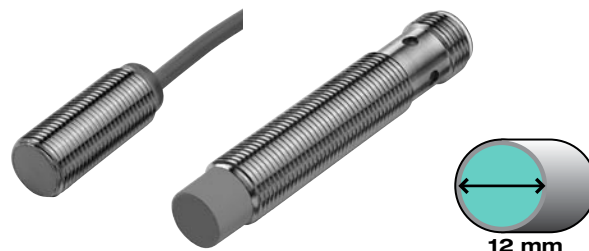


2-Wire DC 12 mm Diameter Inductive Sensors

- 2 to 8 mm sensing ranges
- 12 mm threaded barrels
- LED target indication
- Normally open and normally closed models
- Cable and Micro (M12) quick disconnect models



Technical Specifications

SUPPLY VOLTAGE	NBB/NBN Models	5-60 VDC
	NCB/NCN Models	3.5-30 VDC
LOAD CURRENT (I_L)	100 mA max.	
LEAKAGE CURRENT (OFF-STATE)	≤ 0.5 mA	
OUTPUT	Suffix Z0, Z3, Z4	Normally open (sinking or sourcing)
	Suffix Z5	Normally closed (sinking or sourcing)
VOLTAGE DROP AT I_L (MAX.)	NBB/NBN Models	≤ 5 VDC
	NCB/NCN Models	≤ 3.5 VDC
HYSTERESIS	1-10% (5% typical)	
SHORT CIRCUIT AND OVERLOAD PROTECTION	Yes	
REVERSE POLARITY PROTECTED	Yes	
LED INDICATION	See dimension drawings	
SENSING FACE MATERIAL	PBT	
STANDARDS	EN 60947-5-2	
ENVIRONMENTAL PROTECTION	IP67	
AMBIENT TEMPERATURE	-13 °F to $+158$ °F (-25 °C to $+70$ °C)	
APPROVALS		



See pages
803-854 for
cordsets



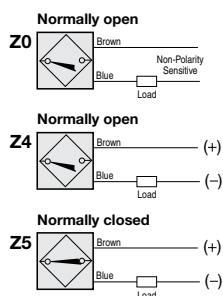
See pages
865-872 for
accessories

Wiring Diagrams

2-Wire DC



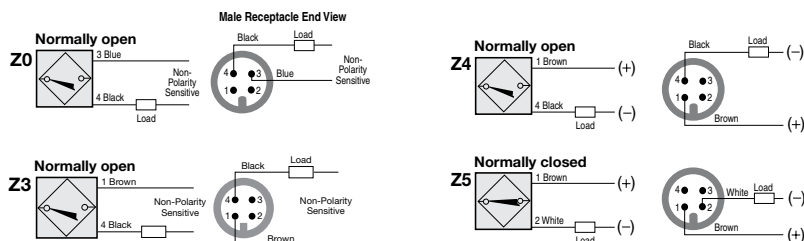
Cable Connection



Quick Disconnect

Note: Wiring diagrams show quick disconnect pin numbers.

V1 Type



- ⚡ Stocked item
- Typical delivery 4 weeks or less
- Consult factory for all other models

12 mm Diameter

2-Meter Cable Models

Dia. (mm)	Model Number	Range (mm)	Mounting	Electrical Output	Switching Frequency	Barrel Material†	Cable Jacket/Size	Dwg. No.
12	NBB2-12GM40-Z0	2	Flush	Normally open	1 kHz	Ni-Brass	PVC/#26 AWG	1
	NBN4-12GM40-Z0	4	Nonflush	Normally open	1 kHz	Ni-Brass	PVC/#26 AWG	2
	NCB4-12GM35-Z4	4	Flush	Normally open	1 kHz	Ni-Brass	PVC/#22 AWG	3
	NCB4-12GM35-Z5	4	Flush	Normally closed	1 kHz	Ni-Brass	PVC/#22 AWG	3
	NCN8-12GM35-Z4	8	Nonflush	Normally open	750 Hz	Ni-Brass	PVC/#22 AWG	4
	NCN8-12GM35-Z5	8	Nonflush	Normally closed	750 Hz	Ni-Brass	PVC/#22 AWG	4

Micro (M12) Quick Disconnect Models

Dia. (mm)	Model Number	Range (mm)	Mounting	Electrical Output	Switching Frequency	Barrel Material†	Quick Disconnect	Dwg. No.
12	NBB2-12GM40-Z0-V1	2	Flush	Normally open	1 kHz	Ni-Brass	M12 Micro	5
	NBB2-12GM40-Z3-V1	2	Flush	Normally open	1 kHz	Ni-Brass	M12 Micro	5
	NBN4-12GM40-Z0-V1	4	Nonflush	Normally open	1 kHz	Ni-Brass	M12 Micro	6
	NBN4-12GM40-Z3-V1	4	Nonflush	Normally open	1 kHz	Ni-Brass	M12 Micro	6
	NCB4-12GM40-Z4-V1	4	Flush	Normally open	1 kHz	Ni-Brass	M12 Micro	7
	NCB4-12GM40-Z5-V1	4	Flush	Normally closed	1 kHz	Ni-Brass	M12 Micro	7
	NCN8-12GM40-Z4-V1	8	Nonflush	Normally open	750 Hz	Ni-Brass	M12 Micro	8
	NCN8-12GM40-Z5-V1	8	Nonflush	Normally closed	750 Hz	Ni-Brass	M12 Micro	8

†SS = stainless steel, Ni-Brass = nickel-plated brass

*Illuminates when the target is between 80-100% of the nominal sensing distance.

