

## Accessories

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## General Information

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### Description

A large variety of accessories is available for use with Rockwell Automation/Allen-Bradley products offering convenience in mounting and applying proximity sensors.

Conduit adaptors allow easy connection of most threaded-barrel models to a conduit line. Banking screw adaptors provide a mechanical interface to applications allowing a proximity sensor to be utilized as a mechanical stop switch.

Our clamp, swivel/tilt, and right-angle brackets are designed for convenient mounting and adjustable positioning of tubular-style proximity sensors. Quick-change sensor mounting brackets are designed to allow quick and simple sensor replacement without readjustment. The spring return mounting bracket and end caps help to protect your sensor from damage due to collisions.

VersaCube mounting hardware provides superior mounting stability and convenience when retrofitting rectangular or limit switch style proximity sensors.

Plastic and PTFE end caps and covers provide additional protection to sensors from abrasion corrosion, chemicals, other weld slag and debris.

Sensor wells allow for quick and easy mounting of capacitive sensors in tanks and silos for level detection. Sight-glass mount sensor brackets allow convenient and simple mounting of capacitive sensors to sight tubes for level detection.

All threaded-barrel sensors are shipped with mounting nuts and lock washers. Replacement hardware is available if these become lost or damaged.

## Accessories

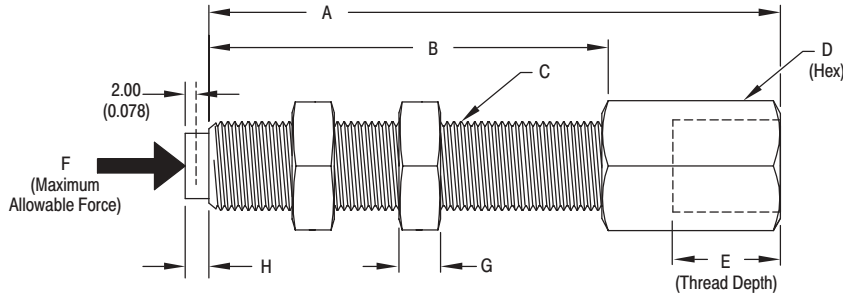
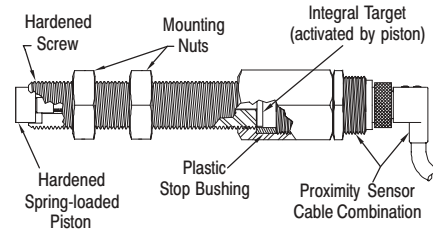
### Banking Screw Adaptors

#### Description

Banking screw adaptors provide the flexibility to utilize inductive proximity sensors as mechanical stop switches. These banking screw adaptors are designed for use only with shielded sensors. Each banking screw adaptor is made of heat treated alloy steel

components and comes complete with two mounting nuts. Standard models require 252g (9oz) of force to activate the switch.

**NOTE:** Models are available requiring more force to activate the switch, contact factory for details.



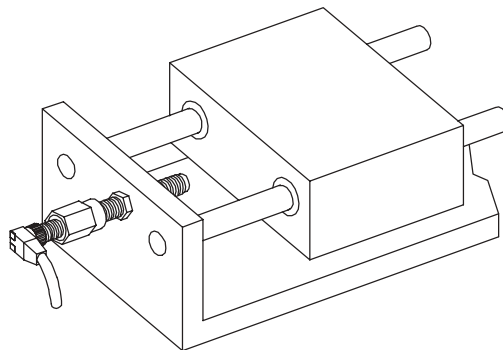
#### Dimensions—mm (inches)

For Use with:	A	B	C	D	E	F	G	H	Catalog Number
8mm Shielded Sensors	57.2 (2.25)	25.0 (1.00)	M8 x 1	11.0 (0.43)	18.4 (0.72)	2,000N (450lb)	5.08 (0.20)	2.93 (0.115)	871A-AK8-25
	82.6 (3.25)	50.0 (2.00)							871A-AK8-50
12mm Shielded Sensors	57.2 (2.25)	25.0 (1.00)	M12 x 1	15.7 (0.62)	17.4 (0.67)	20,500N (4,608lb)	6.35 (0.25)	4.22 (0.166)	871A-AK12-25
	82.6 (3.25)	50.0 (2.00)							871A-AK12-50
	108 (4.25)	75.0 (3.00)							871A-AK12-75
	133 (5.25)	100 (4.00)							871A-AK12-100
18mm Shielded Sensors	57.2 (2.25)	25.0 (1.00)	M18 x 1	22.1 (0.87)	22.1 (0.87)	45,000N (10,115lb)	6.35 (0.25)	4.22 (0.166)	871A-AK18-25
	82.6 (3.25)	50.0 (2.00)							871A-AK18-50
	108 (4.25)	75.0 (3.00)							871A-AK18-75
	133 (5.25)	100 (4.00)							871A-AK18-100

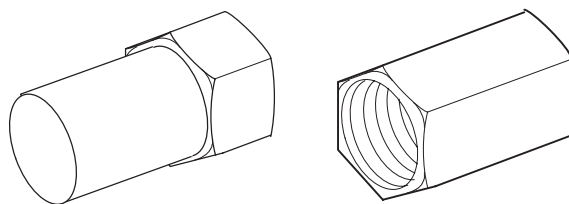
#### Recommended Sensors for Banking Screw Adaptors

Sensor Diameter	Specifications	Catalog Number
8mm	(10-30V DC, N.O., PNP, Micro QD)	872C-DX15-D4
12mm		872C-DX34-D4
18mm		872C-DX33-D4
12mm	(20-250V AC, N.O., Micro QD)	872C-A2N12-R3
18mm		872C-A5N18-R3

