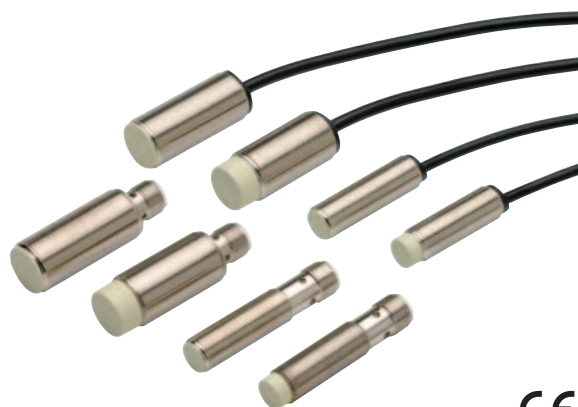


# Cylindrical Proximity Sensor

## E2GN

### High quality at exceptional cost

- M12 and M18 models with standard sensing range.



CE

### Ordering Information

Size	Sensing Distance	Connection	Body Material	Model Operation Mode : NO	
				Output Configuration: PNP	Output Configuration: NPN
Shielded	M12 2 mm	Pre-wired	Brass	E2GN-M12KS02-WP-B1	E2GN-M12KS02-WP-C1
		Connector		E2GN-M12KS02-M1-B1	E2GN-M12KS02-M1-C1
	M18 5 mm	Pre-wired		E2GN-M18KS05-WS-B1	E2GN-M18KS05-WS-C1
		Connector		E2GN-M18KS05-M1-B1	E2GN-M18KS05-M1-C1
Non-Shielded	M12 5 mm	Pre-wired		E2GN-M12KN05-WP-B1	E2GN-M12KN05-WP-C1
		Connector		E2GN-M12KN05-M1-B1	E2GN-M12KN05-M1-C1
	M18 8 mm	Pre-wired		E2GN-M18KN08-WS-B1	E2GN-M18KN08-WS-C1
		Connector		E2GN-M18KN08-M1-B1	E2GN-M18KN08-M1-C1

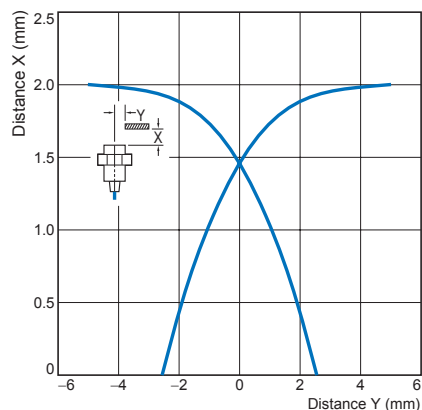
### Ratings and Specifications (DC 3-wire Models)

Item	Size	M12		M18	
		Shielded	Non-Shielded	Shielded	Non-Shielded
		Model	Model	Model	Model
		E2GN-M12KS02-□□-B1	E2GN-M12KN05-□□-B1	E2GN-M18KS05-□□-B1	E2GN-M18KN08-□□-B1
		E2GN-M12KS02-□□-C1	E2GN-M12KN05-□□-C1	E2GN-M18KS05-□□-C1	E2GN-M18KN08-□□-C1
Sensing distance		2mm	5mm	5mm	8mm
Power supply voltage		10 to 30 VDC, Ripple (p-p): 10% max.			
Output type		-B1 models: PNP open collector -C1 models: NPN open collector			
Control output	Load current	200 mA max.			
	Residual voltage	3 V max. (load current: 200 mA, cable length: 2 m)			
Indicator		Operation indicator (Red)			
Operation mode (with sensing object approaching)		NO			
Protection circuits		Reversed power supply polarity protection, Output short-circuit protection, Reversed output polarity protection			
Ambient temperature range		Operating/Storage: -25 °C to 70 °C (with no icing or condensation)			
Ambient humidity range		Operating/Storage: 35% to 95% (with no icing or condensation)			
Degree of protection		IEC60529: IP67, EN60947-5-2: EMC			
Mounting torque		10 N·m			

