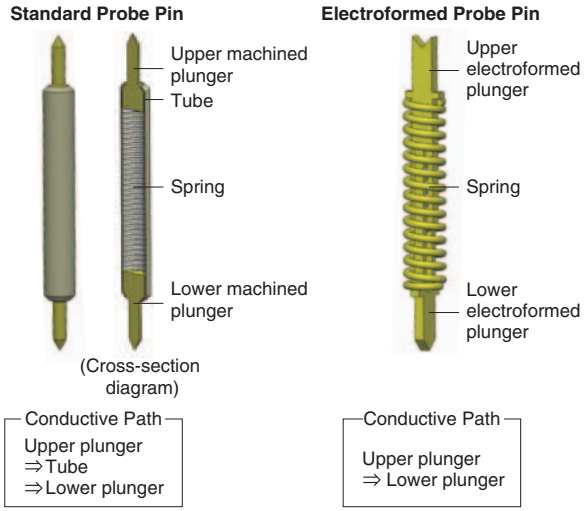
Electroformed Probe Pins
XP3B

Highly Reliable Electroformed Probe Pins. Outer spring type.

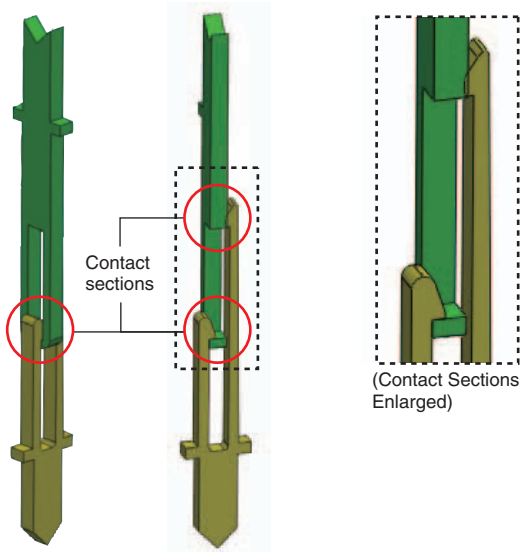
- Plunger structure to ensure stable contact.
- Highly durability due to the smooth end surfaces achieved with electroforming.

■Feature

●Plunger structure to ensure stable contact.

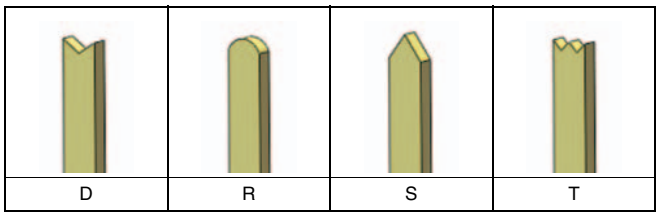


●Stable contact achieved with structure that ensures constant plunger contact.

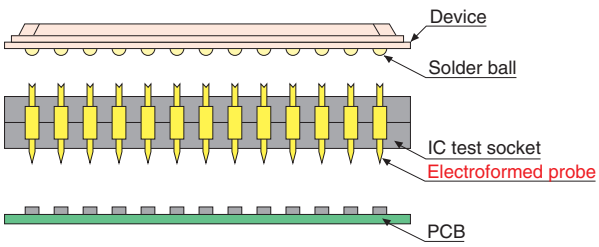


●Plunger Tip Shapes.

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

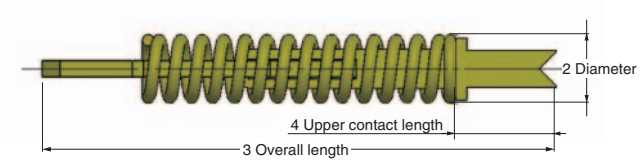


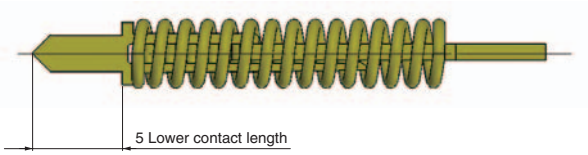
■Usage Example



XP3B

■Model Number List





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 Available soon.	0.23 dia.									S		S	
	20 Available soon.	0.20 dia.	23	2.3 mm							T		T	

