

# KT-75 SERIES

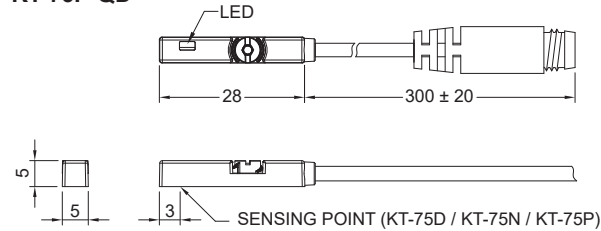


Patented



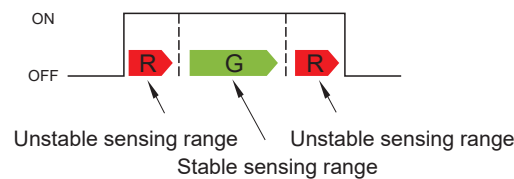
## Dimensions

KT-75D, KT-75N, KT-75P / KT-75D-QD, KT-75N-QD, KT-75P-QD



Unit : mm

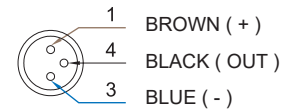
## SW Out



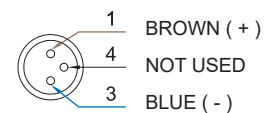
- Dual Color LED allow more precise positioning

## QD Pinout

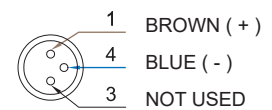
- 3 wire QD wiring



- 2 wire QD wiring



- 2 wire EQD wiring



## Specifications

MODEL	KT-75D	KT-75N	KT-75P
Connect Diagram			
Characteristics	Solid State Output, Normally Open		
Wiring Method	2-Wire Type	3-Wire Type	
Switching Logic	Solid State Output, Normally Open		
Sensor Type	-	NPN Current Sinking	PNP Current Sourcing
Operating Voltage	10 ~ 28 V DC		
Switching Current	80 mA max.		
Contact Rating *1	2 W max.		
Current Consumption	-	10 mA @ 24 V DC max.	
Voltage Drop	4 V max.	1.5 V max.	
Leakage Current	1 mA max.	0.05 mA max.	
Indicator	Red LED : unstable sensing range ; Green LED : stable sensing range		
Cable	ø2.8, 2C, PUR	ø2.8, 3C, PUR	
Operating Frequency	1000 Hz		
Magnet Requirement *2	85 Gauss		
Temperature Range	-10 ~ 60 °C		
Shock *3	50 G		
Vibration *4	9 G		
Enclosure Classification	IEC 60529 IP67		
Protection Circuit *5	2, 3, 4		

### NOTE:

\*1 : WARNING : Never exceed rating ( Watt = Voltage x Amperage ).  
Permanent damage to sensor will occur.

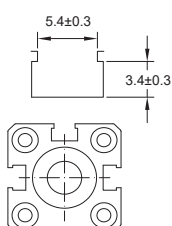
\*2 : Measuring standard target : ø15.5 × ø8 × 5t ( Anisotropy rubber magnet )

\*3 : Sin wave / X , Y , Z 3 directions / 3 times each direction / 11 ms each time.

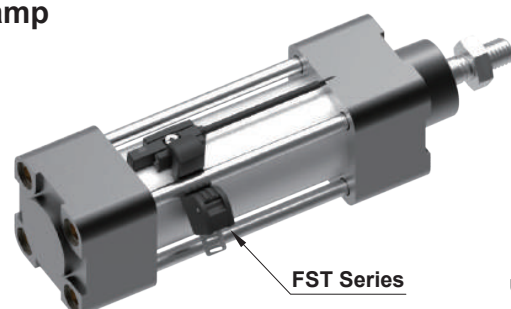
\*4 : Double amplitude 1.5 mm / 10 Hz ~ 55 Hz ~ 10 Hz ( Sweep 1 min ) / X , Y , Z 3 directions / 1 hour each time.