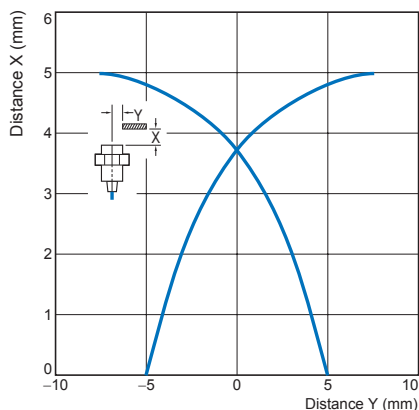
## Engineering Data (Typical)

### Shielded Models

#### E2GN-M12KS02

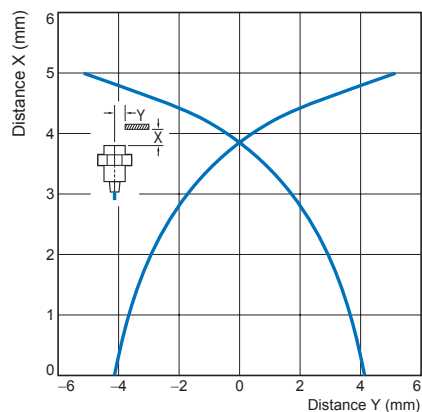


#### E2GN-M18KS05

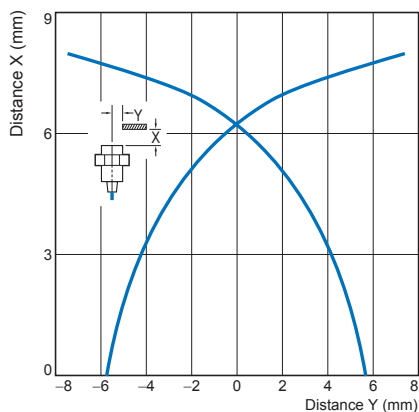


### Non-Shielded Models

#### E2GN-M12KN05-WP-B1



#### E2GN-M18KN08-WS-B1



## I/O Circuit Diagrams

### PNP output

E2GN-M12KS02-WP-B1

E2GN-M12KN05-WP-B1

E2GN-M12KS02-M1-B1

E2GN-M12KN05-M1-B1

E2GN-M18KS05-WS-B1

E2GN-M18KN08-WS-B1

E2GN-M18KS05-M1-B1

E2GN-M18KN08-M1-B1

### NPN output

E2GN-M12KS02-WP-C1

E2GN-M12KN05-WP-C1

E2GN-M12KS02-M1-C1

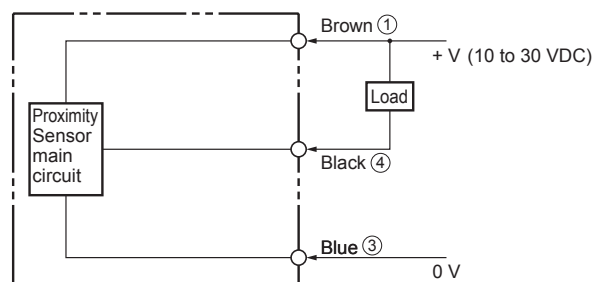
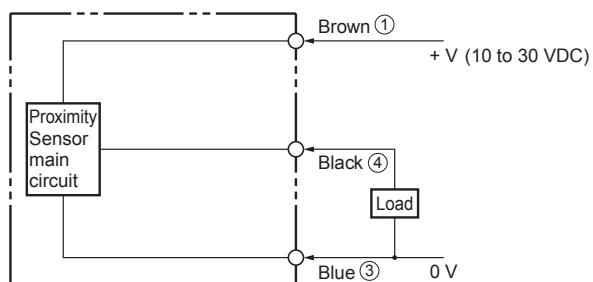
E2GN-M12KN05-M1-C1

