


# Technical Specifications

## YGC939 Series Electrical Connectors

### • Product Overview

 <p><b>Application Scenario</b></p> <p>Suitable for electrical connections of electric vehicle air-conditioning compressors, PTCs, chargers, DCDCs, high-voltage boxes, etc.</p>	<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>✓ The product can achieve 360-degree full shielding;</li> <li>✓ The product can realize secondary interlocking and unlocking;</li> <li>✓ The product has a delayed high voltage interlocking function;</li> <li>✓ The key positions at both ends adopt 4 different combinations to realize the function of preventing wrong insertion;</li> <li>✓ The connection between the plug and the receptacle is straight-insertion locking;</li> <li>✓ Plugs and receptacle use terminal crimping.</li> </ul>
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### • Ordering Information

Ordering information (assembly)					
Key position	I		II	III	IV
Product Name	YGC939-EV-S2P plug		YGC939-EV-S2PB plug	YGC939-EV-S2PC plug	YGC939-EV-S2PD plug
Part No.	112010101848		112010102048	112010102053	112010102057
Product Name	YGC939-EV-P2R receptacle	YGC939-EV-P2RA receptacle	YGC939-EV-P2RB receptacle	YGC939-EV-P2RC receptacle	YGC939-EV-P2RD receptacle
Part No.	112020102083	112020102529	112020102282	112020102285	112020102286

Ordering Information (Purchase Separately)					
Corresponding plug&receptacle	Plug		Receptacle		
Product Name	YG939 power socket (2.5mm <sup>2</sup> )	YG939 power socket (4mm <sup>2</sup> )	YG939 power pin (2.5mm <sup>2</sup> )	YG939 power pin (4mm <sup>2</sup> )	YG939 signal socket (Choose one)
Part No.	501021400357	501021401213	501021400216	501021401255	501021600128 /501021401859
Wiring specifications	2.5mm <sup>2</sup> Φ5.8±0.3mm	4mm <sup>2</sup> (LV216) Φ 5.8 (0, -0.5) mm	2.5mm <sup>2</sup> Φ 3.5±0.2mm	4mm <sup>2</sup> (LV112) Φ 3.7 (0, -0.3) mm	0.5mm <sup>2</sup> Φ 1.5±0.2mm
Diagram (reference)					

### • Technical Data

Basic Information	
PIN distance	10.4mm
Number of cores	2pin
Cable specifications	Plug end: 2.5mm <sup>2</sup> / Φ 5.8±0.3mm 4mm <sup>2</sup> (LV216)/Φ 5.8 (0,-0.5)mm receptacle end: 2.5mm <sup>2</sup> / Φ3.5 ± 0.2mm 4mm <sup>2</sup> (LV112)/Φ 3.7 (0,-0.3)mm 0.5mm <sup>2</sup> /Φ1.5 ± 0.2mm
Outlet direction	180°

Electrical properties	
Rated voltage	800 V (power), 24 V (signal)
Rated current	16A (2.5mm <sup>2</sup> ), 20A (4mm <sup>2</sup> )
Insulation resistance	> 100MΩ (Test voltage: 1000VDC) (Normal)
Withstand voltage	3000 V (power), 1000 V (signal) (50Hz AC normal)
Contact resistance	≤5mΩ (power component), ≤10mΩ (signal component)
HVIL (Y/N)	Y
Shield (Y/N)	Y

Mechanical properties	
Mechanical life	≥50 times
Vibration level	LV214 LEVEL 2

Environmental resistance	
Operating temperature	-40°C ~ +125°C
Relative humidity	95% (at 40°C)
Salt spray level	96h
Protection level	IP67&IP6K9K (header plug-in)
Altitude requirements	≤4000m

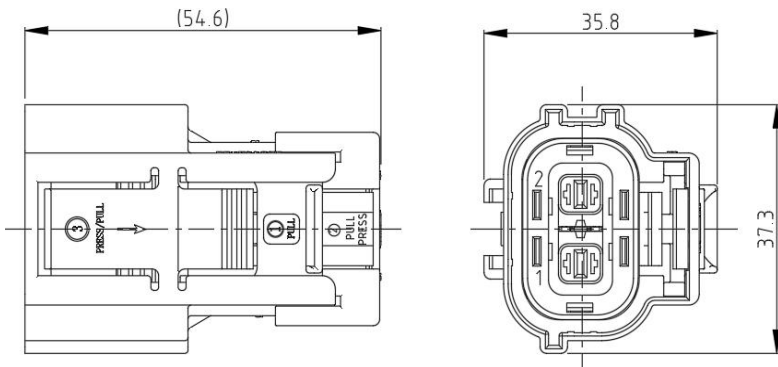
Material/Coating/Appearance	
See Parts Drawing	