#### Typical Application



## Conduit Adaptors for Tubular Proximities—Nickel-Plated Brass



12, 18, 30mm

## For All Bulletin Numbers Except 871U

Tube Diameter	Tube Thread Size	Dimensions—mm (Inches)	Catalog Number
12mm (0.47)	M12 x 1		871C-N13
18mm (0.71)	M18 x 1		871C-N19
30mm (1.18)	M30 x 1.5		871C-N31
12mm (0.47)	M12 x 1		871T-N5
18mm (0.71)	M18 x 1		871T-N6
30mm (1.18)	M30 x 1.5		871T-N7

Allen-Bradley Replacements

## Accessories

### Mounting Brackets for Tubular Proximities—Spring Return Style

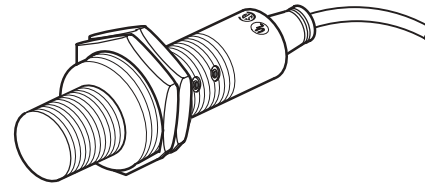
#### Description

Spring return mounting brackets provide protection for the sensor in the event of a target collision. The bracket is designed to allow the sensor to retract axially when force is applied to its face, then to return to its original position when the force is removed. The bracket is simply threaded onto a

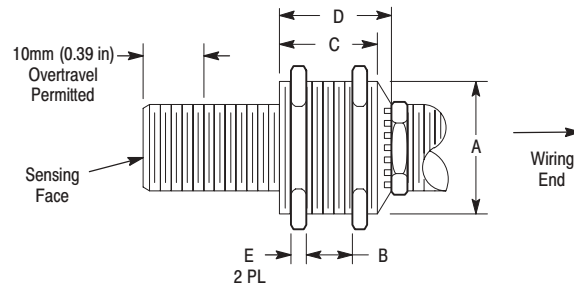
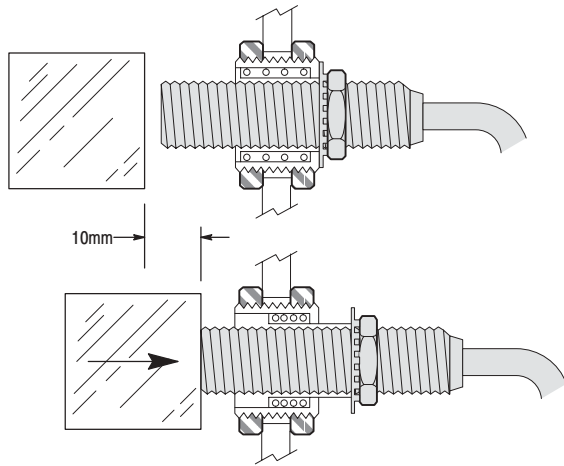
tubular proximity sensor and locked into place by using the mounting nut provided with the sensor.

For protection against lateral collisions, the addition of a plastic deflecting cap is recommended (see page 2–196).

**Note:** Right angle mounting brackets are available for use with these spring return brackets (see page 2–189).



8, 12, 18, 30mm



**NOTE 1:** Any overtravel greater than 10mm (0.39in) or improper installation can damage sensor and/or mount. **Do not exceed** torque specifications listed or distortion of mounting sleeve will result.

**NOTE 2:** Use a single jam nut, provided with the sensor, to lock the inner sleeve to the sensor body. A bonding agent such as low strength Loctite adhesive is recommended. Tip holes for retaining ring pliers are provided for grasping the inner sleeve.

#### Dimensions—mm (inches)

Sensor Diameter	mm (inches)						Catalog Number	
	Clearance Hole Diameter	A	B	C	D	E	Anodized Aluminum	Stainless Steel
8mm	15.9 (0.63)	M16 X 1.5	11.0 (0.43)	19.0 (0.75)	22.0 (0.87)	3.5 (0.14)	871A-BXN8	871A-BXS8
12mm	22.2 (0.88)	M22 X 1.5	11.0 (0.43)	19.0 (0.75)	22.0 (0.87)	4.0 (0.16)	871A-BXN12	871A-BXS12
12mm	17.9 (0.70)	M18 X 1	10.0 (0.40)	19.0 (0.75)	21.2 (0.84)	4.0 (0.16)	—	871A-BXS12-LP
18mm	31.0 (1.22)	M30 X 1.5	15.0 (0.59)	26.0 (1.02)	30.0 (1.18)	5.0 (0.20)	871A-BXN18	871A-BXS18
30mm	47.5 (1.87)	M47 X 1.5	25.4 (1.0)	35.0 (1.38)	37.9 (1.49)	5.0 (0.20)	871A-BXN30	871A-BXS30

**Note:** Each spring return mounting bracket is supplied with two mounting nuts.

## Mounting Brackets for Tubular Proximities—Quick-Change Style

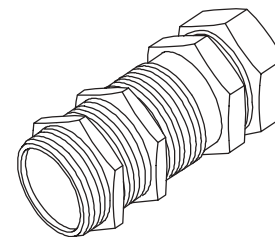
## Description

Quick-change sensor brackets provide the ability to install or remove shielded proximity sensors quickly and easily. Quick sensor change-out is achieved with a single collet-style locknut, while maintaining the original sensing distance setup thus eliminating time

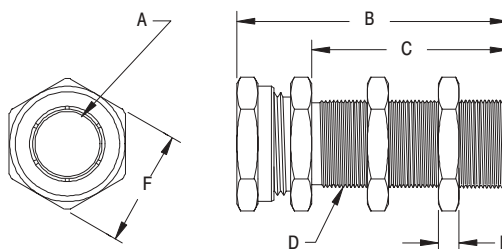
consuming readjustments. Each quick-change sensor bracket is made of heat treated alloy steel components and comes complete with two mounting nuts.

