

Electroformed Probe Pins XP3B

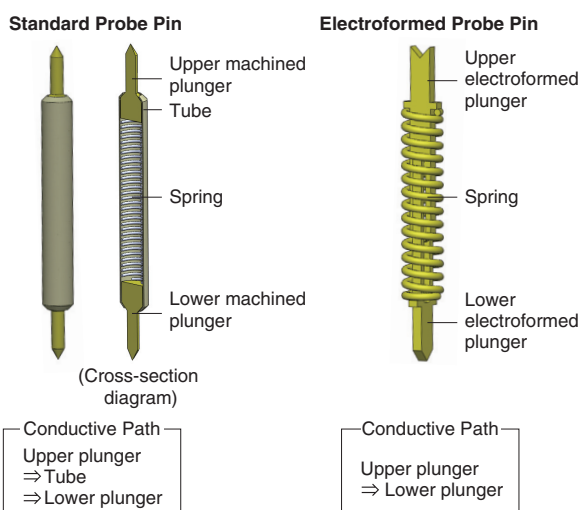
Highly Reliable Electroformed Probe Pins. Outer spring type.

- Plunger structure to ensure stable contact.
- High durability, due to smooth end surfaces, is achieved with electroforming.

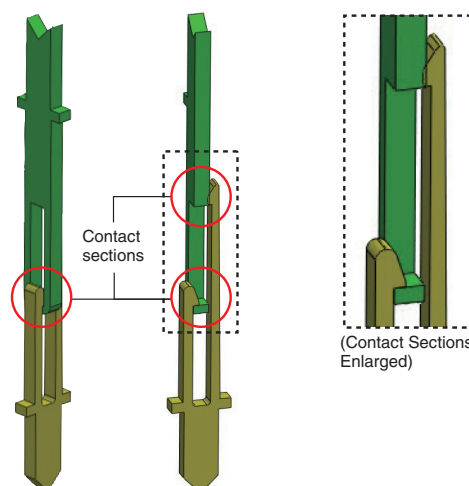


Features

■ Plunger structure to ensure stable contact

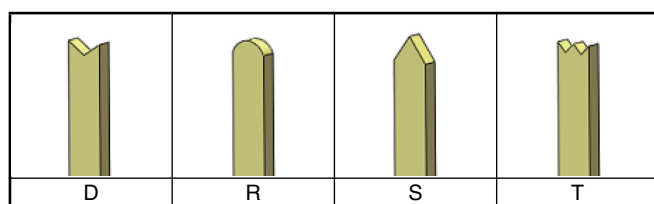


■ Stable contact achieved with structure that ensures constant plunger contact.

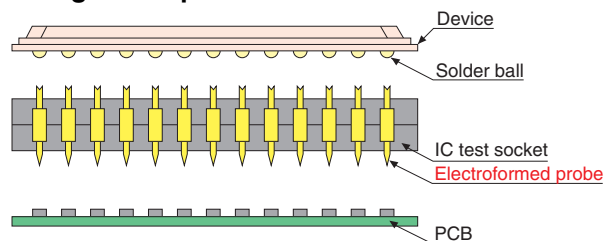


■ Plunger Tip Shapes

Plunger tip shapes other than those shown below can also be manufactured.

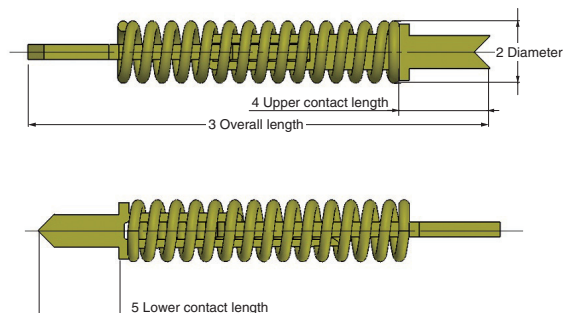


■ Usage Example



Model Number Legend

XP3B-□□□□-□□□□-□□-□/□
1 2 3 4 5 6 7 8



1	2		3		4		5		6		7		8	
Series	Diameter		Overall length		Upper contact length		Lower contact length		Plating specification		Upper contact shape		Lower contact shape	
XP3B	38	0.38 dia	29	2.85 mm	50	0.5 mm	50	0.5 mm	1	Gold	D		D	
	30	0.30 dia									R		R	
	23	0.23 dia									S		S	
	20	0.20 dia	23	2.3 mm							T		T	

