



# EXCEL | MATE

## High Voltage Safety Lock

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# PRODUCT INTRODUCTION



When high-performance and increased safety are required in xEV, Amphenol PCD's **Excel|Mate** connectors fulfil the challenge.

HVSL Series is designed to meet AK standards for various xEV applications, including power and signal interconnect solutions. Different versions are available, from 1 position to 4 positions and a rated current from 23A to 350A.

Product	HVSL1200	HVSL1000	HVSL800	HVSL800	HVSL600	HVSL600	HVSL630	HVSL633	HVSL280	HVSL282	HVSL362	HVSL364
Position	2	1, 2, 3	2, 3	2	2, 3	1	2	3	3	2	2	4
Rated Voltage	1000V	1000V	1000V	1000V	1000V	800V	800V	800V	800V	800V	800V	800V
Rated Current	350A	250A	180A	180A	120A	120A	40A	40A	23A	23A	60A	46A
HVIL	√	√	√	√	√	√	√	√	√	√	√	√
Shielding	√	√	√	√	√	√	√	√	√	√	√	√
Shell	Plastic	Plastic	Plastic	Metal	Metal	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
IP67,IP6K9K	√	√	√	√	√	√	√	√	√	√	√	√
Touch-Proof IP2XB	√	√	√	√	√	√	√	√	√	√	√	√
Cable size mm <sup>2</sup>	70 to 95	25 to 70	25 to 50	25 to 50	16 to 25	25	4 to 6	4 to 6	2.5 to 4	2.5 to 4	10	2.5 to 6
Cable type shielded wire	Individually	Individually	Individually	Individually	Individually	Individually	Multicore	Individually	Multicore	Individually	Individually	Individually

## Excel|Mate (HVSL1200)



### High Voltage Safety Lock

HVSL1200, which is the latest generation of the Excel|Mate series, has been specially designed for use in xEV applications.

The RADSOK® Technology R4 version 12mm and an interlock solution ensure a safe and reliable connection.

### KEY FEATURES

With interlock solution

RADSOK® Technology R4 version 12mm

Shielding performance: EMI/RFI 60DB

Sealing, IP67 (mated), IP6K9K

Touch-proof, IP2XB

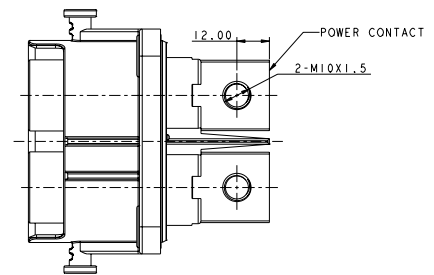
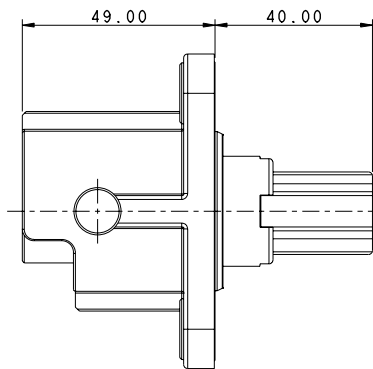
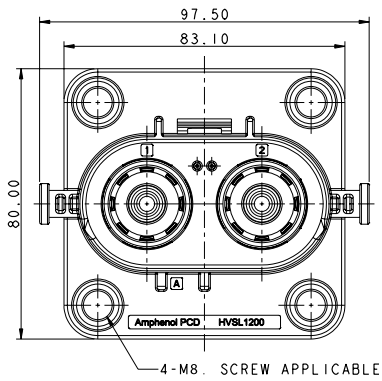
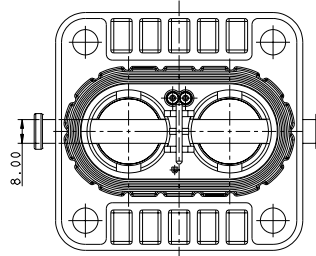
Multiple coding positions

APPLICATIONS	
xEV Battery	
Inverters	
Junction boxes	
Power distribution boxes	
MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	70mm <sup>2</sup> to 95mm <sup>2</sup>
ELECTRICAL	
Rated voltage	1000V DC
Rated current	350A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Inflammability	UL94V0
STANDARDS	
USCAR-2	
USCAR37	
LV-215	
RoHS	

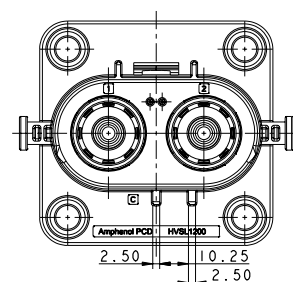
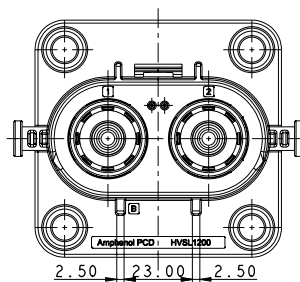
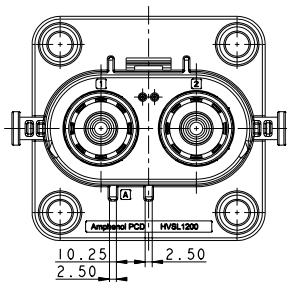


# Excel|Mate Max (HVSL 1200)

## 2 PIN RECEPTACLE BOX MOUNTED



## INSERT ORIENTATIONS

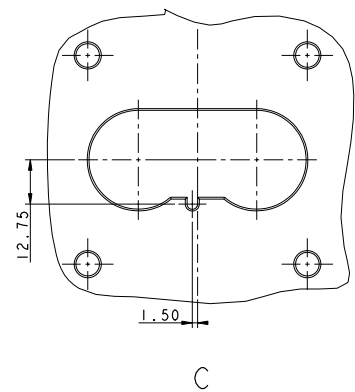
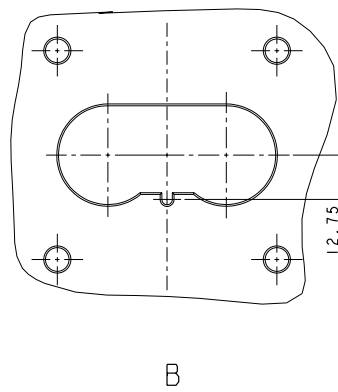
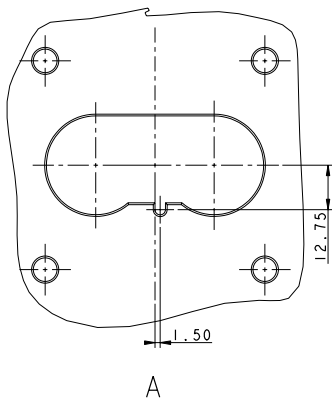
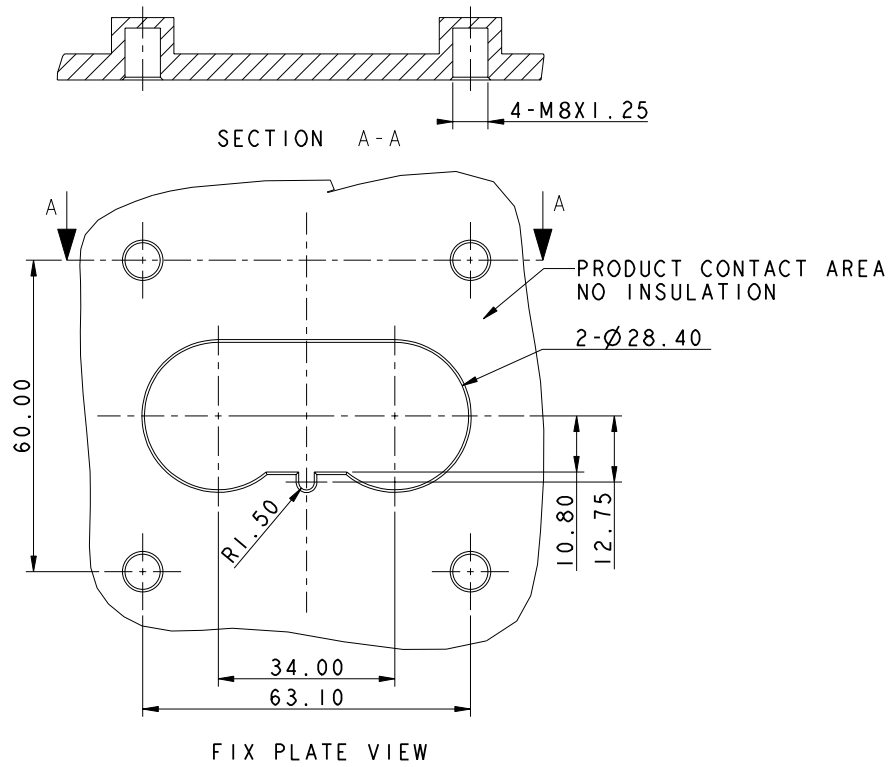


A  
P/N HVSL1200 02 2 A

B  
P/N HVSL1200 02 2 B

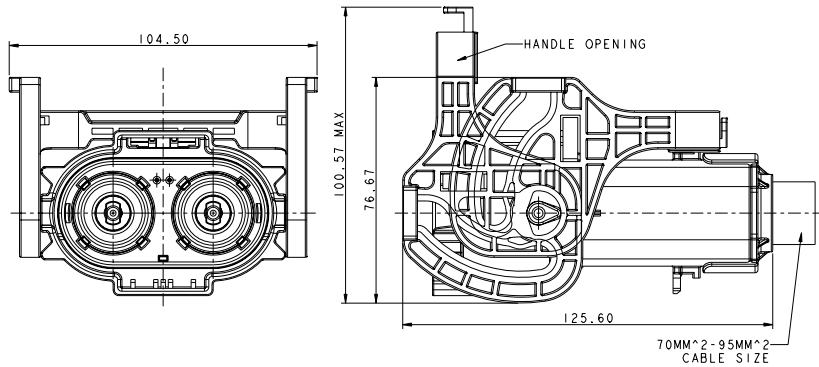
C  
P/N HVSL1200 02 2 C

PANEL MOUNTING DIMENSIONS

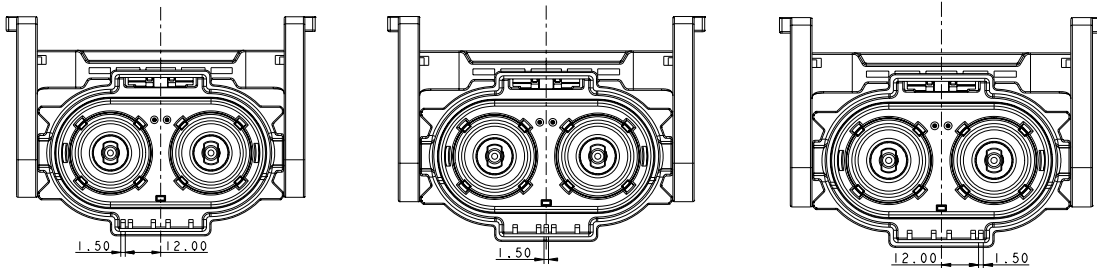


# ExcelMate Max (HVSL 1200)

## 2 PIN PLUG

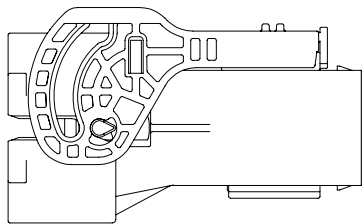


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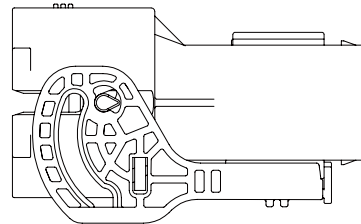


	A	B	C
P/N	HVSL1200 06 2 A	HVSL1200 06 2 B	HVSL1200 06 2 C

## LEVER POSITION

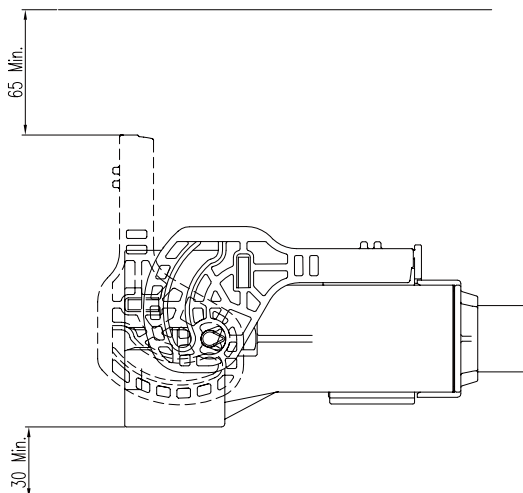


STANDARD LEVER

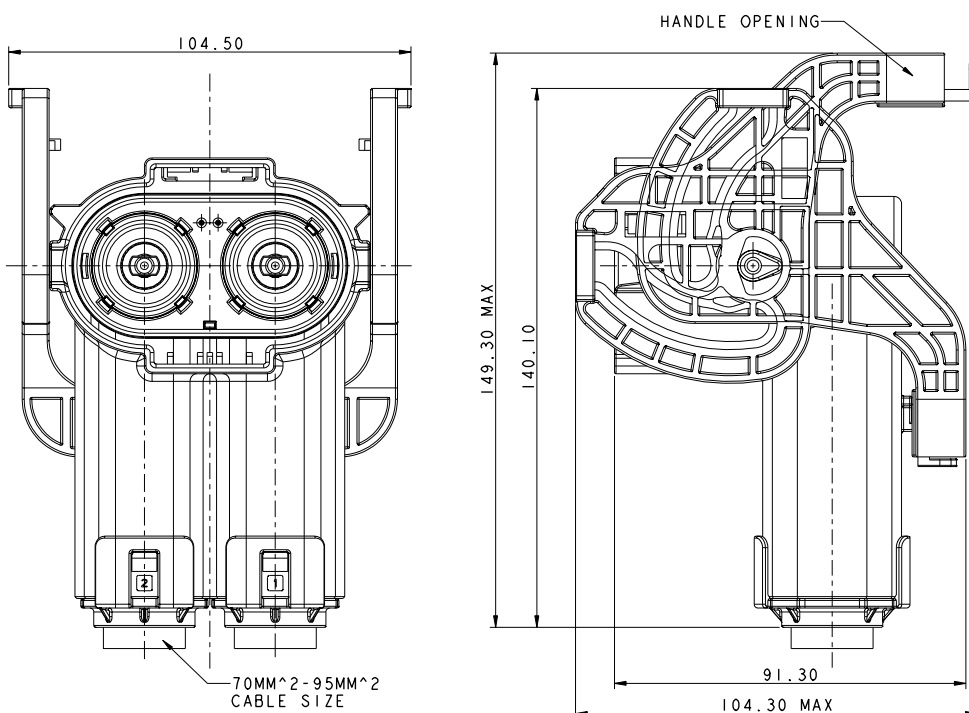


REVERSE LEVER

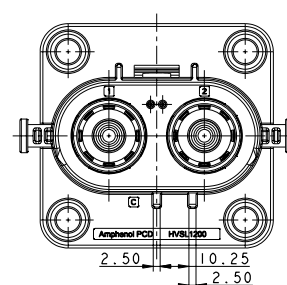
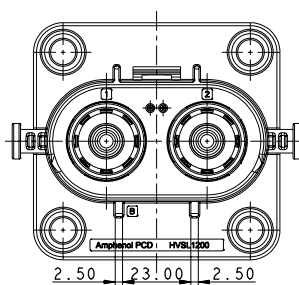
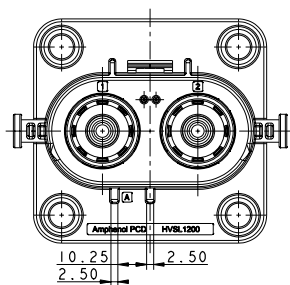
## INSTALLATION CLEARANCE



2 PIN PLUG RIGHT ANGLE



INSERT ORIENTATIONS



	A	B	C
P/N	HVSL1200 08 2 A	HVSL1200 08 2 B	HVSL1200 08 2 C

# HOW TO ORDER (HVSL 1200)

## HOW TO ORDER: PLUG

	HVSL1200	06	2	A	0	70
<b>Product type:</b>						
06: Straight plug						
08: Right angle plug						
<b>Position:</b>						
2: 2 position						
<b>Coding / Alternate position:</b>						
A: Coding A						
B: Coding B						
C: Coding C						
<b>Interlock:</b>						
0: Without interlock						
1: With interlock						
<b>Cable size:</b>						
70: 70mm <sup>2</sup> cable						
95: 95mm <sup>2</sup> cable						

## HOW TO ORDER: RECEPTACLE

	HVSL1200	02	2	A	0	H10
<b>Product type:</b>						
02: Box mounted receptacle						
<b>Position:</b>						
2: 2 position						
<b>Coding / Alternate position:</b>						
A: Coding A						
B: Coding B						
C: Coding C						
<b>Interlock:</b>						
0: Without interlock						
1: With interlock						
<b>Cable size:</b>						
H10: OT terminal						

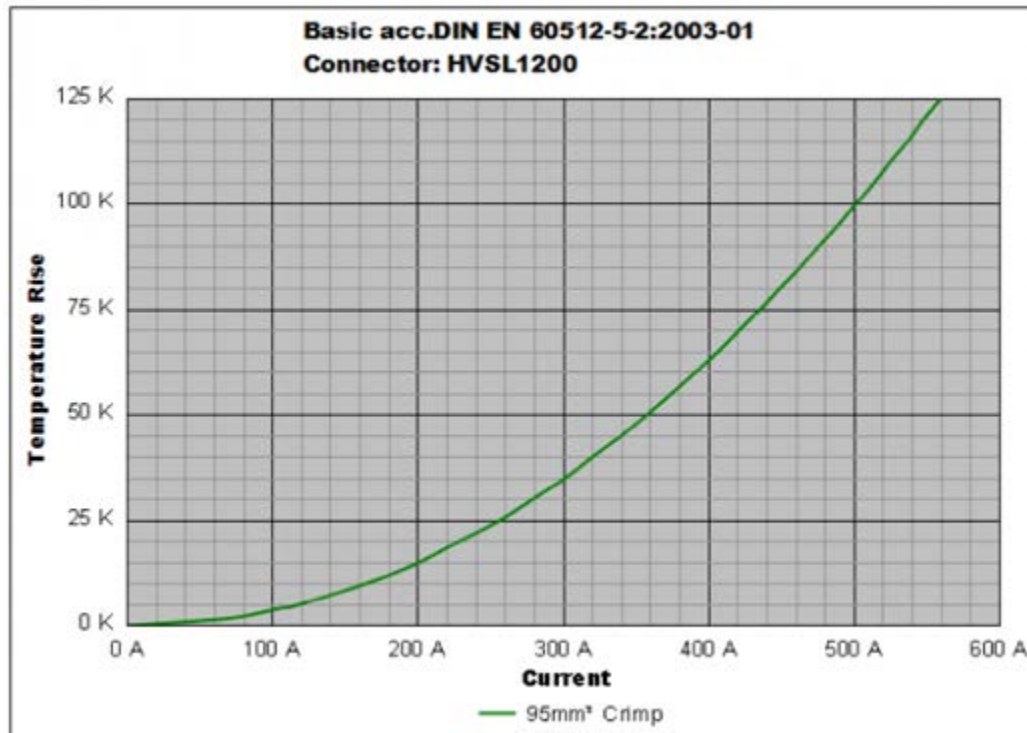
## EXTRACTION TOOL FOR RECEPTACLE

HVIL-contact Extraction tool: HVTOOL10R

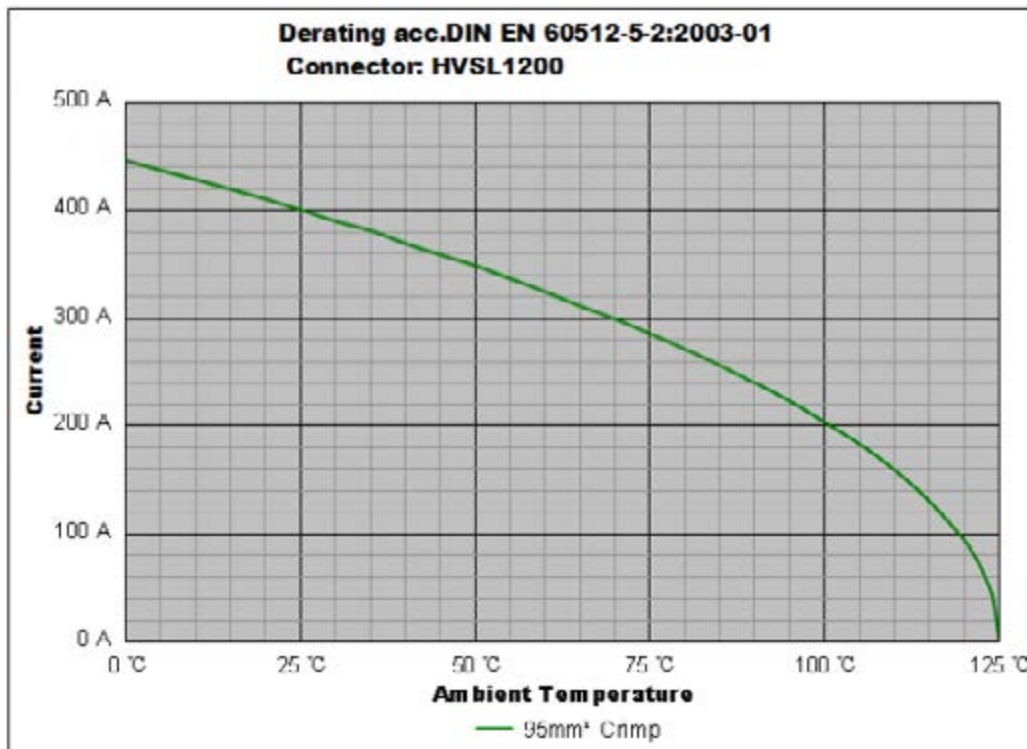




## HVSL 1200 | Temperature Rise



## HVSL 1200 | Derating Curve



Remark: tests carried out on the complete connector.

# Excel|Mate Plus (HVSL 1000)

## Excel|Mate Plus



### High Voltage Safety Lock

Excel|Mate Plus offers a max rated voltage up to 1000V and a max rated current of 250A. It can be used for power solutions in various xEV applications.

External HVIL for 1 position and internal HVIL for 2 to 3 positions.

### KEY FEATURES

With interlock solution

RADSOK® Technology R4 version  
10mm

Shielding performance: EMI/RFI 60DB

AK compliance LV215

Sealing, IP67 (mated), IP6K9K

1 to 3 positions available

Touch-proof, IP2XB

Multiple coding positions

### APPLICATIONS

xEV Battery

Inverters

Junction boxes

Power distribution boxes

### MECHANICAL

Durability  $\geq 50$  mating cycles

Wire range 25 to 70 mm<sup>2</sup>

### ELECTRICAL

Rated voltage 1000V DC

Rated current 250A Max @ ambient  
temperature 70°C

Insulator resistance  $> 200M\Omega$

Dielectric withstand  
voltage 3000V AC

### ENVIRONMENTAL

Sealing IP67, IP6K9K (mated)

Touch-proof IP2XB

Temperature range -40°C to 125°C

Inflammability UL94V0

### STANDARDS

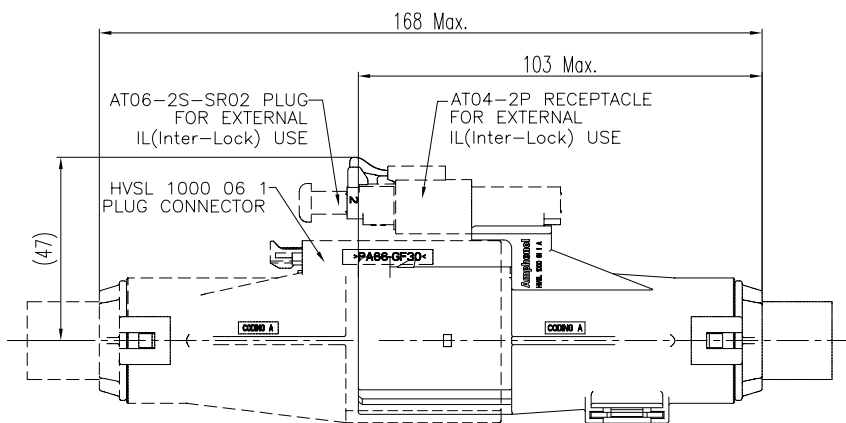
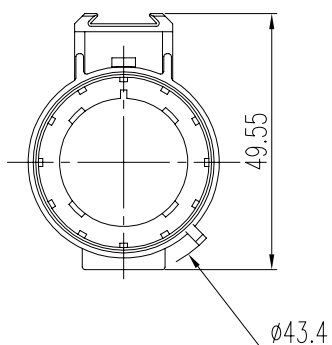
USCAR-2

USCAR-37

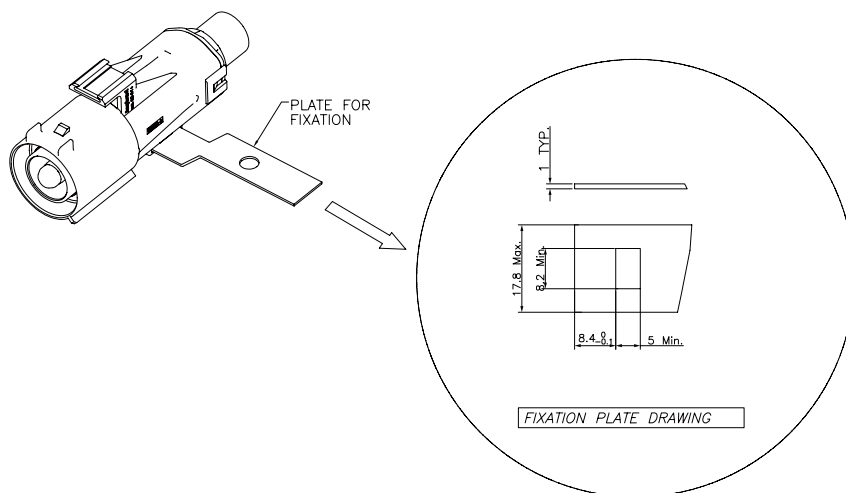
LV-215

RoHS

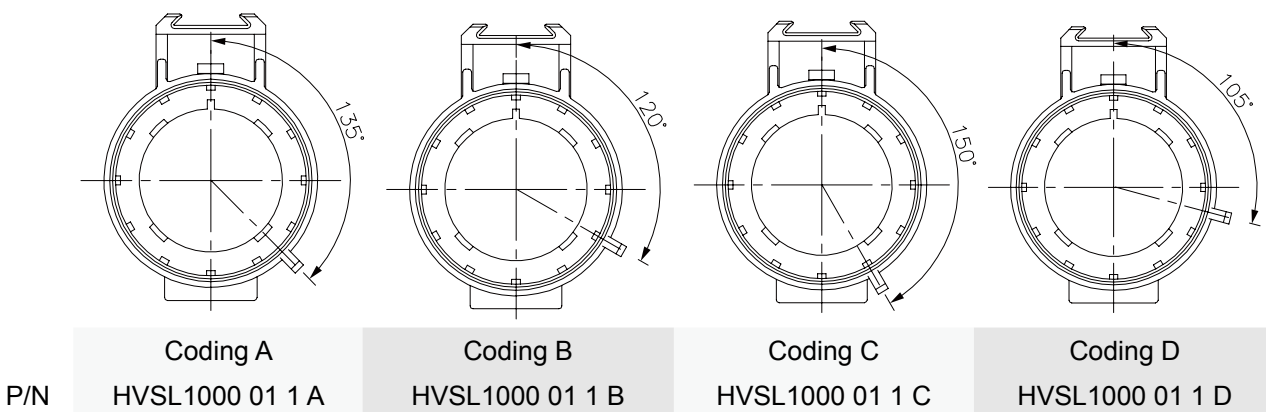
## RECEPTACLE IN-LINE



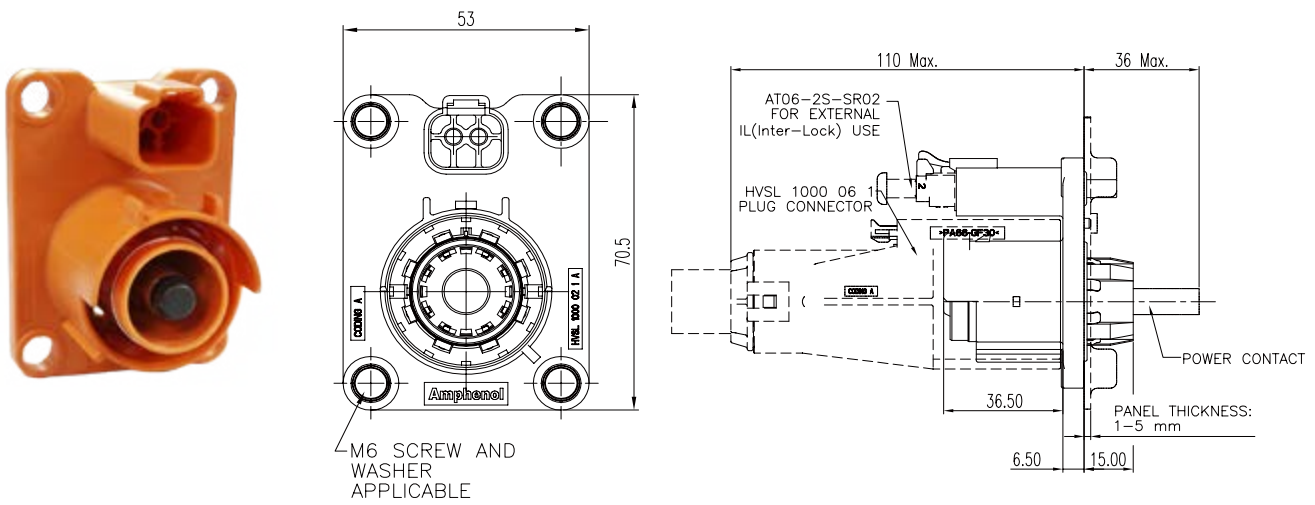
## MOUNTED GROOVE



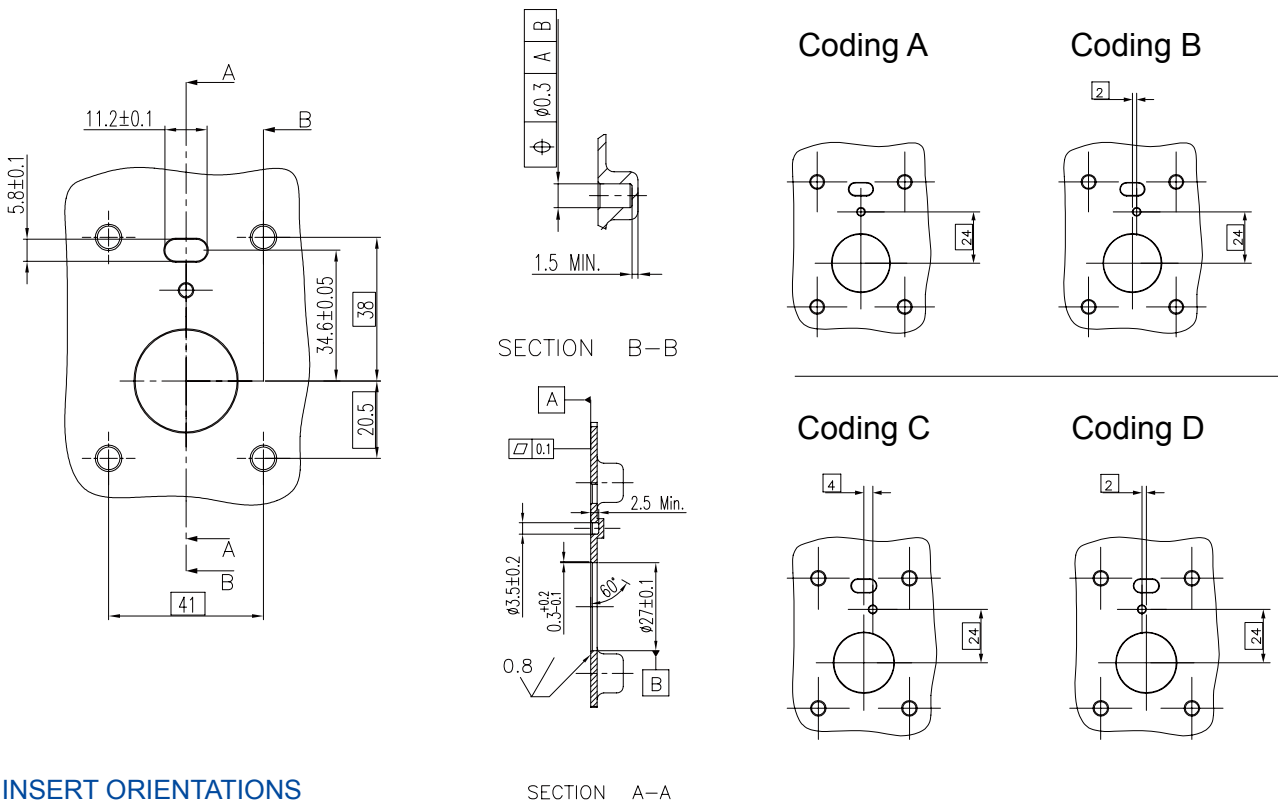
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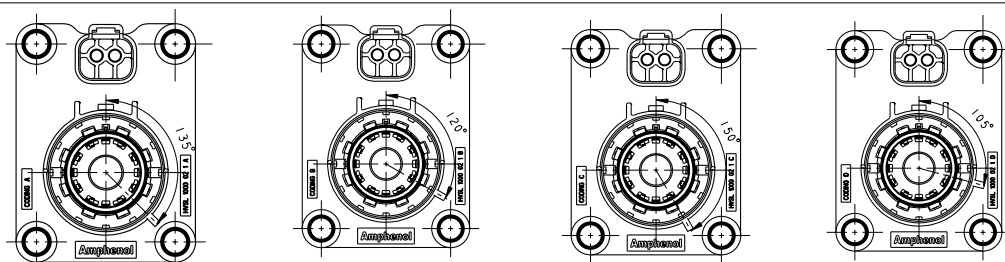
## RECEPTACLE BOX MOUNTED