■Ratings and Specifications

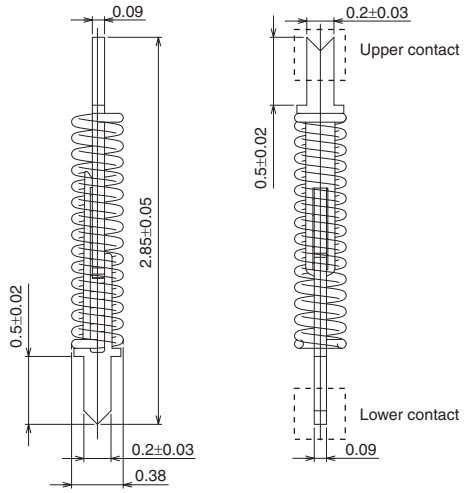
Diameter	0.38 dia.	0.30 dia.	0.23 dia.	0.20 dia.
Model	**XP3B-38**□□-□□□□-□-□/□	**XP3B-30**□□-□□□□-□-□/□	**XP3B-23**□□-□□□□-□-□/□	**XP3B-20**□□-□□□□-□-□/□
Rated current	2A			
Contact force	30 gf min.	25 gf min.	10 gf min.	
Stroke	0.5 mm	0.5 mm	0.4 mm	0.35 mm
Contact resistance	50 mΩ max.	60 mΩ max.	80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

■Materials and Finish

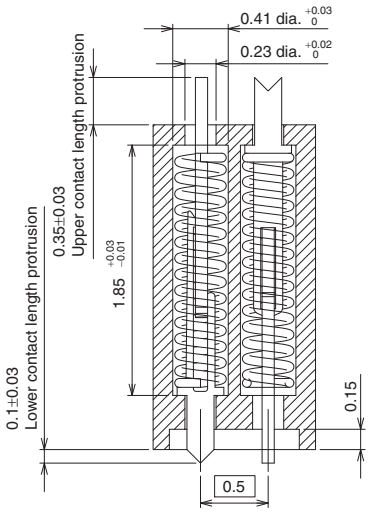
Plunger	Nickel alloy/gold plating
Spring	SWP/gold plating

XP3B-38 0.38 Diameter for 0.5-mm Pitch

■Dimensions (Unit: mm)



■Recommended Mounting Dimensions (Unit: mm)

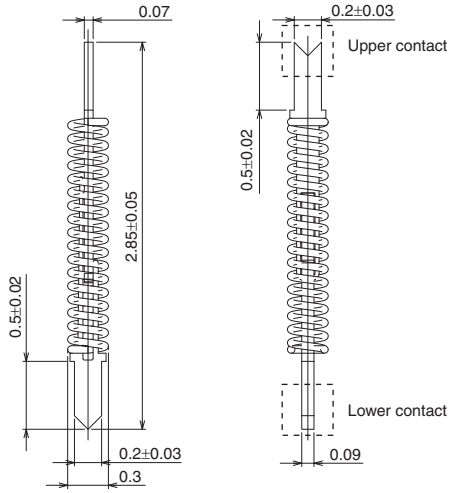


■Ordering Information

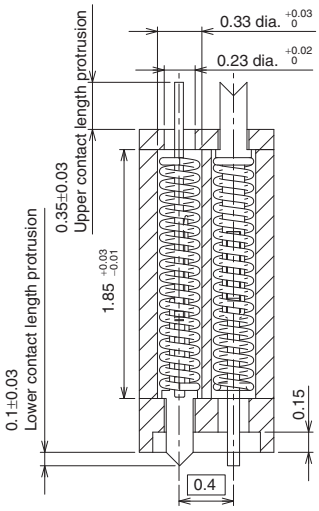
Upper contact shape		Lower contact shape		Model	Minimum ordering quantity (pieces)
D		D		XP3B-3829-5050-1-D/D	50
		R		XP3B-3829-5050-1-D/R	
		S		XP3B-3829-5050-1-D/S	
		T		XP3B-3829-5050-1-D/T	
R		D		XP3B-3829-5050-1-R/D	
		R		XP3B-3829-5050-1-R/R	
		S		XP3B-3829-5050-1-R/S	
		T		XP3B-3829-5050-1-R/T	
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)



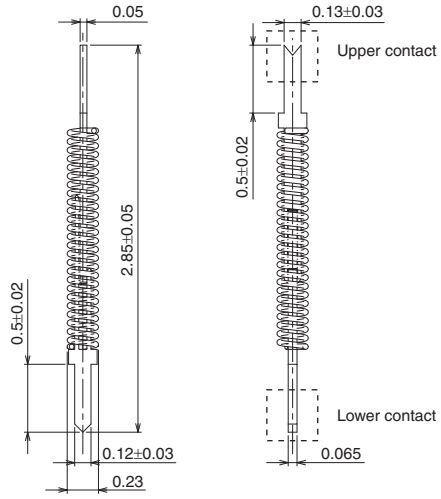
■Ordering Information

Upper contact shape		Lower contact shape		Model	Minimum ordering quantity (pieces)
D		D		**XP3B-3029-5050-1-D/D**	50
		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**	