Ratings and Specifications

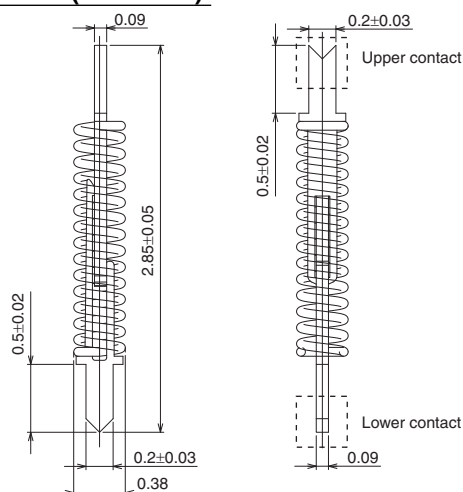
Diameter	0.38 dia.	0.30 dia.	0.23 dia.	0.20 dia
Model	XP3B-38□□-□□□□-□-□/□	XP3B-30□□-□□□□-□-□/□	XP3B-23□□-□□□□-□-□/□	XP3B-20□□-□□□□-□-□/□
Rated current	2A			
Contact force	30 gf min.	25 gf min.	10 gf min.	
Stroke	0.5 mm		0.4 mm	0.35 mm
Contact resistance	50 mΩ	60 mΩ	80 mΩ	
Durability	1,000,000 operations, min.			

Materials and Finish

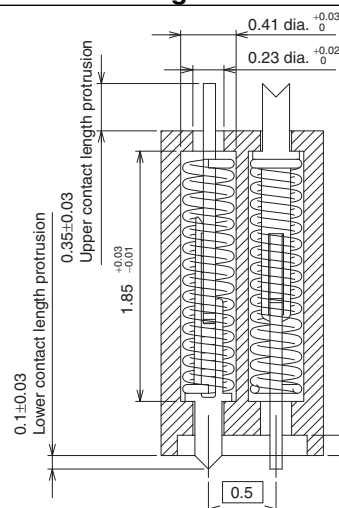
Plunger	Nickel alloy / gold plating
Spring	SWP / gold plating.

XP3B-38 0.38 Diameter for 0.5-mm Pitch

Dimensions (Unit: mm)



Recommended Mounting Dimensions (Unit: mm)

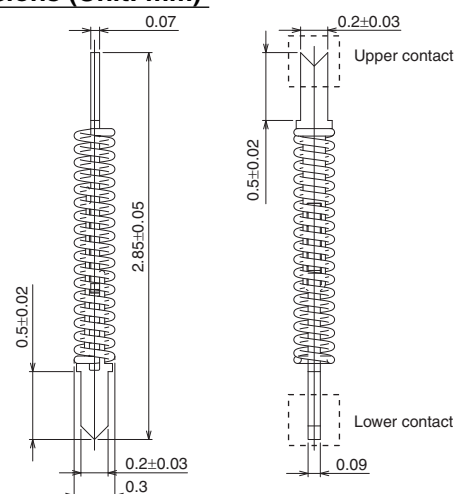


Ordering Information - Standard Models

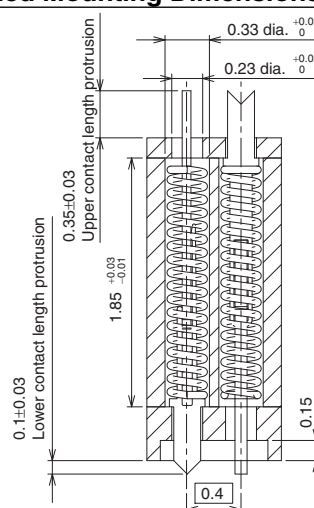
Upper contact shape		Lower contact shape		Model
D		D		XP3B-3829-5050-1-D/D
		R		XP3B-3829-5050-1-D/R
		S		XP3B-3829-5050-1-D/S
		T		XP3B-3829-5050-1-D/T
R		D		XP3B-3829-5050-1-R/D
		R		XP3B-3829-5050-1-R/R
		S		XP3B-3829-5050-1-R/S
		T		XP3B-3829-5050-1-R/T
S		D		XP3B-3829-5050-1-S/D
		R		XP3B-3829-5050-1-S/R
		S		XP3B-3829-5050-1-S/S
		T		XP3B-3829-5050-1-S/T
T		D		XP3B-3829-5050-1-T/D
		R		XP3B-3829-5050-1-T/R
		S		XP3B-3829-5050-1-T/S
		T		XP3B-3829-5050-1-T/T