## PANEL MOUNTING DIMENSIONS

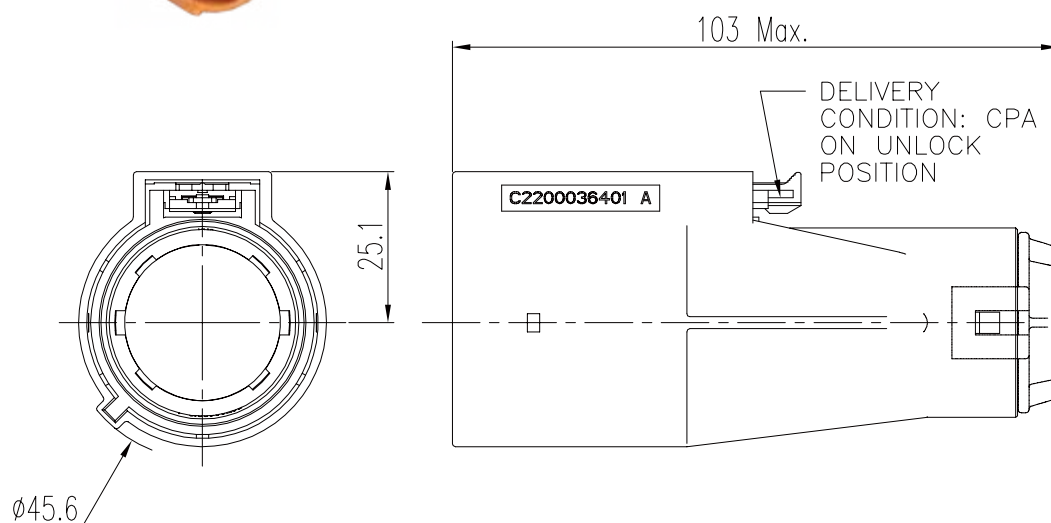


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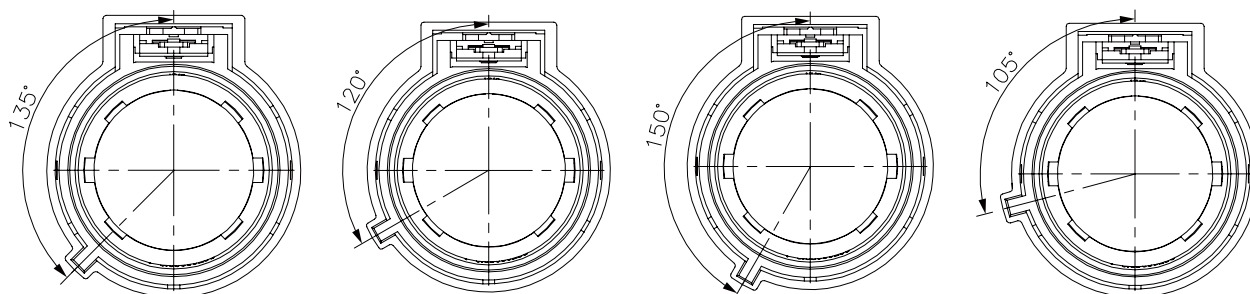


	Coding A	Coding B	Coding C	Coding D
P/N	HVSL1000 02 1 A	HVSL1000 02 1 B	HVSL1000 02 1 C	HVSL1000 02 1 D

PLUG



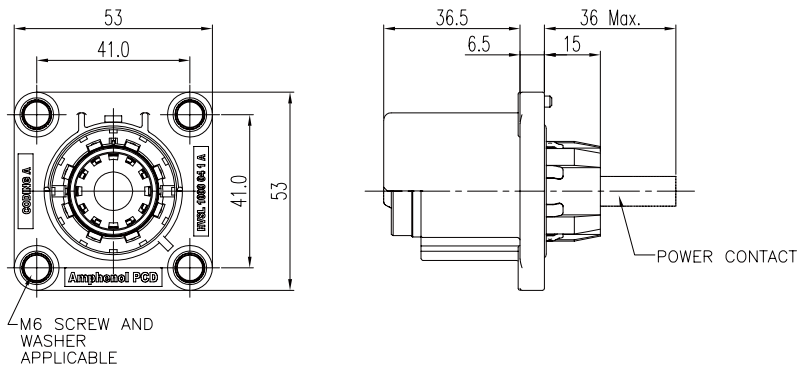
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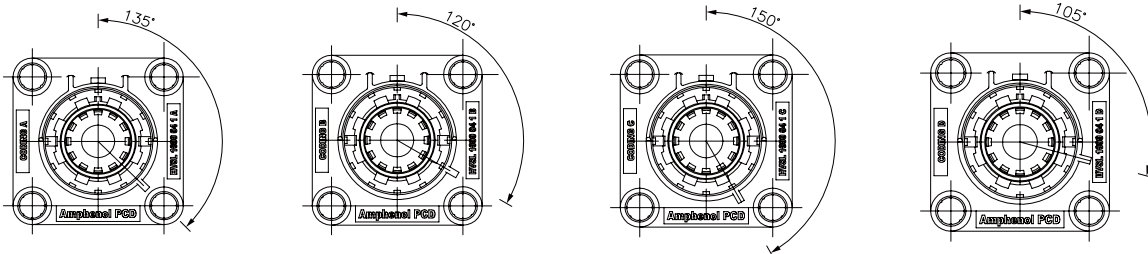
	Coding A	Coding B	Coding C	Coding D
P/N	HVSL1000 06 1 A	HVSL1000 06 1 B	HVSL1000 06 1 C	HVSL1000 06 1 D



## RECEPTACLE BOX MOUNTED **WITHOUT INTERLOCK**

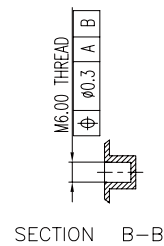
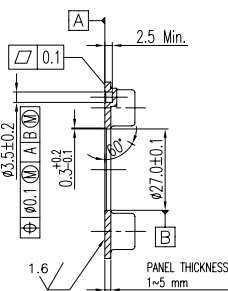
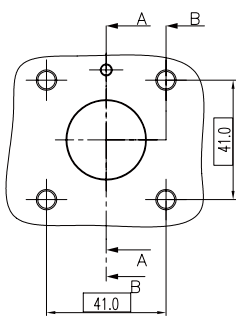


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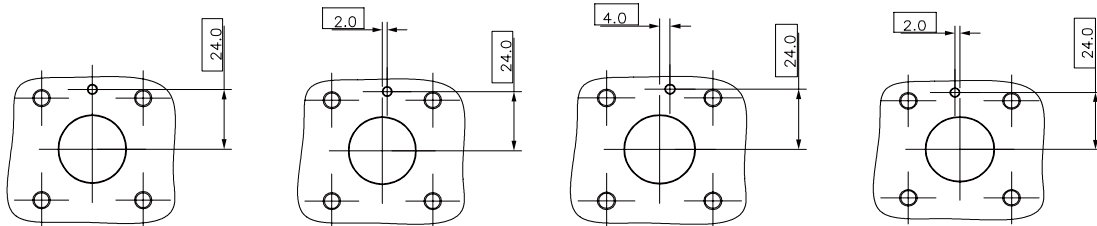


	Coding A	Coding B	Coding C	Coding D
P/N	HVSL1000 04 1 A	HVSL1000 04 1 B	HVSL1000 04 1 C	HVSL1000 04 1 D

## PANEL MOUNTING DIMENSIONS

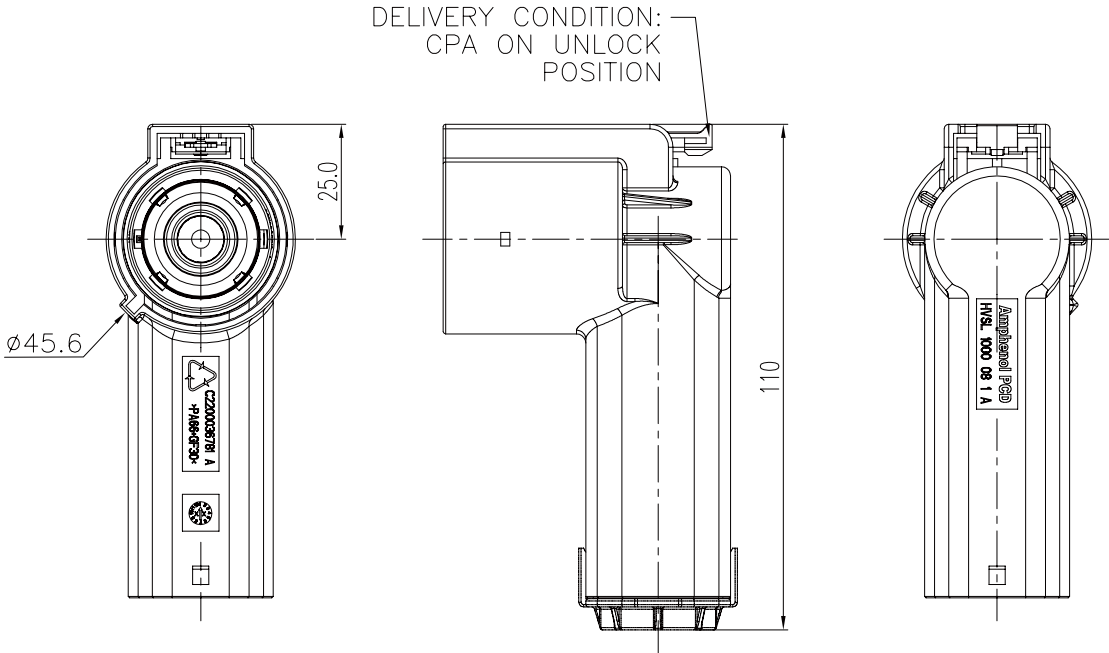


SECTION A-A

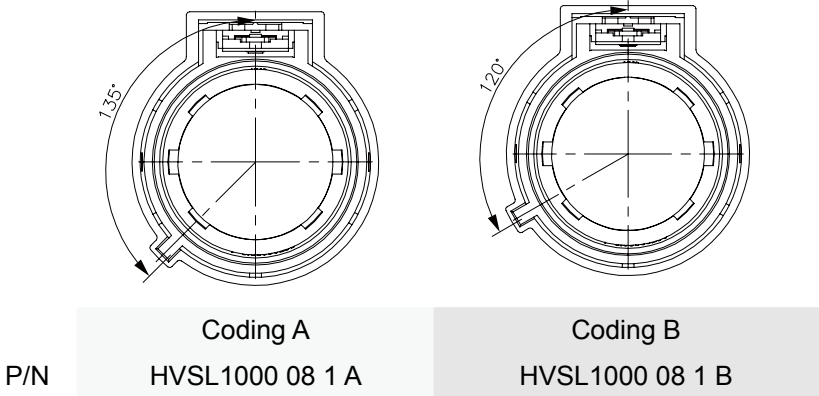


Coding A	Coding B	Coding C	Coding D
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PLUG RIGHT ANGLE

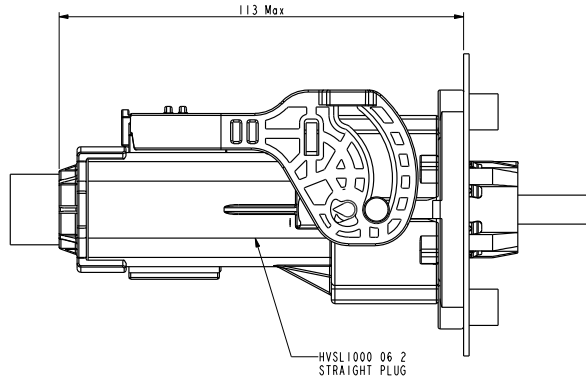


INSERT ORIENTATIONS

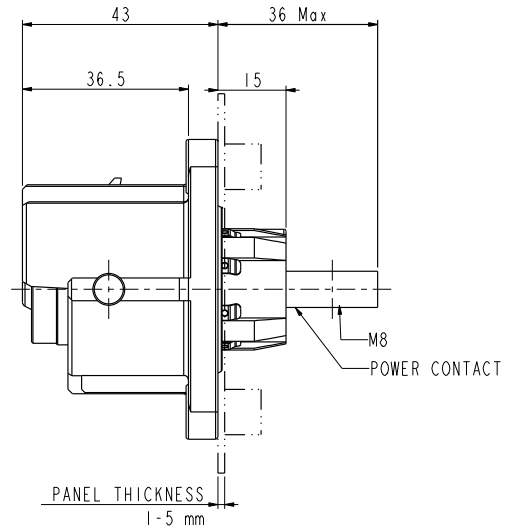
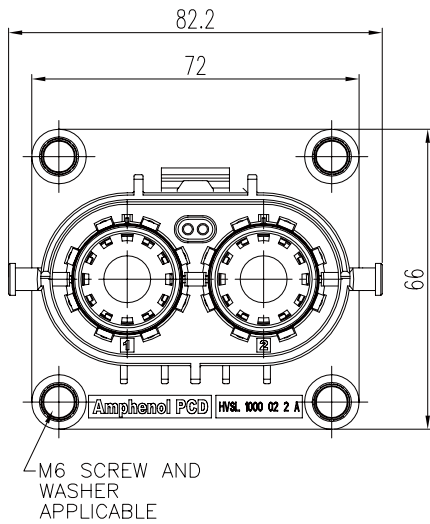


# Excel|Mate Plus (HVSL 1000)

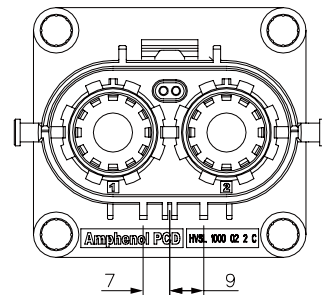
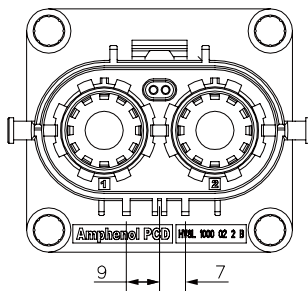
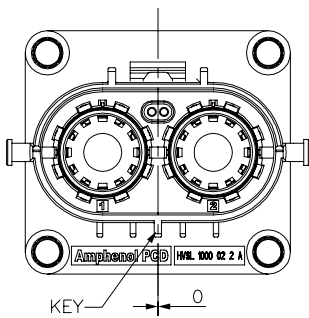
## 2 PIN RECEPTACLE BOX MOUNTED



CONNECTOR MATED OUTLINE

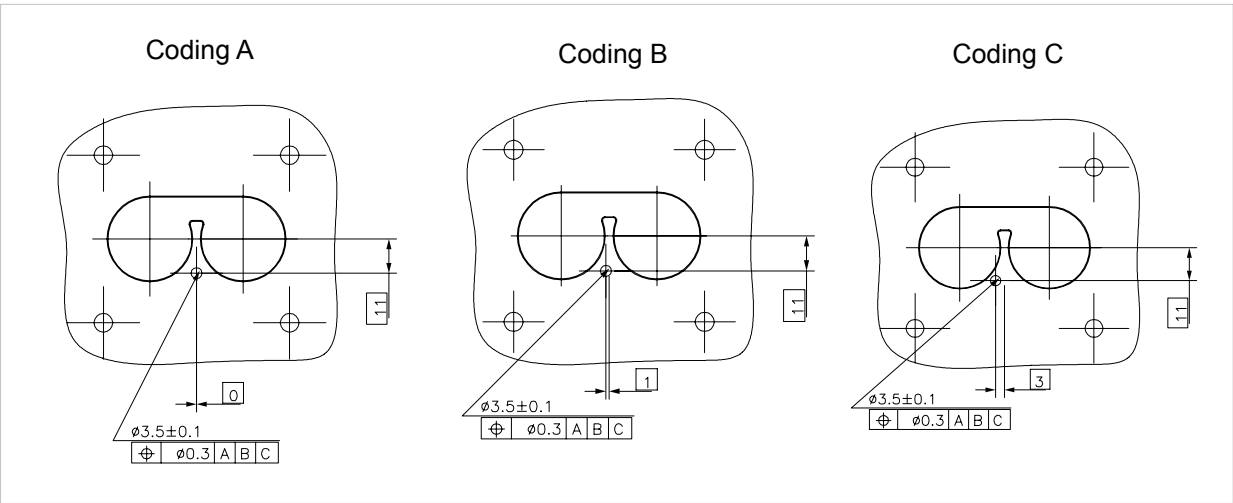
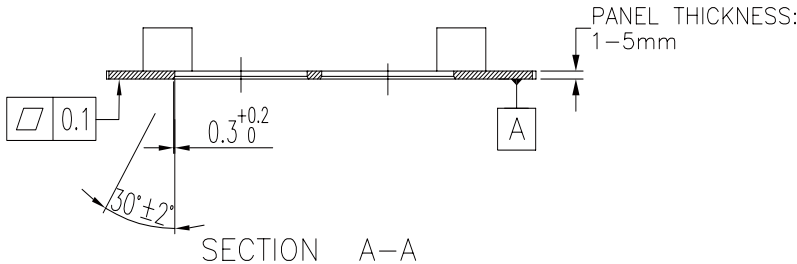
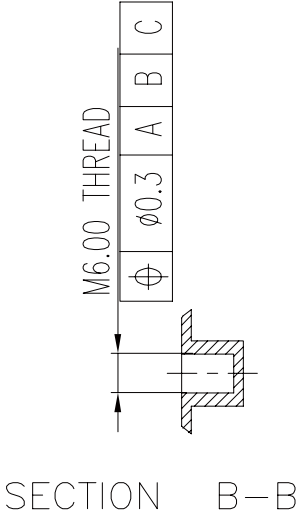
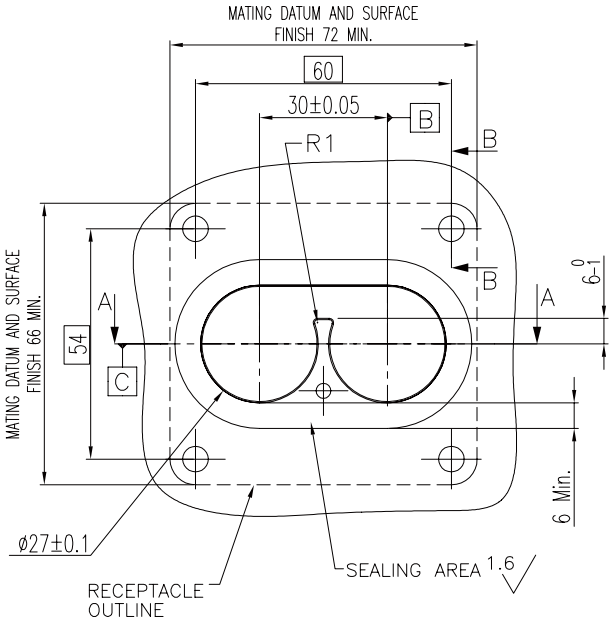


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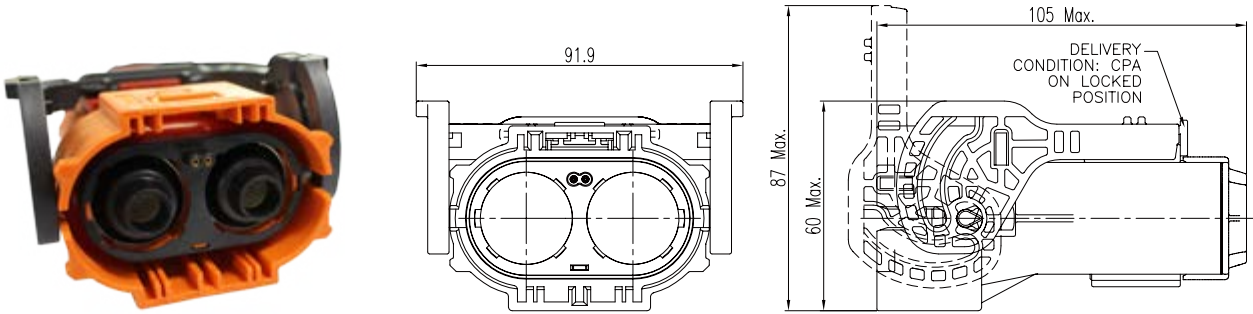
	Coding A	Coding B	Coding C
P/N	HVSL1000 02 2 A	HVSL1000 02 2 B	HVSL1000 02 2 C

PANEL MOUNTING DIMENSIONS

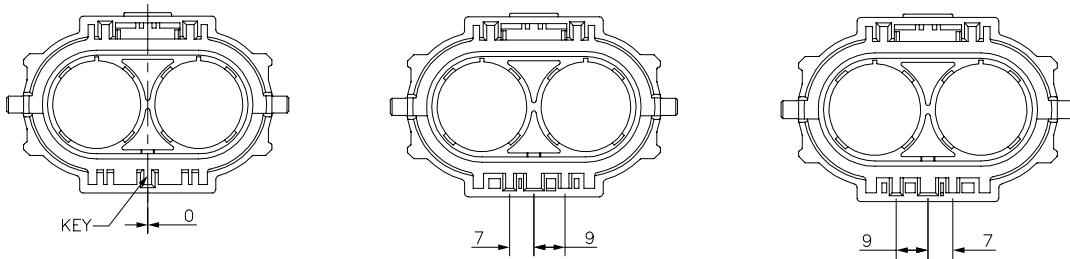


# ExcelMate Plus (HVSL 1000)

## 2 PIN PLUG

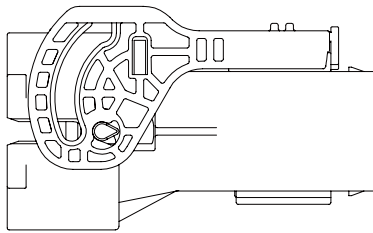


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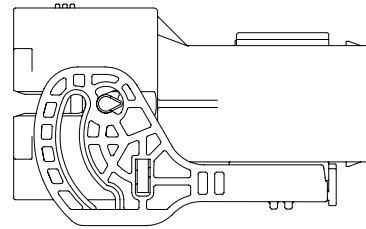


	Coding A	Coding B	Coding C
P/N	HVSL1000 06 2 A	HVSL1000 06 2 B	HVSL1000 06 2 C

## LEVER POSITION

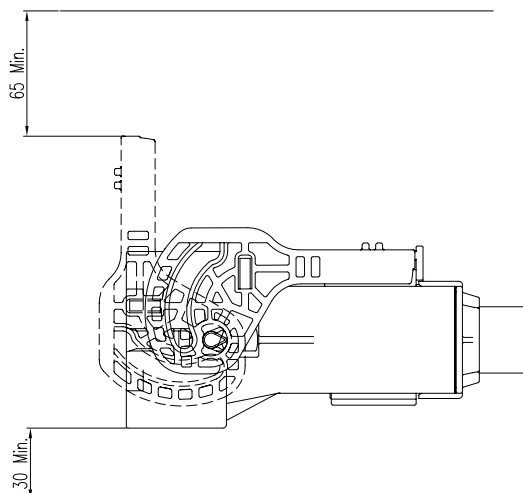


STANDARD LEVER



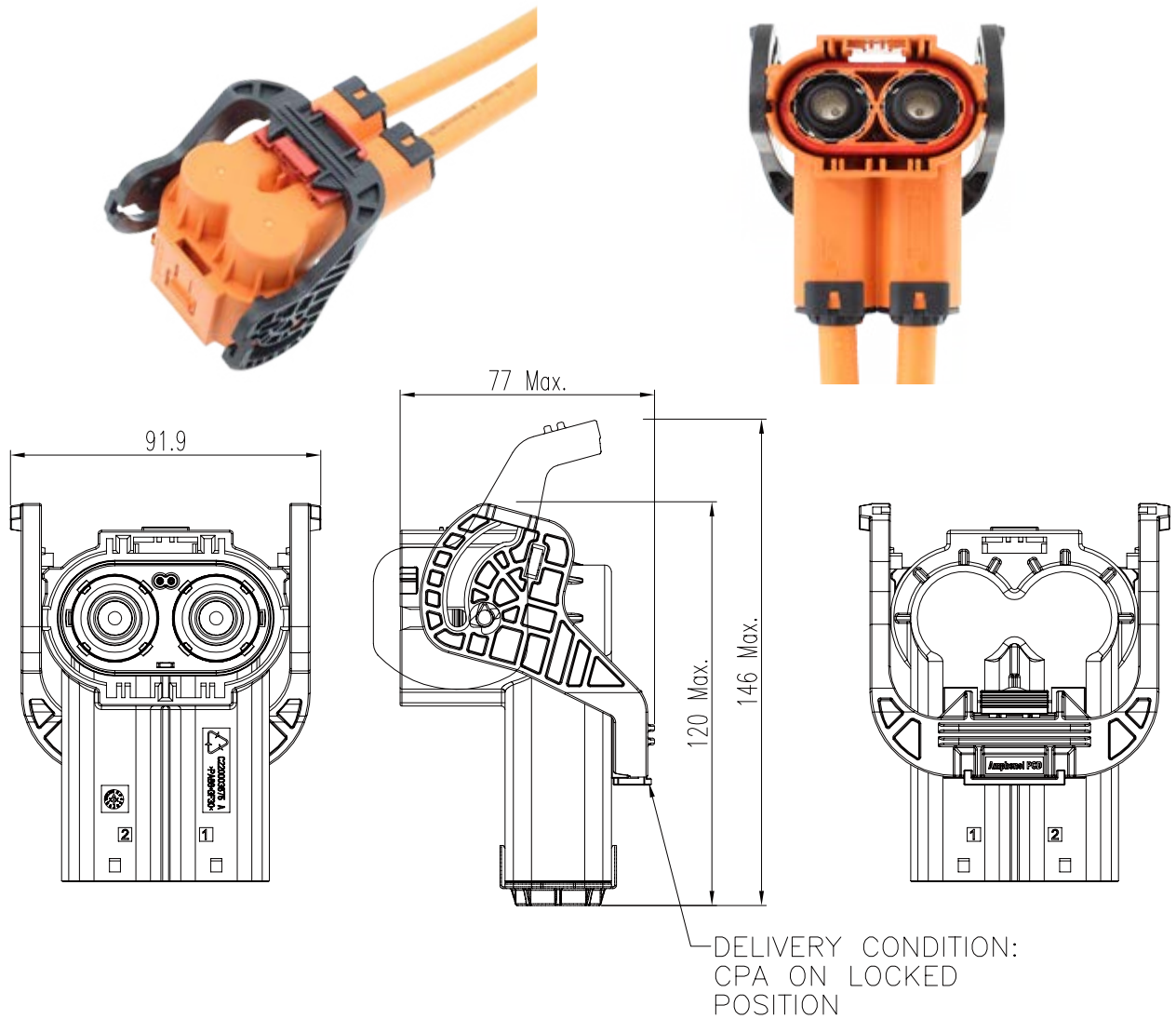
REVERSE LEVER

## INSTALLATION CLEARANCE

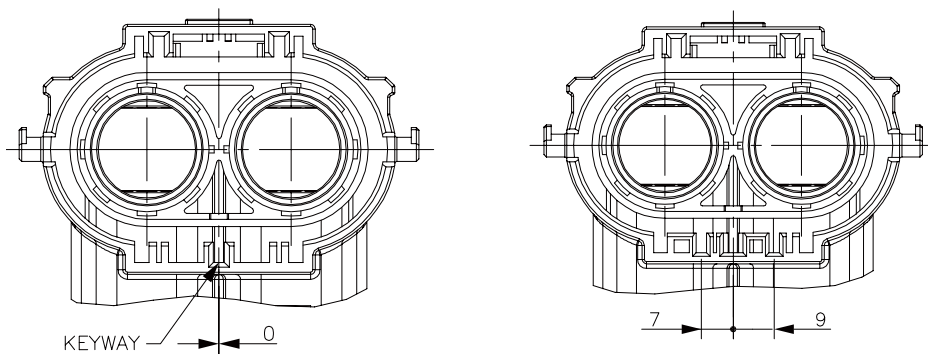




2 PIN PLUG RIGHT ANGLE

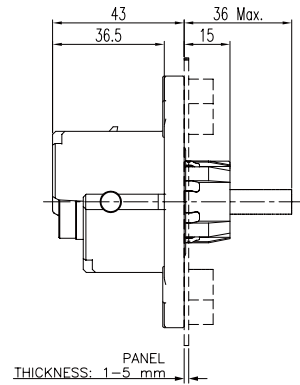
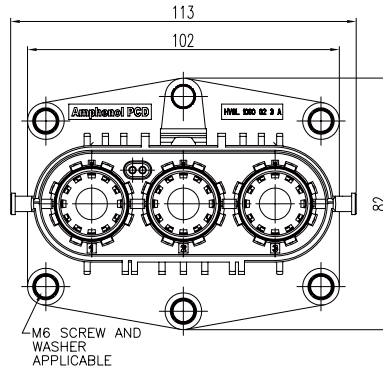