**NOTE 1:** Consult the factory for use with ferrous selective proximity sensors.

**NOTE 2:** Stainless steel models are also available, contact factory for details.



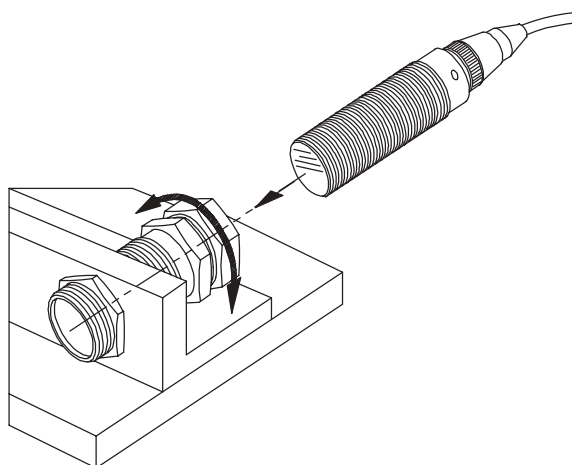
8, 12, 18, 30mm



## Dimensions—mm (inches)

Sensor Diameter	A	B	C	D	E	F	Catalog Number
8mm	8.10 (0.32)	32.0 (1.25)	18.0 (0.71)	M12 X 1	3.05 (0.12)	17.4 (0.68)	871A-BQN8
		48.0 (1.89)	34.0 (1.34)				871A-BQN8-L
12mm	12.5 (0.50)	34.0 (1.34)	20.0 (0.79)	M16 X 1	3.30 (0.13)	22.2 (0.88)	871A-BQN12
		44.0 (1.73)	30.0 (1.18)				871A-BQN12-L
18mm	18.5 (0.73)	38.0 (1.50)	20.0 (0.79)	M24 X 1.5	5.08 (0.20)	30.2 (1.19)	871A-BQN18
		58.0 (2.28)	40.0 (1.57)				871A-BQN18-L
30mm	31.0 (1.22)	38.0 (1.50)	20.0 (0.79)	M36 X 1.5	5.84 (0.23)	41.3 (1.63)	871A-BQN30
		58.0 (2.28)	40.0 (1.57)				871A-BQN30-L

## Typical Application



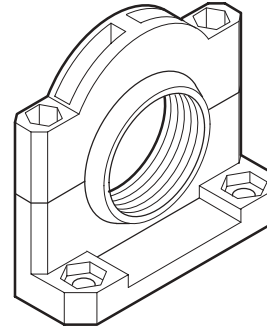
# Allen-Bradley Replacements

**Accessories**

**Mounting Brackets for Tubular Proximities—Swivel/Tilt Style**

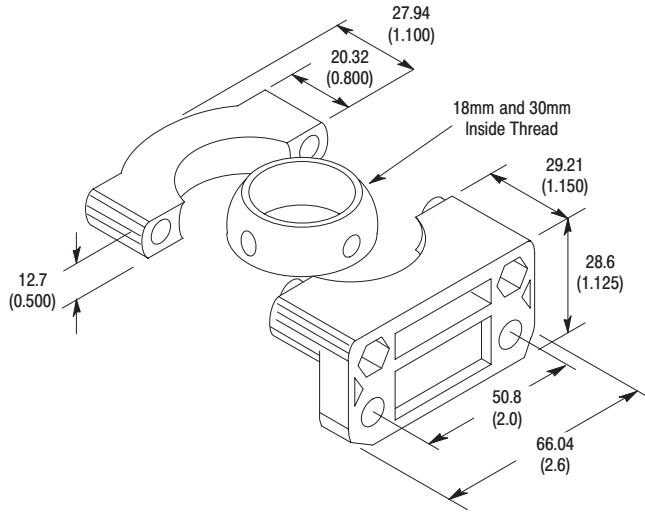
**Description**

The swivel/tilt mounting bracket provides both axial and 10° tilt adjustment for our 18mm and 30mm tubular-style products. It is ideal for convenient mounting and alignment of 873C ultrasonic sensors.



18mm and 30mm

**Dimensions—mm (inches)**



**Note:** Each swivel/tilt mounting bracket is supplied with two screws and two locking nuts.

Description	Catalog Number
30mm Mounting Bracket	60-2439
18mm Mounting Bracket	60-2649

## Mounting Brackets for Tubular Proximities—Right Angle Style

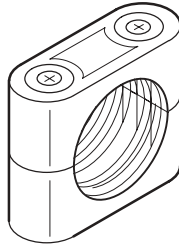
Proximity Tube Diameter	Dimensions—mm (inches)	Material	Catalog Number
8mm (0.31)		Zinc-Plated Steel	871A-BRN8
		Stainless Steel	871A-BRS8
12mm (0.47)		Zinc-Plated Steel	871A-BRN12
		Stainless Steel	871A-BRS12
18mm (0.71) Also for use with the 871A-BXN8 or 871A-BXS8 Spring Return Brackets		Zinc-Plated Steel	871A-BRN18
		Stainless Steel	871A-BRS18
For use with 871A-BXN12 or 871A-BXS12 Spring Return Brackets		Zinc-Plated Steel	871A-BRN22
		Stainless Steel	871A-BRS22
30mm (1.18) Also for use with the 871A-BXN18 or 871A-BXS18 Spring Return Brackets		Zinc-Plated Steel	871A-BRN30
		Stainless Steel	871A-BRS30
For use with 871A-BXN30 or 871A-BXS30 Spring Return Brackets		Zinc-Plated Steel	871A-BRN47
		Stainless Steel	871A-BRS47

