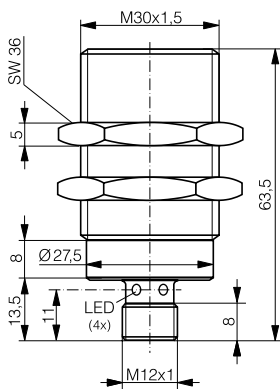
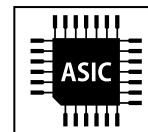
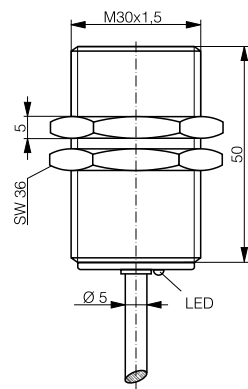


HOUSING	OPERATING DISTANCE	MOUNTING	✓ One-piece housing in stainless steel V2A	✓ Extremely robust
M30	20 mm	Embeddable	✓ Long operating distance	✓ Water resistant
			✓ Factor 1 on Fe and Al	✓ IP68/IP69K
				✓ IO-Link v1.1



DW-AS-70x-M30-002



DW-AD-70x-M30

DETECTION DATA		INTERFACE	
Rated operating distance (S_n)	20 mm	Indicator LED, yellow	Sensing state ($0 \leq s \leq 0.8 S_r$)
Assured operating distance (S_a)	$\leq (0.81 \times S_n)$ mm	Indicator LED, yellow, blinking	Sensing state ($0.8 S_r < s \leq S_r$)
Repeat accuracy	≤ 0.7 mm	IO-Link	✓
Hysteresis	$3\% S_r < \text{Hyst} \leq 15\% S_r$	MTTF (@40°C)	1028 y
Temperature drift	$\leq 10\% S_r$		
Standard target	60 x 60 x 1 mm ³ , FE360		

Note: $0.9S_n \leq S_a \leq 1.1S_n$.

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
Output current	≤ 200 mA	Sensing face material	V2A / 1.4305 / AISI 303
Output voltage drop	≤ 2.0 VDC	Max tightening torque	150 Nm
Power consumption (no-load)	≤ 10 mA	Ambient operating temperature	-25...+85°C ¹
Residual current	≤ 0.1 mA	Enclosure rating	IP68 / IP69K
Switching frequency	≤ 125 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 $U_B=20 \dots 30$ VDC, $T_A=23^\circ\text{C} \pm 5^\circ\text{C}$.

CORRECTION FACTORS FOR TARGET OF

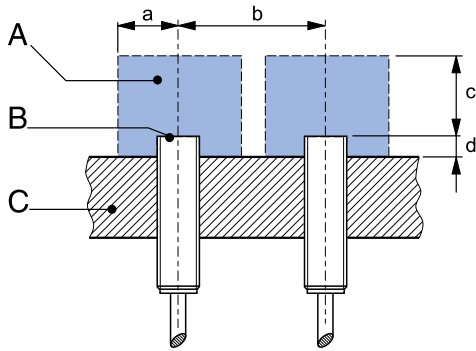
Steel FE 360	1	Copper	0.9	Aluminum	1	Brass	1.3	Stainless Steel V2A 1/2 mm	0.4 / 0.75
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CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360	0.85	Aluminum	0.7	Brass	0.6	Stainless Steel V2A	1.2
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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 : 45 mm
 b : 110 mm
 c : 60 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



IO-Link files may be downloaded from

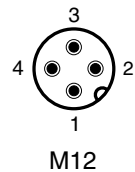
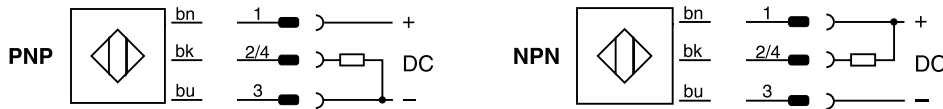
www.contrinex.com/product-range/inductive-sensors/.

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WIRING DIAGRAM

PIN ASSIGNMENT



AVAILABLE TYPES

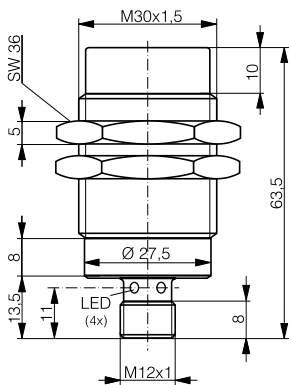
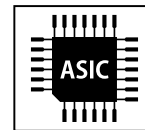
Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
320-420-241	DW-AD-701-M30	NPN	PUR, 2 m, 3 wire	-	Normally open (NO)	190 g
320-420-242	DW-AD-702-M30	NPN	PUR, 2 m, 3 wire	Normally close (NC)	-	190 g
330-320-018	DW-AD-703-M30	PNP	PUR, 2 m, 3 wire	-	Normally open (NO) / IO-Link	190 g
320-420-244	DW-AD-704-M30	PNP	PUR, 2 m, 3 wire	Normally close (NC)	-	190 g
320-420-246	DW-AS-701-M30-002	NPN	M12 4-pin	-	Normally open (NO)	137 g
320-420-247	DW-AS-702-M30-002	NPN	M12 4-pin	Normally close (NC)	-	137 g
330-320-019	DW-AS-703-M30-002	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	137 g
330-320-193	DW-AS-703-M30-528 *	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	137 g
320-420-249	DW-AS-704-M30-002	PNP	M12 4-pin	Normally close (NC)	-	137 g

