Position and proximity sensors

Inductive Proximity Sensor, M8 to M30, NPN or PNP

Model DW-PX

Cylindrical inductive proximity sensor in M8, M12, M18 and M30 threads, flush or non-flush, with rated sensing distances from 1.5 to 15 mm, NPN or PNP NO/NC output, a 10–30 V DC supply and IP67, for detecting metal targets without contact.



Thread specification
M8 / M12 / M18 / M30

Output type
NPN or PNP, NO or NC

Protection
IP67

Features

- Non-contact detection of metal targets
- M8, M12, M18 or M30 metal housing, flush or non-flush mounting
- NPN or PNP output, NO, NC or NO+NC
- 2 m PVC cable or M12 connector
- Short-circuit, overload and reverse polarity protection
- Yellow LED output indicator, IP67

Specifications

Performance

Thread specification	M8 / M12 / M18 / M30
Installation method	Flush or non-flush
Rated sensing distance Sn	M8: 1.5 / 2 mm; M12: 2 / 4 mm; M18: 5 / 8 mm; M30: 10 / 15 mm (flush / non-flush)
Assured sensing distance Sa	M8: 0–1.2 / 0–1.6 mm; M12: 0–1.6 / 0–3.2 mm; M18: 0–4 / 0–6.4 mm; M30: 0–8 / 0–12 mm
Standard target	Fe 8×8×1 mm (M8); Fe 12×12×1 mm (M12); Fe 18×18×1 / 24×24×1 mm (M18); Fe 30×30×1 / 45×45×1 mm (M30)
Switching frequency	M8: 2000 / 1500 Hz; M12: 1500 / 1000 Hz; M18: 1000 / 800 Hz; M30: 500 / 300 Hz
Switch-point drift	≤±10% Sr
Hysteresis	1–20% Sr

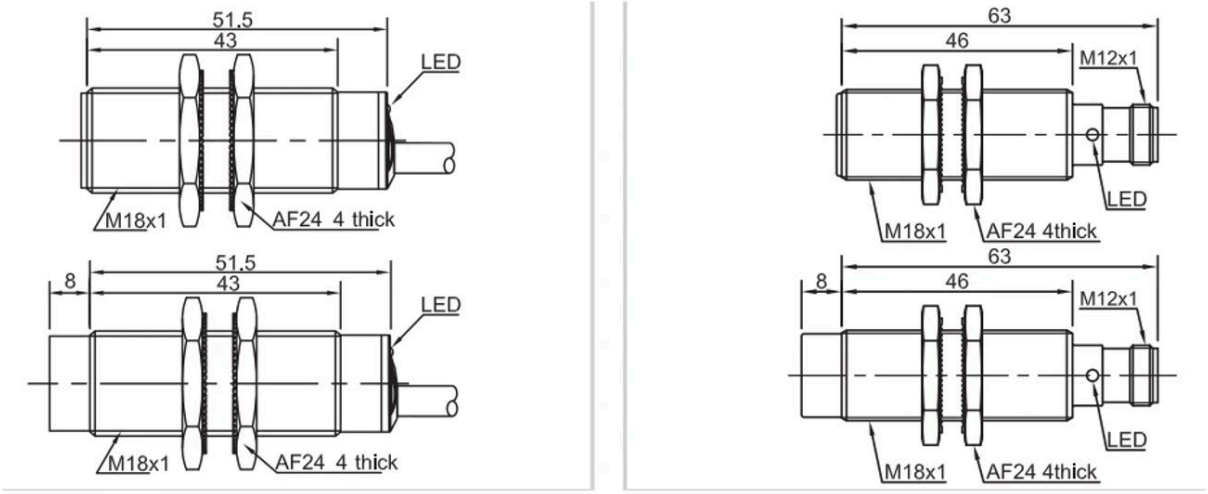
Repeatability	≤3%
Output	
Output type	NPN or PNP; NO, NC or NO+NC (NO+NC 4-wire for M12, M18 and M30)
Electrical	
Supply voltage	10–30 V DC
Load current	≤200 mA (M12, M18, M30); ≤150 mA (M8)
Supply current	≤15 mA (M12, M18, M30); ≤10 mA (M8)
Residual voltage	≤2.5 V
Protection	Short-circuit, overload and reverse polarity
Output indicator	Yellow LED
Dielectric strength	1000 V AC 50/60 Hz, 60 s (M12, M18, M30)
Insulation resistance	≥50 MΩ (500 V DC) (M18)
Environmental	
Ambient temperature	−25 to +70 °C
Operating humidity	35–95% RH (M18)
Vibration resistance	10–50 Hz, 1.5 mm (M18)
Ingress protection	IP67
Mechanical	
Housing material	Nickel-copper alloy (M12, M18, M30); stainless steel (M8)
Dimensions	Cable versions, flush / non-flush: M8×40 / 43 mm; M12×51 / 55 mm; M18×51.5 / 59.5 mm; M30×52 / 64 mm
Electrical connection	2 m PVC cable or M12 connector (M8 size: also M8 connector)

Ordering and support

Pricing, samples, lead time and custom versions: xyx@gzdwin.com, +86 181 0280 8901.

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Dimensions and wiring



DC 3 wire	Cable type	M8 connector	M12 connector	Terminal connection
NPN NO	BN BK BU	1 4 3	1 4 3	1 4 3
NPN NC	BN BK BU	1 4 3	1 2 3	1 2 3
PNP NO	BN BK BU	1 4 3	1 4 3	1 4 3
PNP NC	BN BK BU	1 4 3	1 2 3	1 2 3

DC 4 wire	Cable type	M12 connector	Terminal connection
NPN NO+NC	BN BK WH BU	1 4 2 3	1 4 2 3
PNP NO+NC	BN BK WH BU	1 4 2 3	1 4 2 3

Drawings are for reference. Dimensions in millimetres unless stated.