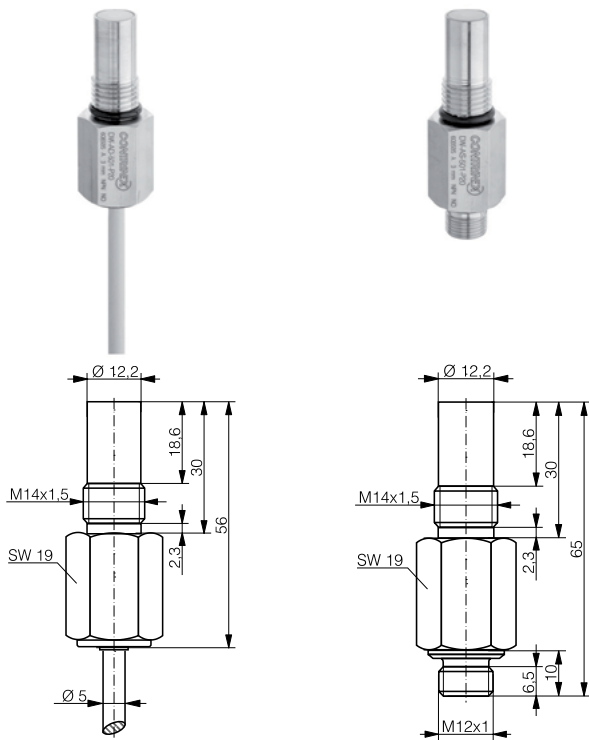
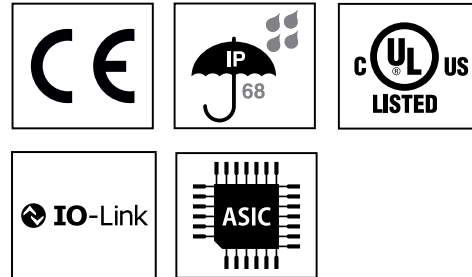


HOUSING	OPERATING DISTANCE	MOUNTING	✓ Resistant up to 500 bar	✓ Peaks ≤ 1000 bar
M14	3 mm	Embeddable	✓ Exceptionally long life	✓ Ceramic sensing face
			✓ Long operating distance	✓ Gas tight, IP68
			✓ Large temperature range	✓ IO-Link v1.1



DW-AD-50x-P20

DW-AS-50x-P20



DETECTION DATA		INTERFACE	
Rated operating distance ( $S_n$ )	3 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% $S_r$ ≤ Hyst ≤ 15% $S_r$	MTTF (@40°C)	981 y
Temperature drift	≤ 10 % (-25 ... +70°C) ≤ 15 % (+70 ... +100°C)		
Standard target	12 x 12 x 1 mm <sup>3</sup> , 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 <sup>-8</sup> Torr
Output voltage drop	≤ 2.0 VDC	Mounting	Embeddable
Power consumption (no-load)	≤ 10 mA	Housing material	Stainless-steel DIN 1.4435 / AISI 316 L
Residual current	≤ 0.1 mA	Sensing face material	ZrO <sub>2</sub>
Switching frequency	≤ 500 Hz	Max tightening torque	70 Nm
Short-circuit protection	✓	Ambient operating temperature	-25...+100°C <sup>1</sup>
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

<sup>1</sup>Maximum temperature according to UL: 70°C.

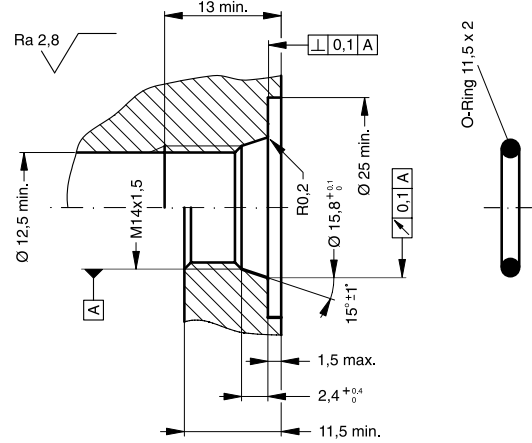
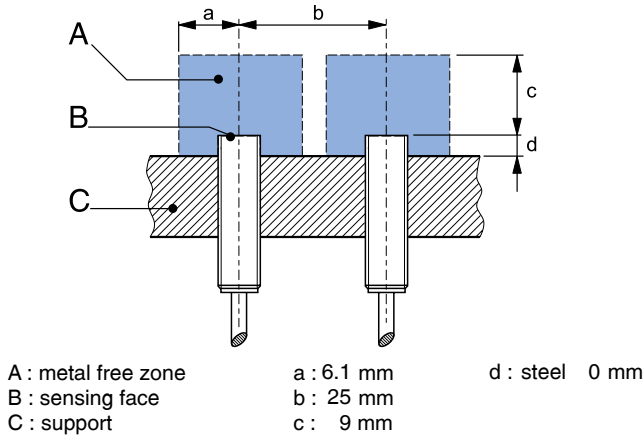
Note: all data measured according to IEC 60947-5-2 standard with  $U_b=20...30VDC$ ,  $T_A=23 \pm 5 \text{ }^\circ\text{C}$ .

## CORRECTION FACTORS

Steel FE 360	1	Copper	0	Aluminum	0	Brass	0.15	Stainless S. V2A 1 / 2 mm	0.85
--------------	---	--------	---	----------	---	-------	------	---------------------------	------

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



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



IODD files may be downloaded from

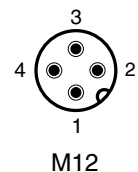
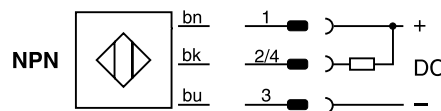
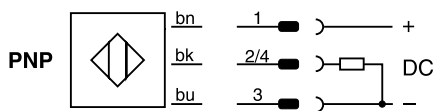
[www.contrinex.com/product-range/inductive-sensors/](http://www.contrinex.com/product-range/inductive-sensors/).

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



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.

**AVAILABLE TYPES**

Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
330-020-302	DW-AD-501-P20	NPN	PUR, 2 m, 3 wire	-	Normally open (NO)	120 g
330-020-303	DW-AD-502-P20	NPN	PUR, 2 m, 3 wire	-	Normally close (NC)	120 g
330-020-304	DW-AD-503-P20	PNP	PUR, 2 m, 3 wire	-	Normally open (NO) / IO-Link	120 g
330-020-305	DW-AD-503-P20-295	PNP	PUR, 5 m, 3 wire	-	Normally open (NO) / IO-Link	215 g
330-020-306	DW-AD-503-P20-298	PNP	PUR, 10 m, 3 wire	-	Normally open (NO) / IO-Link	380 g
330-020-307	DW-AD-504-P20	PNP	PUR, 2 m, 3 wire	-	Normally close (NC)	120 g
330-020-308	DW-AS-501-P20	NPN	M12 4-pin	-	Normally open (NO)	70 g
330-020-310	DW-AS-502-P20	NPN	M12 4-pin	Normally close (NC)	-	70 g
330-020-311	DW-AS-503-P20	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	70 g
330-020-313	DW-AS-504-P20	PNP	M12 4-pin	Normally close (NC)	-	70 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.