XP3B-30 0.30 Diameter for 0.4-mm Pitch

Dimensions (Unit: mm)



Recommended Mounting Dimensions (Unit: mm)

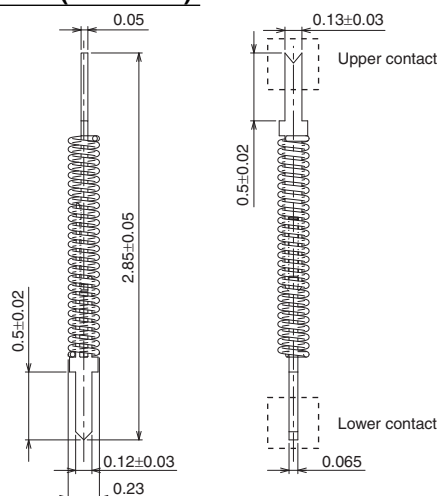


Ordering Information - Standard Models

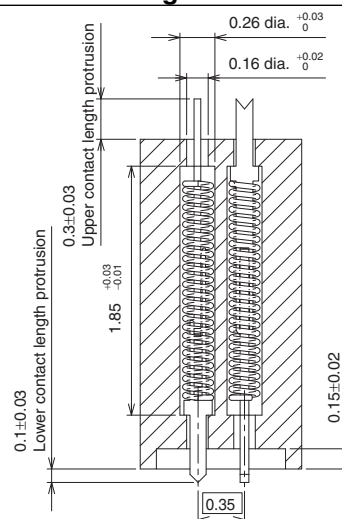
Upper contact shape		Lower contact shape		Model
D		D		XP3B-3029-5050-1-D/D
		R		XP3B-3029-5050-1-D/R
		S		XP3B-3029-5050-1-D/S
		T		XP3B-3029-5050-1-D/T
R		D		XP3B-3029-5050-1-R/D
		R		XP3B-3029-5050-1-R/R
		S		XP3B-3029-5050-1-R/S
		T		XP3B-3029-5050-1-R/T
S		D		XP3B-3029-5050-1-S/D
		R		XP3B-3029-5050-1-S/R
		S		XP3B-3029-5050-1-S/S
		T		XP3B-3029-5050-1-S/T
T		D		XP3B-3029-5050-1-T/D
		R		XP3B-3029-5050-1-T/R
		S		XP3B-3029-5050-1-T/S
		T		XP3B-3029-5050-1-T/T

XP3B-23 0.23 Diameter for 0.35-mm Pitch Available soon.

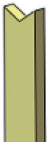
Dimensions (Unit: mm)



Recommended Mounting Dimensions (Unit: mm)