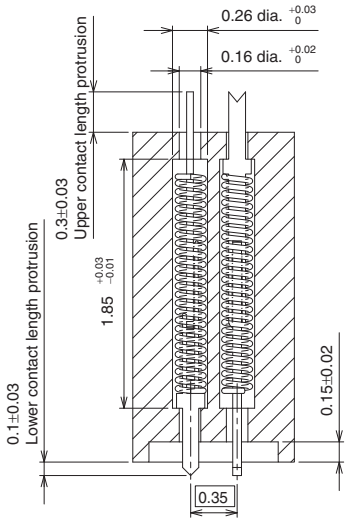
XP3B-23 0.23 Diameter for 0.35-mm Pitch

Available soon.

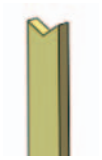
■Dimensions (Unit: mm)



■Recommended Mounting Dimensions (Unit: mm)



■Ordering Information (Available soon)

Upper contact shape		Lower contact shape		Model	Minimum ordering quantity (pieces)
D		D		XP3B-2329-5050-1-D/D	50
		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	
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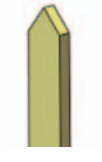
S		D		XP3B-2329-5050-1-S/D	
		R		XP3B-2329-5050-1-S/R	
		S		XP3B-2329-5050-1-S/S	
		T		XP3B-2329-5050-1-S/T	
T		D		XP3B-2329-5050-1-T/D	
		R		XP3B-2329-5050-1-T/R	
		S		XP3B-2329-5050-1-T/S	
		T		XP3B-2329-5050-1-T/T	

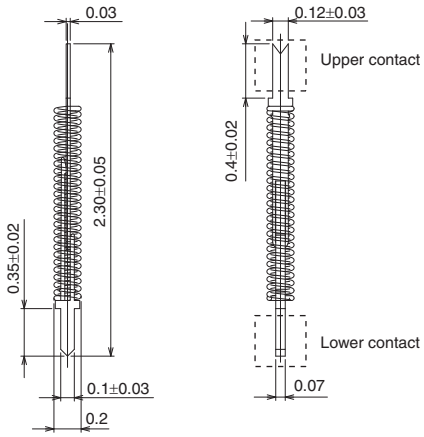
XP3B

XP3B-20 0.20 Diameter for 0.3-mm Pitch

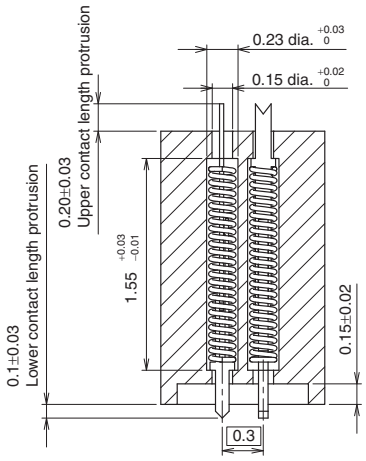
Available soon.

■Dimensions

(Unit: mm)

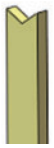


■Recommended Mounting Dimensions(Unit: mm)



■Ordering Information

(Available soon)

Upper contact shape		Lower contact shape		Model	Minimum ordering quantity (pieces)
D		D		**XP3B-2023-5050-1-D/D**	50
		R		**XP3B-2023-5050-1-D/R**	
		S		**XP3B-2023-5050-1-D/S**	
		T		**XP3B-2023-5050-1-D/T**	
R		D		**XP3B-2023-5050-1-R/D**	
		R		**XP3B-2023-5050-1-R/R**	
		S		**XP3B-2023-5050-1-R/S**	
		T		**XP3B-2023-5050-1-R/T**	
S		D		**XP3B-2023-5050-1-S/D**	
		R		**XP3B-2023-5050-1-S/R**	
		S		**XP3B-2023-5050-1-S/S**	
		T		**XP3B-2023-5050-1-S/T**	
T		D		**XP3B-2023-5050-1-T/D**	
		R		**XP3B-2023-5050-1-T/R**	
		S		**XP3B-2023-5050-1-T/S**	
		T		**XP3B-2023-5050-1-T/T**	

■Safety Precautions

Precautions for Correct Use

●General Environmental Conditions

(1) 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

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

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

●Current Application Conditions

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

(2) 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.

(3) 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

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

(2) 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.

(3) 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 currents.

●Carrying Capacity

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

●Resistance

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

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

●Durability

(1) 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.

(2) 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

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

●Recommended Mounting Dimensions

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

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Note: Do not use this document to operate the Unit.

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