E2GN-M18KS05-WS-C1

E2GN-M18KN08-WS-C1

E2GN-M18KS05-M1-C1

E2GN-M18KN08-M1-C1



**Note:** ① ③ ④ are the pins' numbers of the Connector.

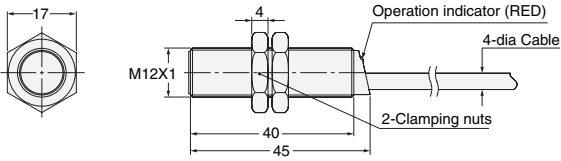
# E2GN

## Dimensions

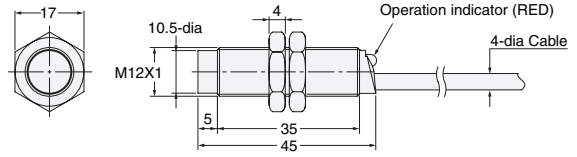
(Unit: mm)

Tolerance class IT16 applies to dimensions in this data sheet unless otherwise specified.

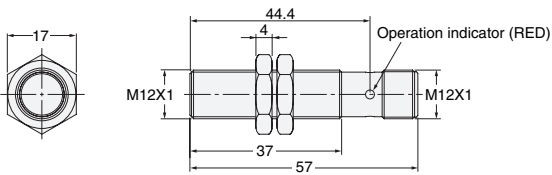
**E2GN-M12KS02-WP-B1**  
**E2GN-M12KS02-WP-C1**



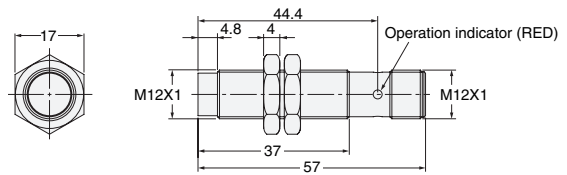
**E2GN-M12KN05-WP-B1**  
**E2GN-M12KN05-WP-C1**



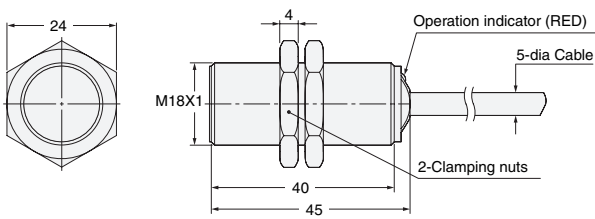
**E2GN-M12KS02-M1-B1**  
**E2GN-M12KS02-M1-C1**



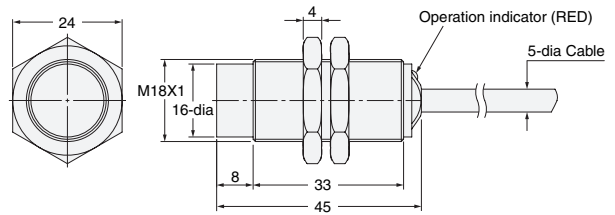
**E2GN-M12KN05-M1-B1**  
**E2GN-M12KN05-M1-C1**



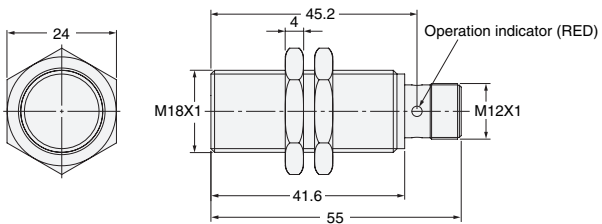
**E2GN-M18KS05-WS-B1**  
**E2GN-M18KS05-WS-C1**



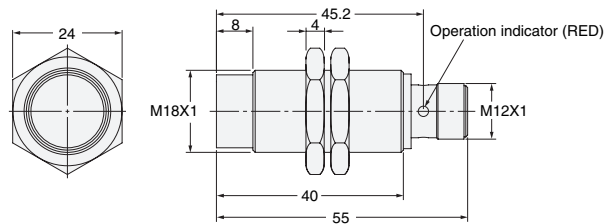
**E2GN-M18KN08-WS-B1**  
**E2GN-M18KN08-WS-C1**