INSERT ORIENTATIONS

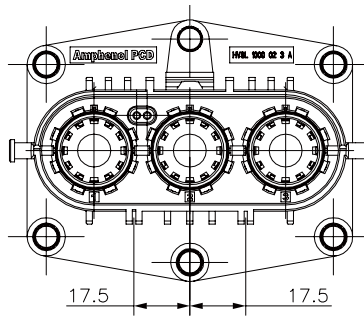


	Coding A	Coding B
P/N	HVSL1000 08 2 A	HVSL1000 08 2 B

## 3 PIN RECEPTACLE BOX MOUNTED



## INSERT ORIENTATIONS

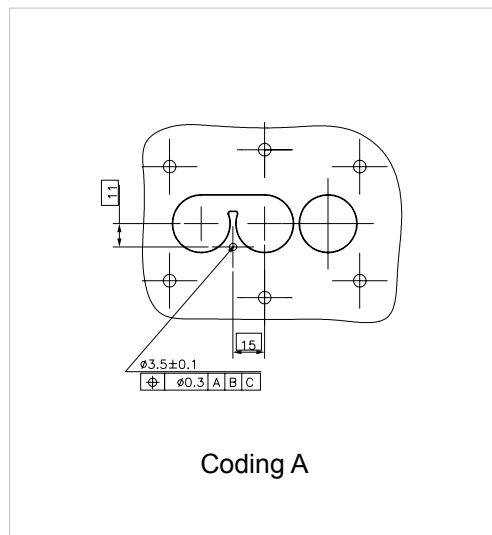
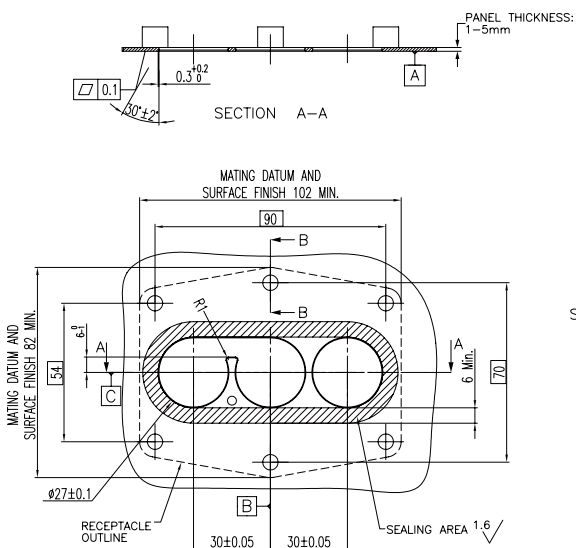


Coding A

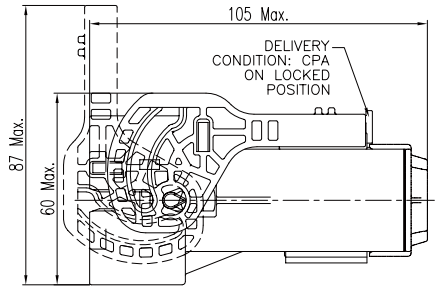
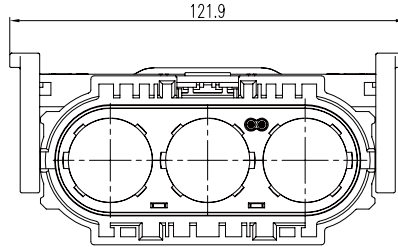
P/N

HVSL1000 02 3 A

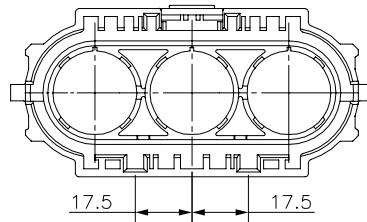
## PANEL MOUNTING DIMENSIONS



3 PIN PLUG



INSERT ORIENTATIONS

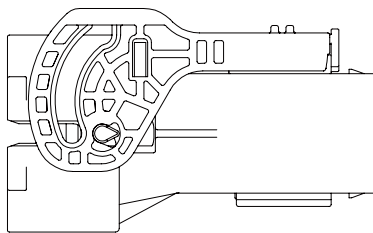


Coding A

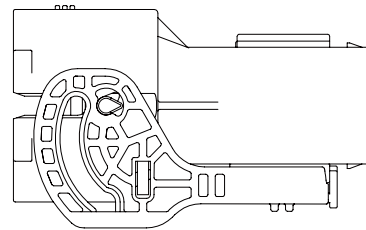
P/N

HVSL1000 06 3 A

LEVER POSITION

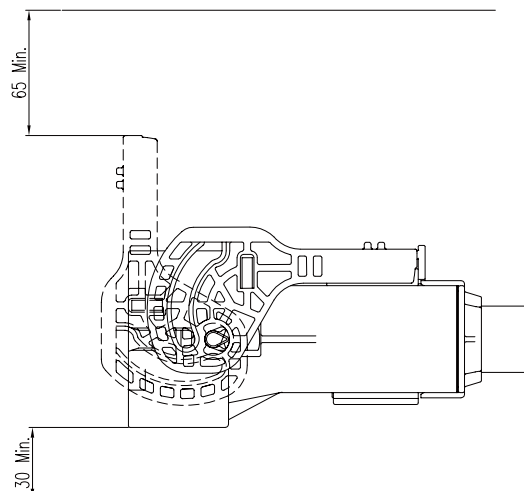


STANDARD LEVER



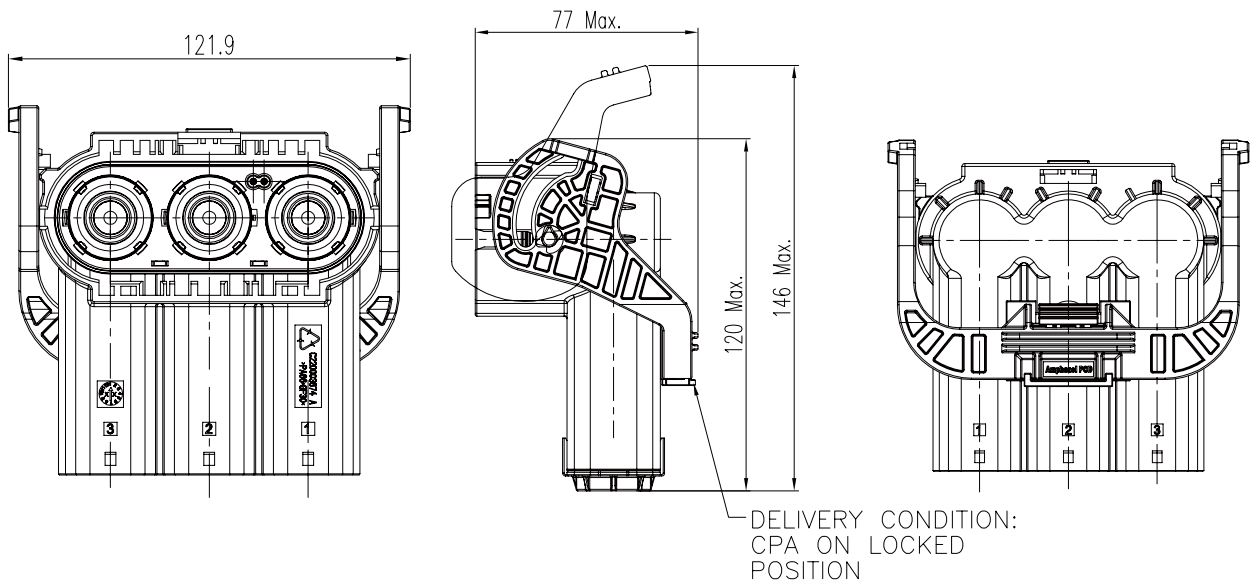
REVERSE LEVER

INSTALLATION CLEARANCE

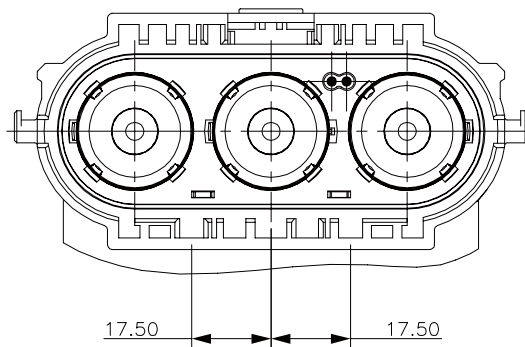


# Excel|Mate Plus (HVSL 1000)

## 3 PIN PLUG RIGHT ANGLE



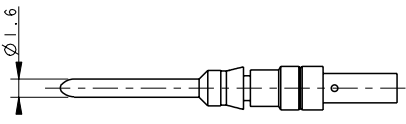
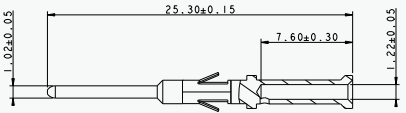
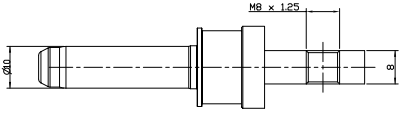
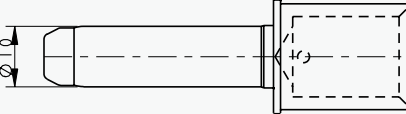
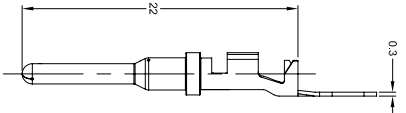
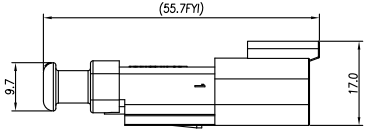
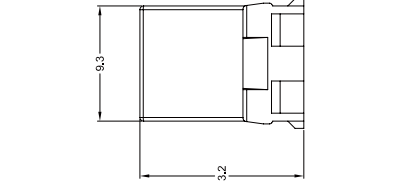
## INSERT ORIENTATIONS



P/N **Coding A**  
HVSL1000 08 3 A

## ATTACHMENT: CONTACTS FOR RECEPTACLE

All connectors include contacts. For extra contacts, please order them separately (ref: P/N below)

Name	Contact P/N & Wire Size	Drawing
1 Pin Box mounted receptacle for Interlock	C42000400504G  0.5mm <sup>2</sup> max wire	
2 or 3 pin for Interlock	C200003609  0.5mm <sup>2</sup> max wire	
Power contact Thread for Bus-bar	C4200036152	
Power contact Crimp for wire	C42000361511 - 70mm <sup>2</sup> wire C42000361512 - 50mm <sup>2</sup> wire C42000361513 - 35mm <sup>2</sup> wire C42000361514 - 25mm <sup>2</sup> wire	
1 Pin: In-line receptacle for Interlock	AT60-16-0622  0.5mm <sup>2</sup> max wire	
	AT04-2P-SR02BLK  0.5mm <sup>2</sup> max wire	
	AW2P	



# CONTACTS FOR RECEPTACLE

## ATTACHMENT: CONTACTS FOR PLUG

All connectors include contacts. For extra contacts, please order them separately (ref: P/N below)

Name	Contact P/N & Wire Size	Drawing
1 Pin HVIL plug	C210003610	
1 Pin (For In-line plug) Rope for Interlock	C210003608 (Order with HVIL plug)	
1 Pin (For R/A plug) Rope for Interlock	C210003611 (Order with HVIL plug)	
Socket contact	C4200036161 - 70mm <sup>2</sup> wire C4200036162 - 50mm <sup>2</sup> wire C4200036163 - 35mm <sup>2</sup> wire C4200036164 - 25mm <sup>2</sup> wire	
Kit of socket insert For plug	C4220036011 - 70mm <sup>2</sup> wire C4220036012 - 50mm <sup>2</sup> wire C4220036013 - 35mm <sup>2</sup> wire C4220036014 - 25mm <sup>2</sup> wire	
Kit of socket insert For receptacle in-line	C4220036021 - 70mm <sup>2</sup> wire C4220036022 - 50mm <sup>2</sup> wire C4220036023 - 35mm <sup>2</sup> wire C4220036024 - 25mm <sup>2</sup> wire	
Power contact - rear Crimp for wire for right angle plug	C4220036031 - 70mm <sup>2</sup> wire C4220036032 - 50mm <sup>2</sup> wire C4220036033 - 35mm <sup>2</sup> wire C4220036034 - 25mm <sup>2</sup> wire	

HVSL 1000 | PRODUCT SERIES OVERVIEW

Single pin  
(HVIL External)



In-line receptacle



In-line plug

Single pin  
(Without HVIL)



2 pin  
(HVIL Integrated)



3 pin  
(HVIL Integrated)



# HOW TO ORDER (HVSL 1000)

## HOW TO ORDER: PLUG

HVSL1000	06	1	A	0	35
<b>Product type:</b> 06: Straight plug   08: Right angle plug					
<b>Position:</b> 1: 1 position   2: 2 position   3: 3 position					
<b>Coding / Alternate position:</b> A: Coding A B: Coding B (Only for 2 & 3 positions) C: Coding C (Only for 2 & 3 positions) D: Coding D (Only for 1 position)					
<b>Interlock:</b> 0: Without interlock   1: With interlock					
<b>Cable size:</b> 25: 25mm <sup>2</sup> cable   35: 35mm <sup>2</sup> cable   50: 50mm <sup>2</sup> cable   70: 70mm <sup>2</sup> cable					

## HOW TO ORDER: RECEPTACLE

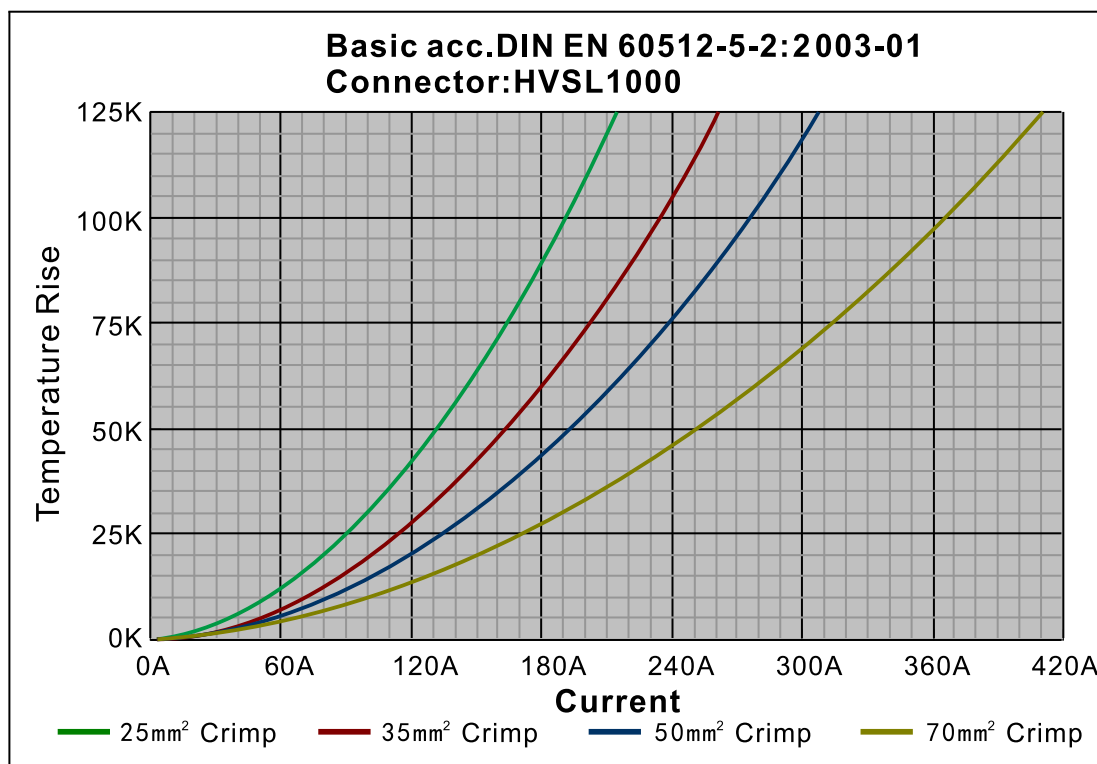
HVSL1000	01	1	A	0	H8
<b>Product type:</b> 01: In-line receptacle 02: Box mounted receptacle 04: Box mounted receptacle without Interlock					
<b>Position:</b> 1: 1 position   2: 2 position   3: 3 position					
<b>Coding / Alternate position:</b> A: Coding A B: Coding B (Only for 2 & 3 positions) C: Coding C (Only for 2 & 3 positions) D: Coding D (Only for 1 position)					
<b>Interlock:</b> 0: Without interlock   1: With interlock					
<b>Cable size:</b> H8: OT terminal					

## EXTRACTION TOOL FOR RECEPTACLE

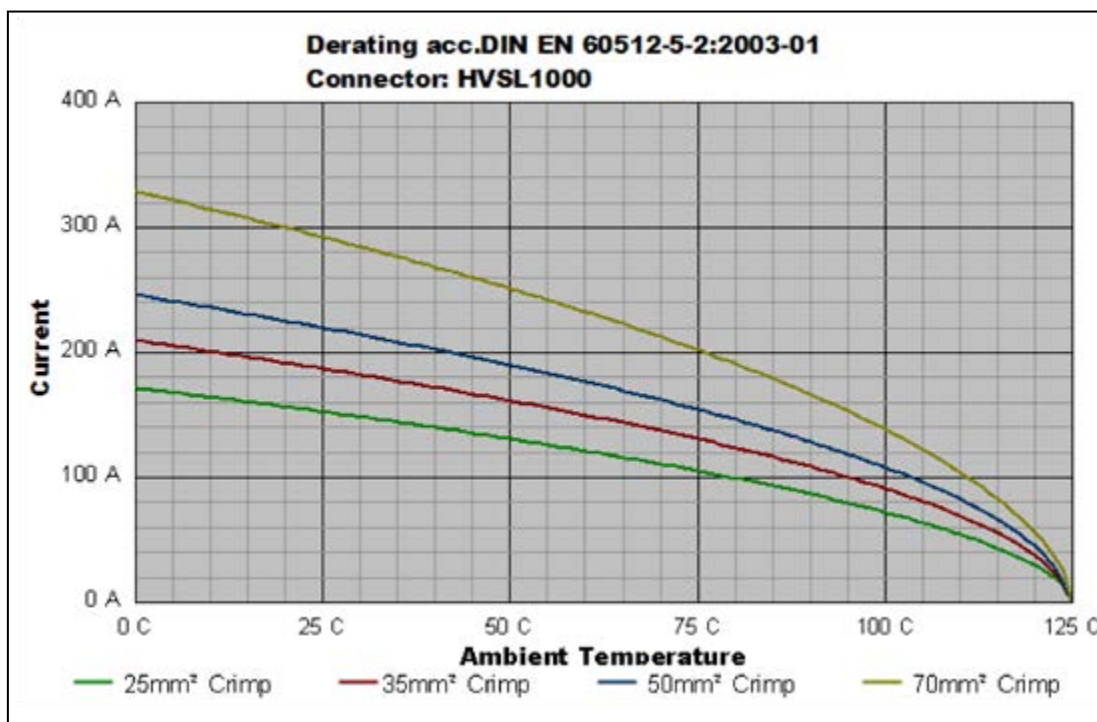
HVIL-contact Extraction tool: HVTOOL10R



HVSL 1000 | Temperature Rise



HVSL 1000 | Derating Curve



Remark: tests carried out on the complete connector.

# Excel|Mate S (HVSL 800)

## Excel|Mate S



### Excel|Mate S

Excel|Mate S is a 2 pin and 3 pin connector with a current carrying capacity from 120 to 180A and 25 to 50 mm<sup>2</sup> crimping cable.

Specially designed for battery, inverters, junction boxes, power distribution boxes and others xEV devices' equipment.

### KEY FEATURES

- Integrated internal HVIL
- Current rating up to 180A
- No tool required to unmate
- Sealing, IP67 , IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

### MECHANICAL

Durability	≥ 50 mating cycles
Wire range	25 to 50 mm <sup>2</sup> shielded wire
Insertion and extraction force	< 100N
Connection type	Copper bar
HVIL	Integrated
CPA	CPA

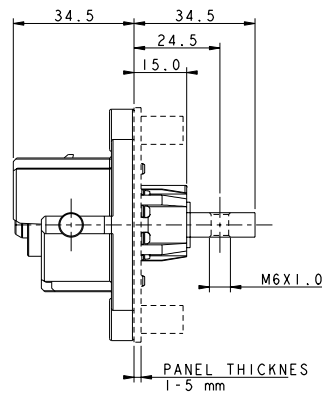
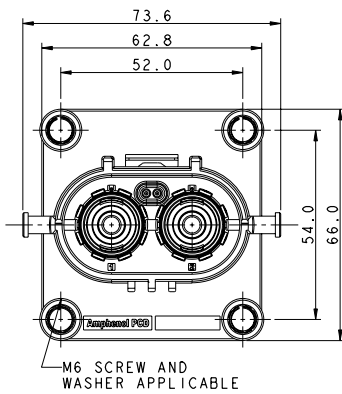
### ELECTRICAL

Rated voltage	1000V DC
Rated current	Max 180A @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device

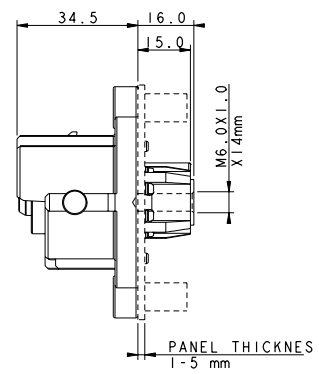
### ENVIRONMENTAL

Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C

2 PIN RECEPTACLE

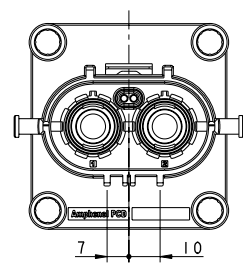
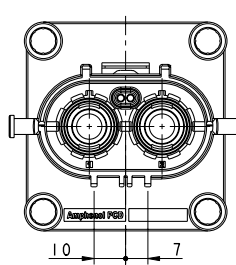
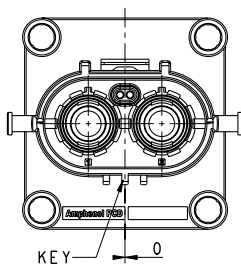


POWER CONTACT  
HOLE TERMINATION



POWER CONTACT  
SCREW TERMINATION - INTERNAL

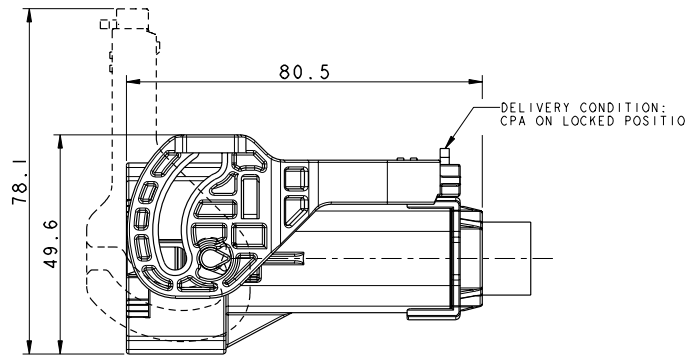
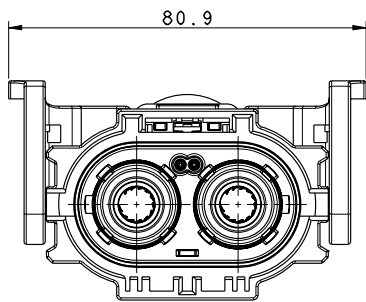
INSERT ORIENTATIONS



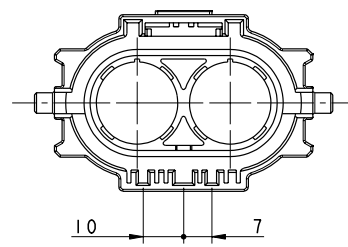
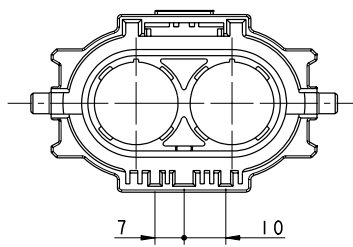
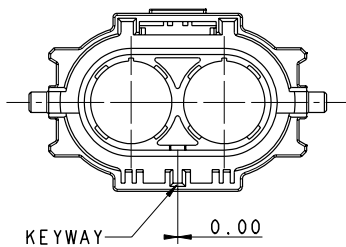
	Coding A	Coding B	Coding C
P/N	HVSL800 02 2 A	HVSL800 02 2 B	HVSL800 02 2 C

# Excel|Mate S (HVSL 800)

## 2 PIN STRAIGHT PLUG



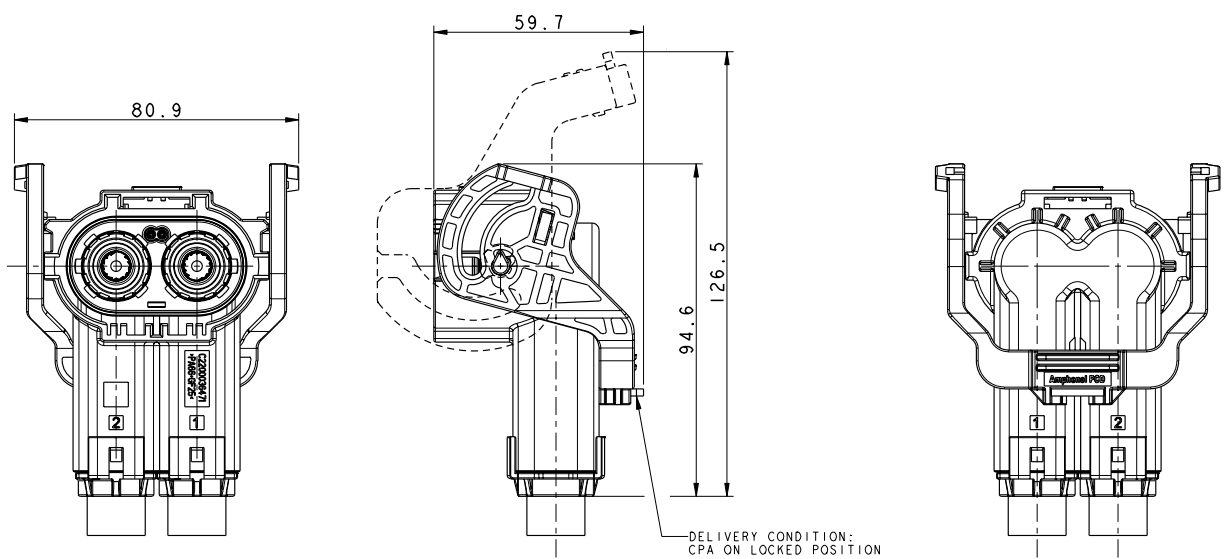
## INSERT ORIENTATIONS



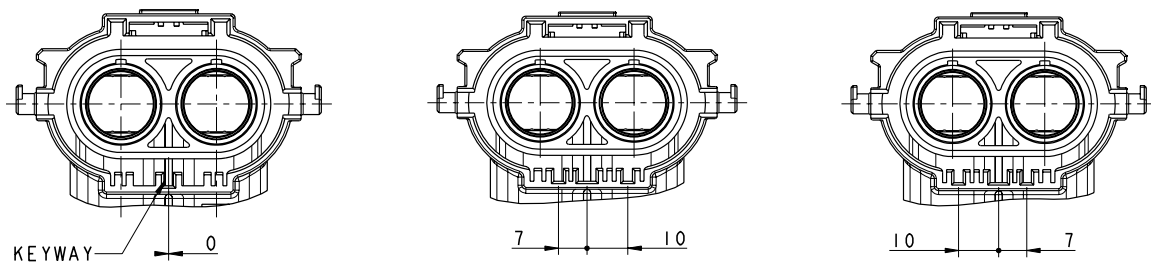
	Coding A	Coding B	Coding C
P/N	HVSL800 06 2 A	HVSL800 06 2 B	HVSL800 06 2 C



2 PIN RIGHT ANGLE PLUG

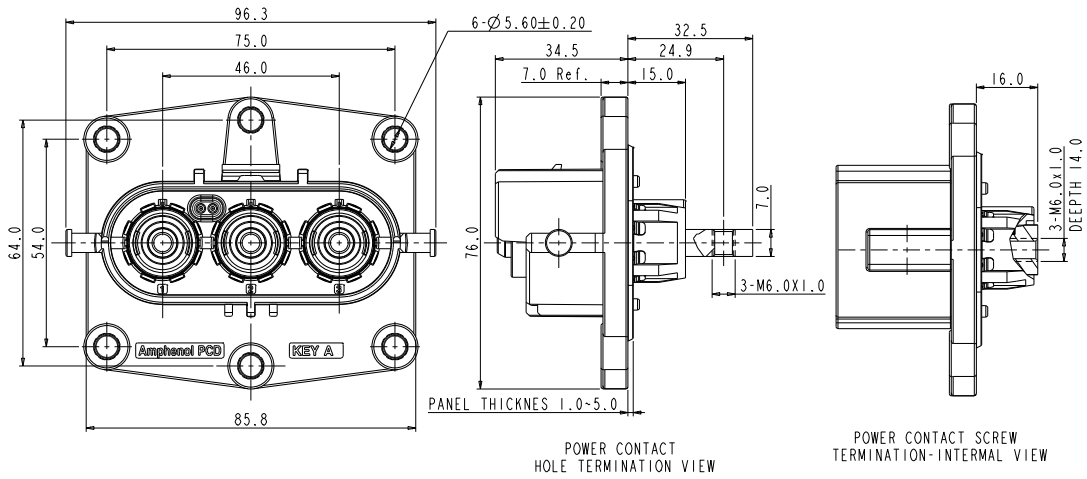


INSERT ORIENTATIONS

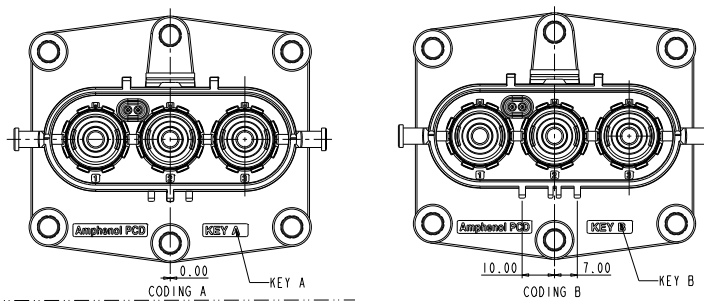


	Coding A	Coding B	Coding C
P/N	HVSL800 08 2 A	HVSL800 08 2 B	HVSL800 08 2 C

3 PIN RECEPTACLE

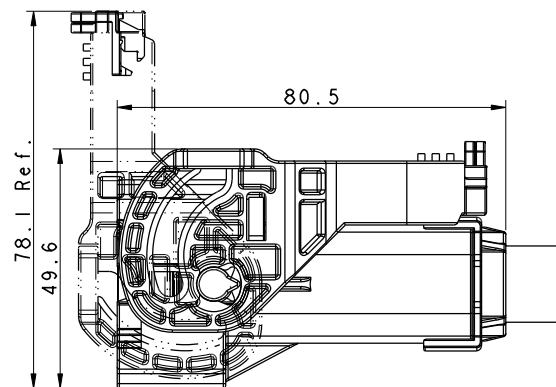
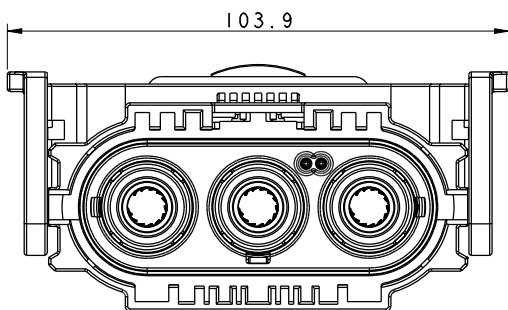


