



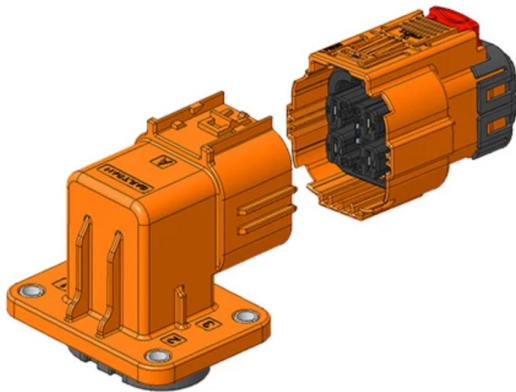
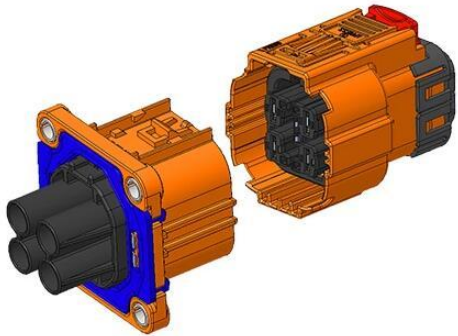
## Technical Datasheet

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## GC-SH1 4-POS Plastic HV Connector



## Product overview



# GC-SH1 4-Pole Plastic HV Connector

GC-SH1 high-voltage interlocking low-current plastic connector is suitable for electrical connections between motor controllers, PDU, all-in-one, PTC and other automotive equipment. The product adopts a plastic shell. In addition to functions such as high-voltage interlocking, secondary locking, multi-key error-proofing, shielding, and waterproofing, it also has functions such as delayed separation (segment unlocking) and plug terminal TPA.

## The main technical parameters:

- Model: GC-SH1
- Pole: 4 pos
- Wire cross section: 2.5mm<sup>2</sup>; 4mm<sup>2</sup>; 6mm<sup>2</sup>
- Rated current: 20A; 32A; 40A
- Rated voltage: 1000V DC
- Withstand voltage: 4000V AC
- Operating temperature: -40°C~140°C
- Insulation resistance: 5000MΩ
- Protection level: IP68, IP69K
- Socket type: 90° bent socket, 180°
- Salt spray: 96h
- HVIL: YES
- Mating cycles: 100 times

# GC-SH1 4-Pole HVIL Plastic Connector

Electrical Performance	Rated voltage	1000V
	Withstand voltage	4000V
	Rated current	20A(2.5mm <sup>2</sup> ), 32A(4mm <sup>2</sup> ), 40A(6mm <sup>2</sup> )
	Impulse current	40A, 2min(2.5mm <sup>2</sup> )、64A, 2min(4mm <sup>2</sup> )、80A, 2min(6mm <sup>2</sup> )
Mechanical Properties	Insulation resistance	5000MΩ
	Pole	4 Pos.
	Mating cycles	100Times
	Cross sections	2.5mm <sup>2</sup> /4mm <sup>2</sup> /6mm <sup>2</sup>
Raw Material	Vibration class acc. To	USCARV2
	Shell	Nylon
	Shielding	Copper alloy
	Insulator	Nylon
Environmental Performance	Sealing	Rubber material
	Operating temperature	-40℃~140℃
	Protection Grade	IP68、IP69K
	Salt Spray	96h