**E2GN-M18KS05-M1-B1**  
**E2GN-M18KS05-M1-C1**



**E2GN-M18KN08-M1-B1**  
**E2GN-M18KN08-M1-C1**



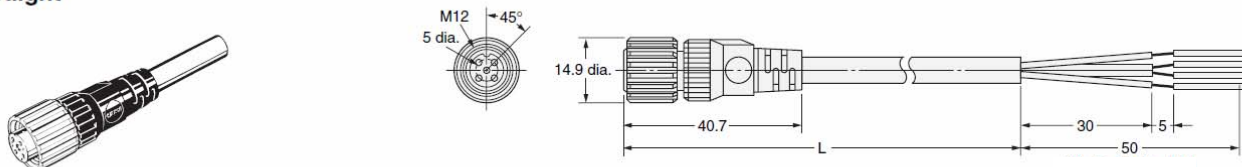
# XS2F M12 Sockets on One Cable End

## XS2F-B12PVC3□□□M

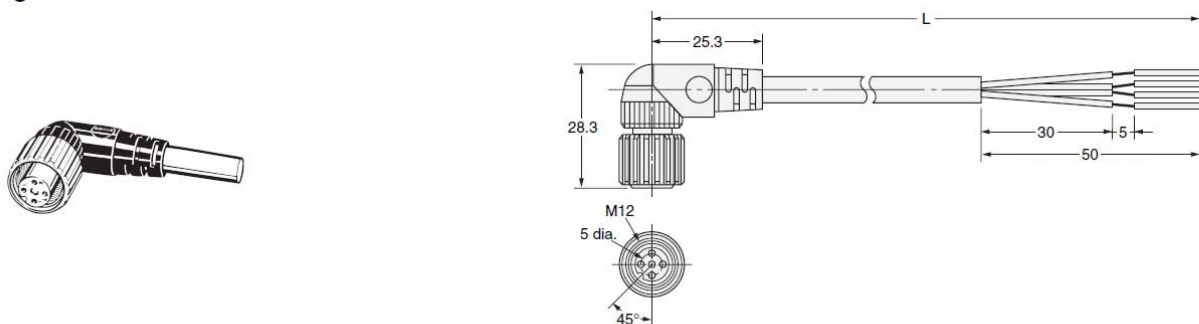
### Dimensions

(Unit: mm)

#### Straight

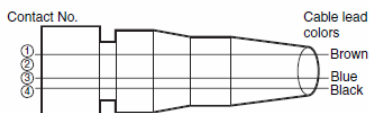


#### Angled



### Wiring Diagram

3 cores



### Ordering Information

Cable	Cores	Shape	Length (m)	Product description	LED
PVC	3	Straight	2	XS2F-B12PVC3S2M	—
PVC	3	Straight	5	XS2F-B12PVC3S5M	—
PVC	3	Straight	10	XS2F-B12PVC3S10M	—
PVC	3	Angled	2	XS2F-B12PVC3A2M	—
PVC	3	Angled	5	XS2F-B12PVC3A5M	—
PVC	3	Angled	10	XS2F-B12PVC3A10M	—

### Ratings and Specifications

Rated current	4A
Rated voltage	125 VDC
Contact resistance	40 mΩ max. (20 mV max., 100 mA max.)
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	1,500 VAC for 1 min (leakage current: 1 mA max.)
Degree of protection	IP67(IEC60529)
Insertion tolerance	200 times min.