\*5 : 1 = None / 2 = Short-circuit / 3 = Power Source Reverse polarity / 4 = Surge Suppression

## Groove Dimensions

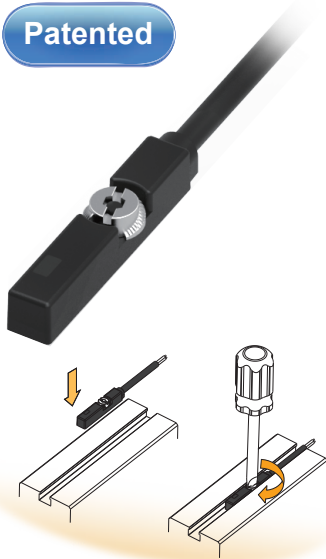


## Clamp



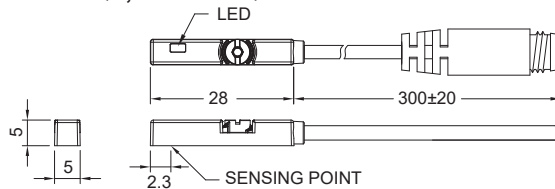
Unit : mm

# KT-65 SERIES

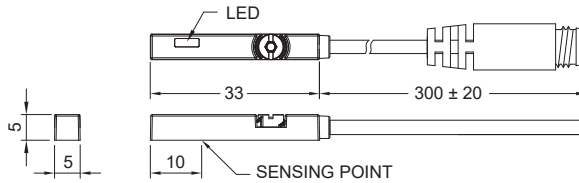


## Dimensions

KT-65D, KT-65DE, KT-65N, KT-65NE, KT-65P, KT-65PE /  
KT-65D-QD, KT-65DE-QD, KT-65N-QD, KT-65NE-QD,  
KT-65P-QD, KT-65PE-QD



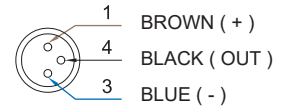
KT-65R, KT-65RP / KT-65R-QD, KT-65RP-QD



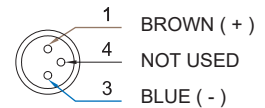
Unit : mm

## QD Pinout

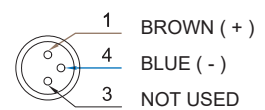
### 3 wire QD wiring



### 2 wire QD wiring



### 2 wire EQD wiring



## Specifications

MODEL	KT-65R	KT-65D	KT-65DE	KT-65N	KT-65NE	KT-65P	KT-65PE	KT-65RP	
<b>Connect Diagram</b>									
<b>Characteristics</b>	2-Wire Type			3-Wire Type					
<b>Wiring Method</b>	2-Wire Type			3-Wire Type					
<b>Switching Logic</b>	SPST, Normally Open	Solid State Output, Normally Open			SPST, Normally Open				
<b>Sensor Type</b>	Reed Switch	-			NPN Current Sinking		PNP Current Sourcing		
<b>Operating Voltage</b>	5 ~ 240 V DC / AC	10 ~ 28 V DC	5 ~ 30 V DC	10 ~ 28 V DC	5 ~ 30 V DC	10 ~ 28 V DC	5 ~ 30 V DC	10 ~ 30 V DC / AC	
<b>Switching Current</b>	100 mA max.	50 mA max.			200 mA max.			500 mA max.	
<b>Contact Rating *1</b>	10 W max.	1.5 W max.			5.5 W max.	6 W max.	5.5 W max.	6 W max.	10 W max.
<b>Current Consumption</b>	-			10 mA @ 24 V DC max.	6 mA @ 24 V DC max.	10 mA @ 24 V DC max.	6 mA @ 24 V DC max.	10 mA @ 24 V DC max.	
<b>Voltage Drop</b>	3.0 V max.	3.5 V max.	3.7 V max.	1.5 V max.	0.5 V @ 200 mA max.	1.5 V max.	0.5 V @ 200 mA max.	0.1 V @ 100 mA max.	
<b>Leakage Current</b>	-	0.8 mA max.	0.1 mA (40 uA) max.	0.05 mA max.	0.01 mA max.	0.05 mA max.	0.01 mA max.	-	
<b>Indicator</b>	Red LED				Yellow LED				
<b>Cable</b>	ø2.8, 2C, PUR			ø2.8, 3C, PUR					
<b>Operating Frequency</b>	200 Hz	1000 Hz max.			200 Hz				
<b>Magnet Requirement *2</b>	75 Gauss	50 Gauss	40 ~ 1000 Gauss	50 Gauss	40 ~ 1000 Gauss	50 Gauss	40 ~ 1000 Gauss	65 Gauss	
<b>Temperature Range</b>	-10 ~ 70 °C								
<b>Shock *3</b>	30 G	50 G			30 G				
<b>Vibration *4</b>	9 G								
<b>Enclosure Classification</b>	IEC 60529 IP67								
<b>Protection Circuit *5</b>	1	2, 4	3, 4	2, 3, 4	3, 4	2, 3, 4	3, 4	1	

