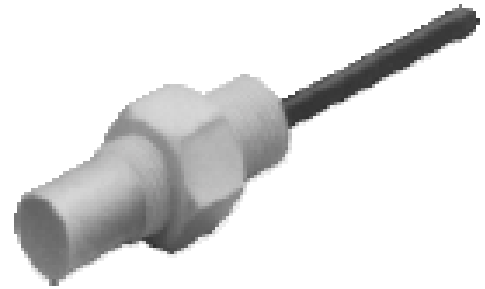


Teflon Capacitive Prox

E2KQ

Detects Non-Ferrous Metals and Materials
In Harsh Chemical Environments

- Teflon®-coated housing provides oil and chemical resistance
- Ideal for semiconductor/electronics applications
- Sensitivity adjustment range 6 to 10 mm allows adjustment of the sensing distance according to the material of the sensing object
- Highly visible operation indicator



Ordering Information

■ SENSORS

Sensing head		M18
Type		Unshielded
Sensing distance		6 to 10 mm (0.24 to 0.39 in.)
Part number	NPN-NO output	E2KQ-X10ME1

■ REPLACEMENT PARTS

Description	Part number
Teflon® nuts and nickel-plated brass washers, two each	M18 TFWS

Teflon—Reg TM E.I. DuPont de Nemours and Co.

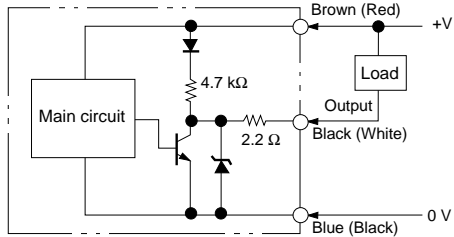
Specifications

Part number		E2KQ-X10ME1	
Body	Size	M18	
	Type	Unshielded	
Supply voltage		12 to 24 VDC	
Current consumption		12 mA max.	
Detectable object type		Metallic and non-metallic objects	
Effective maximum detecting distance (with standard target)		10 mm (0.39 in.), more with sensitivity adjustment set for higher gain	
Usable detecting range (with standard target)		6 to 10 mm (0.24 to 0.39 in.)	
Standard target size (mild steel, L x W x H)		50 x 50 x 1 mm (1.97 x 1.97 x 0.04 in.)	
Differential travel		20% max. of effective detecting distance	
Control output	DC solid-state	Type	E2KQ-X10ME1 (NPN-NO)
		Max. load	100 mA
		Max. on-state voltage drop	1 V max.
Response frequency		100 Hz	
Circuit protection	Output short-circuit	Not provided	
	DC power supply reverse polarity	Provided	
	Weld field immunity	—	
	RFI immunity	—	
Indicators		Output operation (red LED)	
Materials	Housing	Teflon resin	
	Sensing face	Teflon resin	
	Cable sheath	PVC	
Mounting		Two Teflon M18 nuts included	
Connections	Prewired	3-conductor cable, 2 m (6.56 ft.)	
Weight with cable		Approx. 150 g (5.3 oz.)	
Enclosure ratings	UL	—	
	NEMA	—	
	IEC 144	IP66	
Approvals	UL	—	
	CSA	—	
Ambient operating temperature		-10° to 55°C (14° to 131°F)	
Vibration		10 to 55 Hz, 1.5 mm (0.06 in.) double amplitude	
Shock		Approx. 50 Gs	

Operation

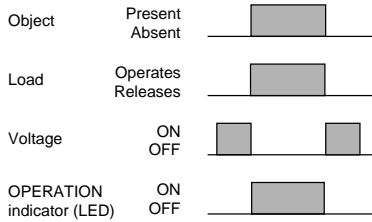
■ OUTPUT CIRCUIT DIAGRAM

NPN Output
(E2KQ-X10ME1)

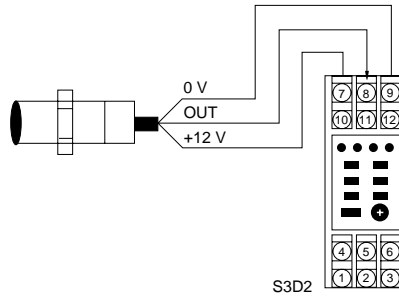


Note: IEC colors are shown first.