Allen-Bradley Replacements

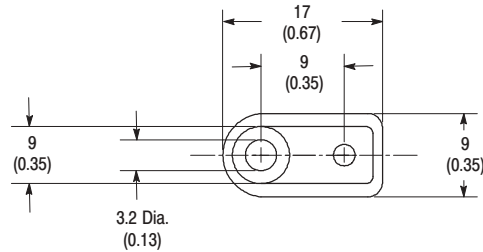
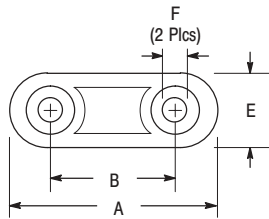
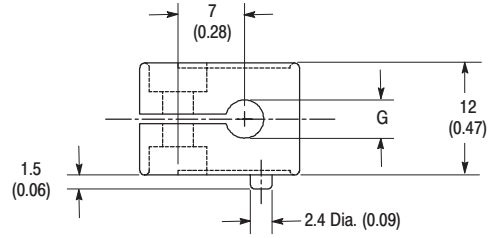
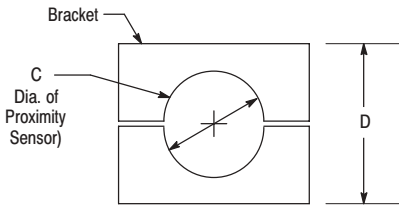
**Accessories**

**Mounting Brackets for Tubular Proximities—Clamp Style**

**Stainless Steel Mounting Hardware  
and Chemical Resistant Material  
for Harsh Environment**



4, 5, 6.5, 8, 12, 18, 30, 34mm

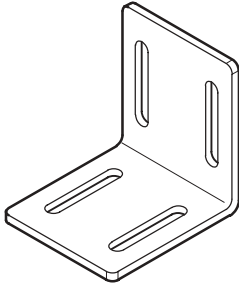


**Dimensions—mm (inches)**

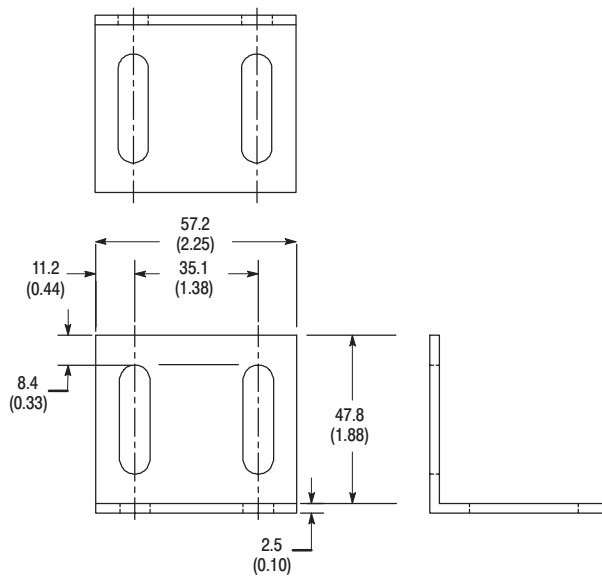
Sensor Diameter	A	B	C	D	E	F	G	Catalog Number
4mm	—	—	—	—	—	—	4 (0.16)	871A-BP4
5mm	—	—	—	—	—	—	5 (0.20)	871A-BP5
6.5mm	—	—	—	—	—	—	6.5 (0.26)	871A-BP7
8mm	29.0 (1.14)	18.0 (0.708)	8.0 (0.31)	18.3 (0.72)	11.0 (0.432)	4.4 (0.172)	—	871A-BP8
12mm	36.0 (1.42)	24.0 (0.944)	12.0 (0.47)		12.0 (0.472)		871A-BP12	
18mm	45.0 (1.772)	32.0 (1.26)	18.0 (0.71)	29.4 (1.16)	13.0 (0.512)	5.4 (0.212)	—	871A-BP18
30mm	60.0 (2.40)	45.0 (1.772)	30.0 (1.18)	48.4 (1.91)	15.8 (0.624)	5.5 (0.218)	—	871A-BP30
34mm	65.8 (2.59)	50.0 (1.97)	34.0 (1.34)	48.3 (1.90)			871A-BP34	



## Stainless Steel Mounting Bracket Assembly



## Dimensions—mm (inches)



Description	Catalog Number
Mounting Bracket	871A-BR58

## Accessories

### Mounting Bracket for VersaCube™ Proximities

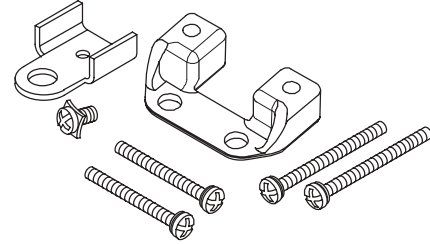
#### Description

The mounting kit for VersaCube sensors provides additional mounting flexibility to 871P VersaCube style sensors. This kit includes an accessory mounting bracket that allows the VersaCube to bolt in place of existing 871P rectangular and similar competitive sensors. Appropriately sized mounting screws are also supplied. Additionally a ground lug terminal and green color-coded binding screw are provided for grounding the VersaCube sensor in the event that the unit is not mounted to a grounded metal frame.