### NOTE:

\*1 : WARNING : Never exceed rating ( Watt = Voltage x Amperage ).  
Permanent damage to sensor will occur.

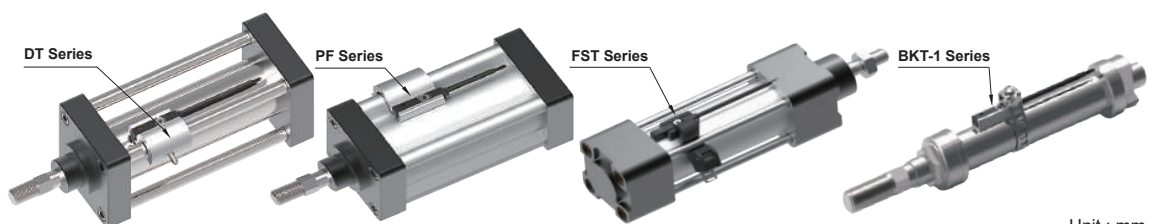
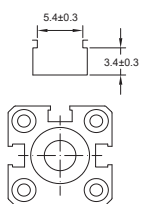
\*2 : Measuring standard target : ø15.5 × ø8 × 5t ( Anisotropy rubber magnet )

\*3 : Sin wave / X , Y , Z 3 directions / 3 times each direction / 11 ms each time.

\*4 : Double amplitude 1.5 mm / 10 Hz ~ 55 Hz ~ 10 Hz ( Sweep 1 min ) / X , Y , Z 3 directions / 1 hour each time.

\*5 : 1 = None / 2 = Short-circuit / 3 = Power Source Reverse polarity / 4 = Surge Suppression

## Groove Dimensions | Clamp / Bracket



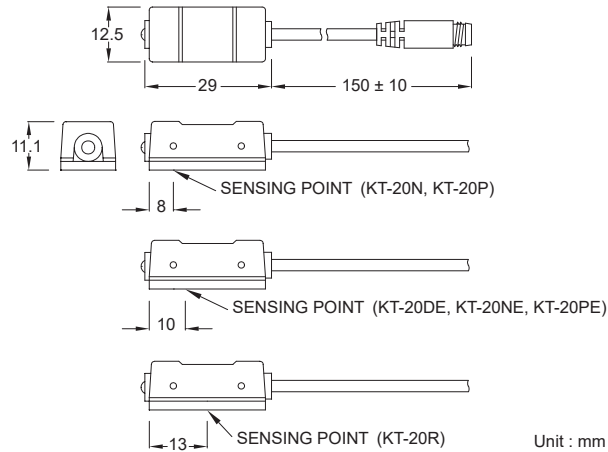
Unit : mm

# KT-20 SERIES



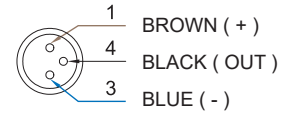
## Dimensions

KT-20R, KT-20DE, KT-20N, KT-20NE, KT-20P, KT-20PE /  
KT-20R-QD, KT-20DE-QD, KT-20N-QD, KT-20NE-QD,  
KT-20P-QD, KT-20PE-QD