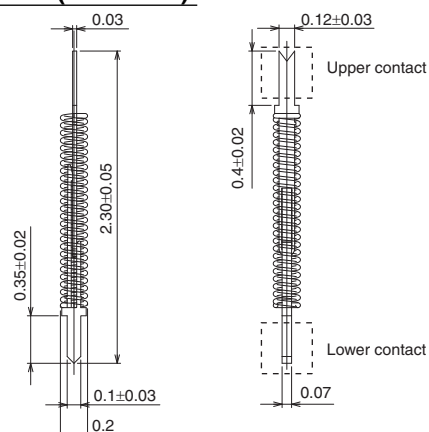


Ordering Information - Standard Models

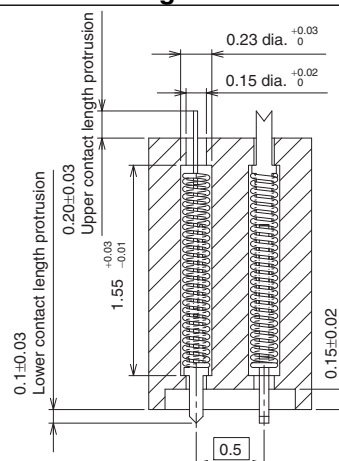
Upper contact shape		Lower contact shape		Model
D		D		XP3B-2329-5050-1-D/D
		R		XP3B-2329-5050-1-D/R
		S		XP3B-2329-5050-1-D/S
		T		XP3B-2329-5050-1-D/T
R		D		XP3B-2329-5050-1-R/D
		R		XP3B-2329-5050-1-R/R
		S		XP3B-2329-5050-1-R/S
		T		XP3B-2329-5050-1-R/T
S		D		XP3B-2329-5050-1-S/D
		R		XP3B-2329-5050-1-S/R
		S		XP3B-2329-5050-1-S/S
		T		XP3B-2329-5050-1-S/T
T		D		XP3B-2329-5050-1-T/D
		R		XP3B-2329-5050-1-T/R
		S		XP3B-2329-5050-1-T/S
		T		XP3B-2329-5050-1-T/T

XP3B-20 0.20 Diameter for 0.3-mm Pitch Available soon.

Dimensions (Unit: mm)



Recommended Mounting Dimensions (Unit: mm)



Ordering Information - Standard Models

Upper contact shape		Lower contact shape		Model
D		D		XP3B-2029-5050-1-D/D
		R		XP3B-2029-5050-1-D/R
		S		XP3B-2029-5050-1-D/S
		T		XP3B-2029-5050-1-D/T
R		D		XP3B-2029-5050-1-R/D
		R		XP3B-2029-5050-1-R/R
		S		XP3B-2029-5050-1-R/S
		T		XP3B-2029-5050-1-R/T
S		D		XP3B-2029-5050-1-S/D
		R		XP3B-2029-5050-1-S/R
		S		XP3B-2029-5050-1-S/S
		T		XP3B-2029-5050-1-S/T
T		D		XP3B-2029-5050-1-T/D
		R		XP3B-2029-5050-1-T/R
		S		XP3B-2029-5050-1-T/S
		T		XP3B-2029-5050-1-T/T

Precautions

■ Correct Use

General Environmental Conditions

Use the Probe Pins in an ambient atmosphere that does not contain dust, dirt, corrosive gas or oil so that the Probe Pins do not become contaminated.

Stroke Conditions

Apply a load to the Probe Pins only in the axial direction. Never apply a lateral load.

The life of the Probe Pins will be drastically reduced if the recommended stroke is exceeded.

Current Application Conditions.

Apply a current when the Probe Pins are stationary after they have come into contact with the target at the recommended stroke position.

If a current is applied during the stroke, at a position other than the recommended stroke, or when the Probe Pins are not in contact with the target, the life of the Probe Pins will be drastically reduced.

The catalog value of the carrying capacity may not be met due to Probe Pin deterioration or other factors. Allow sufficient leeway when you design the actual application.

Voltage Application Conditions

Apply a voltage when the Probe Pins are stationary after they have come into contact with the target at the recommended stroke position.

Do not apply a voltage when the Probe Pins are not in contact with the target. The Probe Pins will be damaged due to discharge immediately before they come into contact.

When a high voltage is applied to the contact probe, strictly observe the current and voltage application conditions. Also, take measures to prevent discharge or other large instantaneous current.

Carrying Capacity

The rated current that is given in the catalogs is the maximum continuous current for 1 minute under the above conditions (general environment, stroke, current application and voltage application).

Resistance

If a large current is applied, the resistance may increase due to deterioration of the contacts and internal components.

As the number of strokes increases, the resistance may increase due to deterioration of the contacts and internal components.

Durability

The durability specification that is given in the catalog is a guideline for the number of times that the Probe Pins can be used without problems at 10 mA.

Depending on the operating environment and conditions, the Probe Pins may need to be replaced sooner than given in the specifications due to increased resistance, reduced contact force or other factors. Replace the Probe Pins as required by the actual application.

Contact Force

If the current is increased, heat generated by the Probe Pins will reduce the contact force.

Recommended Mounting Hold Dimensions

The dimensions are reference values. Actual values will depend on the material and thickness of the resin plate.

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ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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06/14

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