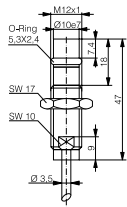
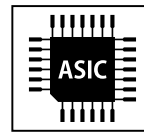
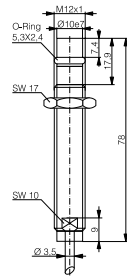


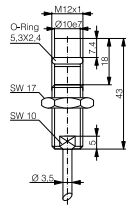
HOUSING	OPERATING DISTANCE	MOUNTING	✓ Resistant up to 500 bar	✓ Peaks ≤ 1000 bar
M12	1.5 mm	Embeddable	✓ Exceptionally long life	✓ Ceramic sensing face
			✓ Long operating distance	✓ Gas tight, IP68
			✓ Large temperature range	✓ IO-Link v1.1



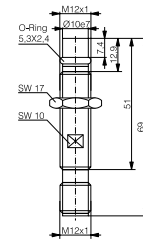
DW-AD-50x-P12-625



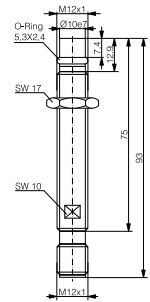
DW-AD-50x-P12-627



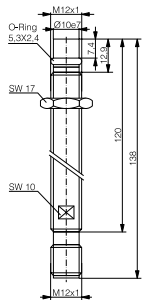
DW-AD-50x-P12-639



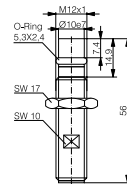
DW-AS-50x-P12



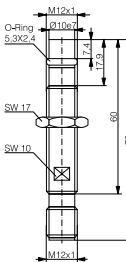
DW-AS-50x-P12-621



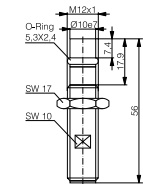
DW-AS-50x-P12-622



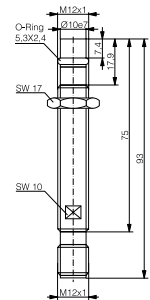
DW-AS-50x-P12-624



DW-AS-50x-P12-627



DW-AS-50x-P12-630



DW-AS-50x-P12-635

DETECTION DATA		INTERFACE	
Rated operating distance (S_n)	1.5 mm	Indicator LED, yellow	✗
Assured operating distance (S_a)	≤ (0.81 x S_n) mm (-25 ... +70 °C)	Indicator LED, yellow, blinking	✗
Repeat accuracy	≤ 0.1 mm	IO-Link	✓
Hysteresis	3% S_n ≤ Hyst ≤ 15% S_n	MTTF (@40°C)	949 y
Temperature drift	≤ 10 % (-25 ... +70°C) ≤ 15 % (+70 ... +100°C)		
Standard target	10 x 10 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	Operating pressure	≤ 500 bar
Residual ripple	≤ 20% U_B	Peak pressure	≤ 1000 bar
Output current	≤ 200 mA	Vacuum down to	10 ⁻⁸ Torr
Output voltage drop	≤ 2.0 VDC	Mounting	Embeddable
Power consumption (no-load)	≤ 10 mA	Housing material	Stainless-steel DIN 1.4305 / AISI 303
Residual current	≤ 0.1 mA	Sensing face material	ZrO ₂
Switching frequency	≤ 600 Hz	Max tightening torque	40 Nm
Short-circuit protection	✓	Ambient operating temperature	-25...+100°C ¹
Voltage reversal protection	✓	Enclosure rating	IP 68
Cable length max.	≤ 300 m	Weight (cable / connector)	see page 3
		Shock and vibration	IEC 60947-5-2 / 7.4

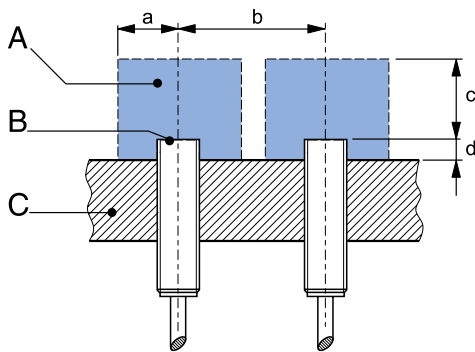
¹Maximum temperature according to UL: 70°C.