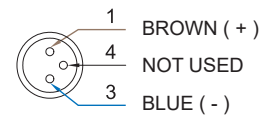


## QD Pinout

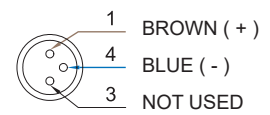
### 3 wire QD wiring



### 2 wire QD wiring



### 2 wire EQD wiring



## Specifications

MODEL	KT-20R	KT-20DE	KT-20N	KT-20NE	KT-20P	KT-20PE
Connect Diagram						
Characteristics	2-Wire type		3-Wire type			
Wiring Method	2-Wire type		3-Wire type			
Switching Logic	SPST, Normally Open	Solid State Output, Normally Open				
Sensor Type	Reed Switch	-	NPN Current Sinking		PNP Current Sourcing	
Operating Voltage	5 ~ 240 V DC / AC		5 ~ 30 V DC			
Switching Current	100 mA max.	50 mA max.	200 mA max.			
Contact Rating *1	10 W max.	1.5 W max.	6 W max.			
Current Consumption	-		15 mA @ 24 V DC max.	6 mA @ 24 V DC max.	15 mA @ 24 V DC max.	6 mA @ 24 V DC max.
Voltage Drop	3.5 V max.	3.7 V max.	1.5 V max.	0.5 V max.	1.5 V max.	0.5 V max.
Leakage Current	-	0.1 mA (40 uA) max.	0.01 mA max.			
Indicator	Green LED	Red LED			Green LED	
Cable	ø4, 2C, PVC		ø4, 3C, PVC			
Operating Frequency	200 Hz	1000 Hz max.				
Magnet Requirement *2	80 Gauss	50 ~ 1000 Gauss	70 Gauss	50 ~ 1000 Gauss	70 Gauss	50 ~ 1000 Gauss
Temperature Range	-10 ~ 70 °C					
Shock *3	30 G	50 G				
Vibration *4	9 G					
Enclosure Classification	IEC 60529 IP67					
Protection Circuit *5	1	3, 4	2, 3, 4	3, 4	2, 3, 4	3, 4

### NOTE:

\*1 : WARNING : Never exceed rating ( Watt = Voltage x Amperage ).  
Permanent damage to sensor will occur.

\*2 : Measuring standard target : ø15.5 × ø8 × 5t ( Anisotropy rubber magnet )

\*3 : Sin wave / X , Y , Z 3 directions / 3 times each direction / 11 ms each time.

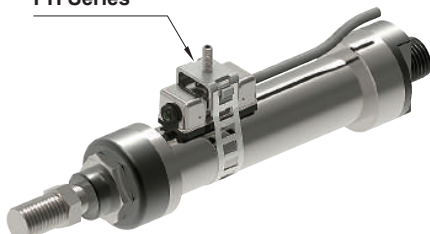
\*4 : Double amplitude 1.5 mm / 10 Hz ~ 55 Hz ~ 10 Hz ( Sweep 1 min ) / X , Y , Z 3 directions / 1 hour each time.

\*5 : 1 = None / 2 = Short-circuit / 3 = Power Source Reverse polarity / 4 = Surge Suppression

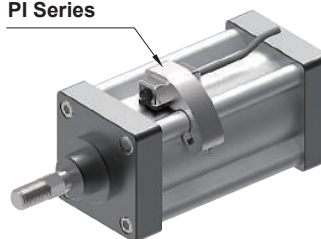
## Clamps / Bracket

KT-20 & KT-21 series can be applied to many kind of cylinders

PH Series



PI Series

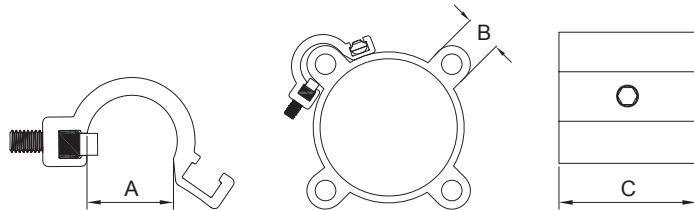
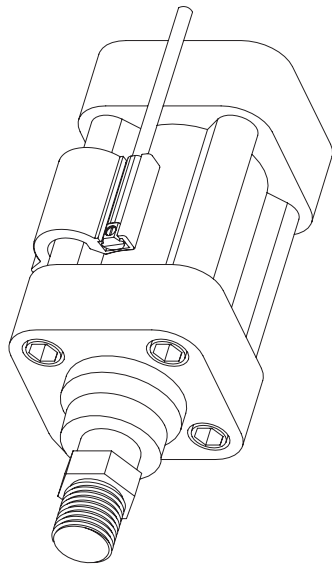