### Material

Contact / Surface	Copper Alloy / Nickel base, Au0.4μm
Connector housing	PBT resin (UL94V-0)
Nut /Surface	Copper Alloy / Nickel plated
Cover	PBT resin (UL94V-0)

### Cable

Color	Black
Outer diameter	Φ5mm
Conductor size	AWG22 0.34mm <sup>2</sup>
Features	UL AWM Flame retardant
Temperature range	-25C to +70C

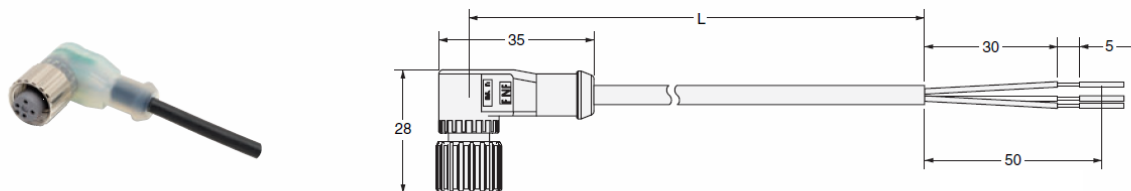
# XS2F M12 Sockets on One Cable End with LED

## XS2F-B12PVC3A□□M□LED

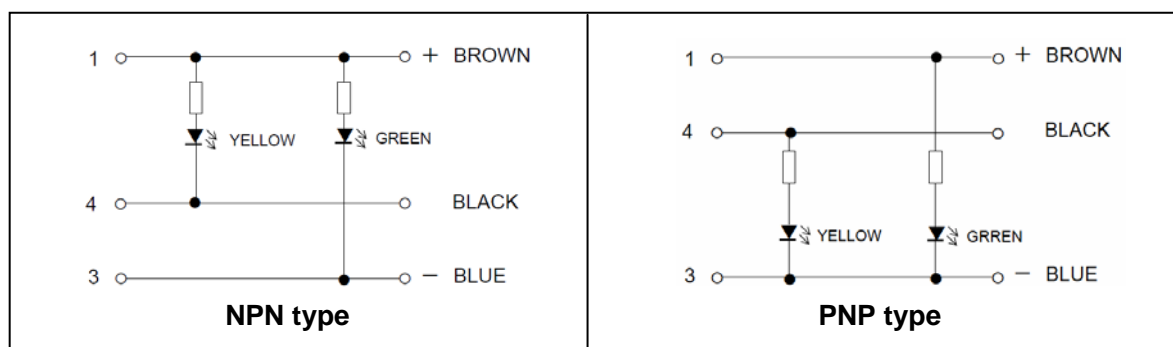
### Dimensions

(Unit: mm)

Angled



### Wiring Diagram



### Ordering Information

Cable	Cores	Shape	Length (m)	Product description	LED
PVC	3	Angled	2	XS2F-B12PVC3A2MPLED	PNP
PVC	3	Angled	5	XS2F-B12PVC3A5MPLED	PNP
PVC	3	Angled	10	XS2F-B12PVC3A10MPLED	PNP
PVC	3	Angled	2	XS2F-B12PVC3A2MNLED	NPN
PVC	3	Angled	5	XS2F-B12PVC3A5MNLED	NPN
PVC	3	Angled	10	XS2F-B12PVC3A10MNLED	NPN

### Ratings and Specifications

Rated current	4A
Rated voltage	125 VDC
Contact resistance	40 mΩ max. (20 mV max., 100 mA max.)
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	1,500 VAC for 1 min (leakage current: 1 mA max.)
Degree of protection	IP67(IEC60529)
Insertion tolerance	200 times min.

### Material

Contact / Surface	Copper Alloy / Nickel base, Au0.4μm
Connector housing	PBT resin (UL94V-0)
Nut /Surface	Copper Alloy / Nickel plated
Cover	PBT resin (UL94V-0)

### Cable

Color	Black
Outer diameter	Φ5mm
Conductor size	AWG22 0.34mm <sup>2</sup>
Features	UL AWM Flame retardant
Temperature range	-25C to +70C

This document provides information mainly for selecting suitable models. Please read the Instruction Sheet carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.

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