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

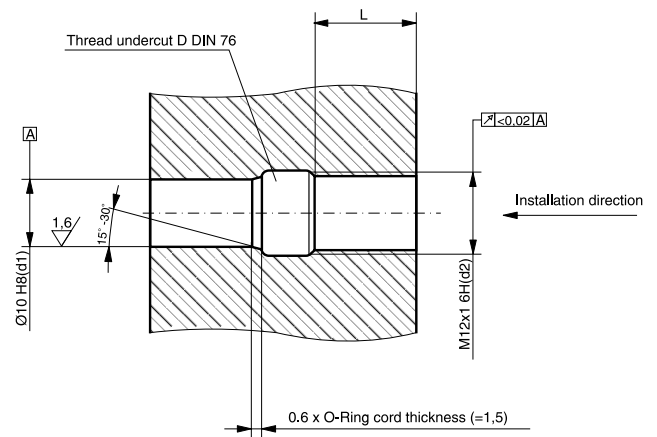
CORRECTION FACTORS									
Steel FE 360	1	Copper	0.12	Aluminum	0.2	Brass	0.34	Stainless S. V2A 1 / 2 mm	0.75

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 a : 6 mm d : steel 0 mm
 B : sensing face b : 12 mm
 C : support c : 4.5 mm



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

L : recommended installation depth: $L \geq 0.8 \times d$

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



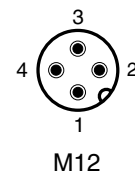
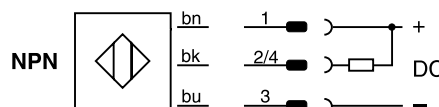
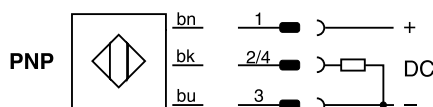
IO-Link files may be downloaded from

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

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

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

WIRING DIAGRAM PIN ASSIGNMENT



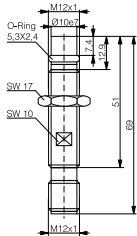
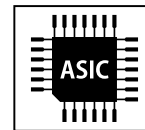
AVAILABLE TYPES

Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
330-020-174	DW-AD-503-P12-625	PNP	PUR, 2 m, 3 wire	-	Normally open (NO) / IO-Link	51 g
330-020-175	DW-AD-503-P12-627	PNP	PUR, 2 m, 3 wire	-	Normally open (NO) / IO-Link	65 g
330-020-176	DW-AD-503-P12-639	PNP	PUR, 2 m, 3 wire	-	Normally open (NO) / IO-Link	50 g
330-020-177	DW-AD-504-P12-625	PNP	PUR, 2 m, 3 wire	-	Normally close (NC)	51 g
330-020-178	DW-AD-504-P12-627	PNP	PUR, 2 m, 3 wire	-	Normally close (NC)	65 g
330-020-179	DW-AD-504-P12-639	PNP	PUR, 2 m, 3 wire	-	Normally close (NC)	50 g
330-020-180	DW-AD-501-P12-625	NPN	PUR, 2 m, 3 wire	-	Normally open (NO)	51 g
330-020-181	DW-AD-501-P12-627	NPN	PUR, 2 m, 3 wire	-	Normally open (NO)	65 g
330-020-182	DW-AD-501-P12-639	NPN	PUR, 2 m, 3 wire	-	Normally open (NO)	50 g
330-020-183	DW-AD-502-P12-625	NPN	PUR, 2 m, 3 wire	-	Normally close (NC)	51 g
330-020-184	DW-AD-502-P12-627	NPN	PUR, 2 m, 3 wire	-	Normally close (NC)	65 g
330-020-185	DW-AD-502-P12-639	NPN	PUR, 2 m, 3 wire	-	Normally close (NC)	50 g
330-020-194	DW-AS-503-P12	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	31 g
330-020-195	DW-AS-503-P12-621	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	42 g
330-020-196	DW-AS-503-P12-622	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	50 g
330-020-197	DW-AS-503-P12-624	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	27 g
330-020-198	DW-AS-503-P12-627	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	35 g
330-020-199	DW-AS-503-P12-630	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	27 g
330-020-200	DW-AS-503-P12-635	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	42 g
330-020-201	DW-AS-504-P12	PNP	M12 4-pin	Normally close (NC)	-	31 g
330-020-202	DW-AS-504-P12-621	PNP	M12 4-pin	Normally close (NC)	-	42 g
330-020-203	DW-AS-504-P12-622	PNP	M12 4-pin	Normally close (NC)	-	50 g
330-020-204	DW-AS-504-P12-624	PNP	M12 4-pin	Normally close (NC)	-	27 g
330-020-205	DW-AS-504-P12-627	PNP	M12 4-pin	Normally close (NC)	-	35 g
330-020-206	DW-AS-504-P12-630	PNP	M12 4-pin	Normally close (NC)	-	27 g
330-020-207	DW-AS-504-P12-635	PNP	M12 4-pin	Normally close (NC)	-	42 g
330-020-229	DW-AS-501-P12	NPN	M12 4-pin	-	Normally open (NO)	31 g
330-020-230	DW-AS-501-P12-621	NPN	M12 4-pin	-	Normally open (NO)	42 g
330-020-231	DW-AS-501-P12-622	NPN	M12 4-pin	-	Normally open (NO)	50 g
330-020-232	DW-AS-501-P12-624	NPN	M12 4-pin	-	Normally open (NO)	27 g
330-020-233	DW-AS-501-P12-627	NPN	M12 4-pin	-	Normally open (NO)	35 g
330-020-234	DW-AS-501-P12-630	NPN	M12 4-pin	-	Normally open (NO)	27 g
330-020-235	DW-AS-501-P12-635	NPN	M12 4-pin	-	Normally open (NO)	42 g
330-020-236	DW-AS-502-P12	NPN	M12 4-pin	Normally close (NC)	-	31 g
330-020-237	DW-AS-502-P12-621	NPN	M12 4-pin	Normally close (NC)	-	42 g
330-020-238	DW-AS-502-P12-622	NPN	M12 4-pin	Normally close (NC)	-	50 g
330-020-239	DW-AS-502-P12-624	NPN	M12 4-pin	Normally close (NC)	-	27 g
330-020-240	DW-AS-502-P12-627	NPN	M12 4-pin	Normally close (NC)	-	35 g
330-020-241	DW-AS-502-P12-630	NPN	M12 4-pin	Normally close (NC)	-	27 g
330-020-242	DW-AS-502-P12-635	NPN	M12 4-pin	Normally close (NC)	-	42 g

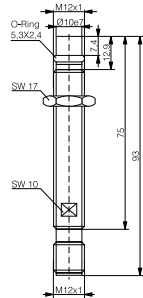
Note: part reference may include additional suffix to indicate a revision version or special version. Further information is available on request.