# BRACKET SERIES



## PF Series

Bracket is designed for mounting KT-32 & KT-40 & KT-50 & KT-65 & KT-75 series sensor on ISO profile cylinder.

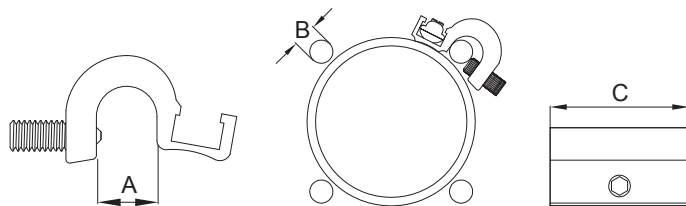
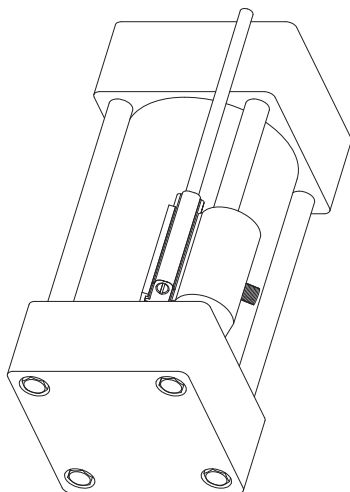


MODEL	DIM.	A	B	C	Remark
PF-1		12.1	10.4	25	Ø 32 ~ Ø 40
PF-2		15.9	13.5	25	Ø 50 ~ Ø 63
PF-3		16.3	15	25	Ø 80
PF-4		17.9	16	25	Ø 100
PF-5		19.7	18.7	25	Ø 125

Unit : mm

## DT Series

Bracket is designed for mounting KT-32 & KT-40 & KT-50 & KT-65 & KT-75 series sensor on Tie-Rod cylinder.



MODEL	DIM.	A	B	C
DT-1		7.9	Ø 4 ~ Ø 6	25
DT-2		10.4	Ø 8 ~ Ø 10	25
DT-3		15.1	Ø 12 ~ Ø 14	25
DT-4		20.6	Ø 16	25
DT-5		24.9	Ø 20 ~ Ø 24	30

Unit : mm

# CLAMP SERIES



## FST

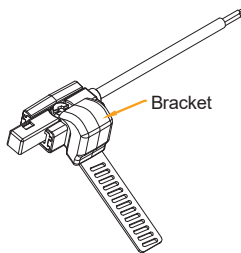
FST is designed for KT-32 & KT-40 & KT-50 & KT-65 & KT-75 series sensor on Tie-Rod cylinder.



### How to mount

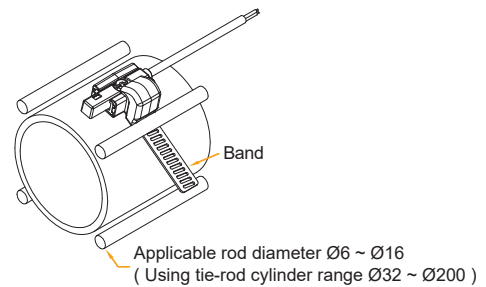
#### 1 Step 1

Fix sensor on bracket with 2mm hexagon wrench or flathead screwdriver.



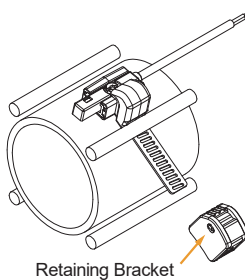
#### 2 Step 2

Insert the band between cylinder tube and Tie-Rod.