INSERT ORIENTATIONS

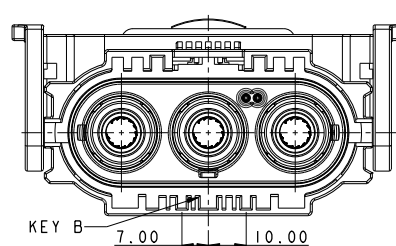
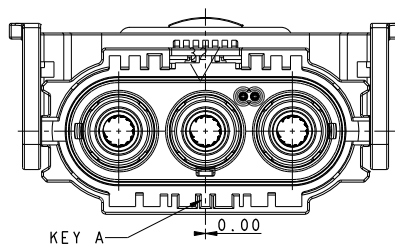


	Coding A	Coding B
P/N	HVSL800 02 3 A	HVSL800 02 3 B

3 PIN STRAIGHT PLUG



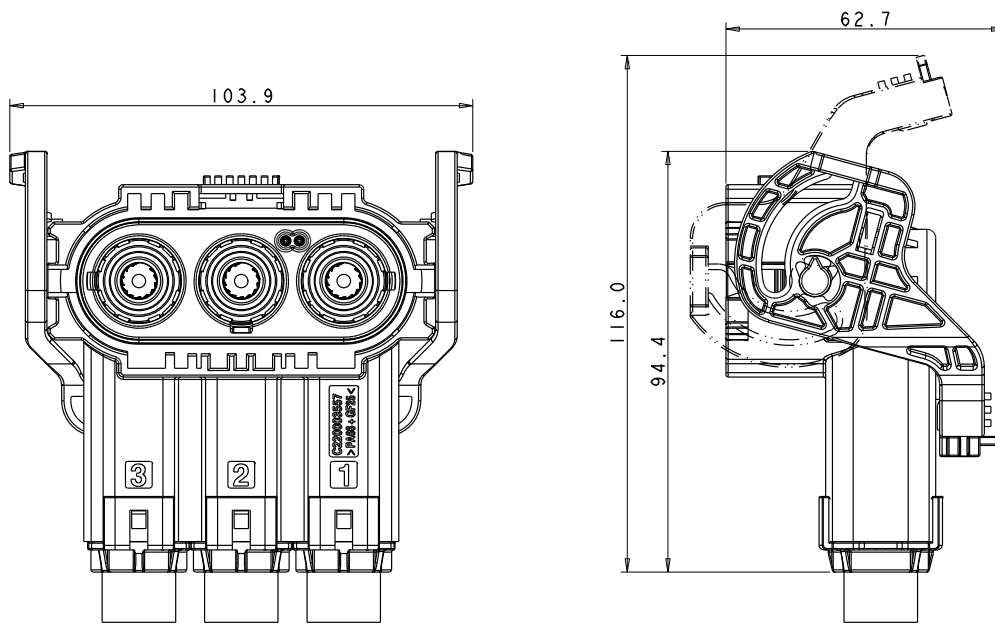
INSERT ORIENTATIONS



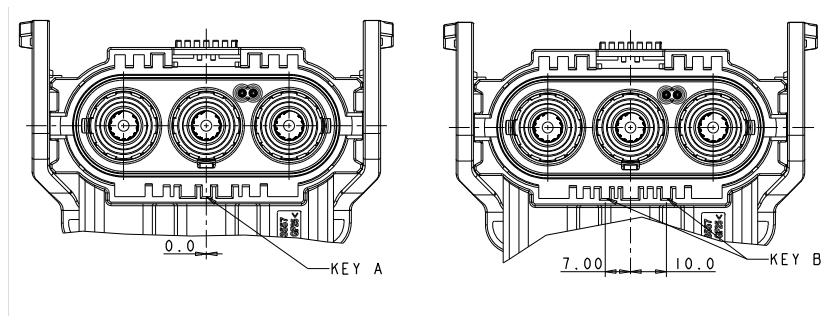
	Coding A	Coding B
P/N	HVSL800 06 3 A	HVSL800 06 3 B

# Excel|Mate S (HVSL 800)

## 3 PIN RIGHT ANGLE PLUG

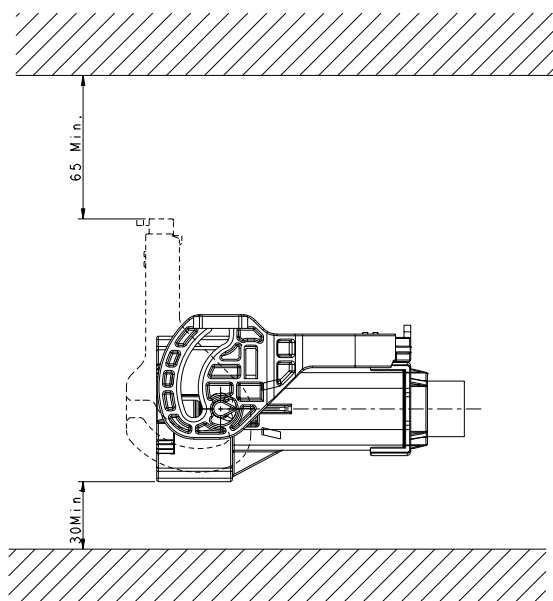


## INSERT ORIENTATIONS



	A	B
P/N	HVSL800 08 3 A	HVSL800 08 3 B

## INSTALLATION CLEARANCE



## EXTRACTION TOOL FOR RECEPTACLE

### HVIL-contact Extraction tool: HVTOOL10R



## HOW TO ORDER: PLUG

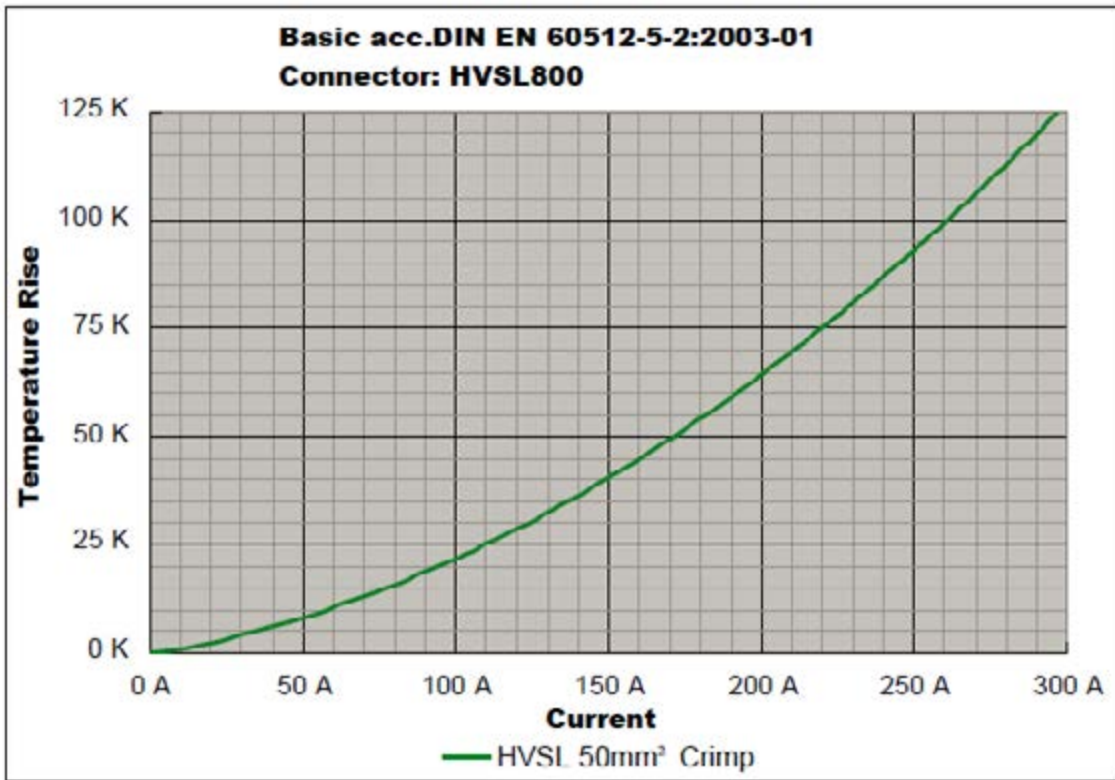
HVSL800	06	2	A	0	50
<b>Product type:</b>					
06: Straight plug   08: Right angle plug					
<b>Position:</b>					
2: 2 position   3: 3 position					
<b>Coding / Alternate position:</b>					
A: Coding A   B: Coding B   C: Coding C (Only for 2 position)					
<b>Interlock:</b>					
0: Without interlock   1: With interlock					
<b>Cable size:</b>					
25: 25mm <sup>2</sup> cable   35: 35mm <sup>2</sup> cable   50: 50mm <sup>2</sup> cable					

## HOW TO ORDER: RECEPTACLE

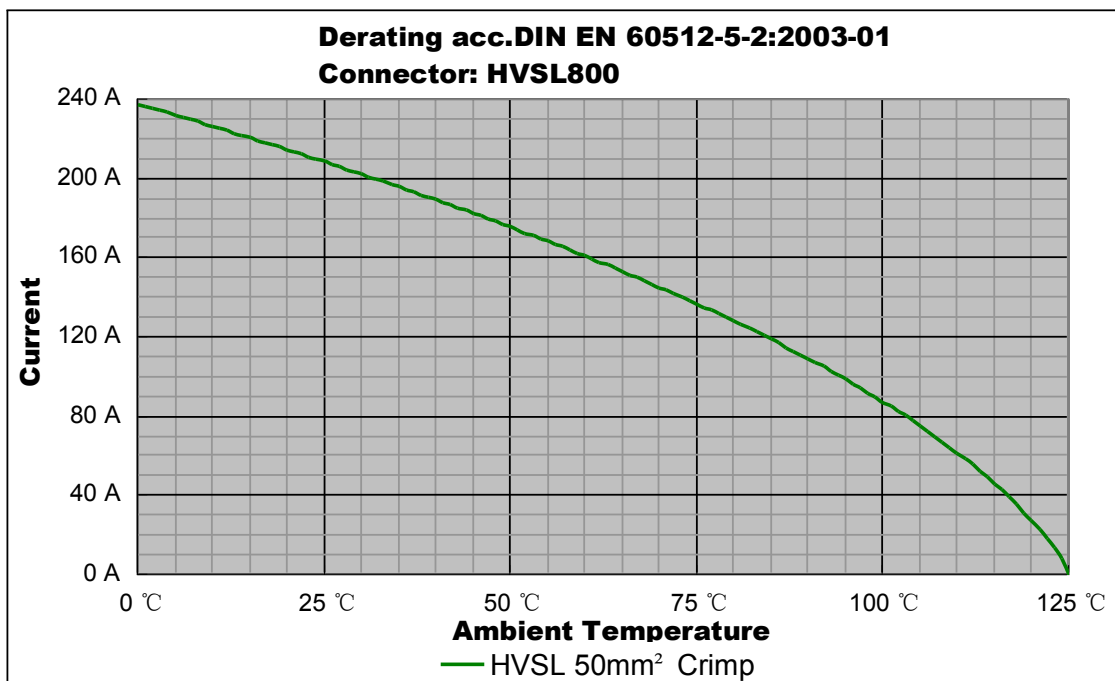
HVSL800	02	2	A	0	H6
<b>Product type:</b>					
02: Box mounted receptacle					
<b>Position:</b>					
2: 2 position   3: 3 position					
<b>Coding / Alternate position:</b>					
A: Coding A   B: Coding B   C: Coding C (Only for 2 positions)					
<b>Interlock:</b>					
0: Without interlock   1: With interlock					
<b>Cable size:</b>					
H6: Copper bar, OT terminal   D6: Screw (Internal), OT terminal					

# CHARTS (HVSL 800)

## HVSL 800 | Temperature Rise



## HVSL 800 | Derating Curve



Remark: tests carried out on the complete connector.

## Excel|Mate Metal: 2 PIN & 3 PIN CONNECTOR



### Excel|Mate Metal

Excel|Mate Metal is a 2 pin and 3 pin connector with current carrying capacity from 80 to 120A and 16 to 25mm<sup>2</sup> crimping cable.

Specially designed for battery, inverters, junction boxes, power distribution boxes and others xEV devices' equipment.

### KEY FEATURES

Integrated internal HVIL

Current rating up to 120A

No tool required to unmate

Sealing, IP67 (mated), IP6K9K

Touch-proof, IP2XB

Multiple coding positions

CPA available

### MECHANICAL

Durability	≥ 50 mating cycles
Wire range	16 to 25 mm <sup>2</sup> shielded wire
Insertion and extraction force	< 100N
Connection type	Copper bar
HVIL	Integrated
CPA	Available

### ELECTRICAL

Rated voltage	1000V DC
Rated current	120A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device

### ENVIRONMENTAL

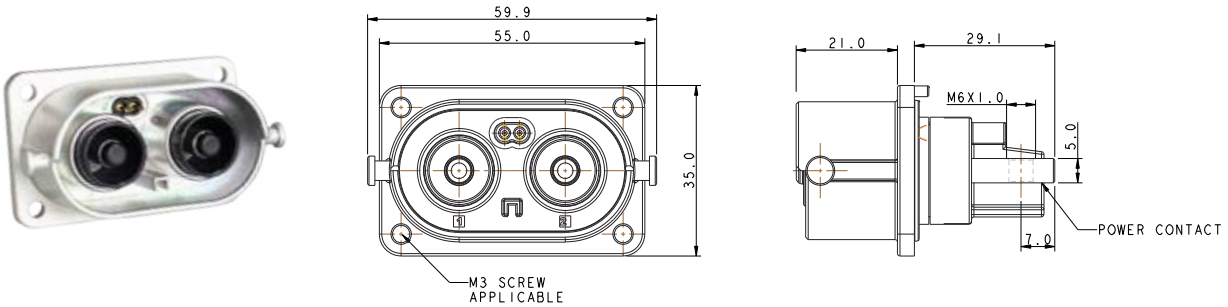
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	96 hours

### MATERIAL

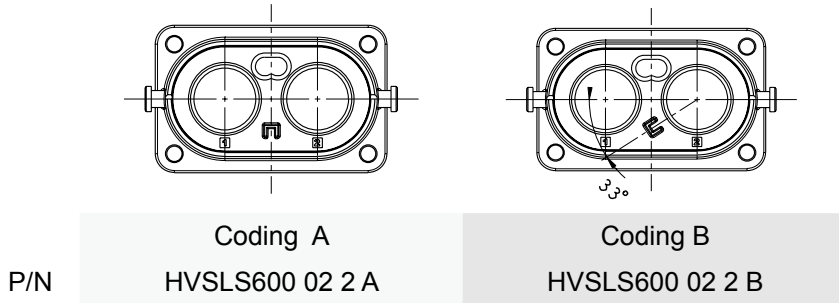
Terminals	Copper/copper alloy with silver plating
Housing	Zinc alloy



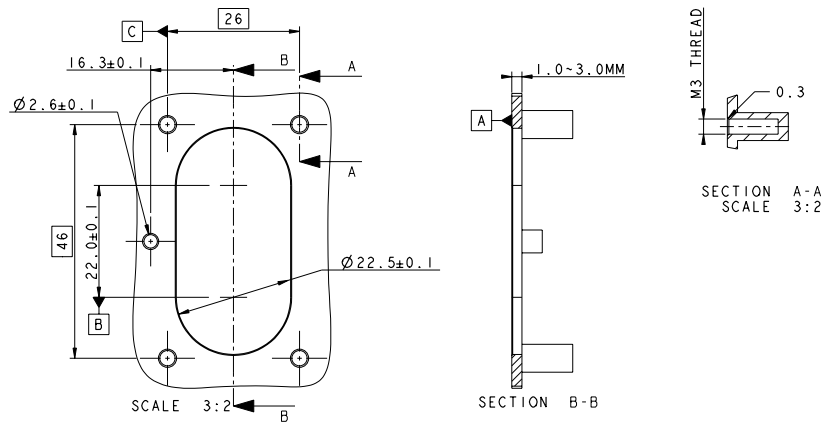
2 PIN RECEPTACLE



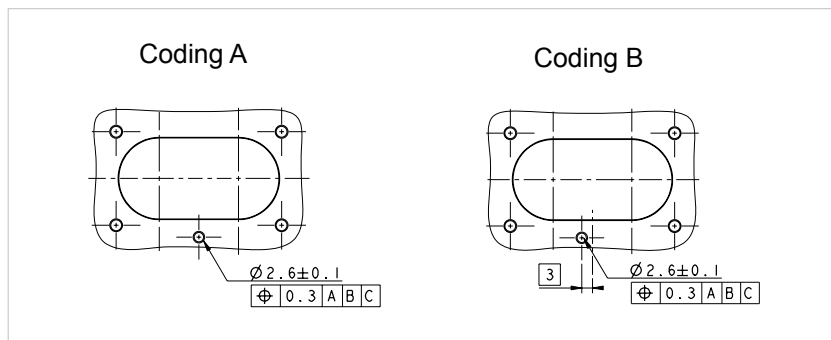
INSERT ORIENTATIONS



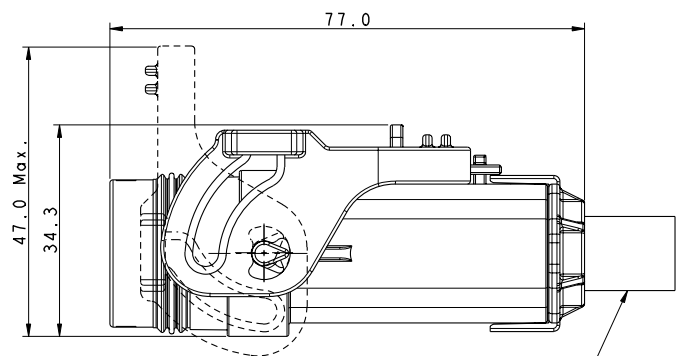
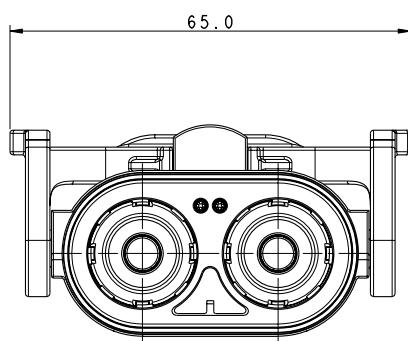
PANEL MOUNTING DIMENSIONS



INSERT ORIENTATIONS

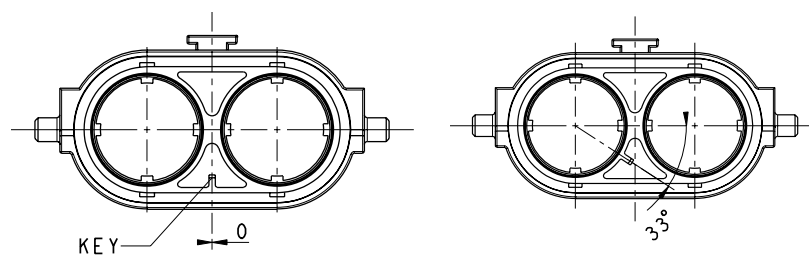


2 PIN STRAIGHT PLUG



16mm<sup>2</sup>~25mm<sup>2</sup>  
CABLE SIZE

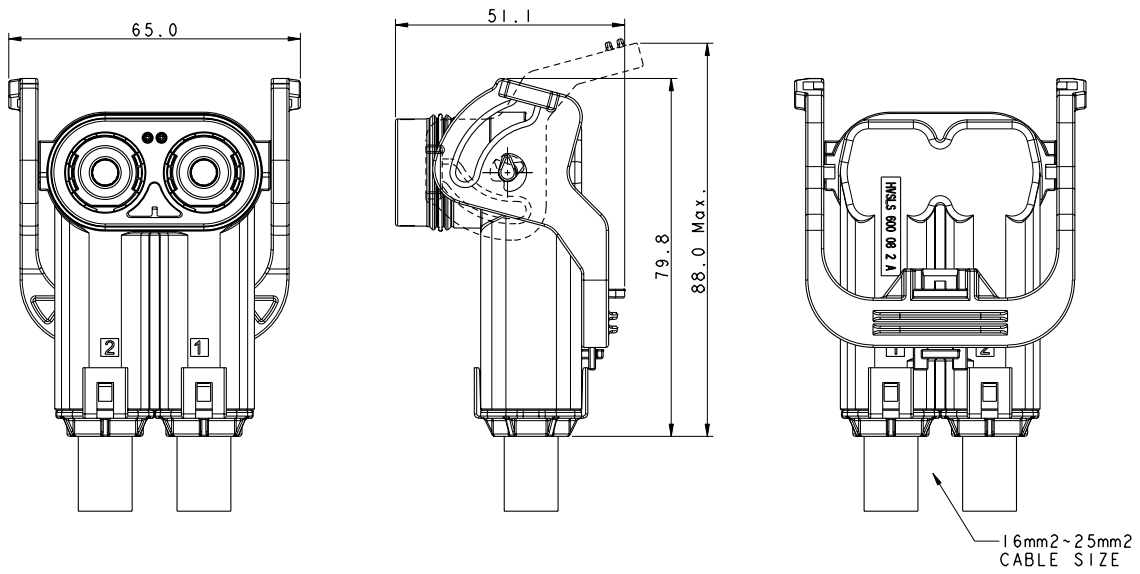
INSERT ORIENTATIONS



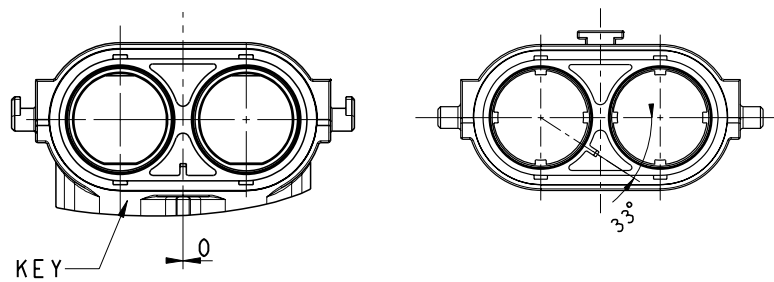
	Coding A	Coding B
P/N	HVSL S600 06 2 A	HVSL S600 06 2 B

# Excel|Mate Metal (HVSL S 600)

## 2 PIN RIGHT ANGLE PLUG

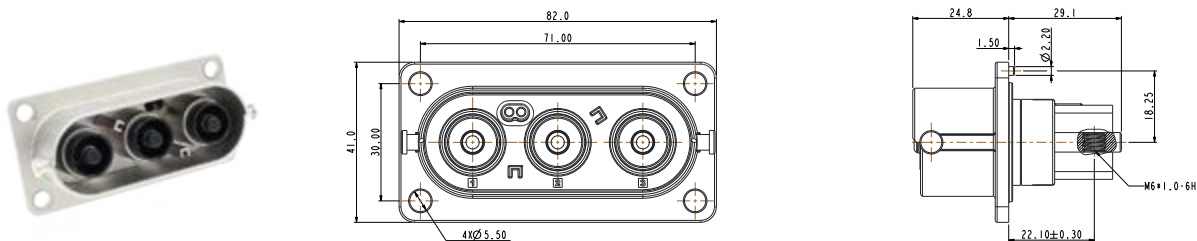


## INSERT ORIENTATIONS

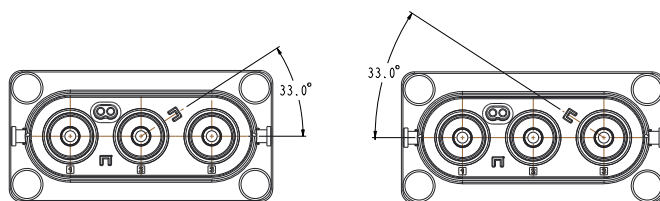


	Coding A	Coding B
P/N	HVSL S 600 08 2 A	HVSL S 600 08 2 B

3 PIN RECEPTACLE

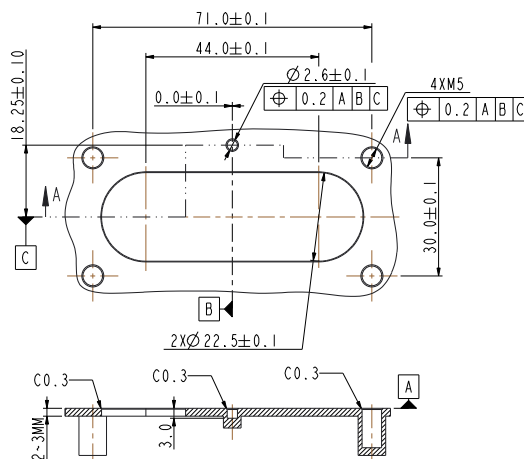


INSERT ORIENTATIONS

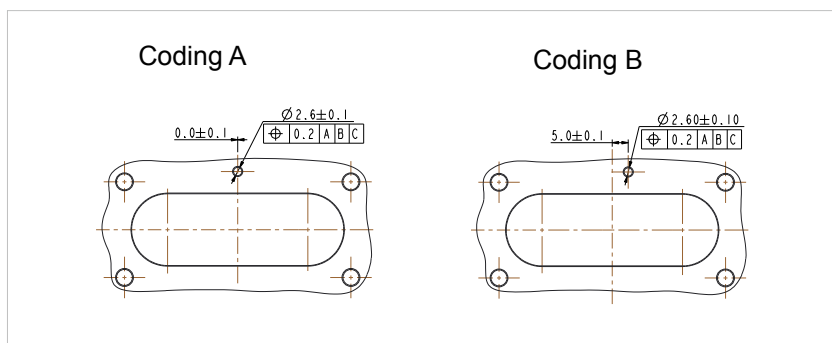


	Coding A	Coding B
P/N	HVLS600 02 3 A	HVLS600 02 3 B

PANEL MOUNTING DIMENSIONS

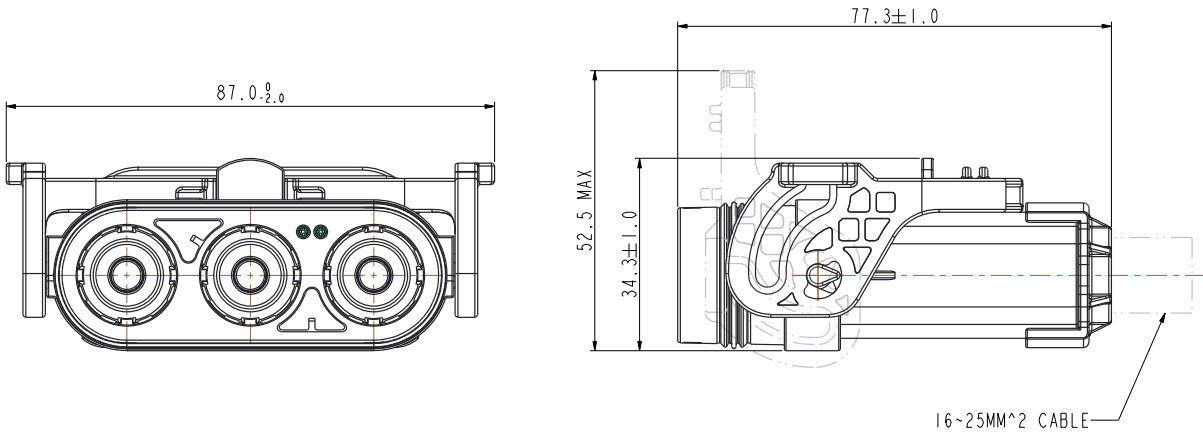


INSERT ORIENTATIONS

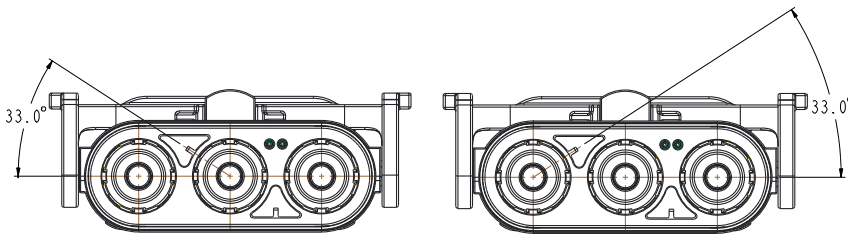


# Excel|Mate Metal (HVSL 600)

## 3 PIN STRAIGHT PLUG

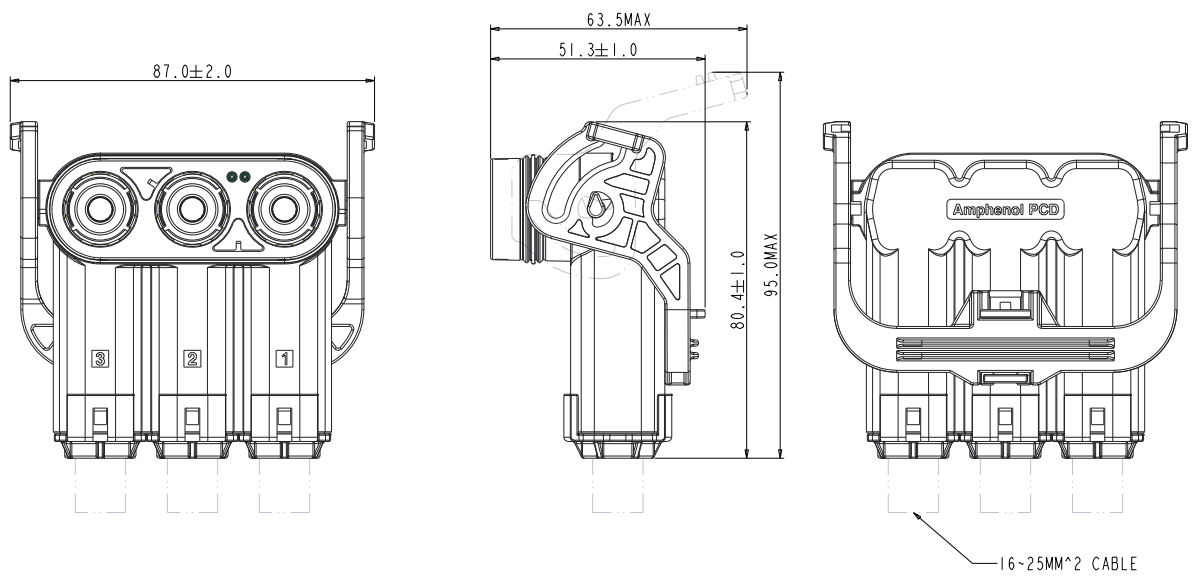


## INSERT ORIENTATIONS

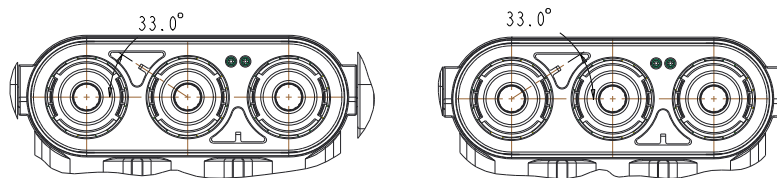


	Coding A	Coding B
P/N	HVSL600 06 3 A	HVSL600 06 3 B

3 PIN RIGHT ANGLE PLUG

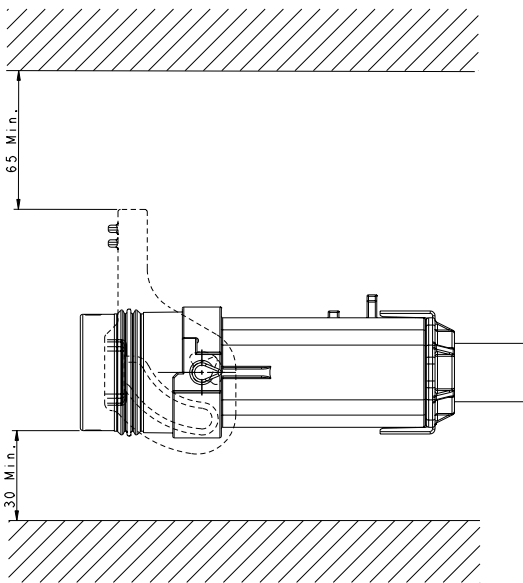


INSERT ORIENTATIONS



P/N	Coding A HVSL S600 08 2 A	Coding B HVSL S600 08 2 B

## INSTALLATION CLEARANCE



## TOOL FOR RIGHT ANGLE PLUGS

Tool for locking contacts: HVSLP033002



### Remark:

Customer needs to use fixture HVSLP033002 with Stanley torque wrench sleeve (purchased by the customer) for assembling the finish product HVSLS600082.