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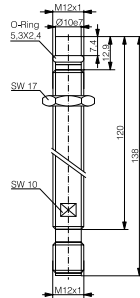
HOUSING	OPERATING DISTANCE	MOUNTING	✓ Resistant up to 500 bar	✓ Peaks ≤ 1000 bar
M12	2.5 mm	Embeddable	✓ Exceptionally long life	✓ Ceramic sensing face
			✓ Long operating distance	✓ Gas tight, IP68
			✓ Large temperature range	✓ IO-Link v1.1



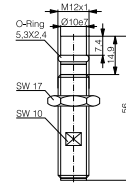
DW-AS-52x-P12



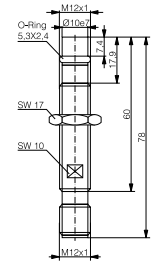
DW-AS-52x-P12-621



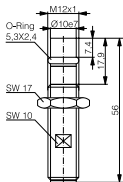
DW-AS-52x-P12-622



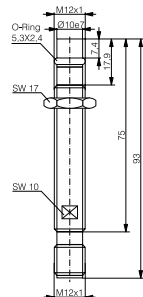
DW-AS-52x-P12-624



DW-AS-52x-P12-627



DW-AS-52x-P12-630



DW-AS-52x-P12-635

DETECTION DATA		INTERFACE	
Rated operating distance (S _n)	2.5 mm	Indicator LED, yellow	✗
Assured operating distance (S _a)	≤ (0.81 x S _n) mm (-25 ... +70 °C)	Indicator LED, yellow, blinking	✗
Repeat accuracy	≤ 0.1 mm	IO-Link	✓
Hysteresis	3% S _n ≤ Hyst ≤ 15% S _n	MTTF (@40°C)	949 y
Temperature drift	≤ 10 % (-25 ... +70°C) ≤ 15 % (+70 ... +100°C)		
Standard target	10 x 10 x 1mm ³ , FE360		

Note: 0.9S_n ≤ S_a ≤ 1.1S_n

ELECTRICAL DATA		MECHANICAL DATA	
Supply voltage range (U_B)	10...30 VDC	Operating pressure	≤ 500 bar
Residual ripple	≤ 20% U_B	Peak pressure	≤ 1000 bar
Output current	≤ 200 mA	Vacuum down to	10 ⁻⁸ Torr
Output voltage drop	≤ 2.0 VDC	Mounting	Embeddable
Power consumption (no-load)	≤ 10 mA	Housing material	Stainless-steel DIN 1.4305 / AISI 303
Residual current	≤ 0.1 mA	Sensing face material	ZrO ²
Switching frequency	≤ 600 Hz	Max tightening torque	40 Nm
Short-circuit protection	✓	Ambient operating temperature	-25...+100°C ¹
Voltage reversal protection	✓	Enclosure rating	IP 68
Cable length max.	≤ 300 m	Weight (cable / connector)	see page 3
		Shock and vibration	IEC 60947-5-2 / 7.4

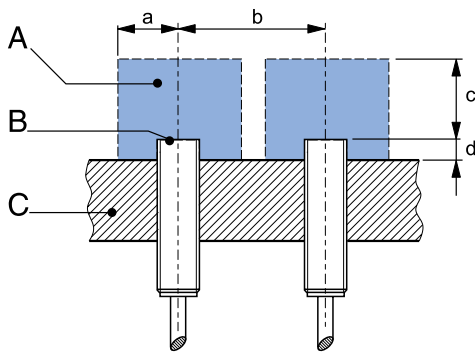
¹Maximum temperature according to UL: 70°C.

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

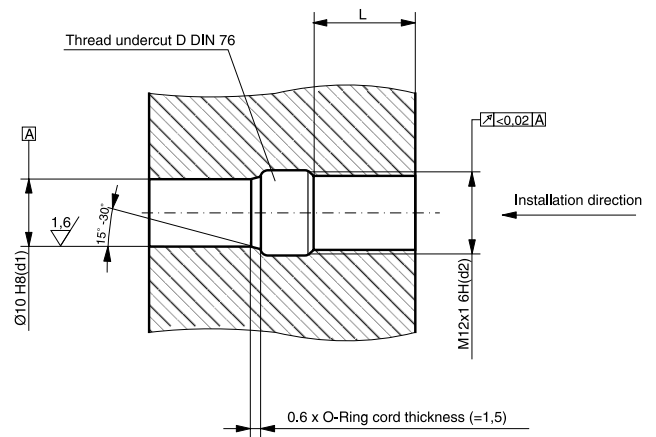
CORRECTION FACTORS									
Steel FE 360	1	Copper	0.27	Aluminum	0.32	Brass	0.45	Stainless S. V2A 1 / 2 mm	0.75