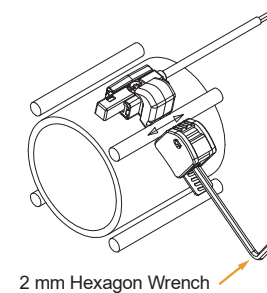
#### 3 Step 3

Slide the retaining bracket onto the band.



#### 4 Step 4

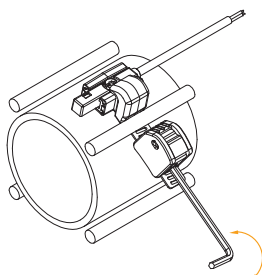
Adjust by moving bracket to most ideal sensing position and tighten screw. ( Torque : 5 ~ 7 kgs ).



### How to dismount

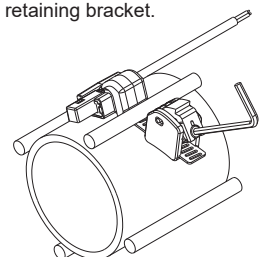
#### 1 Step 1

Use 2 mm hexagon wrench to release the screw for 2 ~ 3 turns.



#### 2 Step 2

Use 2 mm hexagon wrench to lift up the screw cap to remove the retaining bracket.



### BKT-1

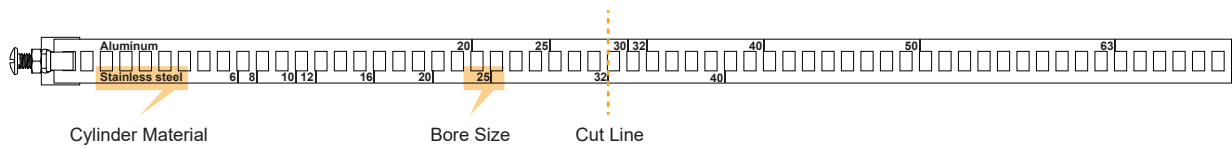
BKT-1 is designed for mounting KT-65 & KT-75 series sensor on round cylinder.



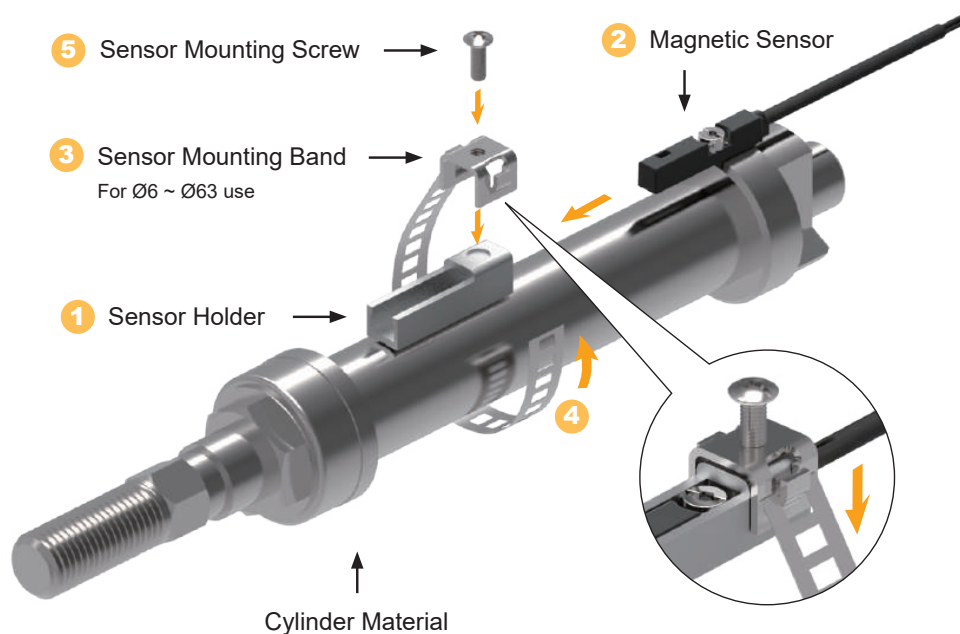
### How To Mount

**Example :** Use with  $\varnothing 32$  stainless body cylinder.

Refer to the clamp marking "Stainless steel 32", and cut off the excessive portion.