## HOW TO ORDER: PLUG

HVSLS600 06 2 A 0 16

### Product type:

06: Straight plug | 08: Right angle plug

### Position:

2: 2 position | 3: 3 position

### Coding / Alternate position:

A: Coding A | B: Coding B

### Interlock:

0: Without interlock | 1: With interlock

### Cable size:

16: 16mm<sup>2</sup> cable | 25: 25mm<sup>2</sup> cable

## HOW TO ORDER: RECEPTACLE

HVSLS600 02 2 A 0 H6

### Product type:

02: Box mounted receptacle

### Position:

2: 2 position | 3: 3 position

### Coding / Alternate position:

A: Coding A | B: Coding B

### Interlock:

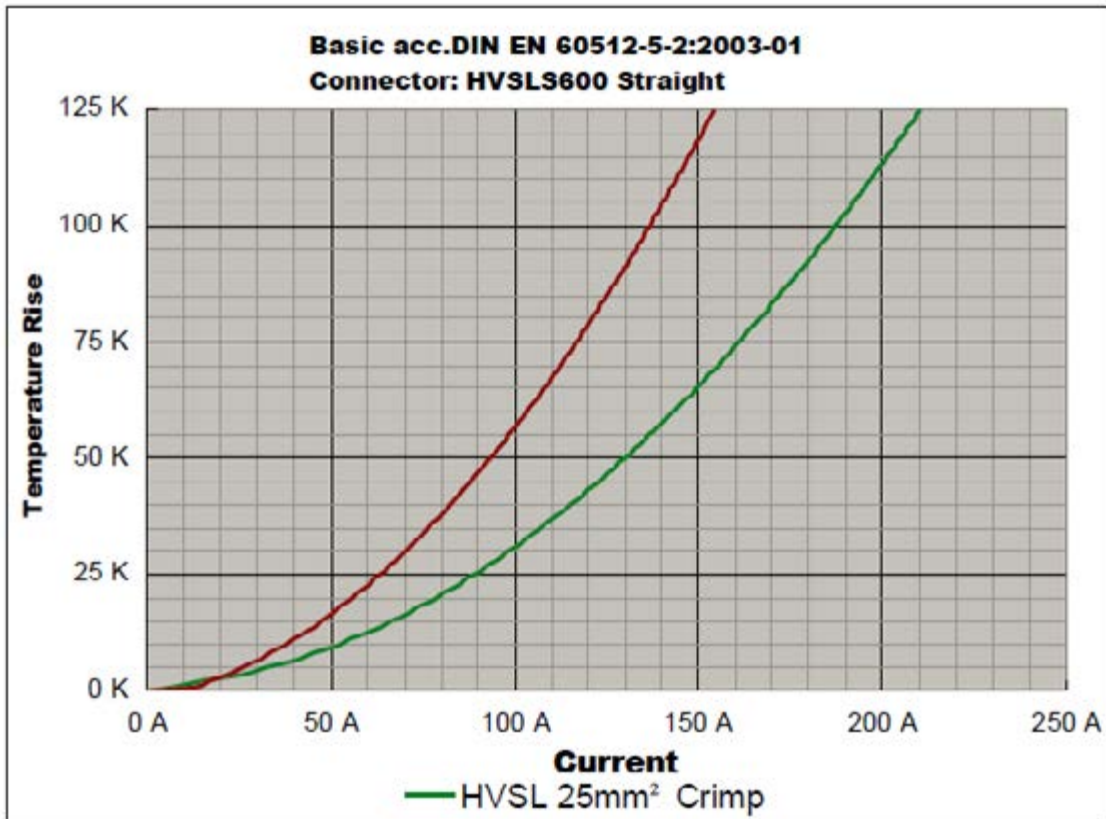
0: Without interlock | 1: With interlock

### Cable size:

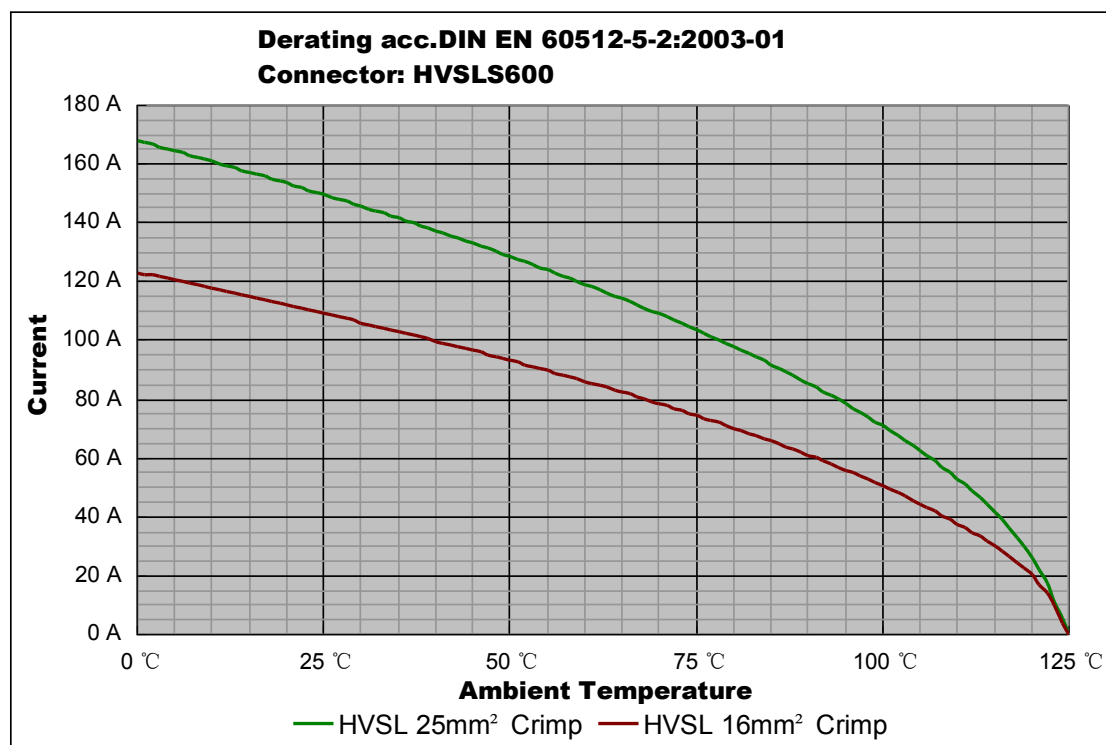
H6: OT terminal



HVSL 600 | Temperature Rise



HVSL 600 | Derating Curve



Remark: tests carried out on the complete connector.

# Excel|Mate Metal (HVSL S 800)

## Excel|Mate Metal (HVSL S800)



### Excel|Mate Metal

Excel|Mate Metal is a 2 pin connector with a current carrying capacity of 180A and 35 to 50mm<sup>2</sup> crimping cable.

Specially designed for battery, inverters, junction boxes, power distribution boxes and others xEV devices' equipment.

### KEY FEATURES

- Integrated internal HVIL
- Current rating up to 180A
- No tool required to unmate
- Sealing, IP67 (mated), IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

### MECHANICAL

Durability	≥ 50 mating cycles
Wire range	35 to 50 mm <sup>2</sup> shielded wire
Insertion and extraction force	< 100N
Connection type	Copper bar
HVIL	Integrated
CPA	Available

### ELECTRICAL

Rated voltage	1000V DC
Rated current	180A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device

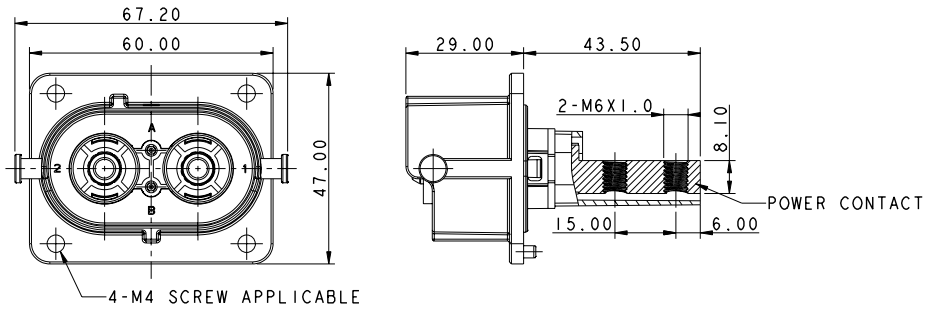
### ENVIRONMENTAL

Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
Salt spray	96 hours

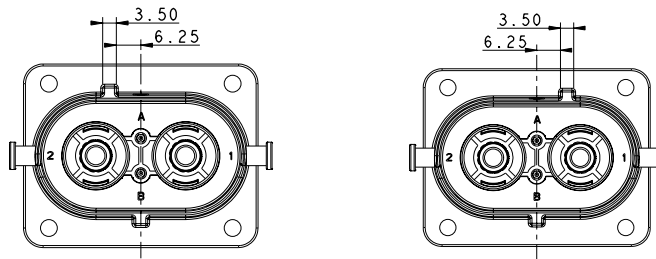
### MATERIAL

Terminals	Copper/copper alloy with silver plating
Housing	Zinc alloy

RECEPTACLE

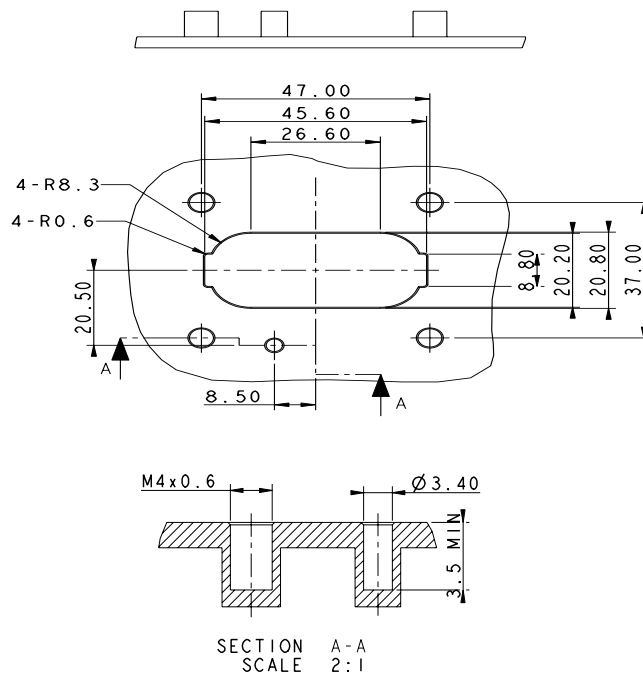


INSERT ORIENTATIONS



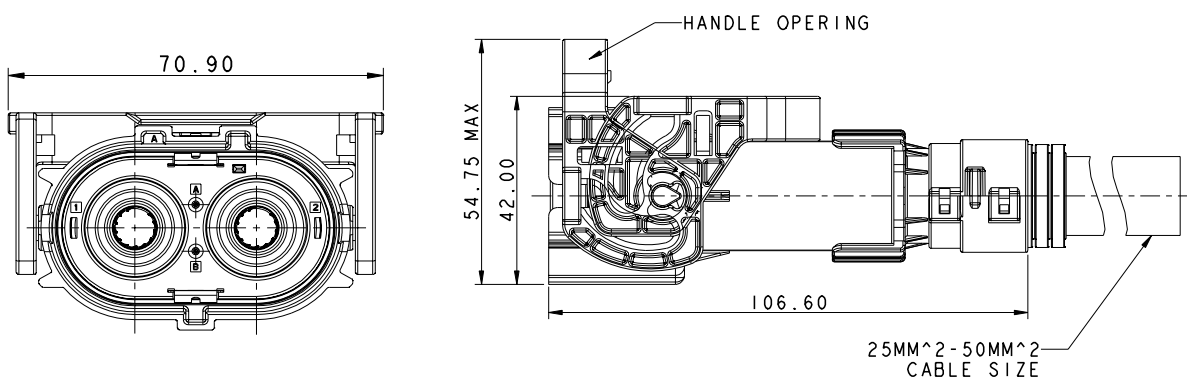
	Coding A	Coding B
P/N	HVSL800 02 2 A	HVSL800 02 2 B

PANEL MOUNTED DIMENSIONS

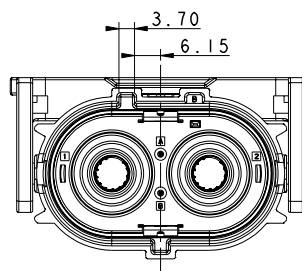
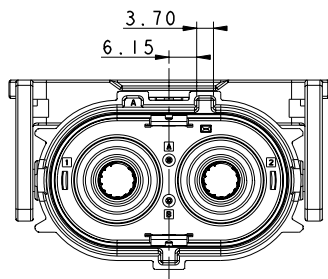


# Excel|Mate Metal (HVSL S 800)

## STRAIGHT PLUG



## INSERT ORIENTATIONS



P/N

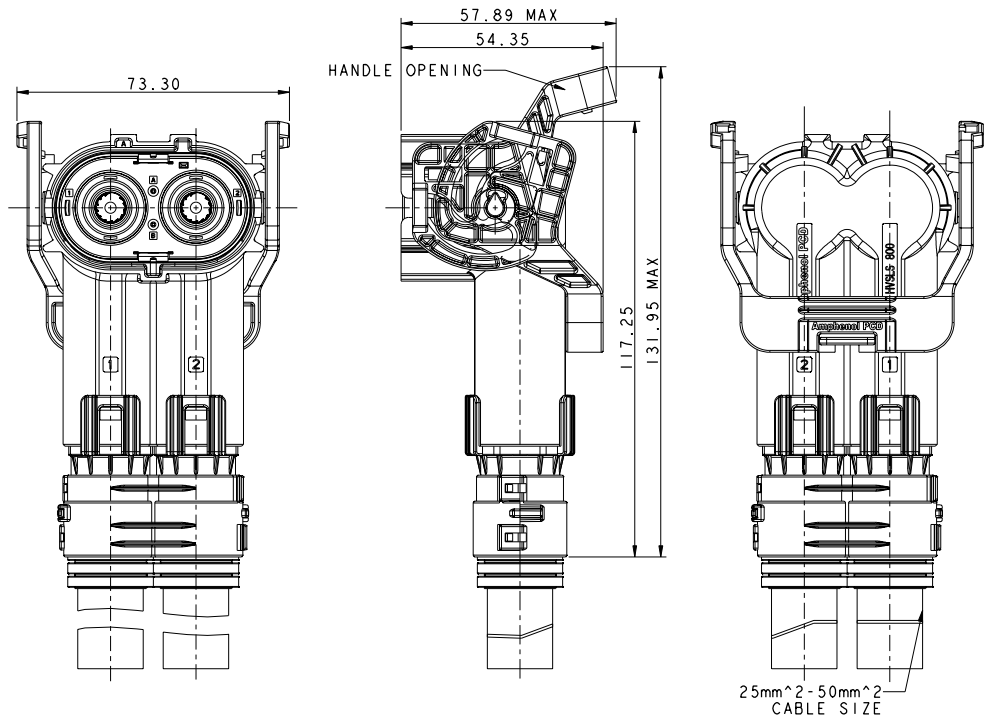
Coding A

HVSL S800 06 2 A

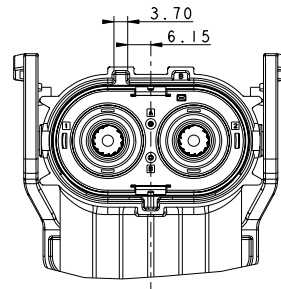
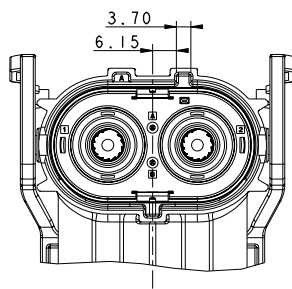
Coding B

HVSL S800 06 2 B

RIGHT ANGLE PLUG



INSERT ORIENTATIONS

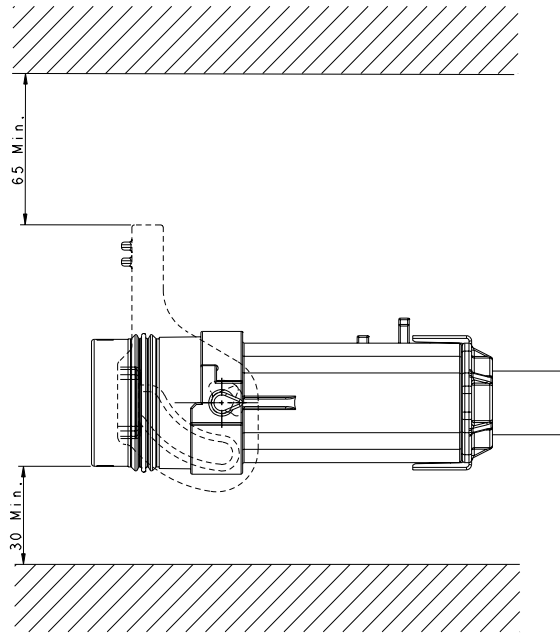


P/N

Coding A  
HVSL800 08 2 A

Coding B  
HVSL800 08 2 B

## INSTALLATION CLEARANCE



### HOW TO ORDER: PLUG

	HVSL S 800	06	2	A	0	35
<b>Product type:</b>	06: Straight plug   08: Right angle plug					
<b>Position:</b>	2: 2 position					
<b>Coding / Alternate position:</b>	A: Coding A   B: Coding B					
<b>Interlock:</b>	0: Without interlock   1: With interlock					
<b>Cable size:</b>	35: 35mm <sup>2</sup> cable   50: 50mm <sup>2</sup> cable					

### HOW TO ORDER: RECEPTACLE

	HVSL S 800	02	2	A	0	H6
<b>Product type:</b>	02: Box mounted receptacle					
<b>Position:</b>	2: 2 position					
<b>Coding / Alternate position:</b>	A: Coding A   B: Coding B					
<b>Interlock:</b>	0: Without interlock   1: With interlock					
<b>Cable size:</b>	H6: OT terminal					

## Excel|Mate Eco (HVSL600 1 POSITION CONNECTOR)



### HVSL600

**HVSL600** is a single pin connector with a current carrying capacity of 120A and 25mm<sup>2</sup> crimping cable. It can be utilized with multi-core or individually shielded wire. An integrated internal HVIL with multiple routing options allows package size optimization and flexibility.

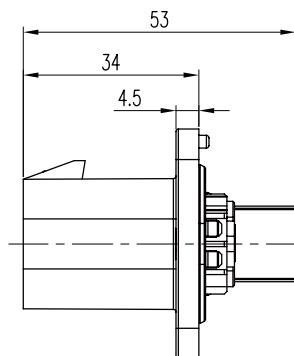
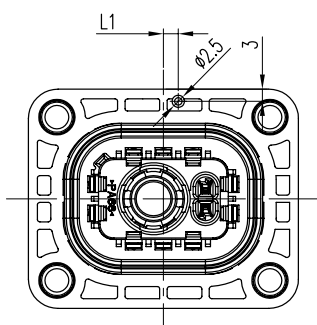
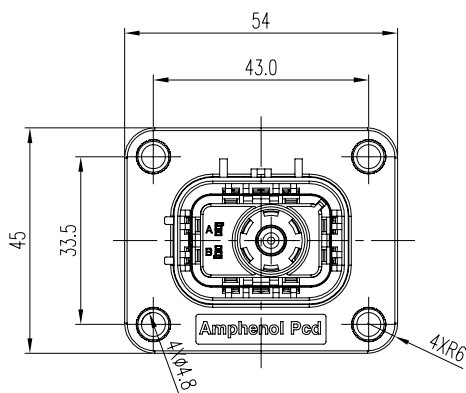
#### KEY FEATURES

- Integrated internal HVIL
- Current rating up to 120A
- Two-stage, tool or thumb activated latching
- No tool required to unmate
- Sealing, IP67 (mated), IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	25mm <sup>2</sup> shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping or bus-bar
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available
ELECTRICAL	
Rated voltage	800V DC
Rated current	120A @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
MATERIAL	
Terminals	Copper/copper alloy with silver plating
Housing	PA66 + GF



RECEPTACLE



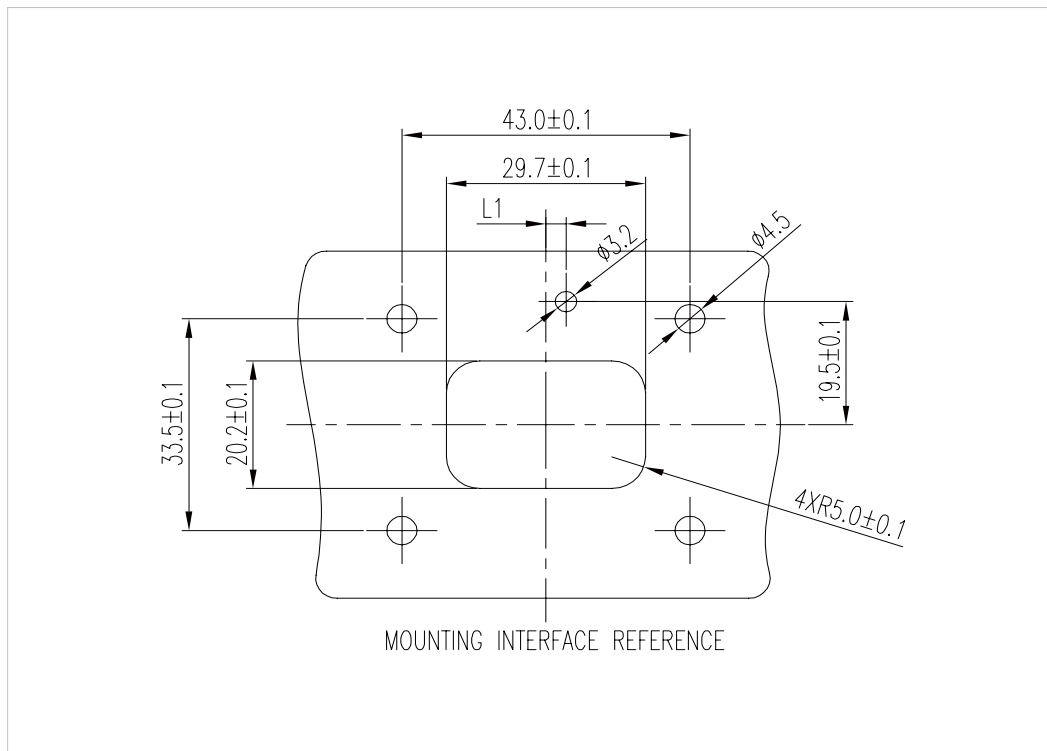
CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)

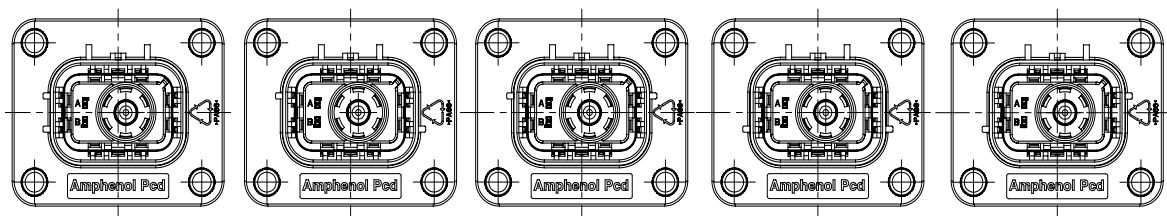
For HVSL600021XX25	For HVSL600021XXH6	For HVSL600021XX25
Pin contact: crimp for wire	Pin contact: end with bus-bar	Pin signal contact (HVIL)
P/N: C420003621	P/N: C420003625	P/N: C310003613
25mm <sup>2</sup> unshielded wire	—	0.5mm <sup>2</sup> unshielded wire

PANEL MOUNTING DIMENSIONS

CODING	A	B	C	D	E
L1 (Receptacle)	0	3	6	-3	-6
L1 (Panel mount)	0	-3	-6	3	6

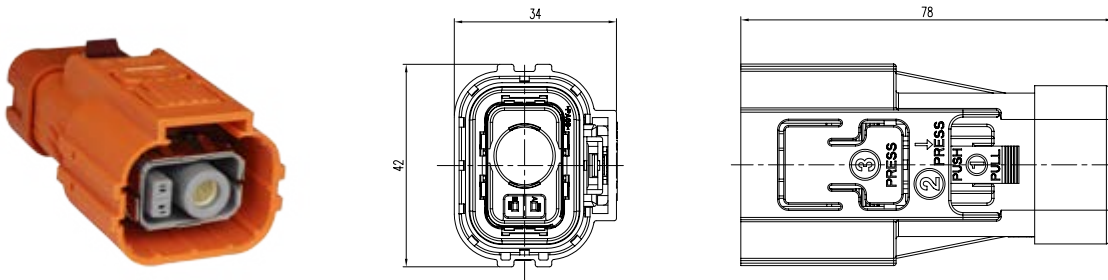


INSERT ORIENTATIONS



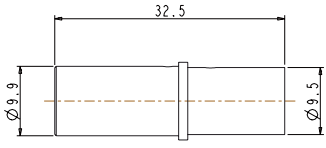
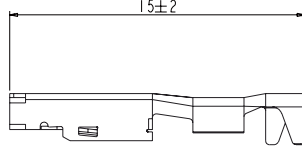
	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL600 02 1 A	HVSL600 02 1 B	HVSL600 02 1 C	HVSL600 02 1 D	HVSL600 02 1 E

## PLUG



## CONTACTS

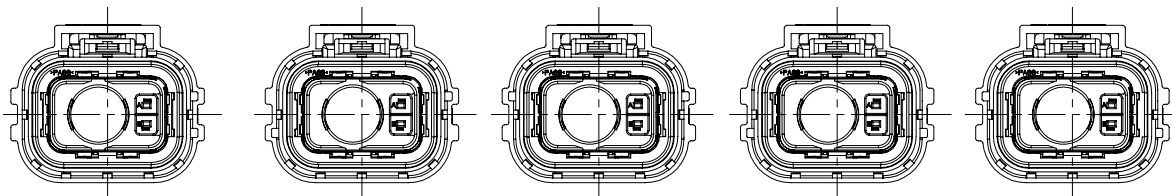
All connectors do not include contacts. Please order them separately (ref: P/N below)

For HVSL600061XX25XX	For HVSL600061XX25XX
Socket contact	Socket signal contact (HVIL)
P/N: C420003620	P/N: C310003614
	
25mm <sup>2</sup> shielded wire	0.5mm <sup>2</sup> unshielded wire

Sealing gasket for HVSL600061XX25XX:

12	11	10
P/N: C270003607	P/N: C2700036071	P/N: C2700036072
12 ± 0.2 mm (Wire OD)	11 ± 0.2 mm (Wire OD)	10 ± 0.2 mm (Wire OD)

## INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL600 06 1 A	HVSL600 06 1 B	HVSL600 06 1 C	HVSL600 06 1 D	HVSL600 06 1 E

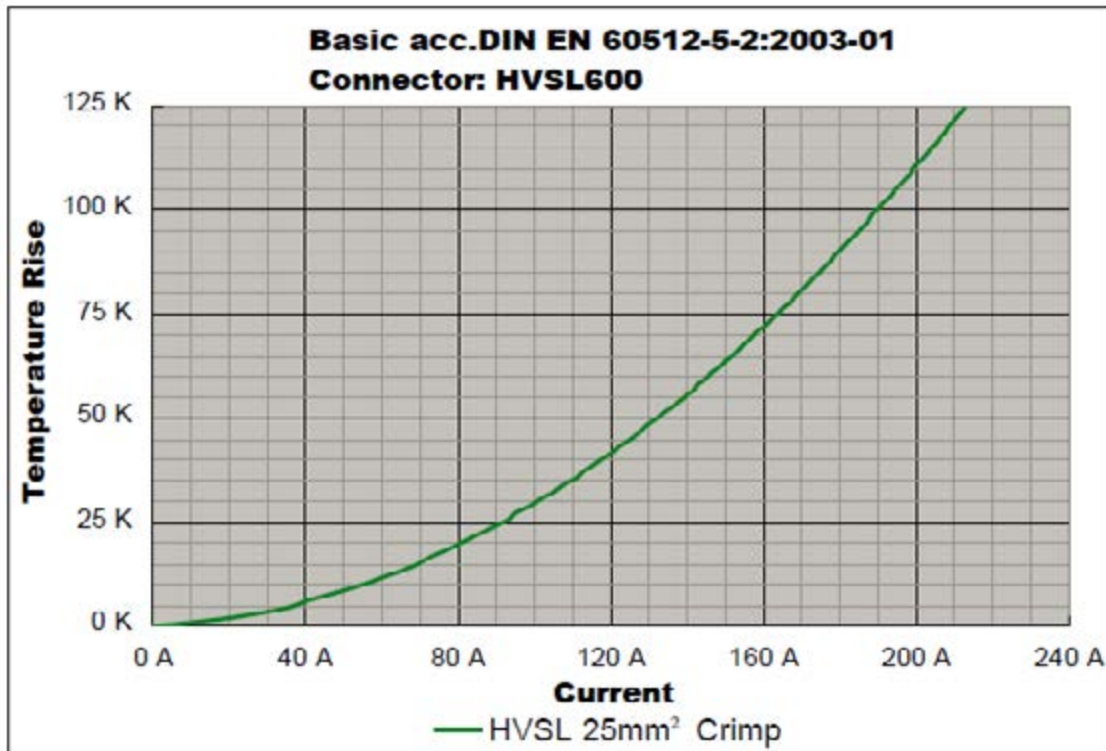
## HOW TO ORDER: PLUG

	HVSL600	06	1	A	0	25	10
<b>Product type:</b>	<b>06:</b> Straight plug						
<b>Position:</b>	<b>1:</b> 1 position						
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E						
<b>Interlock:</b>	<b>0:</b> Without interlock <b>1:</b> With interlock						
<b>Cable size:</b>	<b>25:</b> 25mm <sup>2</sup>						
<b>Sealing gasket:</b>	<b>10:</b> 10mm (Wire OD) <b>11:</b> 11mm (Wire OD) <b>12:</b> 12mm (Wire OD)						

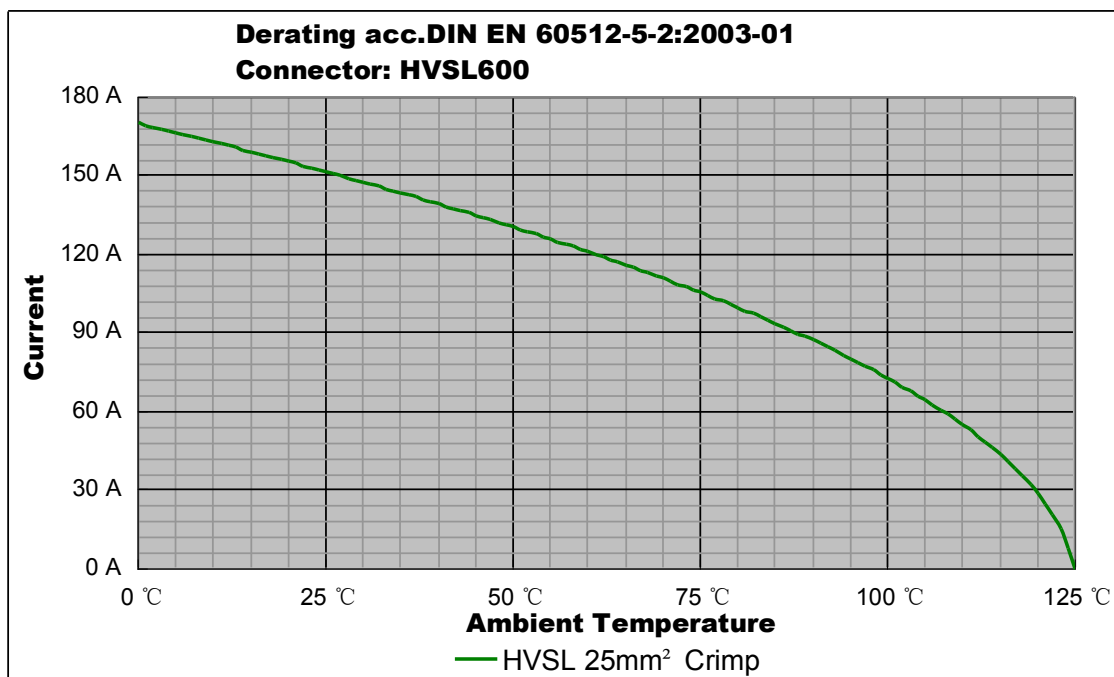
## HOW TO ORDER: RECEPTACLE

	HVSL600	02	1	A	25
<b>Product type:</b>	<b>02:</b> Box mounted receptacle				
<b>Position:</b>	<b>1:</b> 1 position				
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E				
<b>Cable size:</b>	<b>25:</b> 25mm <sup>2</sup> <b>H6:</b> OT terminal				

## HVSL 600 | Temperature Rise



## HVSL 600 | Derating Curve



Remark: tests carried out on the complete connector.

