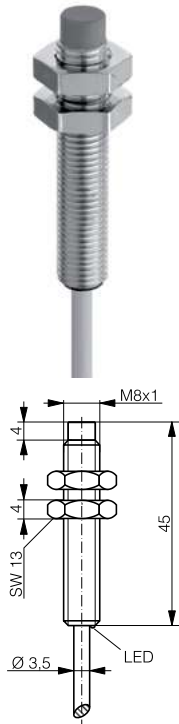
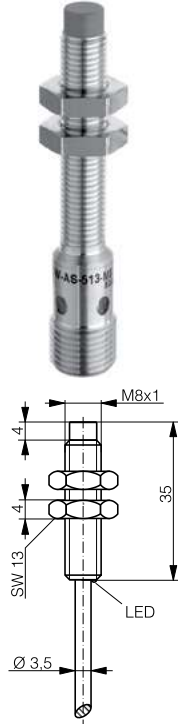


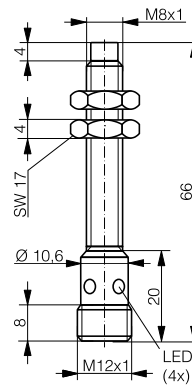
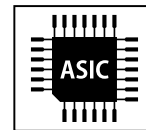
| HOUSING | OPERATING DISTANCE | MOUNTING | ✓ Long operating distance ✓ Exceptional price-performance ratio ✓ Excellent accuracy | ✓ IP 67 ✓ IO-Link v1.1 |
|---------|--------------------|----------------|--|---------------------------|
| M8 | 6 mm | Non-embeddable | | |



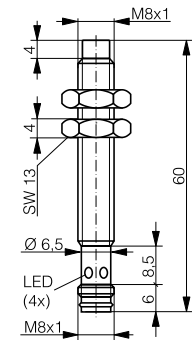
DW-AD-51x-M8



DW-AD-51x-M8-750



DW-AS-51x-M8



DW-AS-51x-M8-001

| DETECTION DATA | | INTERFACE | |
|--------------------------------------|---------------------------------------|---------------------------------|---|
| Rated operating distance (S_n) | 6 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 | ≤ 0.3 mm | IO-Link | ✓ |
| Hysteresis | $3\% S_r < \text{Hyst} \leq 15\% S_r$ | MTTF (@40°C) | 1073 y |
| Temperature drift | $\leq 10\% S_r$ | | |
| Standard target | 18 x 18 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 | Chrome-plated brass |
| Output current | ≤ 200 mA | Sensing face material | PBTP |
| Output voltage drop | ≤ 2.0 VDC | Max tightening torque | 8 Nm |
| Power consumption (no-load) | ≤ 10 mA | Ambient operating temperature | -25...+70°C ¹ |
| Residual current | ≤ 0.1 mA | Enclosure rating | IP 67 |
| Switching frequency | ≤ 500 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.

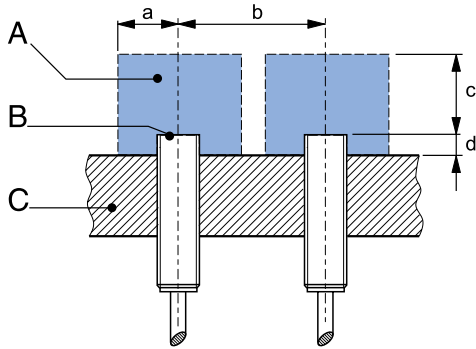
Note: all data measured according to IEC 60947-5-2 standard with $U_B=20 \dots 30$ VDC, $T_A=23^\circ\text{C} \pm 5^\circ\text{C}$.

CORRECTION FACTORS

| | | | | | | | | | |
|--------------|---|--------|------|----------|------|-------|------|---------------------------|------|
| Steel FE 360 | 1 | Copper | 0.44 | Aluminum | 0.47 | Brass | 0.55 | Stainless S. V2A 1 / 2 mm | 0.77 |
|--------------|---|--------|------|----------|------|-------|------|---------------------------|------|

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 : 12 mm d : steel 10 mm
 B : sensing face b : 30 mm
 C : support c : 18 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

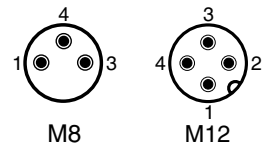
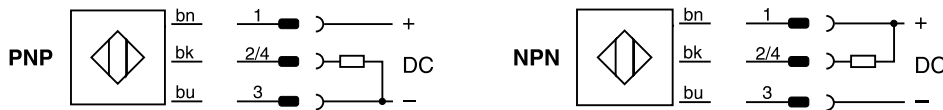
www.contrinex.com/product-range/inductive-sensors/.

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 |
|-------------|------------------|----------|------------------|---------------------|------------------------------|--------|
| 330-020-048 | DW-AD-511-M8 | NPN | PVC, 2 m, 3 wire | - | Normally open (NO) | 45 g |
| 330-020-050 | DW-AD-512-M8 | NPN | PVC, 2 m, 3 wire | - | Normally close (NC) | 45 g |
| 330-020-051 | DW-AD-513-M8 | PNP | PVC, 2 m, 3 wire | - | Normally open (NO) / IO-Link | 45 g |
| 330-020-054 | DW-AD-514-M8 | PNP | PVC, 2 m, 3 wire | - | Normally close (NC) | 45 g |
| 330-020-061 | DW-AD-511-M8-750 | NPN | PVC, 2 m, 3 wire | - | Normally open (NO) | 42 g |
| 330-020-062 | DW-AD-513-M8-750 | PNP | PVC, 2 m, 3 wire | - | Normally open (NO) / IO-Link | 42 g |
| 330-020-080 | DW-AS-511-M8 | NPN | M12 4-pin | - | Normally open (NO) | 20 g |
| 330-020-081 | DW-AS-511-M8-001 | NPN | M8 3-pin | - | Normally open (NO) | 17 g |
| 330-020-082 | DW-AS-512-M8 | NPN | M12 4-pin | Normally close (NC) | - | 20 g |
| 330-020-083 | DW-AS-512-M8-001 | NPN | M8 3-pin | - | Normally close (NC) | 17 g |
| 330-020-084 | DW-AS-513-M8 | PNP | M12 4-pin | - | Normally open (NO) / IO-Link | 20 g |
| 330-020-085 | DW-AS-513-M8-001 | PNP | M8 3-pin | - | Normally open (NO) / IO-Link | 17 g |
| 330-020-086 | DW-AS-514-M8 | PNP | M12 4-pin | Normally close (NC) | - | 20 g |
| 330-020-087 | DW-AS-514-M8-001 | PNP | M8 3-pin | - | Normally close (NC) | 17 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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