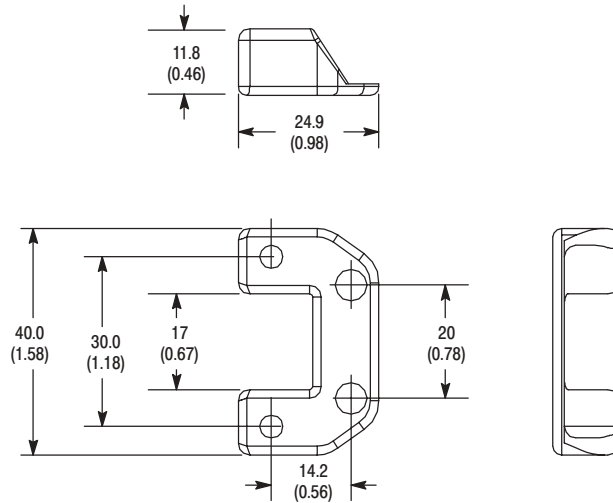
**Note:** An 871A-PKIT mounting kit is included with all Weld Field Immune 871P VersaCube style sensors. An 871A-PKIT mounting kit is not included with General Purpose VersaCube models.

#### Kit includes:

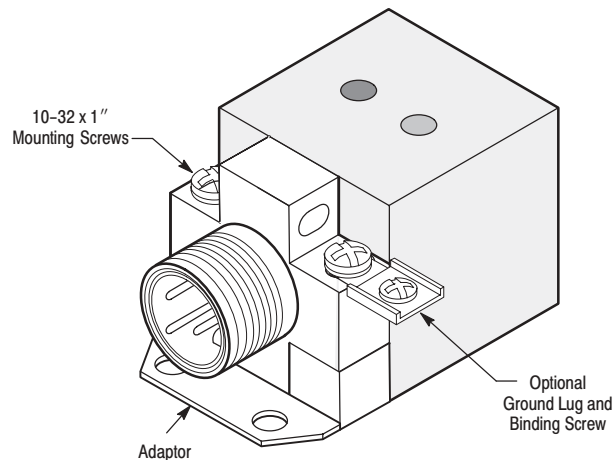
- (1) Threaded mounting bracket
- (1) Through-hole mounting bracket
- (2) 10-32 x 1" mounting screw
- (2) 10-32 x 1½" mounting screw
- (1) Ground terminal lug
- (1) Green color-coded binding screw



#### Dimensions—mm (inches)



#### Typical Application



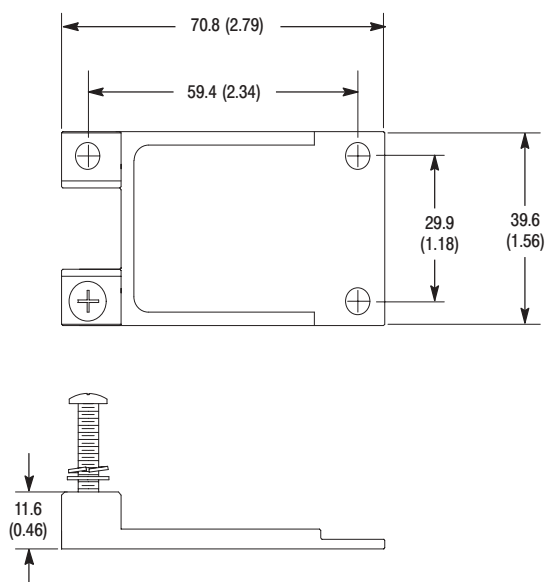
Description	Catalog Number
Mounting Kit	871A-PKIT

## Limit Switch Style Mounting Bracket for VersaCube™ Proximities

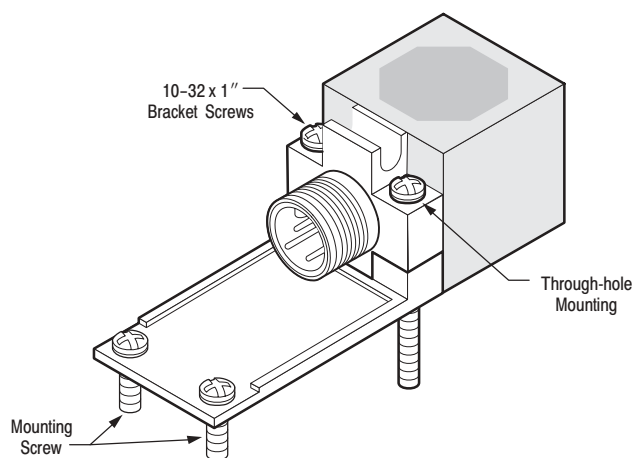
## Description

The limit switch style mounting bracket (871A-PKITLS) has the same mounting pattern as limit switch style proximity sensors. It provides superior mounting stability and convenience when retrofitting a limit switch style proximity sensor with a VersaCube.