## Excel|Mate Eco (HVSL630 2 POSITION CONNECTOR)



### HVSL630

**HVSL630** is a 2 position connector with a current carrying capacity from 23 to 40A and 4 to 6mm<sup>2</sup> crimping cable.

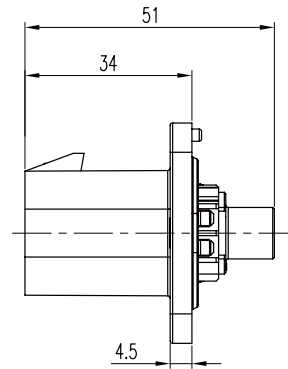
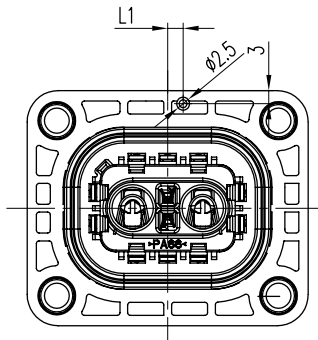
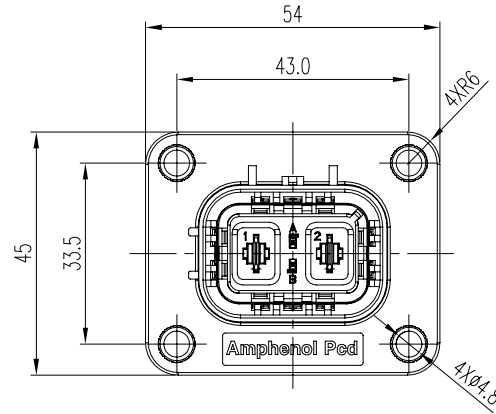
Specially designed for DC-DC, air-conditioner, and others xEV devices' equipment.

### KEY FEATURES

- Integrated internal HVIL
- Current rating up to 40A
- Two-stage, tool or thumb activated latching
- No tool required to unmate
- Sealing, IP67 (mated), IP6K9K
- Touch-proof, IP2XB
- Multiple coding positions
- CPA available

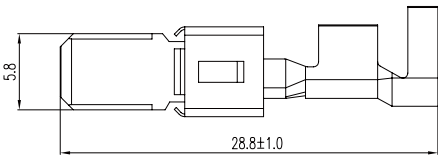
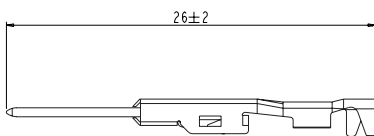
MECHANICAL	
Durability	≥ 50 mating cycles
Wire range	4 to 6 mm <sup>2</sup> shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available
ELECTRICAL	
Rated voltage	800V DC
Rated current	40A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C
MATERIAL	
Terminals	Copper/copper alloy with tin plating
Housing	PA66 + GF

RECEPTACLE



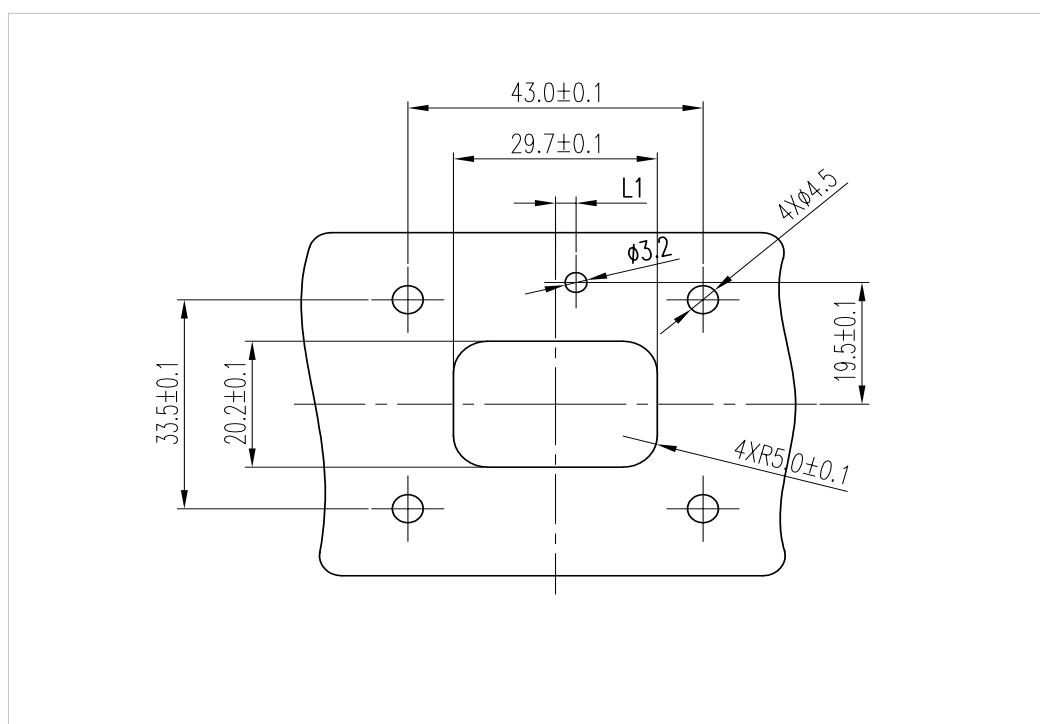
CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)

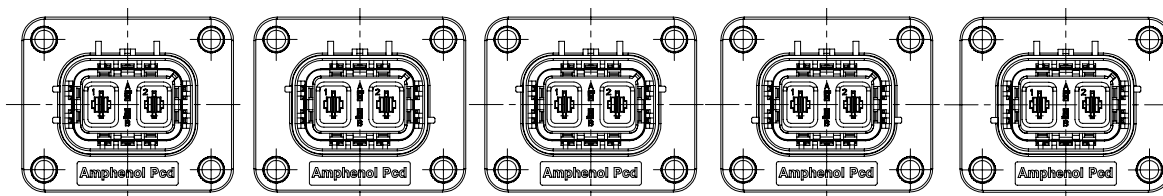
For HVSL630022XX06	For HVSL630022XX06
Pin contact: crimping	Pin signal contact (HVIL)
P/N: C310003622	P/N: C310003613
	
4 to 6mm <sup>2</sup> unshielded wire	0.5mm <sup>2</sup> unshielded wire

PANEL MOUNTING DIMENSIONS

CODING	A	B	C	D	E
L1 (Receptacle)	0	3	6	-3	-6
L1 (Panel mount)	0	-3	-6	3	6



INSERT ORIENTATIONS

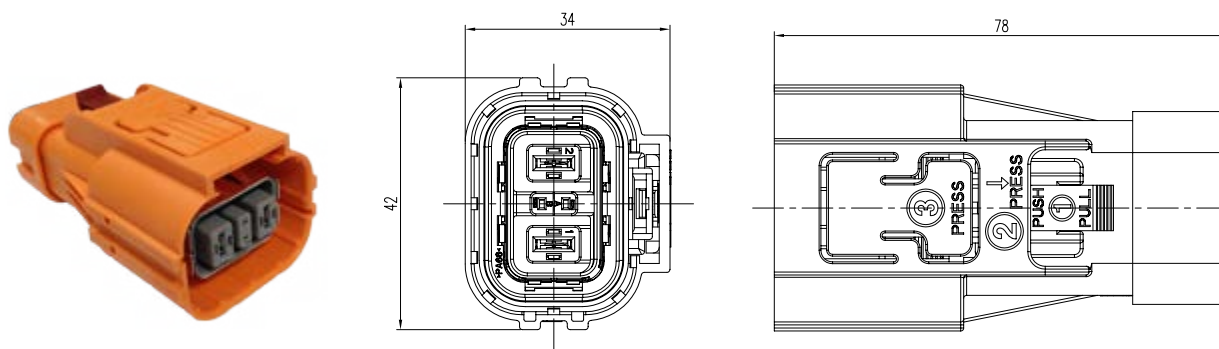


	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL630 02 2 A	HVSL630 02 2 B	HVSL630 02 2 C	HVSL630 02 2 D	HVSL630 02 2 E



# Excel|Mate Eco (HVSL 630)

## PLUG



## CONTACTS

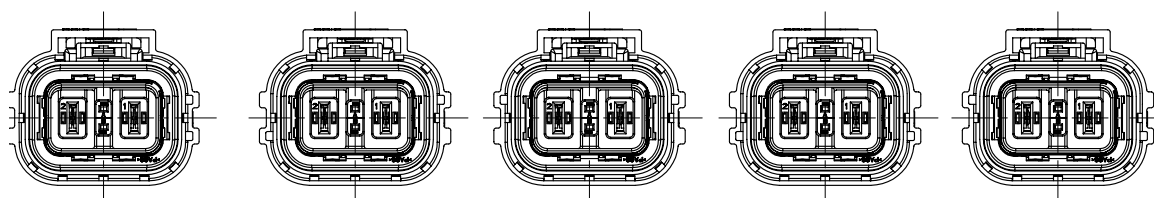
All connectors do not include contacts. Please order them separately (ref: P/N below)

For HVSL630062XX06XX	For HVSL630062XX06XX
Socket contact	Socket signal contact (HVIL)
P/N: C310003623	P/N: C310003614
4 to 6mm <sup>2</sup> shielded wire	0.5mm <sup>2</sup> unshielded wire

Sealing gasket for HVSL630062XX06XX:

12	11	10
P/N: C270003607	P/N: C2700036071	P/N: C2700036072
12 ± 0.2 mm (Wire OD)	11 ± 0.2 mm (Wire OD)	10 ± 0.2 mm (Wire OD)

## INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL630 06 2 A	HVSL630 06 2 B	HVSL630 06 2 C	HVSL630 06 2 D	HVSL630 06 2 E

## HOW TO ORDER: PLUG

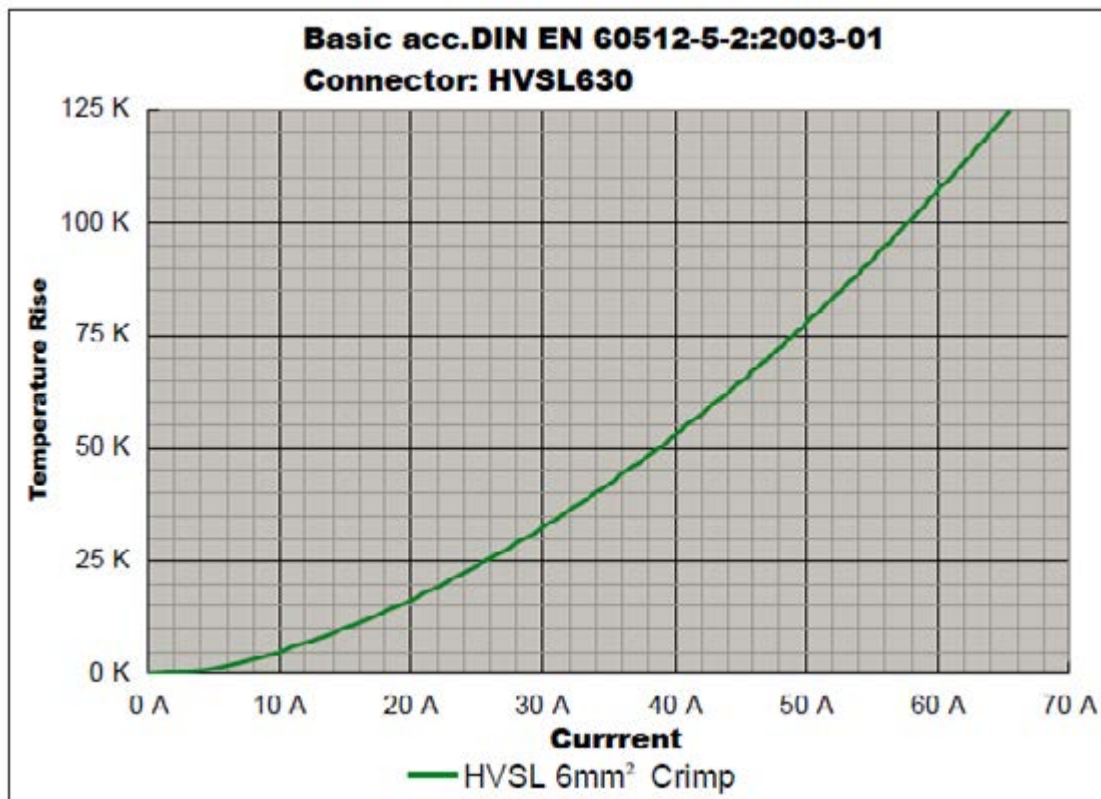
	HVSL630	06	2	A	0	04	10
<b>Product type:</b>	<b>06:</b> Straight plug						
<b>Position:</b>	<b>2:</b> 2 positions						
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E						
<b>Interlock:</b>	<b>0:</b> Without interlock <b>1:</b> With interlock						
<b>Cable size:</b>	<b>04:</b> 4mm <sup>2</sup> <b>06:</b> 6mm <sup>2</sup> <b>25:</b> 25mm <sup>2</sup>						
<b>Sealing gasket:</b>	<b>10:</b> 10mm (Wire OD) <b>11:</b> 11mm (Wire OD) <b>12:</b> 12mm (Wire OD)						

## HOW TO ORDER: RECEPTACLE

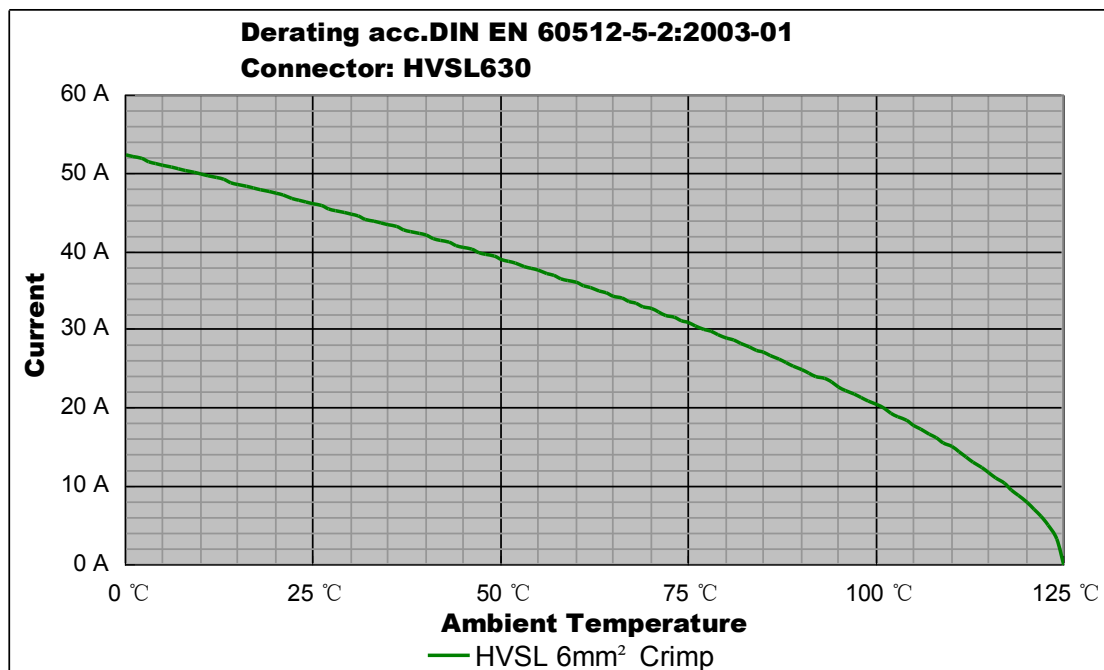
	HVSL630	02	2	A	04
<b>Product type:</b>	<b>02:</b> Box mounted receptacle				
<b>Position:</b>	<b>2:</b> 2 positions				
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E				
<b>Cable size:</b>	<b>04:</b> 4mm <sup>2</sup> <b>06:</b> 6mm <sup>2</sup>				

# CHARTS (HVSL 630)

## HVSL 630 | Temperature Rise



## HVSL 630 | Derating Curve



Remark: tests carried out on the complete connector.

## Excel|Mate (HVSL633 3 pin connector)



### HVSL633

**HVSL633** is a 3 position connector with a current carrying capacity from 23 to 40A and 4 to 6mm<sup>2</sup> crimping cable.

Specially designed for DC-DC, air-conditioner, and others xEV devices' equipment.

### KEY FEATURES

Integrated internal HVIL

Current rating up to 40A

Two-stage, tool or thumb activated latching

No tool required to unmate

Sealing, IP67 (mated), IP6K9K

Touch-proof, IP2XB

Multiple coding positions

CPA available

### MECHANICAL

Durability	≥ 50 mating cycles
Wire range	4 to 6 mm <sup>2</sup> shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available

### ELECTRICAL

Rated voltage	800V DC
Rated current	40A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device

### ENVIRONMENTAL

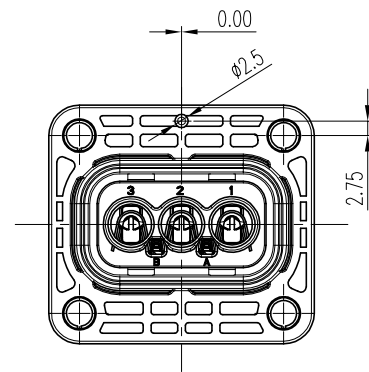
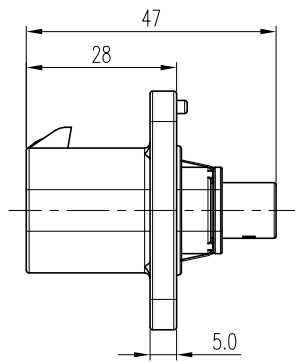
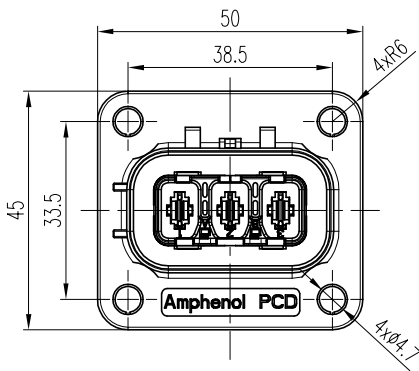
Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C

### MATERIAL

Terminals	Copper/copper alloy with tin plating
Housing	PA66 + GF

# Excel|Mate Eco (HVSL 633)

## RECEPTACLE HVSL633

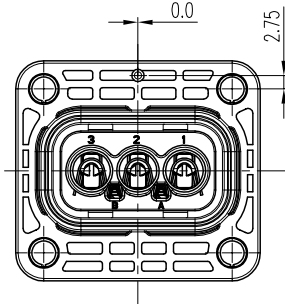
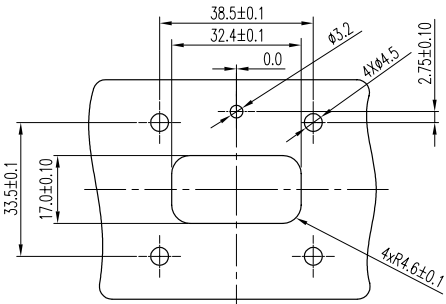
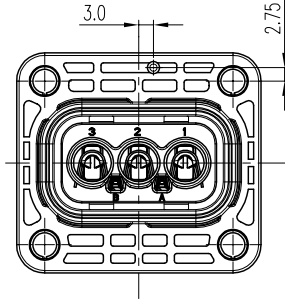
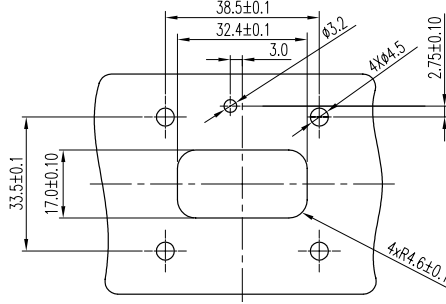
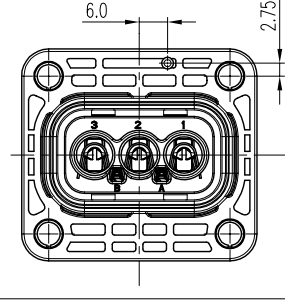
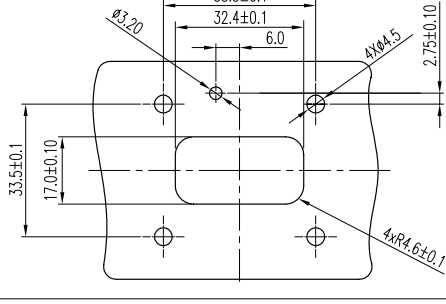
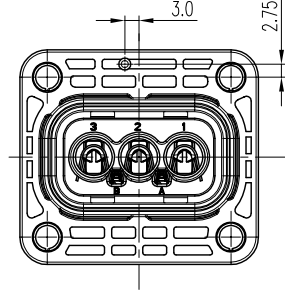
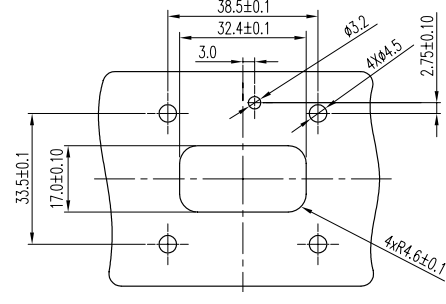
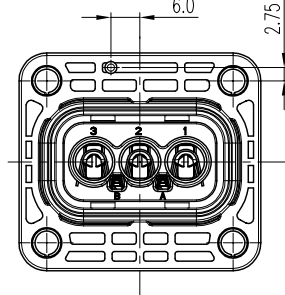
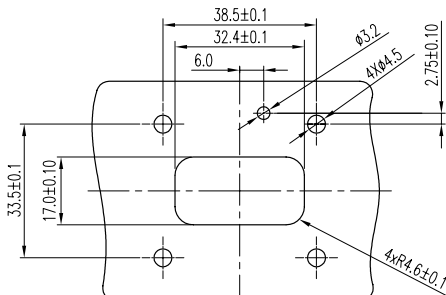


## CONTACTS

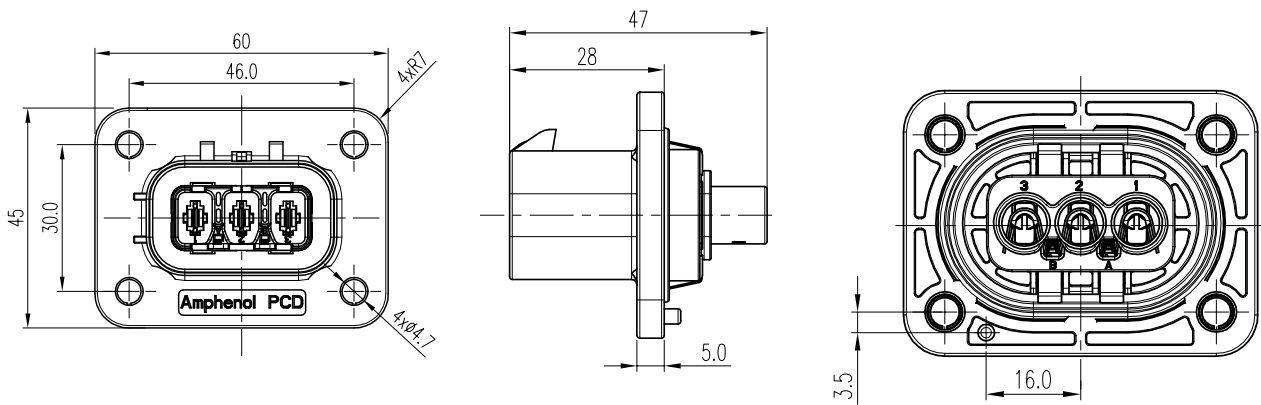
All connectors do not include contacts. Please order them separately (ref: P/N below)

Pin contact: crimping	Socket signal contact (HVIL)
P/N: C310003622	P/N: C310003614
4 to 6mm <sup>2</sup> unshielded wire	0.5mm <sup>2</sup> unshielded wire

PANEL MOUNTING DIMENSION

PART NUMBER	INSERT ORIENTATION	PANEL MOUNTED DIMENSION
HVSL633 023 A		
HVSL633 023 B		
HVSL633 023 C		
HVSL633 023 D		
HVSL633 023 E		

RECEPTACLE HVSLC633



CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)

Pin contact: crimping	Socket signal contact (HVIL)
P/N: C310003622	P/N: C310003614
4 to 6mm <sup>2</sup> unshielded wire	0.5mm <sup>2</sup> unshielded wire

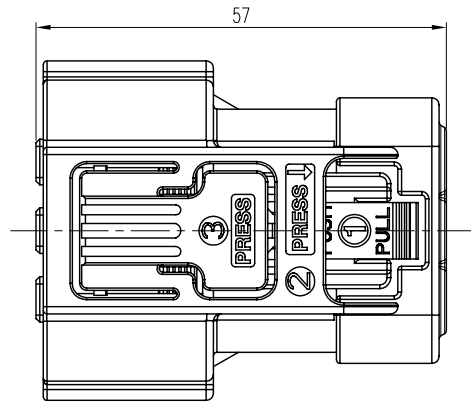
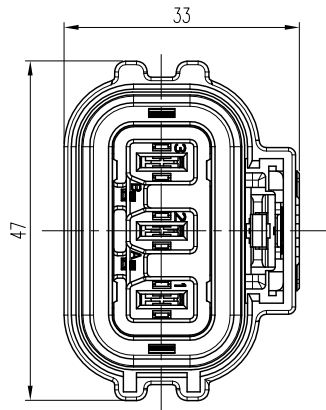
PANEL MOUNTING DIMENSION

PART NUMBER	INSERT ORIENTATION	PANEL MOUNTED DIMENSION
HVSLC633 023 A		
HVSLC633 023 B		
HVSLC633 023 C		
HVSLC633 023 D		

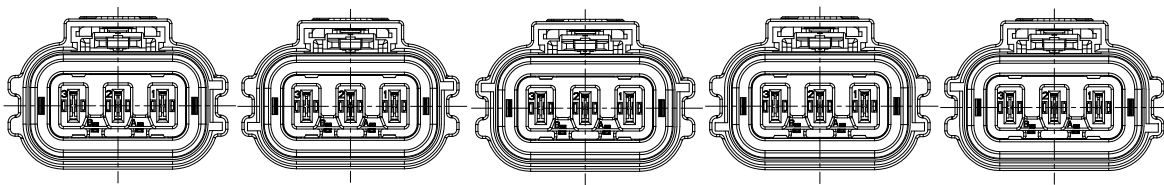


# Excel|Mate Eco (HVSL 633)

## PLUG



## INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL633 06 3 A	HVSL633 06 3 B	HVSL633 06 3 C	HVSL633 06 3 D	HVSL633 06 3 E

## CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)

Socket contact: crimping	HVIL contacts
P/N: C310003623	Integrated, no need to buy.
4 to 6mm <sup>2</sup> shielded wire	

## HOW TO ORDER: PLUG

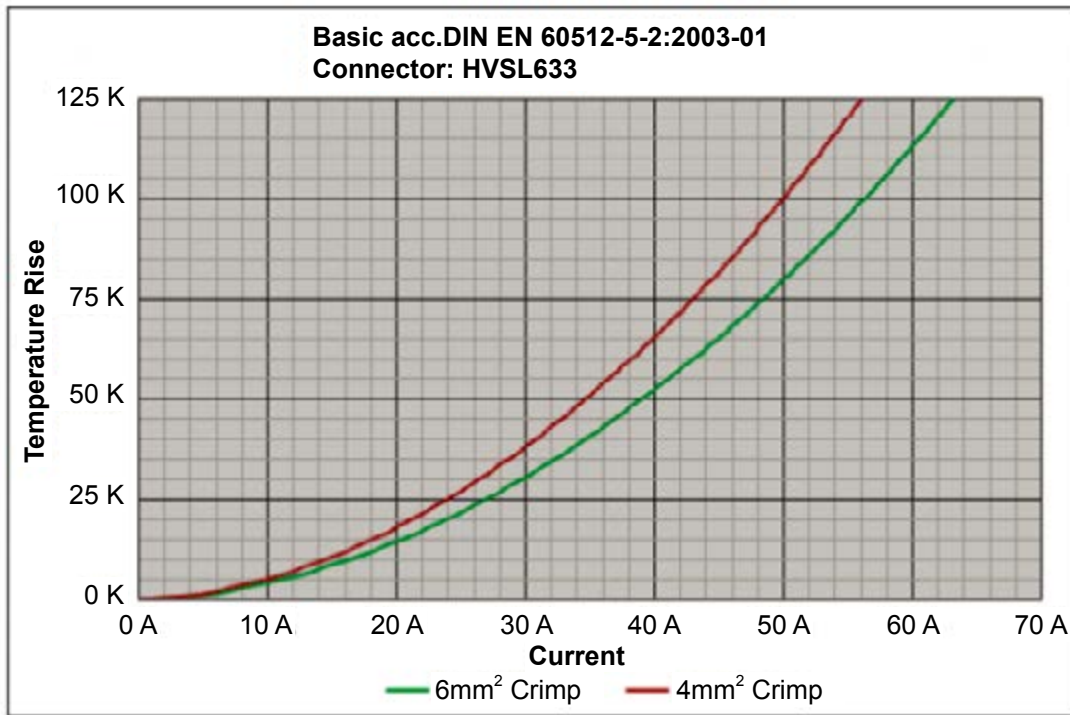
	HVSL633	06	3	A	0	04	I
<b>Product type:</b>	<b>06:</b> Straight plug						
<b>Position:</b>	<b>3:</b> 3 positions						
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E						
<b>Interlock:</b>	<b>0:</b> Without interlock <b>1:</b> With interlock						
<b>Cable size:</b>	<b>03:</b> 2.5mm <sup>2</sup> <b>04:</b> 4mm <sup>2</sup> <b>06:</b> 6mm <sup>2</sup>						
<b>Wire type:</b>	<b>I:</b> Individually shielded wire						

## HOW TO ORDER: RECEPTACLES

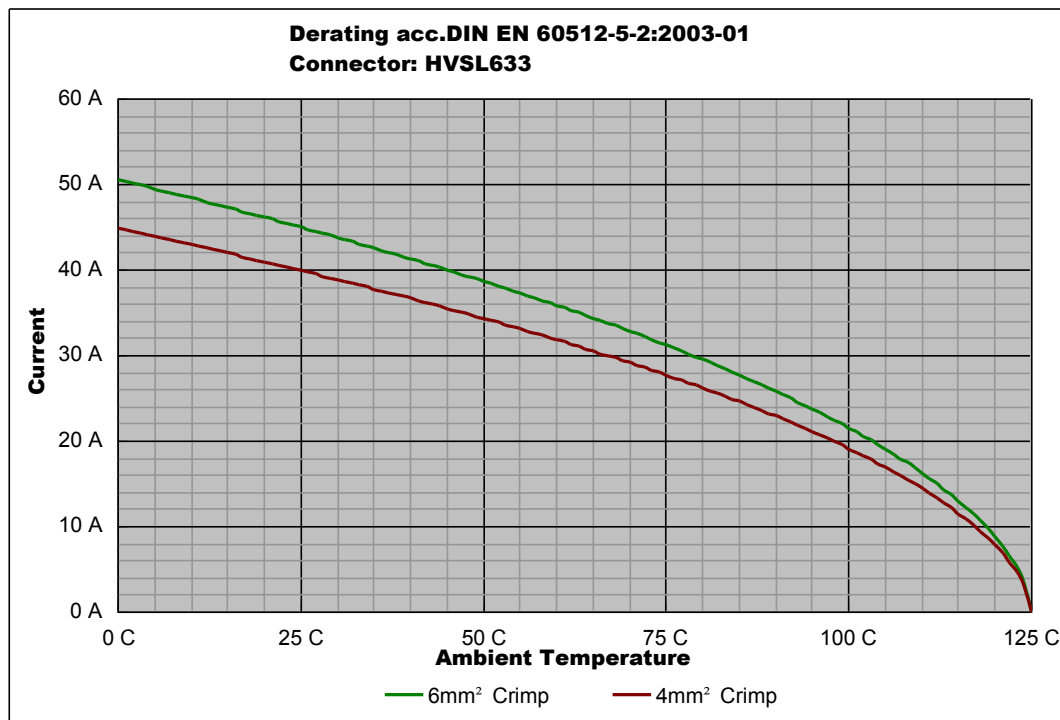
	HVSL633	02	3	A
<b>Product type:</b>	<b>02:</b> Box mounted receptacle			
<b>Position:</b>	<b>3:</b> 3 positions			
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E			

	HVSLC633	02	3	A
<b>Product type:</b>	<b>02:</b> Box mounted receptacle			
<b>Position:</b>	<b>3:</b> 3 positions			
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D			

## HVSL 633 | Temperature Rise



## HVSL 633 | Derating Curve



Remark: tests carried out on the complete connector.