### Installation Steps



Unit : mm

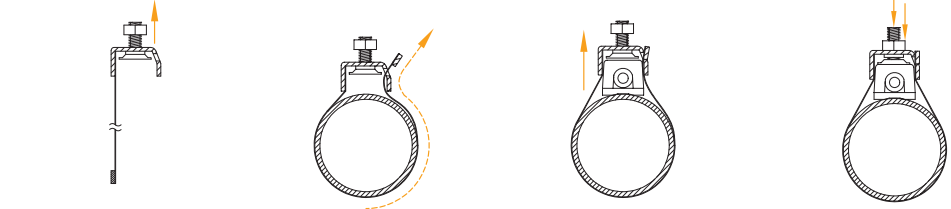
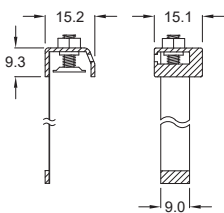
# CLAMP SERIES

## Magnetic Sensor



### PN Series

Clamp is designed for mounting KT-20 & KT-21 series sensor on round cylinder.



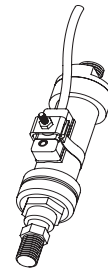
#### How To Mount

- 1 Step 1**  
Loosen screw & nut.
- 2 Step 2**  
Wrap the band around the cylinder & put the apex through the fastening hole.
- 3 Step 3**  
Pull up mounting head & place sensor under the mounting head.
- 4 Step 4**  
Swivel set screw to tighten band and fixing sensor. Finally swivel nut for steadying.

#### Cylinder Chart

Model	Bore Size	Barrel Material	Model	Bore Size	Barrel Material
PN-A16	Ø16	Aluminum	PN-S10	Ø10	Stainless
PN-A20	Ø20	Aluminum	PN-S12	Ø12	Stainless
PN-A25	Ø25	Aluminum	PN-S16	Ø16	Stainless
PN-A30	Ø30	Aluminum	PN-S20	Ø20	Stainless
PN-A32	Ø32	Aluminum	PN-S25	Ø25	Stainless
PN-A40	Ø40	Aluminum	PN-S32	Ø32	Stainless
PN-A50	Ø50	Aluminum	PN-S40	Ø40	Stainless
PN-A63	Ø63	Aluminum			

Unit : mm



**P N - S 2 0**

#### Barrel Material

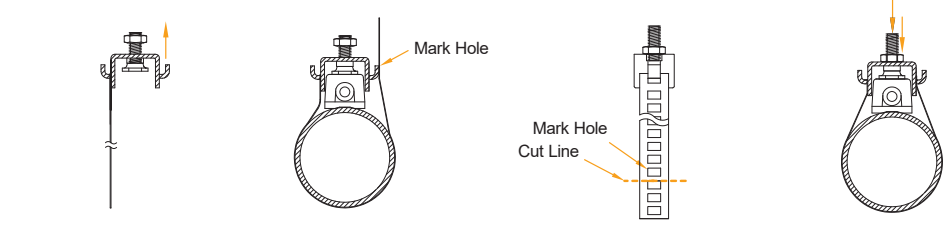
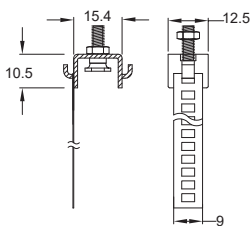
S : Stainless steel  
A : Aluminum alloy

#### Bore Size

10 : Ø10 round cylinder  
12 : Ø12 round cylinder  
⋮  
40 : Ø40 round cylinder

### PH Series

Clamp is designed for mounting KT-20 & KT-21 series sensor on round cylinder.



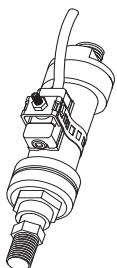
#### How To Mount

- 1 Step 1**  
Loosen screw & nut.
- 2 Step 2**  
Place sensor & wrap the band around the cylinder. Position the hook with the nearest hole on the band and mark the hole with a permanent marker.
- 3 Step 3**  
Remove mounting assembly. Cut the band at the nearest edge of next hole. (the one that's further away from the mounting head).
- 4 Step 4**  
Re-place the sensor & mounting assembly. Wrap the band & put the chosen hole on hook. Position the switch and tighten. Finally swivel nut for steadying.