## Dimensions—mm (inches)



## Typical Application

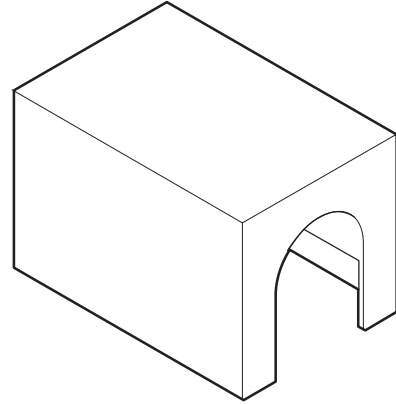
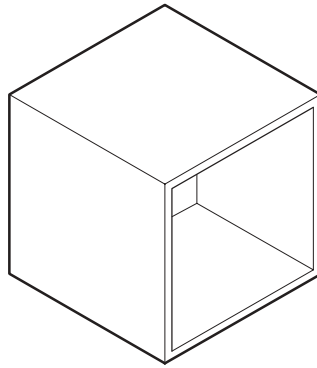


## Accessories

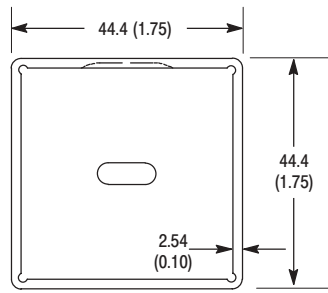
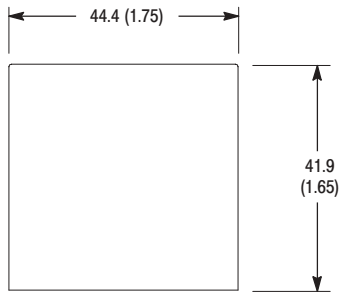
### PTFE Cover for VersaCube

#### Description

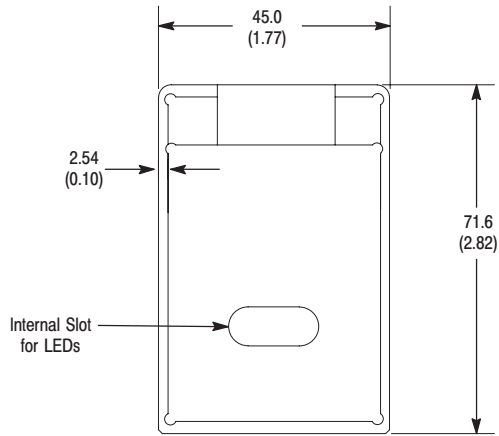
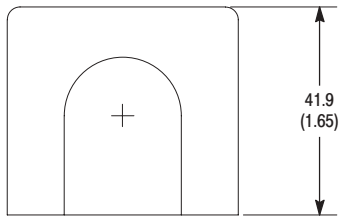
These PTFE covers are designed to protect the VersaCube from weld slag and other debris.



#### 871A-KCT40-F



#### 871A-KCT40-T

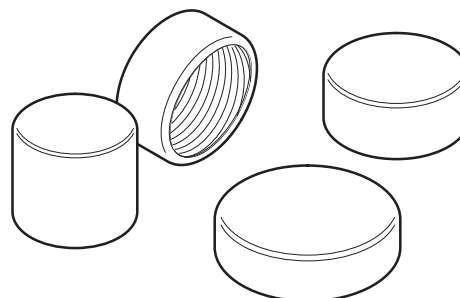


**NOTE:** Internal slot for LED visibility.

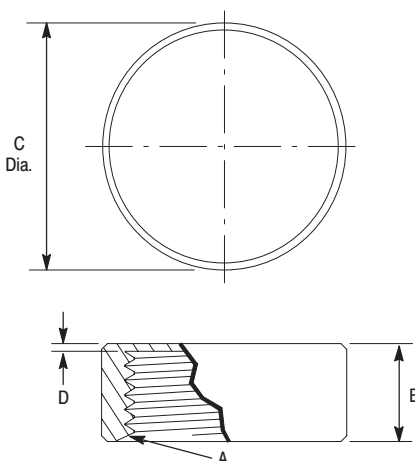
## PTFE End Caps for Tubular Proximities

**Description**

PTFE end caps protect tubular proximity sensors from abrasion, corrosion, chemical exposure, weld slag, and other debris.



8, 12, 18, 30mm

**Dimensions—mm (inches)****Shielded**

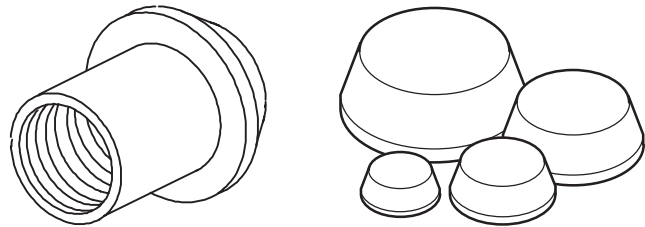
Sensor Diameter	A	B	C	D	Catalog Number
8mm	M8 x 1	5.0 (0.20)	10.8 (0.43)	0.50 (0.02)	871A-KT8
12mm	M12 x 1	8.9 (0.35)	14.8 (0.58)	0.89 (0.035)	871A-KT12
18mm	M18 x 1	8.8 (0.35)	24.4 (0.96)	1.27 (0.05)	871A-KT18
30mm	M30 x 1.5	10.0 (0.39)	38.1 (1.50)	2.03 (0.08)	871A-KT30

**Unshielded**

Sensor Diameter	A	B	C	D	Catalog Number
8mm	M8 x 1	9.6 (0.38)	10.8 (0.43)	0.50 (0.02)	871A-KUT8
12mm	M12 x 1	15.0 (0.60)	14.8 (0.58)	0.89 (0.035)	871A-KUT12
18mm	M18 x 1	18.8 (0.70)	24.4 (0.96)	1.27 (0.05)	871A-KUT18
30mm	M30 x 1.5	23.0 (0.90)	38.1 (1.50)	2.03 (0.08)	871A-KUT30