## Excel|Mate Eco (HVSL280 3 POSITION CONNECTOR)



### HVSL280

**HVSL280** is a 3 position connector with plastic housing, high voltage, integrated HVIL. It provides a current carrying capacity from 16 to 23A and 2.5 to 4mm<sup>2</sup> crimping cable.

Specially designed for DC-DC, air-conditioner, and other equipment in xEV device applications.

### KEY FEATURES

Integrated internal HVIL

Current rating up to 23A

Two-stage, tool or thumb activated latching

No tool required to unmate

Sealing, IP67 (mated), IP6K9K

Touch-proof, IP2XB

Multiple coding positions

CPA available

### MECHANICAL

Durability	≥ 50 mating cycles
Wire range	2.5 to 4 mm <sup>2</sup> shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available

### ELECTRICAL

Rated voltage	800V DC
Rated current	23A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device

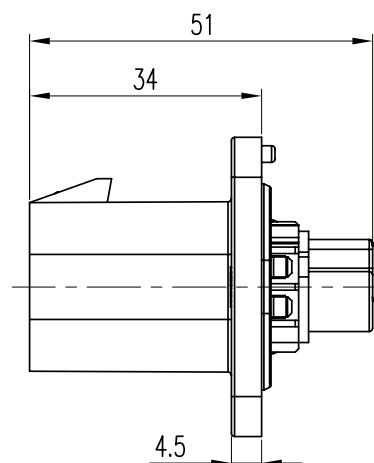
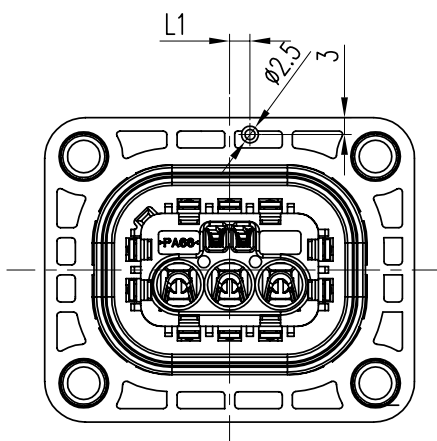
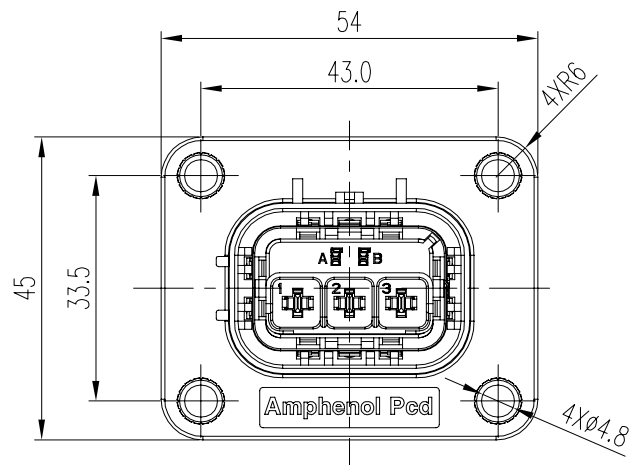
### ENVIRONMENTAL

Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C

### MATERIAL

Terminals	Copper/copper alloy with tin plating
Housing	PA66 + GF

## RECEPTACLE



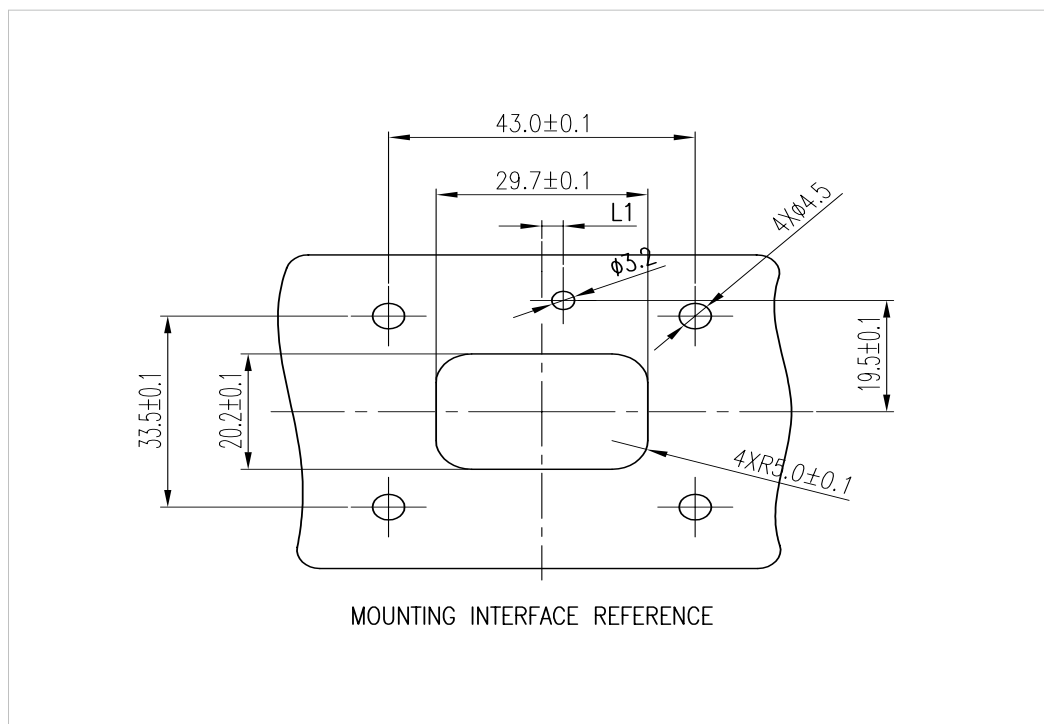
## CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)

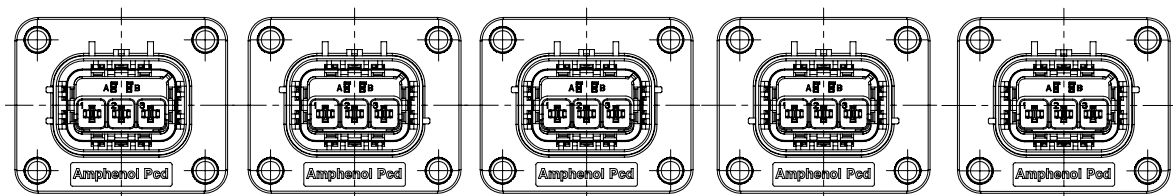
For HVSL280023XX04	For HVSL280023XX04
Pin contact: crimping	Pin signal contact (HVIL)
P/N: C310003611	P/N: C310003613
2.5 to 4mm <sup>2</sup> unshielded wire	0.5mm <sup>2</sup> unshielded wire

PANEL MOUNTING DIMENSIONS

CODING	A	B	C	D	E
L1 (Receptacle)	0	3	6	-3	-6
L1 (Panel mount)	0	-3	-6	3	6



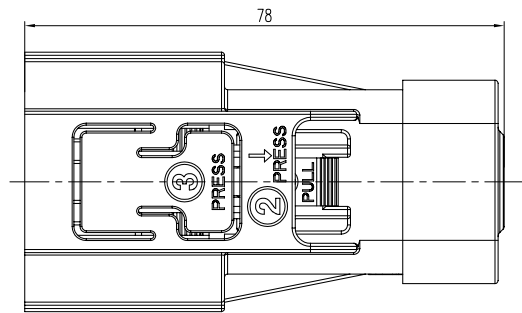
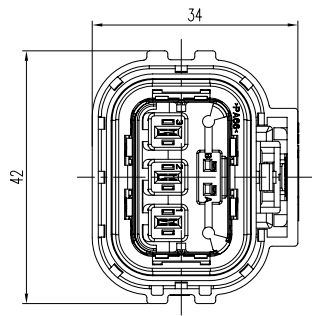
INSERT ORIENTATIONS



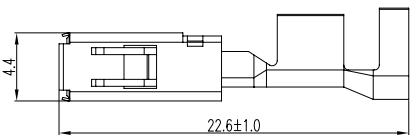
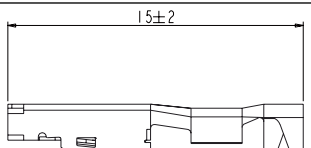
	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL280 02 3 A	HVSL280 02 3 B	HVSL280 02 3 C	HVSL280 02 3 D	HVSL280 02 3 E

# Excel|Mate Eco (HVSL 280)

## PLUG



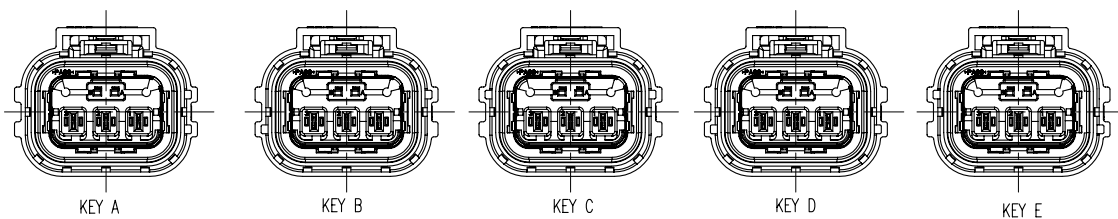
## CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)	
For HVSL280063XX04XX	For HVSL280063XX04XX
Socket contact	Socket signal contact (HVIL)
P/N: C310003612	P/N: C310003614
	
2.5 to 4mm <sup>2</sup> shielded wire	0.5mm <sup>2</sup> unshielded wire

Sealing gasket for HVSL280063XX04XX:

12	11	10
P/N: C270003607	P/N: C2700036071	P/N: C2700036072
12 ± 0.2 mm (Wire OD)	11 ± 0.2 mm (Wire OD)	10 ± 0.2 mm (Wire OD)

## INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL280 06 3 A	HVSL280 06 3 B	HVSL280 06 3 C	HVSL280 06 3 D	HVSL280 06 3 E

## HOW TO ORDER: PLUG

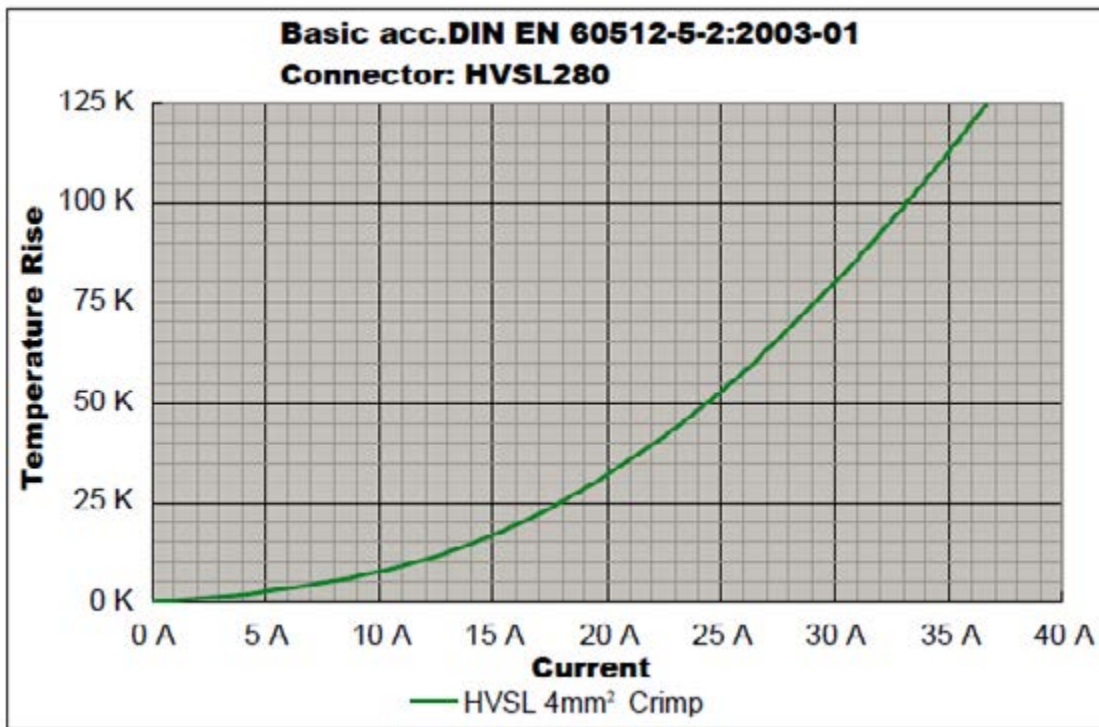
	HVSL280	06	3	A	0	03	10
<b>Product type:</b>	<b>06:</b> Straight plug						
<b>Position:</b>	<b>3:</b> 3 positions						
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E						
<b>Interlock:</b>	<b>0:</b> Without interlock <b>1:</b> With interlock						
<b>Cable size:</b>	<b>03:</b> 2.5mm <sup>2</sup> <b>04:</b> 4mm <sup>2</sup>						
<b>Sealing gasket:</b>	<b>10:</b> 10mm (Wire OD) <b>11:</b> 11mm (Wire OD) <b>12:</b> 12mm (Wire OD)						

## HOW TO ORDER: RECEPTACLE

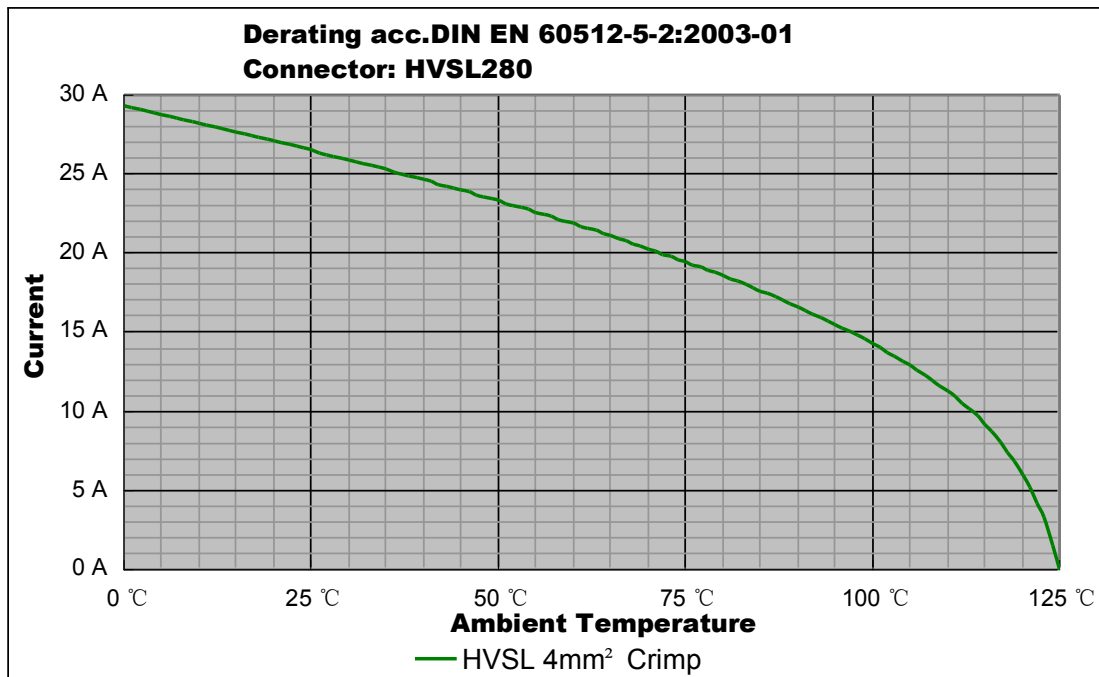
	HVSL280	02	3	A
<b>Product type:</b>	<b>02:</b> Box mounted receptacle			
<b>Position:</b>	<b>3:</b> 3 positions			
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E			



## HVSL 280 | Temperature Rise



## HVSL 280 | Derating Curve



Remark: tests carried out on the complete connector.

## Excel|Mate Eco (HVSL282 2 PIN connector)



### HVSL282

**HVSL282** is a 2 position connector with plastic housing, high voltage, integrated HVIL. It provides a current carrying capacity from 16 to 23A and 2.5 to 4mm<sup>2</sup> crimping cable.

Specially designed for DC-DC, air-conditioner, and other equipment in xEV device applications.

### KEY FEATURES

Integrated internal HVIL

Current rating up to 23A

Two-stage, tool or thumb activated latching

No tool required to unmate

Sealing, IP67 (mated), IP6K9K

Touch-proof, IP2XB

Multiple coding positions

CPA available

### MECHANICAL

Durability	≥ 50 mating cycles
Wire range	2.5 to 4 mm <sup>2</sup> shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available

### ELECTRICAL

Rated voltage	800V DC
Rated current	23A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device

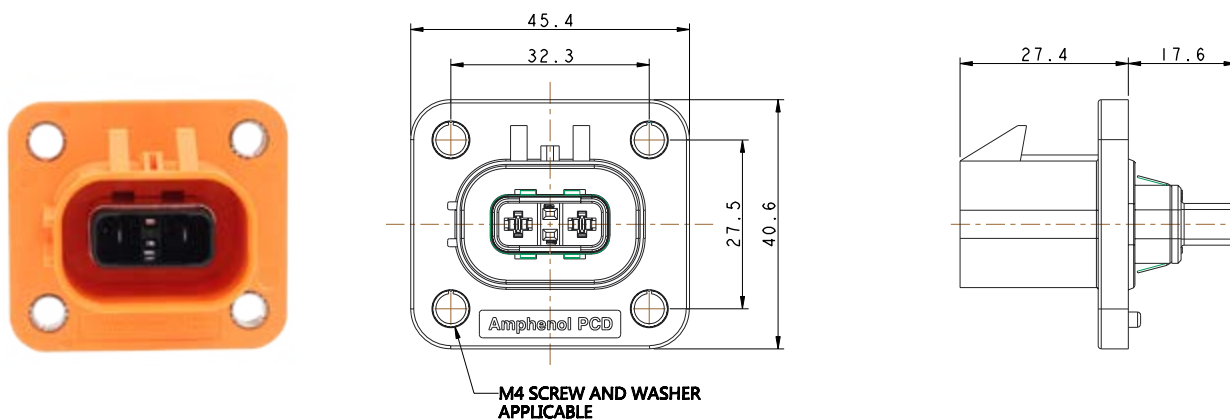
### ENVIRONMENTAL

Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C

### MATERIAL

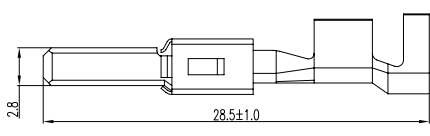
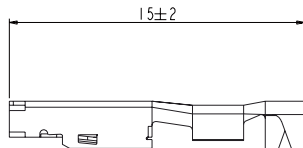
Terminals	Copper/copper alloy with tin plating
Housing	PA66 + GF

## RECEPTACLE

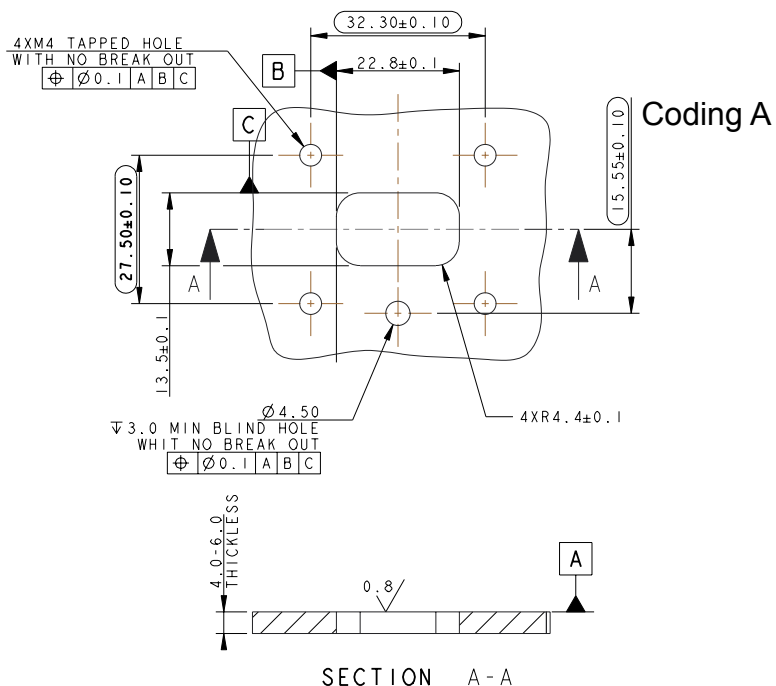


## CONTACTS

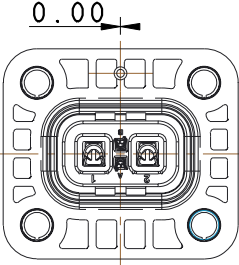
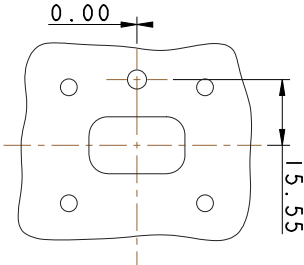
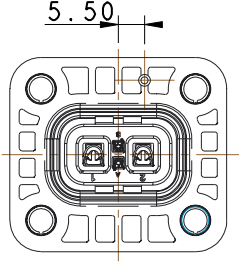
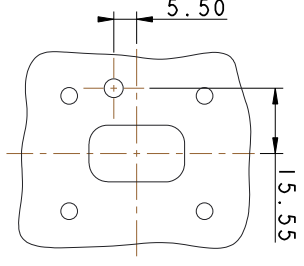
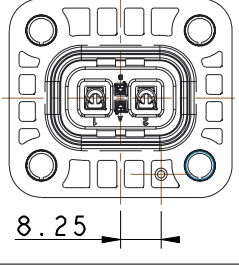
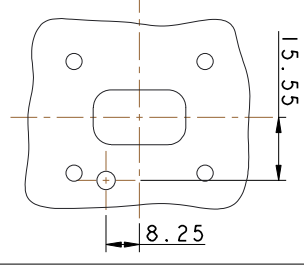
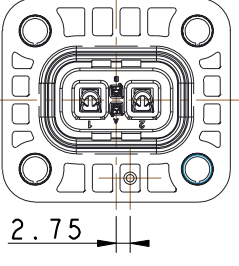
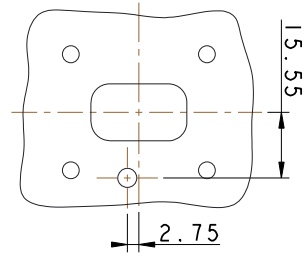
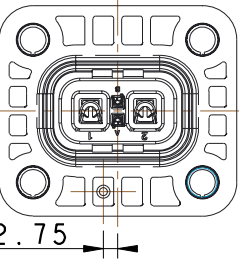
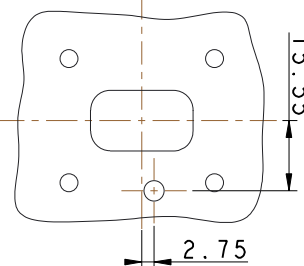
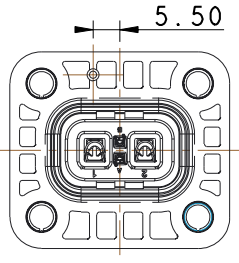
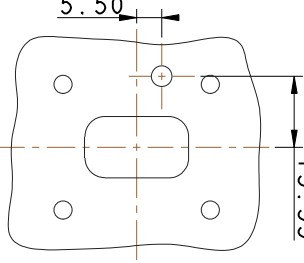
All connectors do not include contacts. Please order them separately (ref: P/N below)

Pin contact: crimping	Socket signal contact (HVIL)
P/N: C310003611	P/N: C310003614
	
2.5 to 4mm <sup>2</sup> unshielded wire	0.5mm <sup>2</sup> unshielded wire

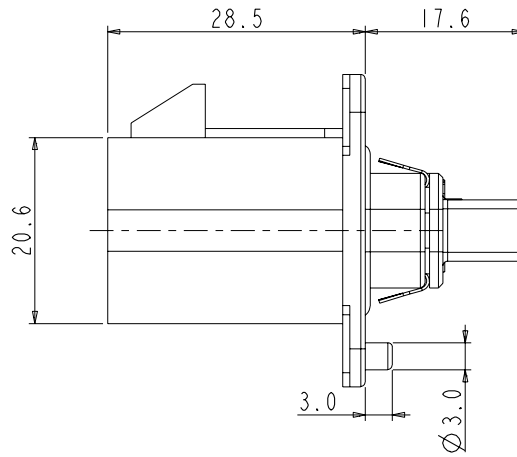
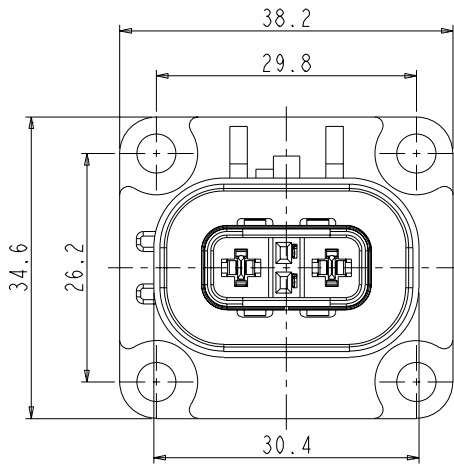
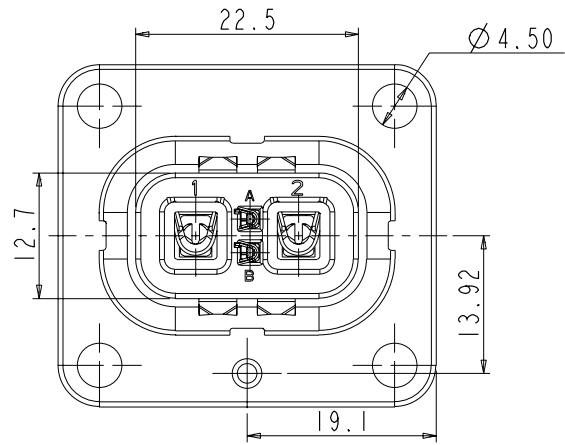
## PANEL MOUNTING DIMENSION



PANEL MOUNTING HOLES POSITIONS

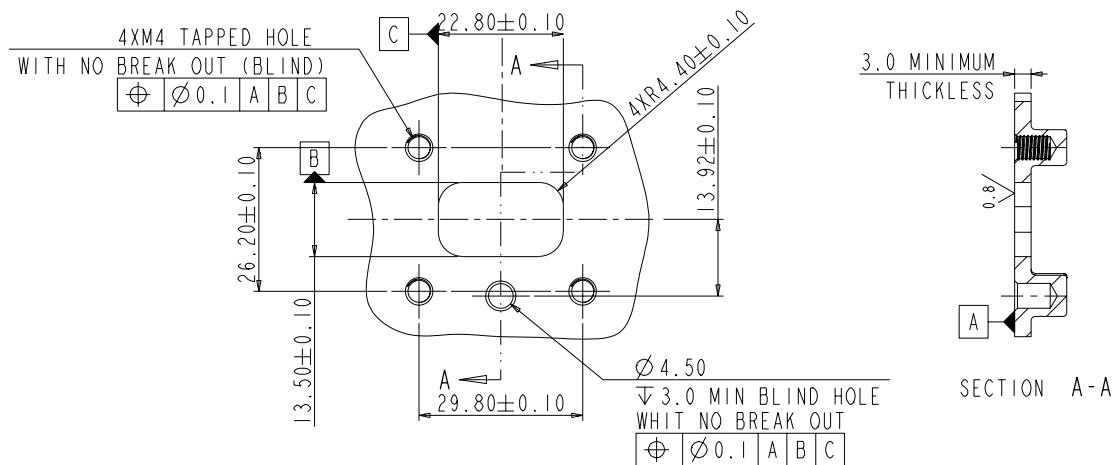
PART NUMBER	INSERT ORIENTATION	PANEL MOUNTING DIMENSION
HVSL282 02 2 A		
HVSL282 02 2 B		
HVSL282 02 2 C		
HVSL282 02 2 D		
HVSL282 02 2 E		
HVSL282 02 2 F		