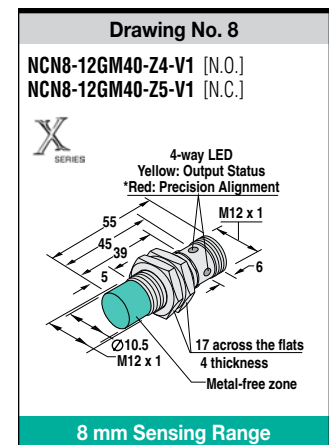
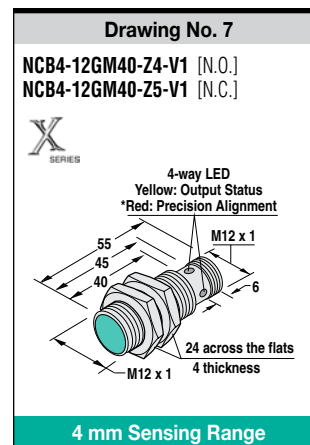
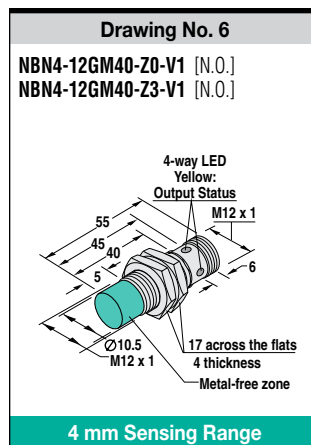
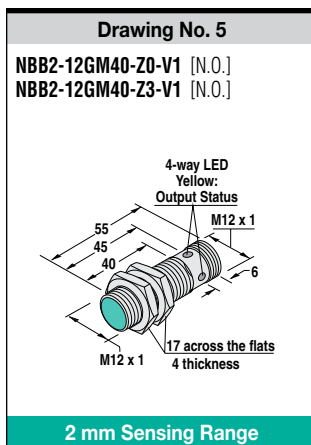
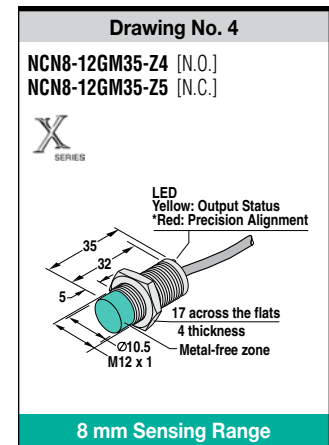
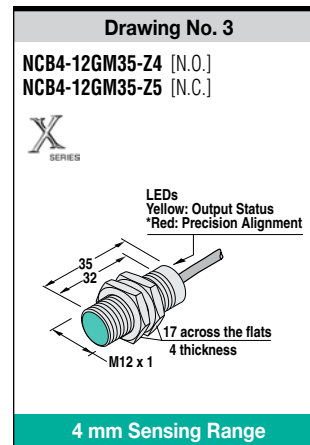
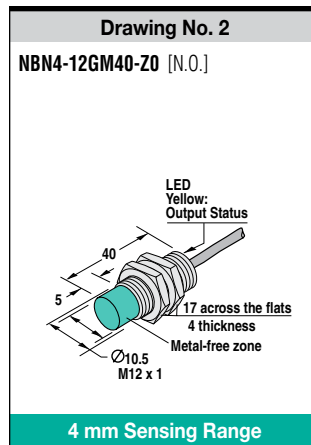
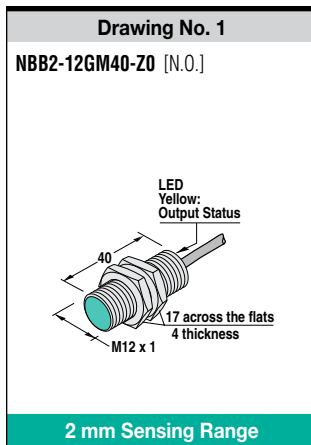
Look for this logo in the drawings to identify our X-Series extended range sensors



X-Series™
Sensing range 25-240% beyond "traditional" inductive sensors

Inductive Cylindrical

2-Wire DC



Subject to modifications without notice

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 0
fa-info@de.pepperl-fuchs.com

Copyright Pepperl+Fuchs
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

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