Accessories

End Caps for Tubular Proximities



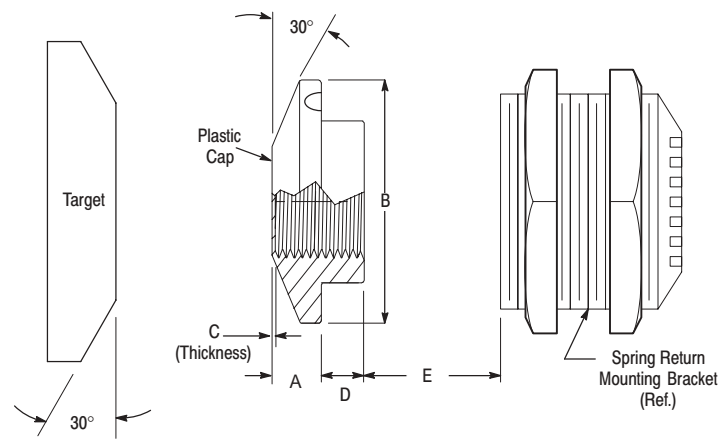
8, 12, 18, 30mm

Description

Plastic deflecting caps are designed to be utilized with spring return brackets when lateral collisions might occur. The

cap is simply threaded onto the front of the proximity sensor. The 30° slope

allows the sensor and spring bracket to retract when a lateral collision occurs.



Dimensions—mm (inches)

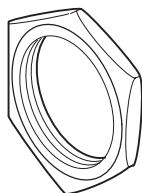
Shielded

Sensor Diameter	A	B	C	D	E	Catalog Number
8mm	5.1 (0.20)	15.1 (0.59)	0.25 (0.01)	0	10.0 (0.39)	871A-KP8
12mm	6.4 (0.25)	22.9 (0.90)	0.89 (0.04)			871A-KP12
18mm	8.0 (0.31)	31.4 (1.34)				871A-KP18
30mm		44.5 (1.75)	12.7 (0.50)		871A-KP30	

Unshielded

Sensor Diameter	A	B	C	D	E	Catalog Number
8mm	5.1 (0.20)	15.1 (0.59)	0.25 (0.01)	9.51 (0.37)	10.0 (0.39)	871A-KPU8
12mm	6.4 (0.25)	22.9 (0.90)	0.89 (0.04)	17.3 (0.68)		871A-KPU12
18mm	8.0 (0.31)	31.4 (1.34)		871A-KPU18		
30mm		44.5 (1.75)	20.0 (0.79)	12.7 (0.50)	871A-KPU30	

## Mounting Nuts for Tubular Proximities—Brass, Stainless Steel, and Plastic



8, 12, 18, 30mm

## Brass

Proximity Tube Diameter	Thread Size ISO Metric	Dimensions—mm (Inches)	Catalog Number
8mm (0.31)	M8 x 1		<b>871C-N1</b> Nickel-Plated
12mm (0.47)	M12 x 1		<b>871C-N2</b> Nickel-Plated  <b>871A-NBT12</b> PTFE-Coated
18mm (0.71)	M18 x 1		<b>871C-N3</b> Nickel-Plated  <b>871A-NBT18</b> PTFE-Coated
30mm (1.18)	M30 x 1.5		<b>871C-N4</b> Nickel-Plated  <b>871A-NBT30</b> PTFE-Coated

**Note:** Each catalog number includes 2 mounting nuts.

# Allen-Bradley Replacements

**Accessories**

**Mounting Nuts for Tubular Proximities—Brass, Stainless Steel, and Plastic**

**Stainless Steel**

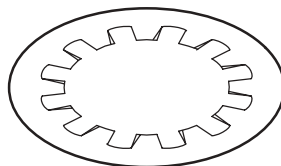
Proximity Tube Diameter	Thread Size ISO Metric	Dimensions—mm (Inches)	Catalog Number
12mm (0.47)	M12 x 1		871T-N2
18mm (0.71)	M18 x 1		871T-N4
30mm (1.18)	M30 x 1.5		871T-N8

**Plastic**

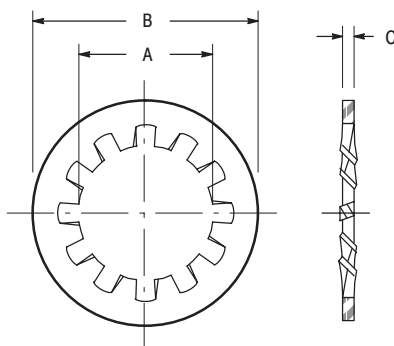
Proximity Tube Diameter	Thread Size ISO Metric	Dimensions—mm (Inches)	Catalog Number
12mm (0.47)	M12 x 1		871T-N1
18mm (0.71)	M18 x 1		871T-N3
30mm (1.18)	M30 x 1.5		871C-N5

**Note:** Each catalog number includes 2 mounting nuts.





8, 12, 18, 30mm



### Dimensions—mm (inches)

Nominal Washer Size mm (inches)	A		B		C		Catalog Number
	Inside Diameter mm (inches)		Outside Diameter mm (inches)		Material Thickness mm (inches)		
8.0 (0.031)	8.5 (0.33)	8.2 (0.32)	15.5 (0.61)	14.75 (0.58)	0.85 (0.03)	0.7 (0.03)	871A-LWN8
12.0 (0.047)	12.7 (0.5)	12.3 (0.48)	20.25 (0.8)	19.5 (0.77)	1.0 (0.04)	0.8 (0.03)	871A-LWN12
18.0 (0.071)	19.1 (0.75)	18.5 (0.73)	29.6 (1.17)	28.6 (1.13)	1.3 (0.051)	1.1 (0.04)	871A-LWN18
30.0 (1.18)	31.4 (1.24)	30.6 (1.2)	46.3 (1.82)	45.1 (1.78)	1.7 (0.07)	1.5 (0.06)	871A-LWN30

