435 / AISI 316L (+ coating)	
Output current	≤ 200 mA	Sensing face material	V4A / 1.4435 / AISI 316L (+ coating)	
Output voltage drop	≤ 2.0 VDC	Max tightening torque	2 Nm (for M3 screw)	
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			

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

CORRECTION FACTORS FOR TARGET OF

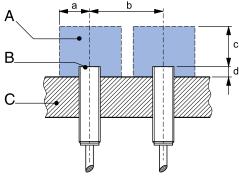
 Steel FE 360
 1
 Copper
 0.8
 Aluminum
 1
 Brass
 1.2
 Stainless Steel V2A 1/2 mm
 0.5 / 0.85

CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360 0.9 Aluminum 0.95 Brass 1 Stainless Steel V2A 1.1

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 $S_{n,Al} = S_n \times CF_{Al} \times CF_{Al}$. 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: 60mm c: 21mm

a: 21 mm d: steel 0 mm

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/.

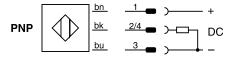
Select the product name to display the product page with corresponding downloads.

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



NPN





AVAILABLE TYPES

COATED

CONTED							
Part number	Part reference	Old ref.	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
330-320-172	DW-AV-703-C23-693	xxx-696	PNP	PUR, 0.2 m + M12 3-pin	-	Normally open (NO) / IO-Link	24 g
320-420-786	DW-AV-701-C23-693	xxx-696	NPN	PUR, 0.2 m + M12 3-pin	-	Normally open (NO)	24 g

Note: part reference may include additional suffix to indicate a revision version or special version. Further information is available on request.

Operators of the products we supply are responsible for compliance with measures for the protection of persons. The use of our equipment in applications where the safety of persons might be at risk is only authorized if the operator observes and implements separate, appropriate and necessary measures for the protection of persons and machines. Terms of delivery and rights to change design reserved.