*LED in IO-Link mode default value set to 2 = same as SIO

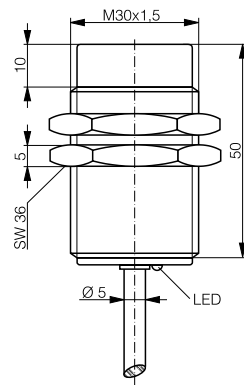
Note: part reference may include additional suffix to indicate a revision version or special version. Further information is available on request.

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HOUSING	OPERATING DISTANCE	MOUNTING	✓ One-piece housing in stainless steel V2A ✓ Long operating distance ✓ Factor 1 on Fe and Al	✓ Extremely robust ✓ Water resistant ✓ IP68/IP69K ✓ IO-Link v1.1
M30	40 mm	Non-embeddable		



DW-AS-71x-M30-002



DW-AD-71x-M30

DETECTION DATA		INTERFACE	
Rated operating distance (S_n)	40 mm	Indicator LED, yellow	Sensing state ($0 \leq s \leq 0.8 S_r$)
Assured operating distance (S_a)	$\leq (0.81 \times S_n)$ mm	Indicator LED, yellow, blinking	Sensing state ($0.8 S_r < s \leq S_r$)
Repeat accuracy	≤ 1.4 mm	IO-Link	✓
Hysteresis	$3\% S_r < \text{Hyst} \leq 15\% S_r$	MTTF (@40°C)	1028 y
Temperature drift	$\leq 10\% S_r$		
Standard target	120 x 120 x 1 mm ³ , FE360		

Note: $0.9S_n \leq S_a \leq 1.1S_n$.

ELECTRICAL DATA		MECHANICAL DATA	
Supply voltage range (U_B)	10...30 VDC	Mounting	Non-embeddable
Residual ripple	$\leq 20\% U_B$	Housing material	V2A / 1.4305 / AISI 303
Output current	≤ 200 mA	Sensing face material	V2A / 1.4305 / AISI 303
Output voltage drop	≤ 2.0 VDC	Max tightening torque	150 Nm
Power consumption (no-load)	≤ 10 mA	Ambient operating temperature	-25...+85°C ¹
Residual current	≤ 0.1 mA	Enclosure rating	IP68 / IP69K
Switching frequency	≤ 90 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		

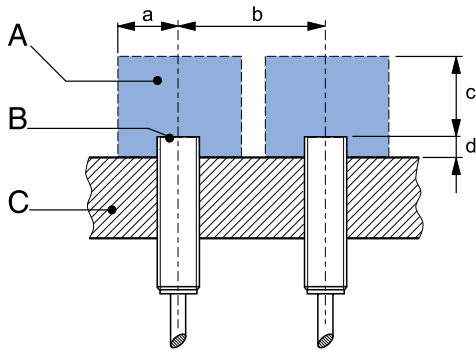
¹Maximum temperature according to UL: 70°C.

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

CORRECTION FACTORS FOR TARGET OF

Steel FE 360	1	Copper	0.9	Aluminum	1	Brass	1.2	Stainless Steel V2A 1/2 mm	0 / 0.2
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INSTALLATION CONDITIONS



A : metal free zone a : 90 mm d : steel 16 mm
 B : sensing face b : 300 mm
 C : support c : 120 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



IO-Link files may be downloaded from

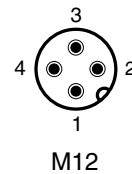
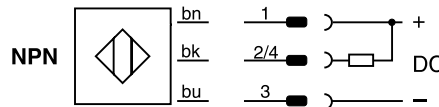
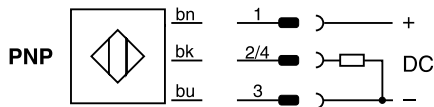
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WIRING DIAGRAM

PIN ASSIGNMENT



AVAILABLE TYPES

Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
320-420-251	DW-AD-711-M30	NPN	PUR, 2 m, 3 wire	-	Normally open (NO)	190 g
320-420-252	DW-AD-712-M30	NPN	PUR, 2 m, 3 wire	Normally close (NC)	-	190 g
330-320-020	DW-AD-713-M30	PNP	PUR, 2 m, 3 wire	-	Normally open (NO) / IO-Link	190 g
320-420-254	DW-AD-714-M30	PNP	PUR, 2 m, 3 wire	Normally close (NC)	-	190 g
320-420-256	DW-AS-711-M30-002	NPN	M12 4-pin	-	Normally open (NO)	137 g
320-420-257	DW-AS-712-M30-002	NPN	M12 4-pin	Normally close (NC)	-	137 g
330-320-021	DW-AS-713-M30-002	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	137 g
320-420-259	DW-AS-714-M30-002	PNP	M12 4-pin	Normally close (NC)	-	137 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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