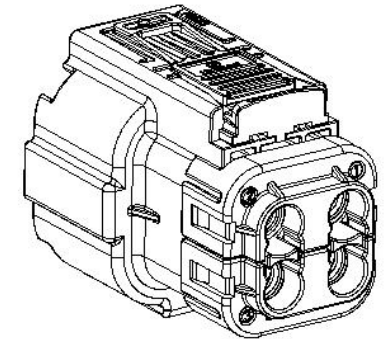
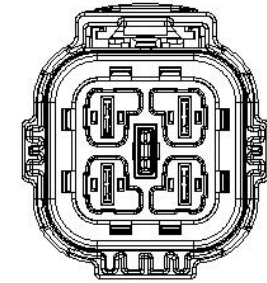
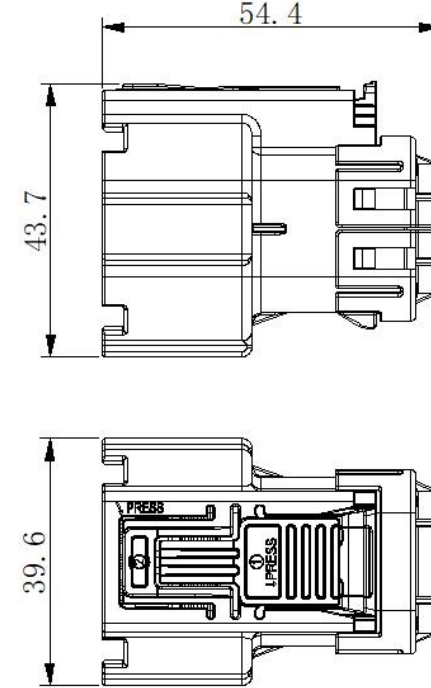
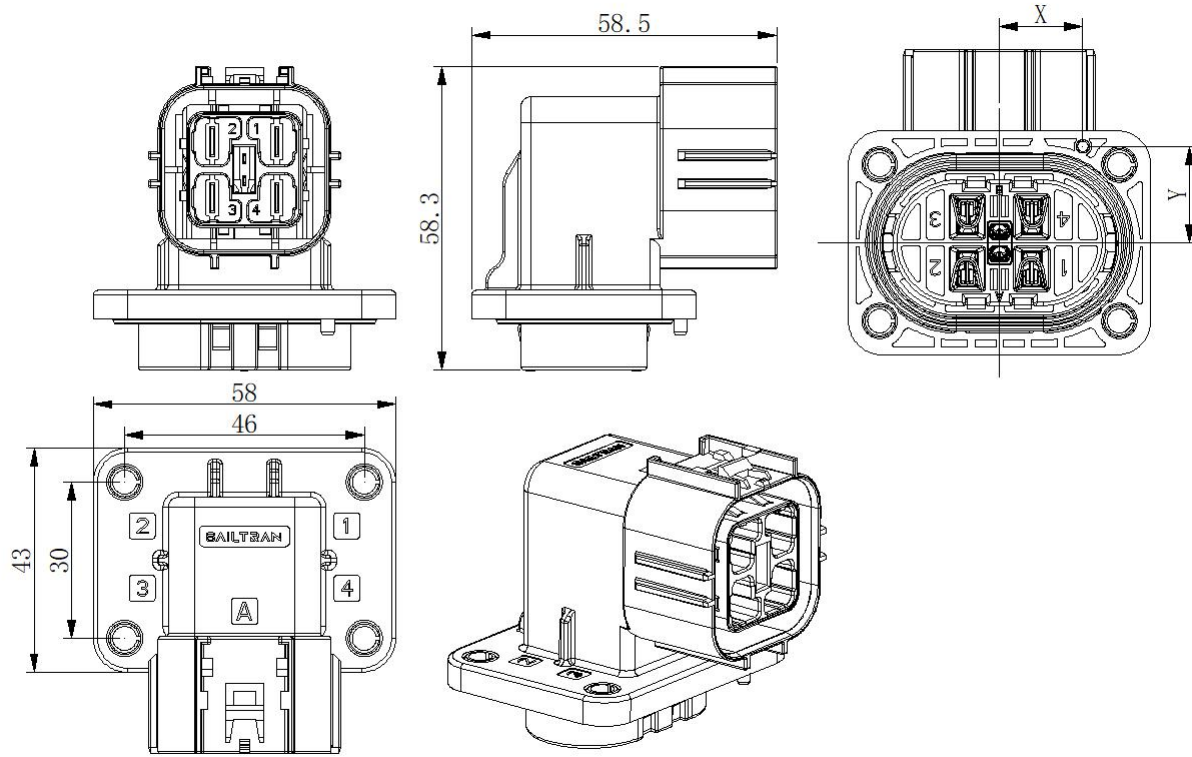