**Note:** Each catalog number includes 2 lock washers.

# Accessories

## Spacer Kits

### Selection Guide

Spacer kits are available for use with 871D in-port tubular position sensors for nonstandard tubular probe lengths. Example from chart below: Sensor probe length required is 4.00". Using

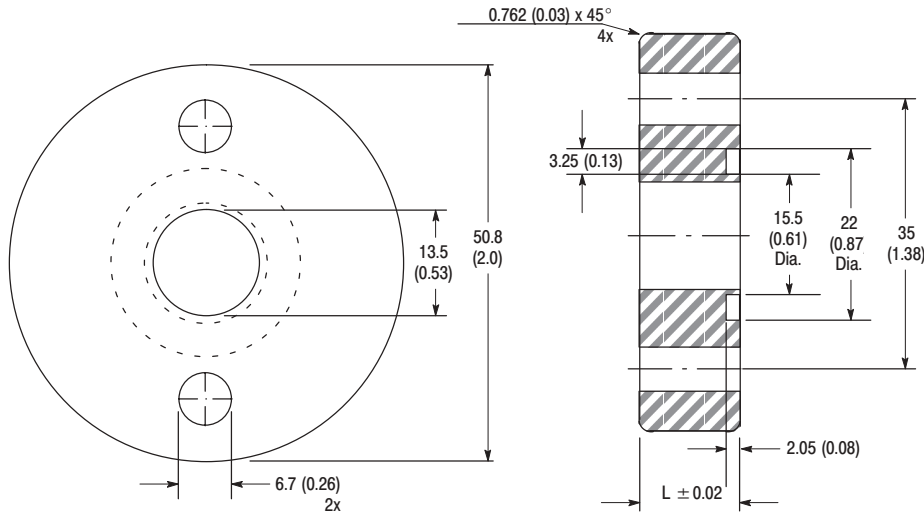
sensor 871D–DW2NP1159–D4 and spacer 871A–S1427 results in a probe length of 3.998". Any difference between desired probe length and

length resulting from sensor and spacer combination should be carefully considered to ensure proper clearance in application.

Spacer Kit Part Number	Spacer Height mm (inch)	Sensor Part Number					
		871D-xxxxx260-xx	871D-xxxxx317-xx	871D-xxxxx524-xx	871D-xxxxx730-xx	871D-xxxxx959-xx	871D-xxxxx1159-xx
Probe Length mm (inch)		26.0 (1.025)	31.7 (1.250)	52.4 (2.062)	73.0 (2.875)	95.9 (3.775)	115.9 (4.560)
871A-S478	4.78 (0.188)	21.26 (0.837)	26.97 (1.062)	47.60 (1.874)	68.25 (2.687)	91.11 (3.587)	111.05 (4.372)
871A-S572	5.72 (0.225)	20.32 (0.800)	26.04 (1.025)	46.66 (1.837)	67.31 (2.650)	90.17 (3.550)	110.11 (4.335)
871A-S780	7.80 (0.307)	18.24 (0.718)	23.95 (0.943)	44.58 (1.755)	65.23 (2.568)	88.09 (3.468)	108.03 (4.253)
871A-S945	9.45 (0.372)	16.59 (0.653)	22.30 (0.878)	42.93 (1.690)	63.58 (2.503)	86.44 (3.403)	106.38 (4.188)
871A-S953	9.53 (0.375)	16.51 (0.650)	22.23 (0.875)	42.85 (1.687)	63.50 (2.500)	86.36 (3.400)	106.30 (4.185)
871A-S1270	12.70 (0.500)	13.34 (0.525)	19.05 (0.750)	39.67 (1.562)	60.33 (2.375)	83.19 (3.275)	103.12 (4.060)
871A-S1382	13.82 (0.544)	12.22 (0.481)	17.93 (0.706)	38.56 (1.518)	59.21 (2.331)	82.07 (3.231)	102.01 (4.016)
871A-S1427	14.27 (0.562)	11.76 (0.463)	17.48 (0.688)	38.10 (1.500)	58.75 (2.313)	81.61 (3.213)	101.55 (3.998)
871A-S1524	15.24 (0.600)	10.80 (0.425)	16.51 (0.650)	37.13 (1.462)	57.79 (2.275)	80.65 (3.175)	100.58 (3.960)
871A-S1737	17.37 (0.684)	8.66 (0.341)	14.38 (0.566)	35.00 (1.378)	55.65 (2.191)	78.51 (3.091)	98.45 (3.876)
871A-S1809	18.09 (0.712)	7.95 (0.313)	13.67 (0.538)	34.29 (1.350)	54.94 (2.163)	77.80 (3.063)	97.74 (3.848)
871A-S2057	20.57 (0.810)	5.46 (0.215)	11.18 (0.440)	31.80 (1.252)	52.45 (2.065)	75.31 (2.965)	95.25 (3.750)
871A-S2380	23.80 (0.937)	2.24 (0.088)	7.95 (0.313)	28.58 (1.125)	49.23 (1.938)	72.09 (2.838)	92.02 (3.623)

- Each spacer kit contains:
- (1) Spacer
  - (1) O-ring
  - (2) Appropriate length mounting bolts

### Dimensions—mm (inches)



L = Spacer height as indicated in Selection Guide above.