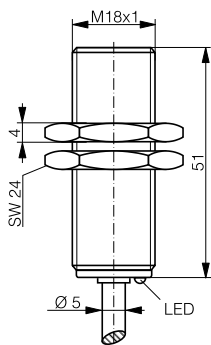
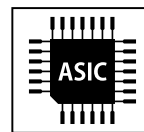
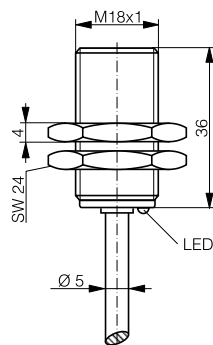


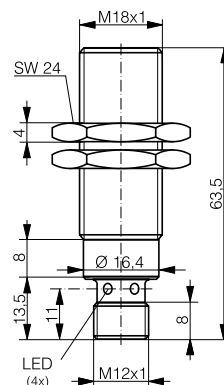
HOUSING	OPERATING DISTANCE	MOUNTING	✓ Long operating distance	✓ IP 67
M18	12 mm	Quasi-embeddable	✓ Exceptional price-performance ratio	✓ IO-Link v1.1
			✓ Excellent accuracy	



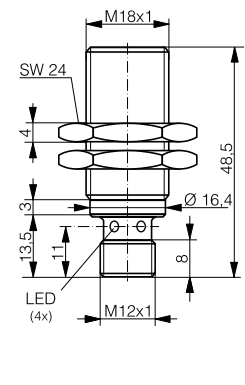
DW-AD-50x-M18



DW-AD-50x-M18-120



DW-AS-50x-M18-002



DW-AS-50x-M18-120

DETECTION DATA		INTERFACE	
Rated operating distance ( $S_n$ )	12 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	$\leq 0.6$ mm	IO-Link	✓
Hysteresis	$3\% S_r \leq \text{Hyst} \leq 15\% S_r$	MTTF (@ 40°C)	1073 y
Temperature drift	$\leq 10\% S_r$		
Standard target	36 x 36 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	Mounting	Quasi-embeddable
Residual ripple	$\leq 20\% U_B$	Housing material	Chrome-plated brass
Output current	$\leq 200$ mA	Sensing face material	PBTP
Output voltage drop	$\leq 2.0$ VDC	Max tightening torque	25 Nm
Power consumption (no-load)	$\leq 10$ mA	Ambient operating temperature	-25...+70°C <sup>1</sup>
Residual current	$\leq 0.1$ mA	Enclosure rating	IP 67
Switching frequency	$\leq 600$ 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		

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

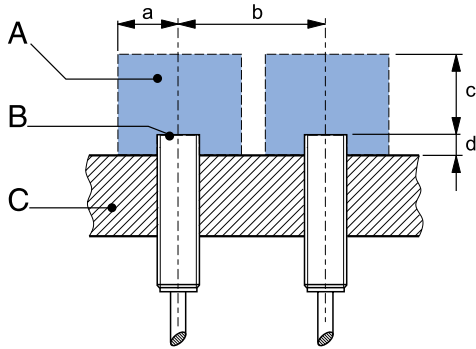
Note: all data measured according to IEC 60947-5-2 standard with  $U_B = 20 \dots 30$  VDC,  $T_A = 23^\circ\text{C} \pm 5^\circ\text{C}$ .

## CORRECTION FACTORS

Steel FE 360	1	Copper	0.26	Aluminum	0.3	Brass	0.4	Stainless S. V2A 1 / 2 mm	0.67
--------------	---	--------	------	----------	-----	-------	-----	---------------------------	------

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 : 18 mm      d : steel 2 mm  
 B : sensing face      b : 44 mm  
 C : support      c : 36 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

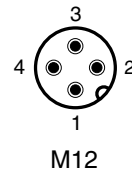
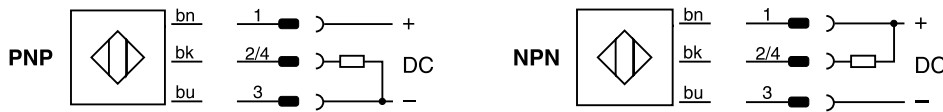
[www.contrinex.com/product-range/inductive-sensors/](http://www.contrinex.com/product-range/inductive-sensors/).

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



## AVAILABLE TYPES

Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
330-020-259	DW-AD-501-M18	NPN	PVC, 2 m, 3 wire	-	Normally open (NO)	130 g
330-020-260	DW-AD-502-M18	NPN	PVC, 2 m, 3 wire	-	Normally close (NC)	130 g
330-020-262	DW-AD-503-M18	PNP	PVC, 2 m, 3 wire	-	Normally open (NO) / IO-Link	130 g
330-020-265	DW-AD-504-M18	PNP	PVC, 2 m, 3 wire	-	Normally close (NC)	130 g
330-020-271	DW-AD-501-M18-120	NPN	PVC, 2 m, 3 wire	-	Normally open (NO)	115 g
330-020-273	DW-AD-502-M18-120	NPN	PVC, 2 m, 3 wire	-	Normally close (NC)	115 g
330-020-274	DW-AD-503-M18-120	PNP	PVC, 2 m, 3 wire	-	Normally open (NO) / IO-Link	115 g
330-020-275	DW-AD-504-M18-120	PNP	PVC, 2 m, 3 wire	-	Normally close (NC)	115 g
330-020-283	DW-AS-501-M18-002	NPN	M12 4-pin	-	Normally open (NO)	56 g
330-020-284	DW-AS-501-M18-120	NPN	M12 4-pin	-	Normally open (NO)	49 g
330-020-285	DW-AS-502-M18-002	NPN	M12 4-pin	Normally close (NC)	-	56 g
330-020-286	DW-AS-502-M18-120	NPN	M12 4-pin	Normally close (NC)	-	49 g
330-020-287	DW-AS-503-M18-002	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	56 g
330-020-288	DW-AS-503-M18-120	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	49 g
330-020-289	DW-AS-504-M18-002	PNP	M12 4-pin	Normally close (NC)	-	56 g
330-020-290	DW-AS-504-M18-120	PNP	M12 4-pin	Normally close (NC)	-	49 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.