# MODEL NUMBER DESIGNATION

Series name	GC-SH1	GC-SH1	-	4	T	P	H	-	4		W		A	-01			
Function	Plastic HVIL Connector																
Separator	-																
Pole	4 POS																
Type	T-Plug; Z-Socket																
Shielding	Default: none; P-Shielding																
HVIL	Default: none; H-HVIL																
Separator	-																
Cable cross section	2.5/4/6 mm2																
Cable type	Default: Single-core cable																
Cable outlet direction	Default: Straight; W-Bent																
Socket type	Default: Plug/Square Socket U:Wire shedding socket																
Keys	A/B/C/D																
Remodel	Default / Remodel: 01/Remodel: 02																



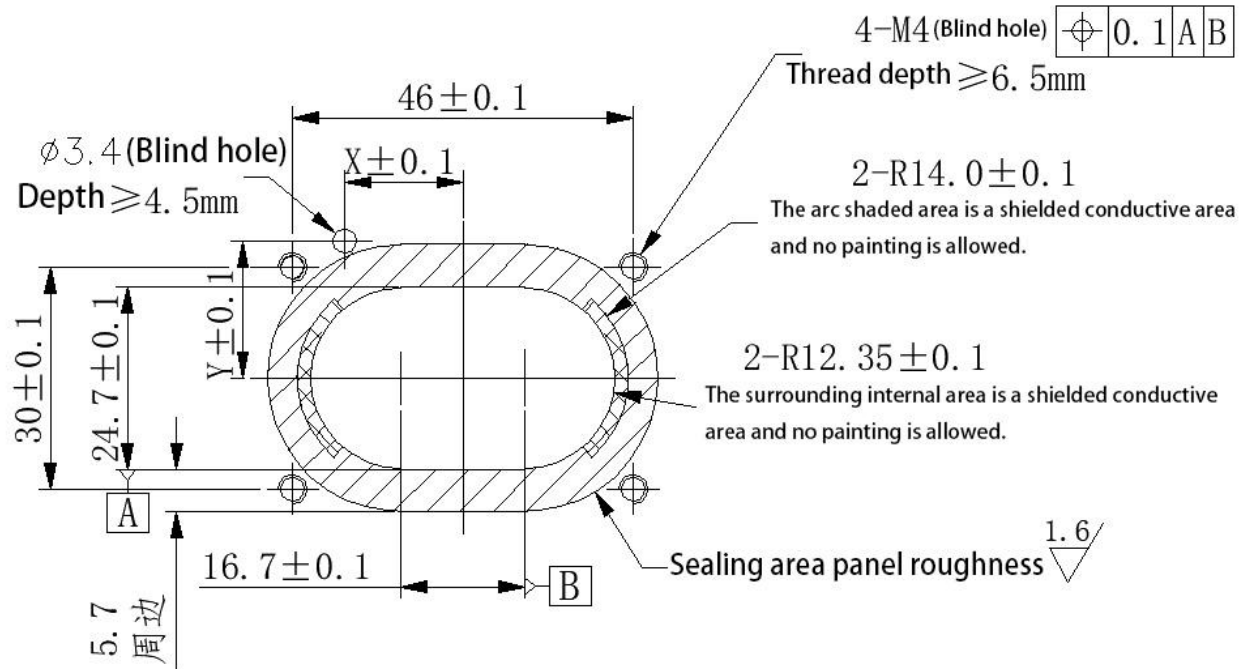
## GC-SH1 4-Pole HVIL Plastic Connector



Dimension



## GC-SH1 4-Pole HVIL Plastic Connector



Note: The surface flatness of the user's installation panel shall not be greater than 0.1mm, and the roughness Ra shall not be greater than 3.2.  
Use M4 screws and the recommended tightening torque is  $2.7 \pm 0.3\text{N}\cdot\text{m}$ .

Hole Size  
(installation panel thickness  $\geq 2\text{mm}$ )

MODEL	X	Y
SH1-4ZPH-6WA	16	18.5
SH1-4ZPH-6WB	7.5	18.5
SH1-4ZPH-4WA	16	18.5
SH1-4ZPH-4WB	7.5	18.5
SH1-4ZPH-2.5WA	16	18.5
SH1-4ZPH-2.5WB	7.5	18.5

Recommended Installation Panel Size and Model Correspondence Table



# Custom Solution Provider

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Shenzhen, China

Email Address:

ec@guchen.com

Website: [www.guchen-connector.com](http://www.guchen-connector.com)