Standards and Certification	
Flame retardant grade	UL94 V-0 (plastic), HB (rubber)
Environmental requirements	RoHS 2.0
Implementation Standards	QC/T 1067.1

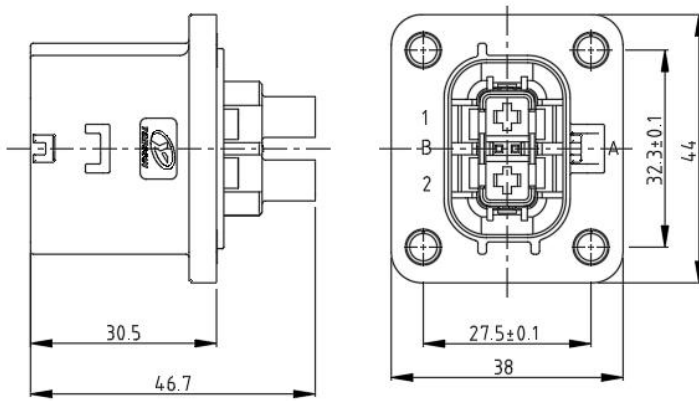
For other technical data, please refer to the DV/PV test report

• Dimensions

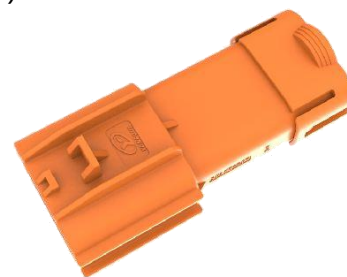
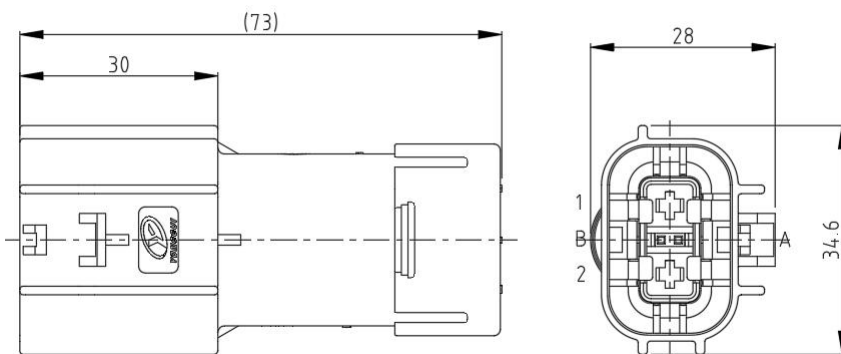
**YGC939-EV-S2P Series plug**(tolerance not specified:  $\pm 0.5$ )



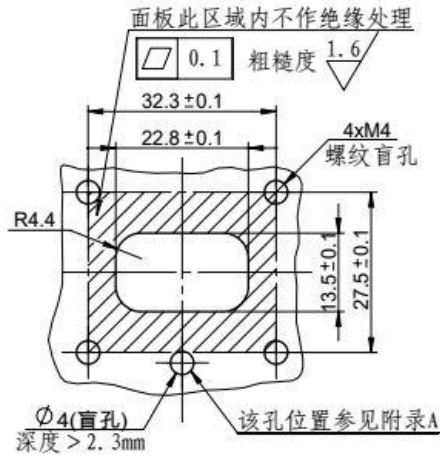
**YGC939-EV-P2R series receptacle**(tolerance not specified:  $\pm 0.5$ )



**YGC939-EV-P2RA receptacle shape** (Tolerance not specified:  $\pm 0.5$ )



**YGC939-EV-P2R series receptacle installation hole dimensions** (tolerance not specified:  $\pm 0.1$ )



**Appendix A**

Foolproof key model	Type I	Type II	Type III	Type IV
Connector Plug View				
Connector receptacle View				
receptacle installation foolproof hole location dimensions				

## • Installation Introduction

Special tools	
Removal tools	Power socket: GZ939-01-01-00 Removal tool Power pin: RTSCC-04 (2.8×0.8) removal tool Signal terminal: GZ939-02-03-00 disassembly tool
Needle feeding tool	/
Crimping tools	/
Other Tools	/

## • Store

Packaging and storage instructions	
Storage requirements	Contact parts (gold-plated, silver-plated) must be stored separately, kept neat, clean and ventilated. The storage environment should be controlled at a humidity of $\leq 60\%$ and a temperature of $5 \sim 30^{\circ}\text{C}$ . Reference shelf life 6 months
Transshipment requirements	The terminals should be protected from collision, contact with corrosive gases and liquids, and direct contact with hands during packaging, transportation, transfer, production, and assembly to ensure that the terminal contact surface is in good condition.