■ TIMING CHART

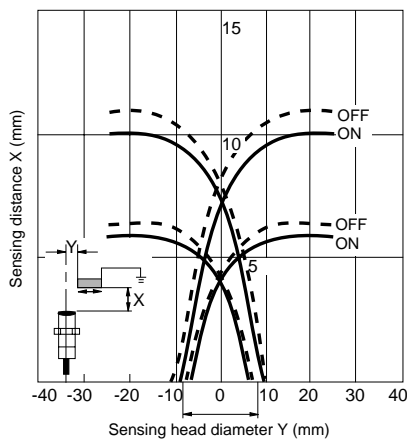


■ CONNECTION

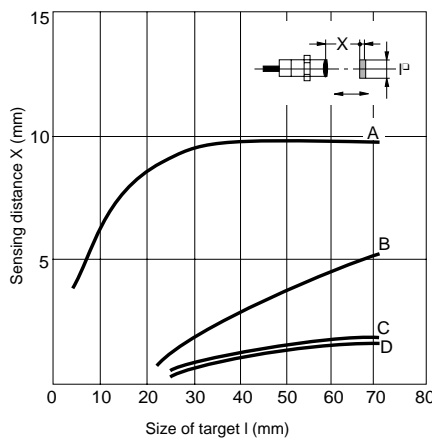


Engineering Data

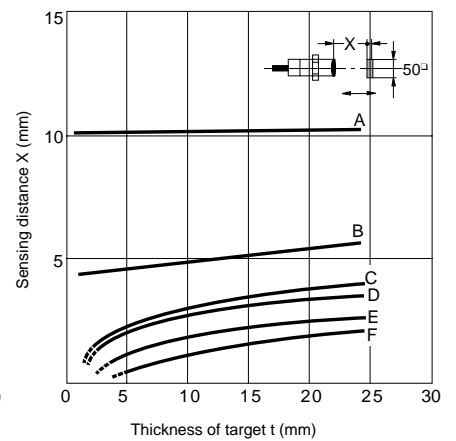
Operating Range
E2KQ-X10ME1



Object size vs. material
E2KQ-X10ME1



Object thickness vs. material
E2KQ-X10ME1

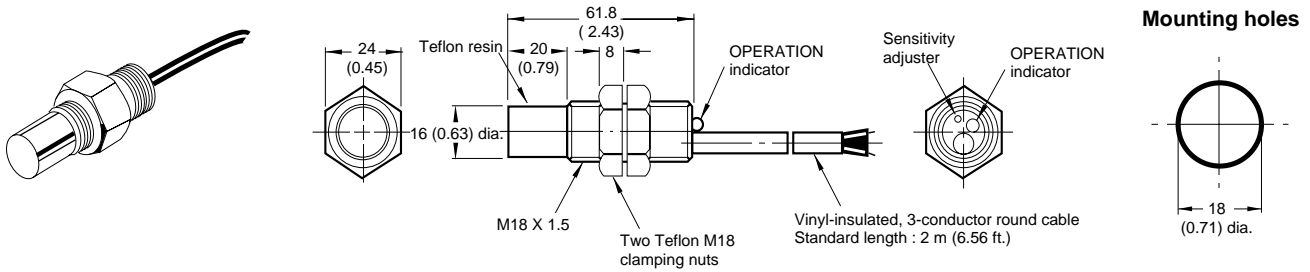


Legend:	A = Metal
	B = Ungrounded metal
	C = Glass
	D = Phenolic resin
	E = Wood
	F = Acrylic resin

Dimensions

Unit : mm (inch)

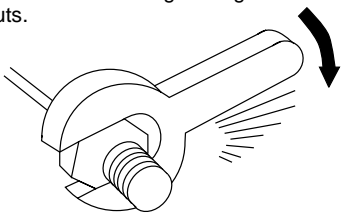
E2KQ-X10ME1



Precautions

■ TIGHTENING FORCE

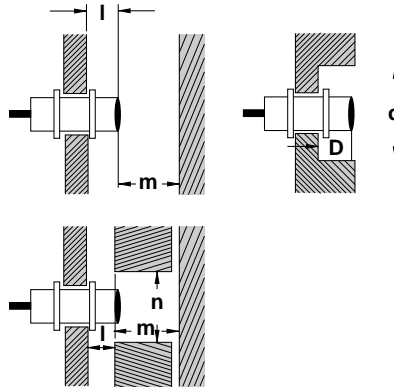
Do not exceed the torque listed in the table below when tightening the mounting nuts.



Model	Torque
E2KQ-X10ME1	6 kgf-cm

■ EFFECTS OF SURROUNDING METALS

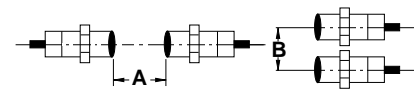
When mounting a proximity sensor flush with a metallic panel, provide the minimum distance shown. This prevents the sensor from being affected by metallic objects other than the target.



Model	E2KQ-X10ME1
l	30 mm (1.18 in.)
d	75 mm (2.95 in.)
D	0
m	18 mm (0.71 in.)
n	90 mm (3.54 in.)

■ MUTUAL INTERFERENCE

To prevent mutual interference between two sensors mounted opposite or parallel to each other, be sure to space the two sensors at a distance greater than that shown here.



Model	E2KQ-X10ME1
A	200 mm (7.87 in.)
B	32 mm (1.26 in.)

NOTE: DIMENSIONS ARE SHOWN IN MILLIMETERS. To convert millimeters to inches divide by 25.4.



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[ILFK12E9189/I02](#) [ILFK12E9193/I02](#) [IMM2582C](#) [OISN-013](#) [25.161.3253.0](#) [25.332.0653.1](#) [25.352.0653.0](#) [25.352.0753.0](#)