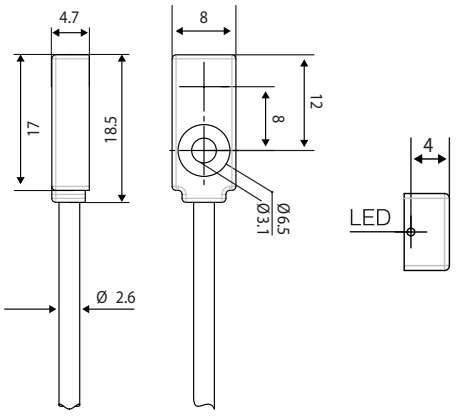
CONTRINEX

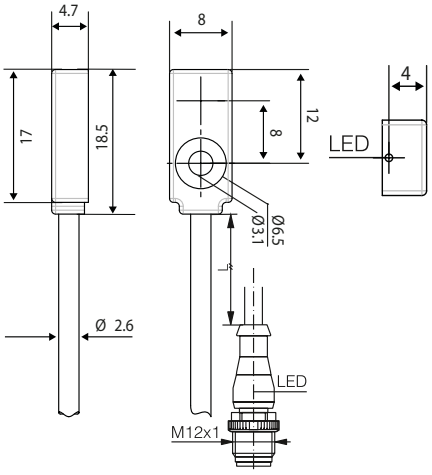
INDUCTIVE SENSOR
WELD-IMMUNE
DW-Ax-70x-R81-6xx

HOUSING	OPERATING DISTANCE	MOUNTING
17 x 8 (R81)	2 mm	Embeddable

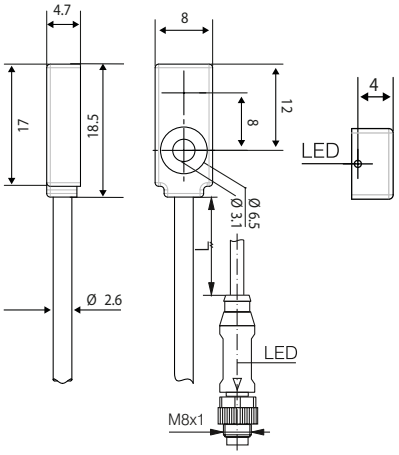
- ✓ Anti-spatter coating
- ✓ Magnetic-field immunity: medium frequency ≤ 15 kA 50 Hz fields ≤ 40 mT
- ✓ Robust full-metal sensor, impact resistant
- ✓ Long operating distance
- ✓ Factor 1 on Fe and Al



Cable
DW-AD-70x-R81-693



M12 Pigtail
DW-AV-70x-R81-693



M8 Pigtail
DW-AV-70x-R81-697

DETECTION DATA		INTERFACE	
Rated operating distance (S_n)	2 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	0.1 mm	MTTF (@40°C)	1017 years
Hysteresis	3% S_r ≤ Hyst ≤ 15% S_r		
Temperature drift	≤ 10% S_r		
Standard target	8 x 8 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	V4A / 1.4435 / AISI 316 (+ coating)
Output current	≤ 100 mA	Sensing face material	V4A / 1.4435 / AISI 316 (+ coating)
Output voltage drop	≤ 2.0 VDC	Max tightening torque	0.8 Nm with M3 screws
Power consumption (no-load)	≤ 10 mA	Ambient operating temperature	-25...+85°C[1]
Residual current	≤ 0.1 mA	Enclosure rating	IP67
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 U_B=20 … 30VDC, T_A=23°C ± 5°C.

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CORRECTION FACTORS FOR TARGET OF

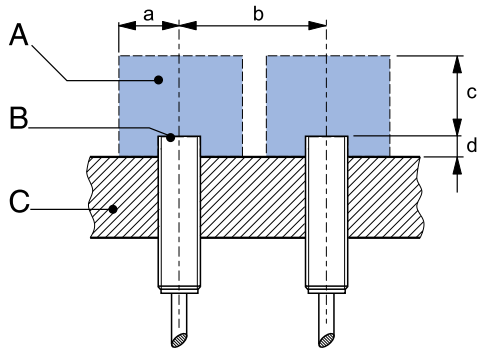
Steel FE 360	**1**	Copper	**1**	Aluminum	**1**	Brass	**1.35**	Stainless Steel V2A 1/2 mm	**0.4/0.75**

CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360	**0.9**	Aluminum	**0.8**	Brass	**0.8**	Stainless Steel V2A	**0.9**

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 : 4 mm
b : 35 mm
c : 6 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

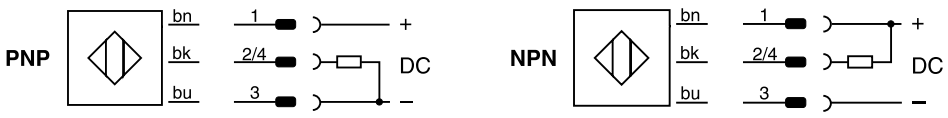
www.contrinex.com/product-range/inductive-sensors/.

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

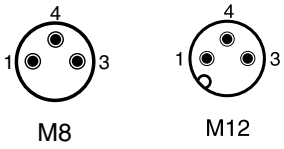
Alternatively, just click/scan the QR code on the left.

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

WIRING DIAGRAM



PIN ASSIGNMENT



AVAILABLE TYPES

COATED

Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
330-320-245	DW-AV-703-R81-693	PNP	PUR, 0.5 m + M12 3-pin	-	Normally open (NO) / IO-Link	20 g
330-320-246	DW-AV-703-R81-697	PNP	PUR, 0.5 m + M8 3-pin	-	Normally open (NO) / IO-Link	20 g
330-320-247	DW-AD-703-R81-693	PNP	PUR, 2 m, 3 wire	-	Normally open (NO) / IO-Link	20 g
320-420-851	DW-AV-701-R81-693	NPN	PUR, 0.5 m + M12 3-pin	-	Normally open (NO)	20 g
330-420-852	DW-AV-701-R81-697	NPN	PUR, 0.5 m + M8 3-pin	-	Normally open (NO)	20 g
330-420-853	DW-AD-701-R81-693	NPN	PUR, 2 m, 3 wire	-	Normally open (NO)	20 g
330-320-253	DW-AP-703-R81-693	PNP	PUR+PTFE, 0.5 m + M12 3-pin	-	Normally open (NO) / IO-Link	30 g
330-320-254	DW-AP-703-R81-697	PNP	PUR+PTFE, 0.5 m + M8 3-pin	-	Normally open (NO) / IO-Link	30 g
330-420-859	DW-AP-701-R81-693	NPN	PUR+PTFE, 0.5 m + M12 3-pin	-	Normally open (NO)	30 g
330-420-860	DW-AP-701-R81-697	NPN	PUR+PTFE, 0.5 m + M8 3-pin	-	Normally open (NO)	30 g

Note 1: AV and AP versions with bright Green LED integrated in connector

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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