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 a : 6 mm d : steel 0 mm
 B : sensing face b : 15 mm
 C : support c : 7.5 mm



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

L : recommended installation depth: $L \geq 0.8 \times d2$

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



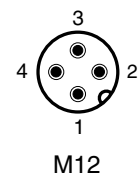
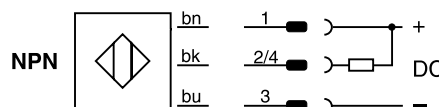
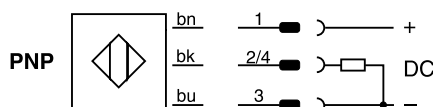
IO-Link files may be downloaded from

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

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

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

WIRING DIAGRAM PIN ASSIGNMENT



AVAILABLE TYPES

Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
330-020-208	DW-AS-523-P12	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	31 g
330-020-209	DW-AS-523-P12-621	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	42 g
330-020-210	DW-AS-523-P12-622	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	50 g
330-020-211	DW-AS-523-P12-624	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	27 g
330-020-212	DW-AS-523-P12-627	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	35 g
330-020-213	DW-AS-523-P12-630	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	27 g
330-020-214	DW-AS-523-P12-635	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	42 g
330-020-215	DW-AS-524-P12	PNP	M12 4-pin	Normally close (NC)	-	31 g
330-020-216	DW-AS-524-P12-621	PNP	M12 4-pin	Normally close (NC)	-	42 g
330-020-217	DW-AS-524-P12-622	PNP	M12 4-pin	Normally close (NC)	-	50 g
330-020-218	DW-AS-524-P12-624	PNP	M12 4-pin	Normally close (NC)	-	27 g
330-020-219	DW-AS-524-P12-627	PNP	M12 4-pin	Normally close (NC)	-	35 g
330-020-220	DW-AS-524-P12-630	PNP	M12 4-pin	Normally close (NC)	-	27 g
330-020-221	DW-AS-524-P12-635	PNP	M12 4-pin	Normally close (NC)	-	42 g
330-020-243	DW-AS-521-P12	NPN	M12 4-pin	-	Normally open (NO)	31 g
330-020-244	DW-AS-521-P12-621	NPN	M12 4-pin	-	Normally open (NO)	42 g
330-020-245	DW-AS-521-P12-622	NPN	M12 4-pin	-	Normally open (NO)	50 g
330-020-246	DW-AS-521-P12-624	NPN	M12 4-pin	-	Normally open (NO)	27 g
330-020-247	DW-AS-521-P12-627	NPN	M12 4-pin	-	Normally open (NO)	35 g
330-020-248	DW-AS-521-P12-630	NPN	M12 4-pin	-	Normally open (NO)	27 g
330-020-249	DW-AS-521-P12-635	NPN	M12 4-pin	-	Normally open (NO)	42 g
330-020-250	DW-AS-522-P12	NPN	M12 4-pin	Normally close (NC)	-	31 g
330-020-251	DW-AS-522-P12-621	NPN	M12 4-pin	Normally close (NC)	-	42 g
330-020-252	DW-AS-522-P12-622	NPN	M12 4-pin	Normally close (NC)	-	50 g
330-020-253	DW-AS-522-P12-624	NPN	M12 4-pin	Normally close (NC)	-	27 g
330-020-254	DW-AS-522-P12-627	NPN	M12 4-pin	Normally close (NC)	-	35 g
330-020-255	DW-AS-522-P12-630	NPN	M12 4-pin	Normally close (NC)	-	27 g
330-020-256	DW-AS-522-P12-635	NPN	M12 4-pin	Normally close (NC)	-	42 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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