**P H - 1**

#### Band No.

1 : For Ø6 ~ Ø63 round cylinder use.  
2 : For Ø6 ~ Ø125 round cylinder use.



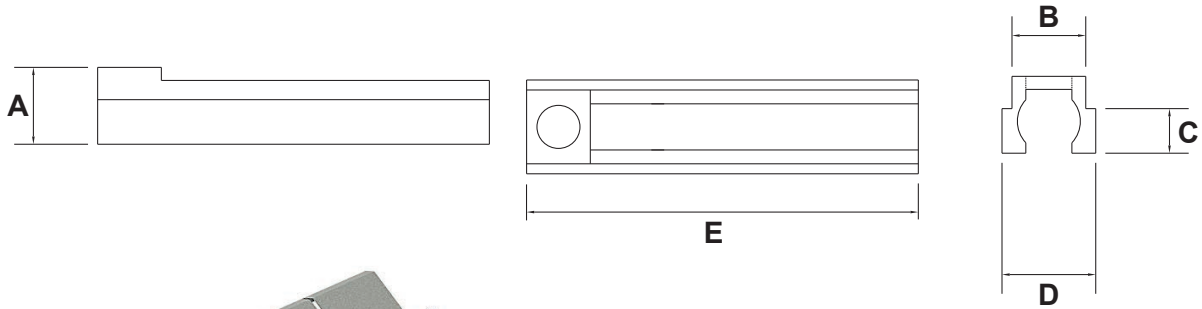
# BRACKET SERIES



## PB Series

PB-01 & PB-03 bracket is designed for mounting KT-07 & KT-16 & KT-1001D series sensor on T-slot cylinder.  
 PB-12 bracket is designed for mounting KT-07 & KT-16 & KT-36 & KT-37 & KT-38 & KT-77 & KT-1001D series sensor on T-slot cylinder.

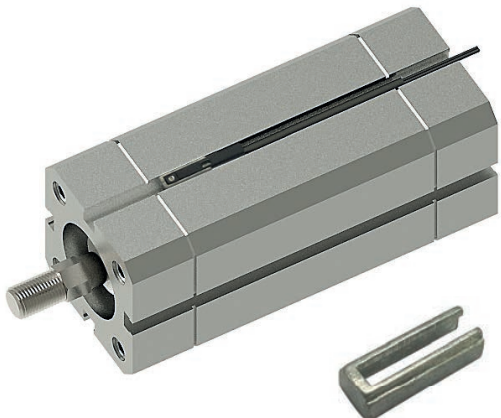
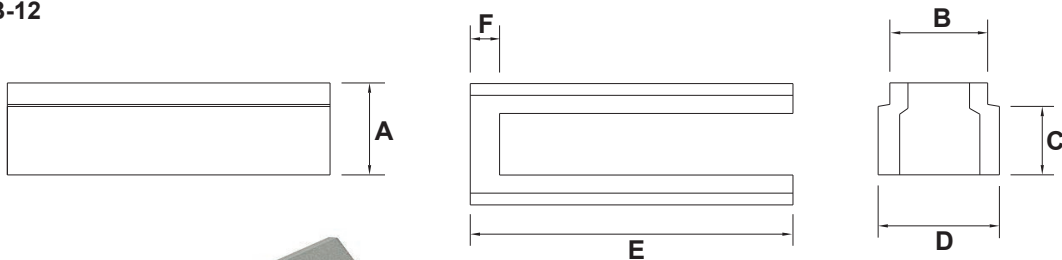
### ■ PB-01 & PB-03



MODEL	DIM.	A	B	C	D	E	Groove Dimensions
PB-01		5.0	4.8	2.9	6.1	25.5	
PB-03		5.0	4.8	3.8	6.1	25.5	

Unit : mm

### ■ PB-12



MODEL	DIM.	A	B	C	D	E	F	Groove Dimensions
PB-12		4.7	5.0	3.5	6.2	16.5	1.5	

Unit : mm