RECEPTACLE: METAL SHELL

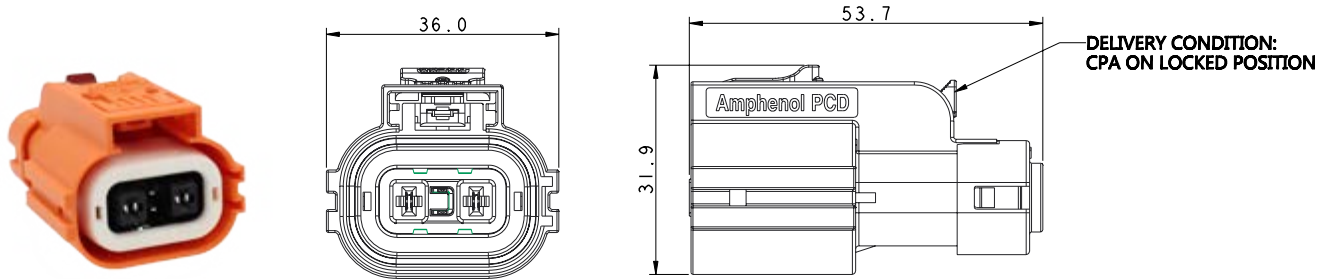


PANEL MOUNTING DIMENSION

PANEL CUT-OUT REFERENCE



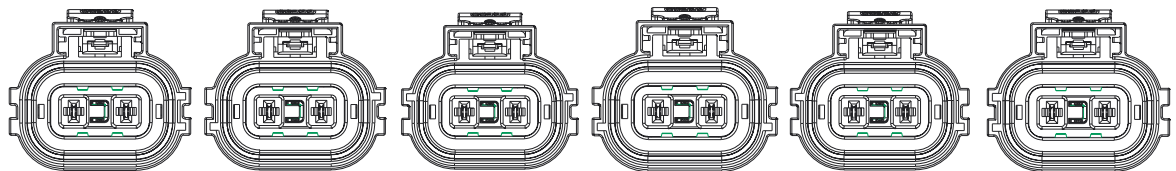
PLUG



CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)	
Socket contact: crimping	HVIL contacts
P/N: C310003612	Integrated, no need to buy.
2.5 to 4mm <sup>2</sup> shielded wire	

INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E	Coding F
P/N	HVSL282 06 2 A	HVSL282 06 2 B	HVSL282 06 2 C	HVSL282 06 2 D	HVSL282 06 2 E	HVSL282 06 2 F

# HOW TO ORDER (HVSL 282)

## HOW TO ORDER: PLUG

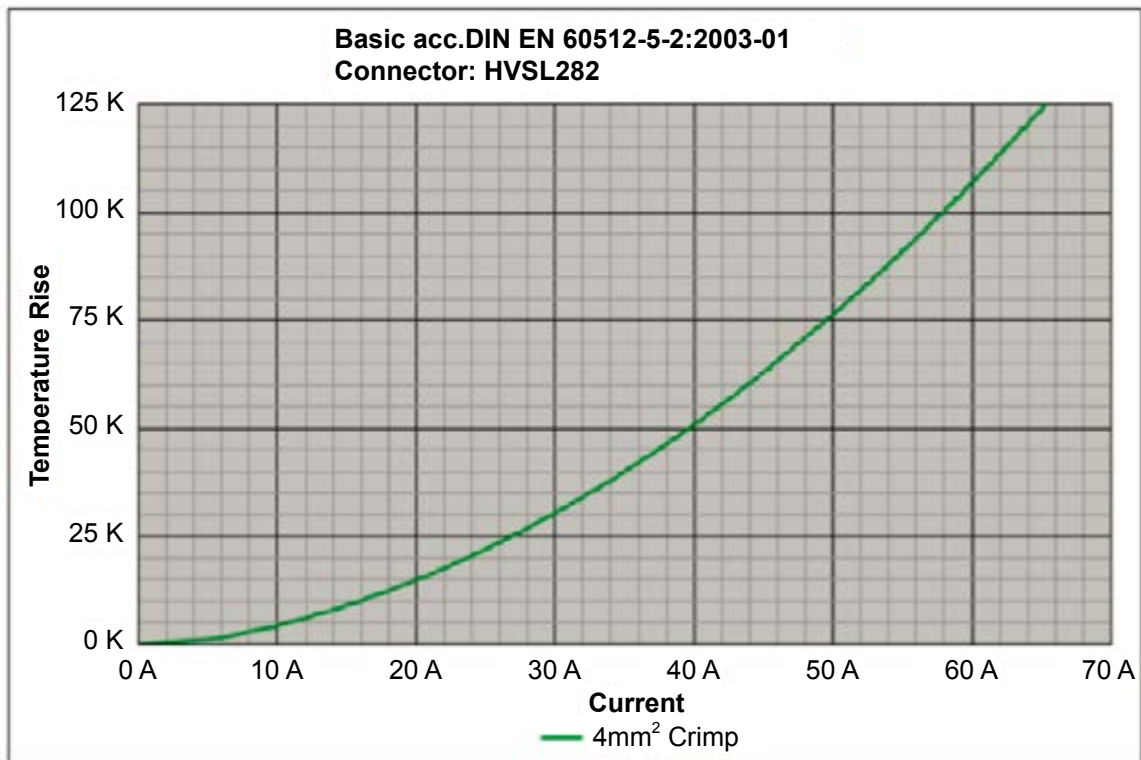
	HVSL282	06	2	A	0	03	I
<b>Product type:</b>	<b>06:</b> Straight plug						
<b>Position:</b>	<b>2:</b> 2 positions						
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E <b>F:</b> Coding F						
<b>Interlock:</b>	<b>0:</b> Without interlock <b>1:</b> With interlock						
<b>Cable size:</b>	<b>03:</b> 2.5mm <sup>2</sup> <b>04:</b> 4mm <sup>2</sup>						
<b>Wire type:</b>	<b>I:</b> Individually shielded wire						

## HOW TO ORDER: RECEPTACLES

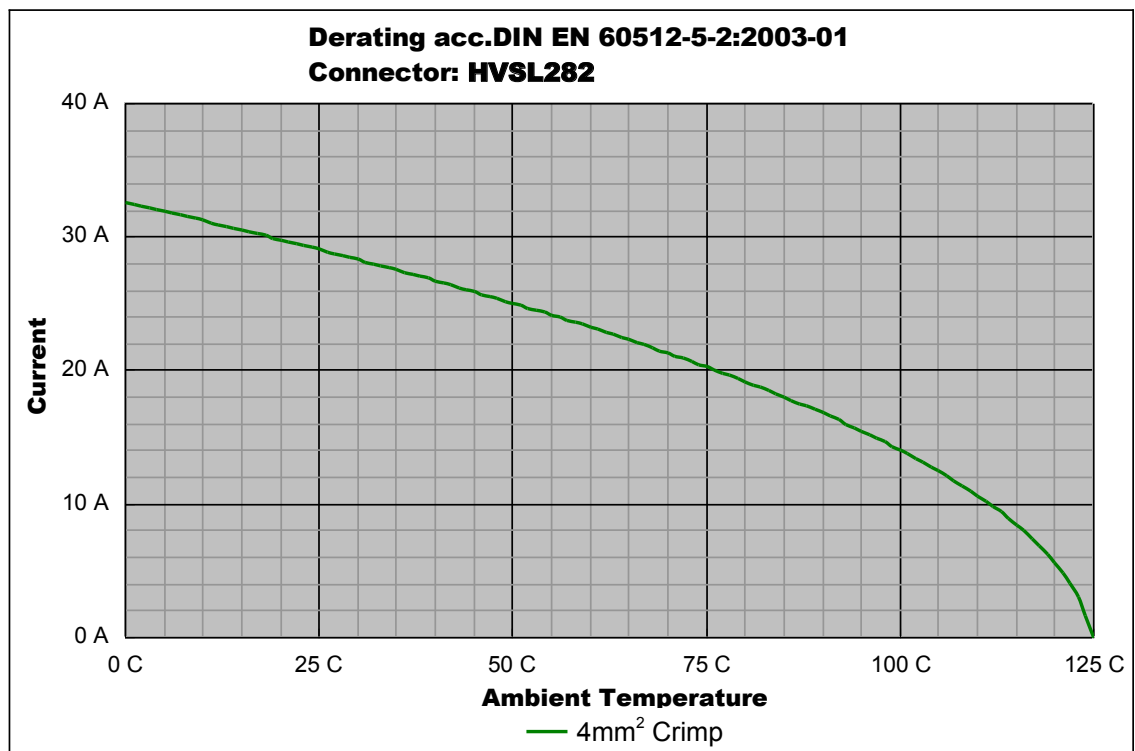
	HVSL282	02	2	A
<b>Product type:</b>	<b>02:</b> Box mounted receptacle			
<b>Position:</b>	<b>2:</b> 2 positions			
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E <b>F:</b> Coding F			

	HVSLM282	02	2	A
<b>Product type:</b>	<b>02:</b> Box mounted receptacle			
<b>Position:</b>	<b>2:</b> 2 positions			
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E <b>F:</b> Coding F			

HVSL 282 | Temperature Rise



HVSL 282 | Derating Curve



Remark: tests carried out on the complete connector.



# Excel|Mate Eco (HVSL 362)

Excel|Mate Eco (HVSL362 2 PIN connector)



## HVSL362

**HVSL362** is a 2 position connector with plastic housing, high voltage, integrated HVIL. It provides a current carrying capacity up to 60A and a 10mm<sup>2</sup> crimping cable.

Specially designed for DC-DC, air-conditioner, and other equipment in xEV device applications.

### KEY FEATURES

Integrated internal HVIL

Current rating up to 60A

Two-stage, tool or thumb activated latching

No tool required to unmate

Sealing, IP67 (mated), IP6K9K

Touch-proof, IP2XB

Multiple coding positions

CPA available

### MECHANICAL

Durability	≥ 50 mating cycles
Wire range	10mm <sup>2</sup> shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available

### ELECTRICAL

Rated voltage	800V DC
Rated current	60A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device

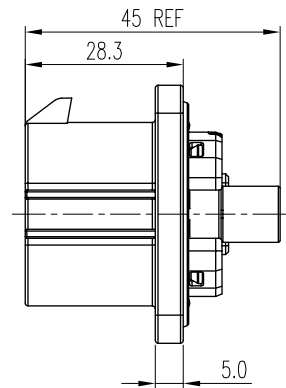
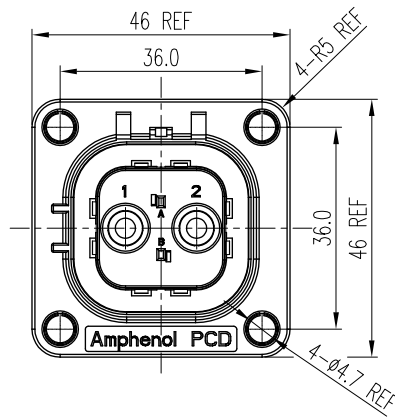
### ENVIRONMENTAL

Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C

### MATERIAL

Terminals	Copper/copper alloy with silver plating
Housing	PA66 + GF

RECEPTACLE

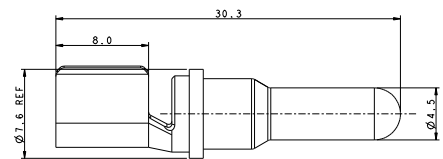


CONTACTS

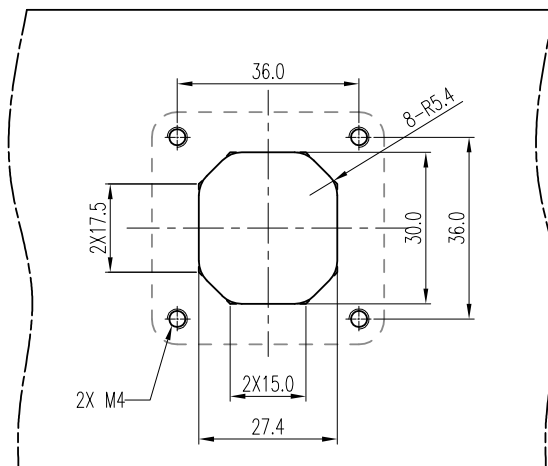
All connectors do not include contacts. Please order them separately (ref: P/N below)

CONTACTS

HVIL contacts	10mm <sup>2</sup>
P/N: C310003614	P/N: C3100235011

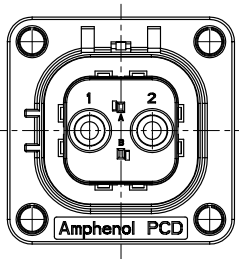
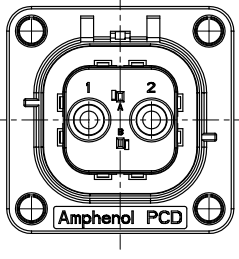
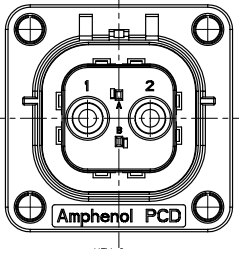
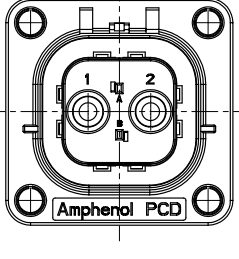
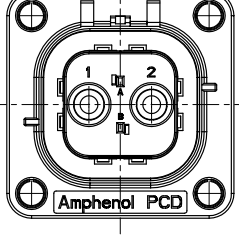


PANEL MOUNTING DIMENSION

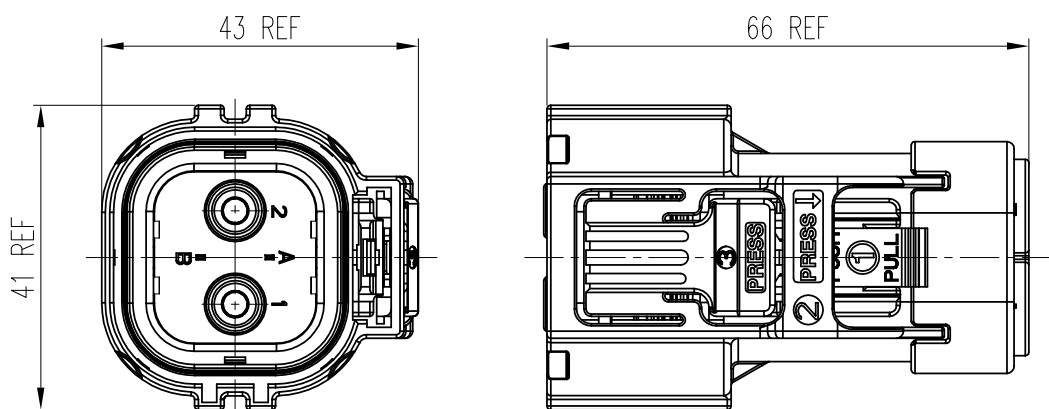


MOUNTING INTERFACE SPECIFICATION  
RECOMMENDED THICKNESS:3.0mm Min

PANEL MOUNTING HOLES POSITIONS

PART NUMBER	INSERT ORIENTATION
HVSL362 022 A	
HVSL362 022 B	
HVSL362 022 C	
HVSL362 022 D	
HVSL362 022 E	

PLUG

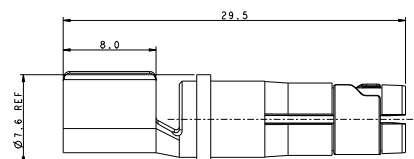


CONTACTS

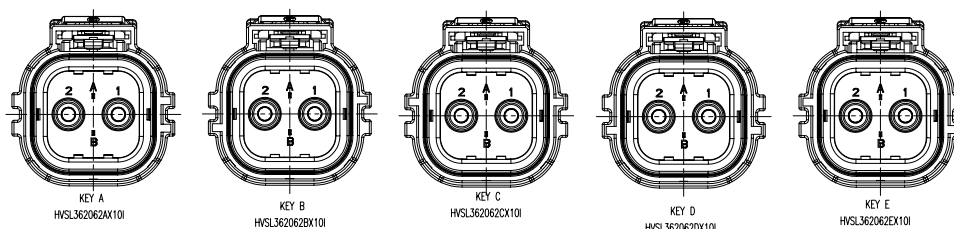
All connectors do not include contacts. Please order them separately (ref: P/N below)

CONTACTS

HVIL contacts	10mm <sup>2</sup>
Integrated, no need to buy.	P/N: C3100235021



INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL362 062 A	HVSL362 062 B	HVSL362 062 C	HVSL362 062 D	HVSL362 062 E

# HOW TO ORDER (HVSL 362)

## HOW TO ORDER: PLUG

	HVSL362	06	2	A	0	10	I
<b>Product type:</b>	<b>06:</b> Straight plug						
<b>Position:</b>	<b>2:</b> 2 positions						
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E						
<b>Interlock:</b>	<b>0:</b> Without interlock <b>1:</b> With interlock						
<b>Cable size:</b>	<b>10:</b> 10mm <sup>2</sup>						
<b>Wire type:</b>	<b>I:</b> Individually shielded wire						

## HOW TO ORDER: RECEPTACLE

	HVSL362	02	2	A
<b>Product type:</b>	<b>02:</b> Box mounted receptacle			
<b>Position:</b>	<b>2:</b> 2 positions			
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E			

## Excel|Mate Eco (HVSL364 4 PIN connector)



### HVSL364

**HVSL364** is a 4 position connector with plastic housing, high voltage, integrated HVIL. It provides a current carrying capacity up to 46A and 2.5 to 6mm<sup>2</sup> crimping cable.

Specially designed for DC-DC, air-conditioner, and other equipment in xEV device applications.

#### KEY FEATURES

Integrated internal HVIL

Current rating up to 46A

Two-stage, tool or thumb activated latching

No tool required to unmate

Sealing, IP67 (mated), IP6K9K

Touch-proof, IP2XB

Multiple coding positions

CPA available

#### MECHANICAL

Durability	≥ 50 mating cycles
Wire range	2.5 to 6mm <sup>2</sup> shielded wire
Insertion and extraction force	< 100N
Connection type	Crimping
Latching style	Two stage, finger actuated
HVIL	Integrated
CPA	Available

#### ELECTRICAL

Rated voltage	800V DC
Rated current	46A Max @ ambient temperature 70°C
Insulator resistance	> 200MΩ
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device

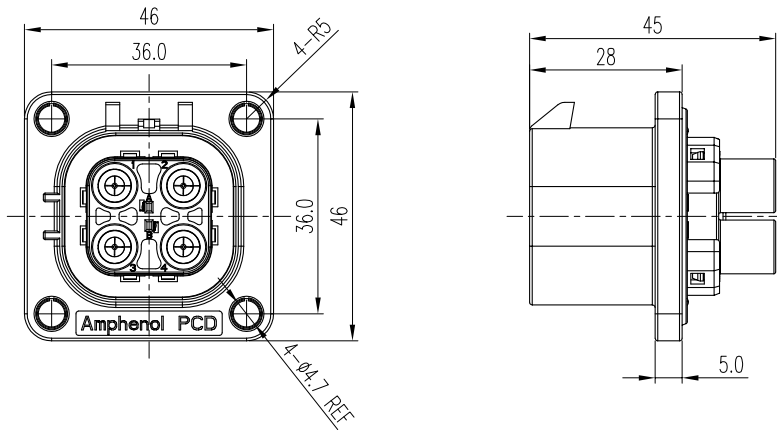
#### ENVIRONMENTAL

Sealing	IP67, IP6K9K (mated)
Touch-proof	IP2XB
Temperature range	-40°C to 125°C

#### MATERIAL

Terminals	Copper/copper alloy with silver plating
Housing	PA66 + GF

## RECEPTACLE

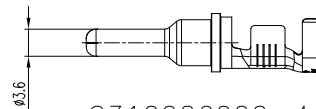


## CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)

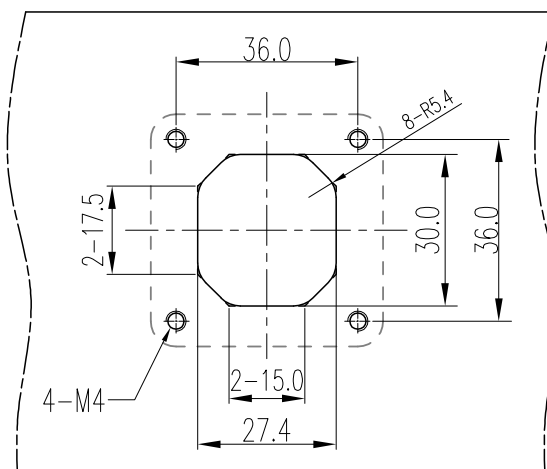
### CONTACTS

HVIL contacts	4 to 6mm <sup>2</sup>	2.5mm <sup>2</sup>
P/N: C310003614	P/N: C310026000	P/N: C310026002



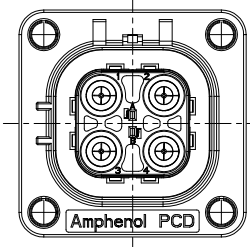
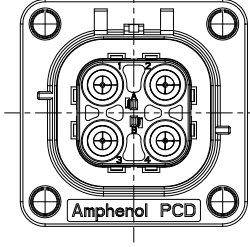
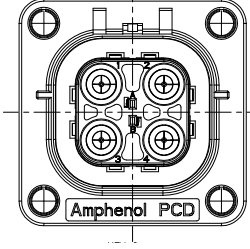
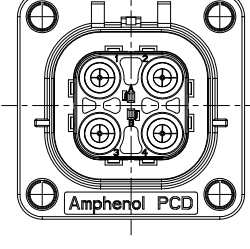
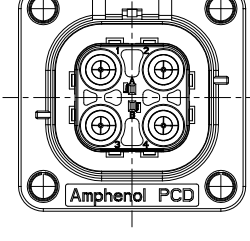
C310026000-4&6mm<sup>2</sup> wire  
C310026002-2.5mm<sup>2</sup> wire

## PANEL MOUNTING DIMENSION



MOUNTING INTERFACE SPECIFICATION  
RECOMMENDED THICKNESS:3.0mm Min

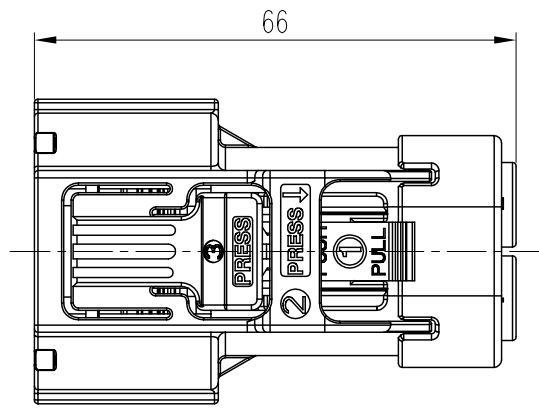
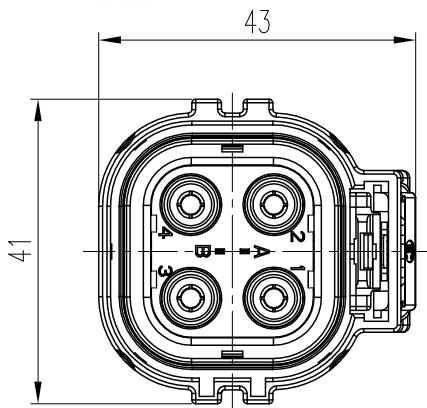
PANEL MOUNTING HOLES POSITIONS

PART NUMBER	INSERT ORIENTATION
HVSL364 024 A	
HVSL364 024 B	
HVSL364 024 C	
HVSL364 024 D	
HVSL364 024 E	



# Excel|Mate Eco (HVSL 364)

## PLUG

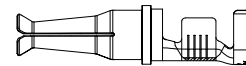


## CONTACTS

All connectors do not include contacts. Please order them separately (ref: P/N below)

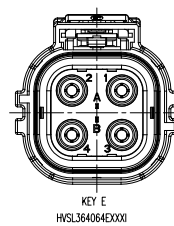
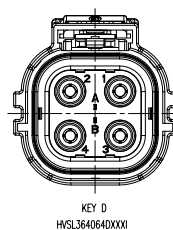
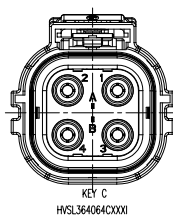
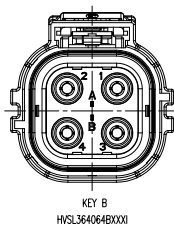
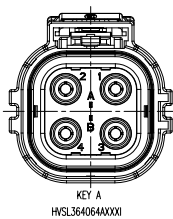
### CONTACTS

HVIL contacts	4 to 6mm <sup>2</sup>	2.5mm <sup>2</sup>
Integrated, no need to buy.	P/N: C310026001	P/N: C310026003



C310026001 – 4&6mm<sup>2</sup> wire  
C310026003 – 2.5mm<sup>2</sup> wire

## INSERT ORIENTATIONS



	Coding A	Coding B	Coding C	Coding D	Coding E
P/N	HVSL364 064 A	HVSL364 064 B	HVSL364 064 C	HVSL364 064 D	HVSL364 064 E

## HOW TO ORDER: PLUG

	HVSL364	06	4	A	0	03	I
<b>Product type:</b>	<b>06:</b> Straight plug						
<b>Position:</b>	<b>4:</b> 4 position						
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E						
<b>Interlock:</b>	<b>0:</b> Without interlock <b>1:</b> With interlock						
<b>Cable size:</b>	<b>03:</b> 2.5mm <sup>2</sup> <b>04:</b> 4mm <sup>2</sup> <b>06:</b> 6mm <sup>2</sup>						
<b>Wire type:</b>	<b>I:</b> Individually shielded wire						

## HOW TO ORDER: RECEPTACLE

	HVSL364	02	4	A
<b>Product type:</b>	<b>02:</b> Box mounted receptacle			
<b>Position:</b>	<b>4:</b> 4 positions			
<b>Coding / Alternate position:</b>	<b>A:</b> Coding A <b>B:</b> Coding B <b>C:</b> Coding C <b>D:</b> Coding D <b>E:</b> Coding E			

# Excel|Mate PT (HVPT)

## Excel|Mate PT (HVPT - PASS-THROUGH WITH CABLE GLAND)

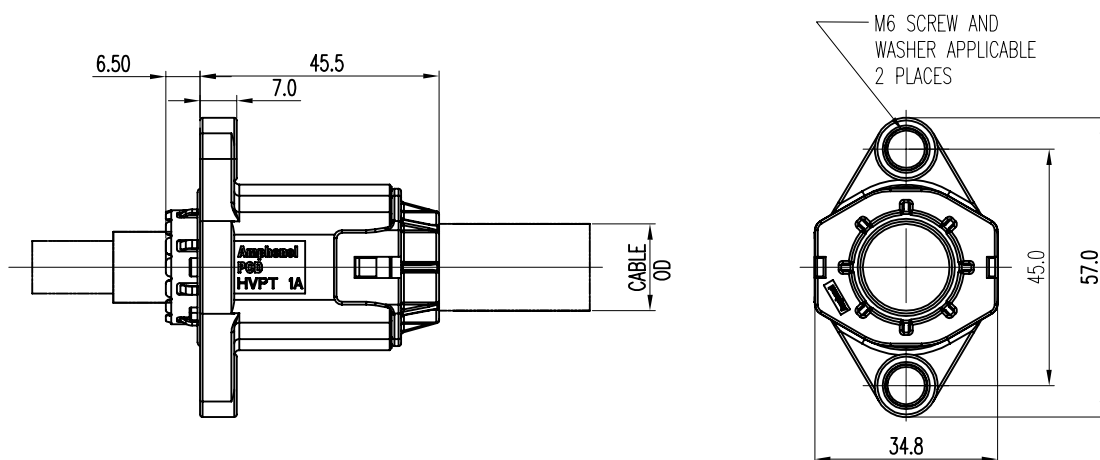
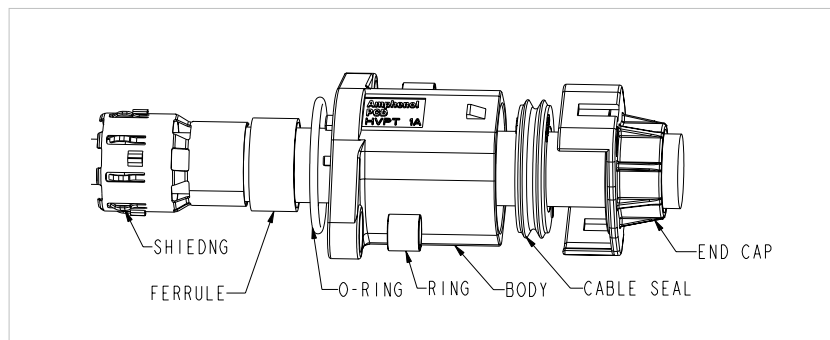


MECHANICAL	
Wire range	25 to 70 mm <sup>2</sup> shielded wires
Connection type	Crimping
ELECTRICAL	
Rated voltage	1000V DC
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Temperature range	-40°C to 125°C
MATERIAL	
Housing	PA66 + GF

### KEY FEATURES

- 1 to 3 positions available
- Light in weight with plastic shell
- Easy to install, reliable connection
- Sealing, IP67 (mated), IP6K9K
- Multiple coding positions
- 360° shielded from wire to device
- Economical

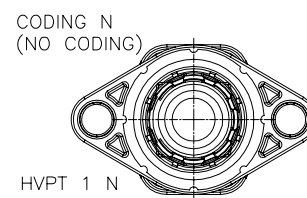
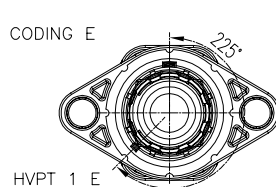
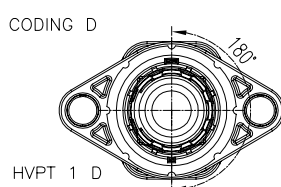
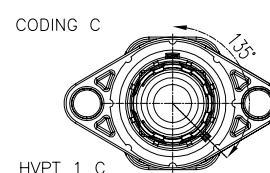
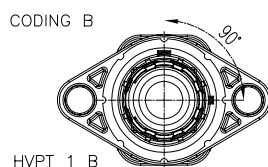
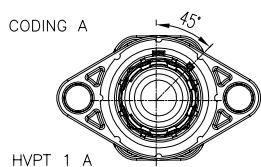
## 1 POSITION PASS-THROUGH



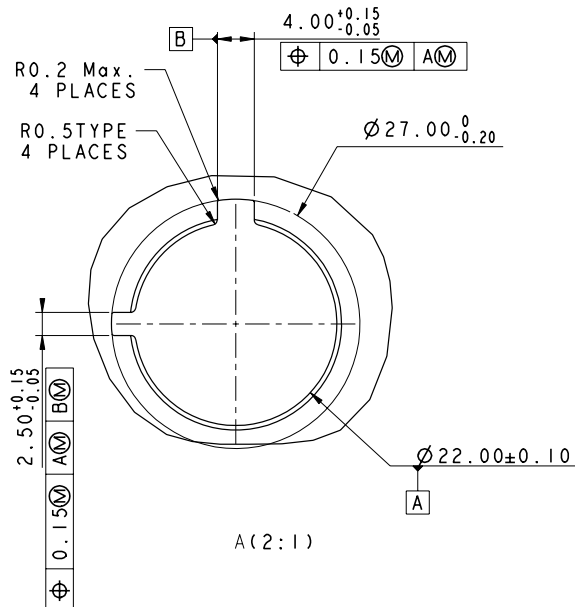
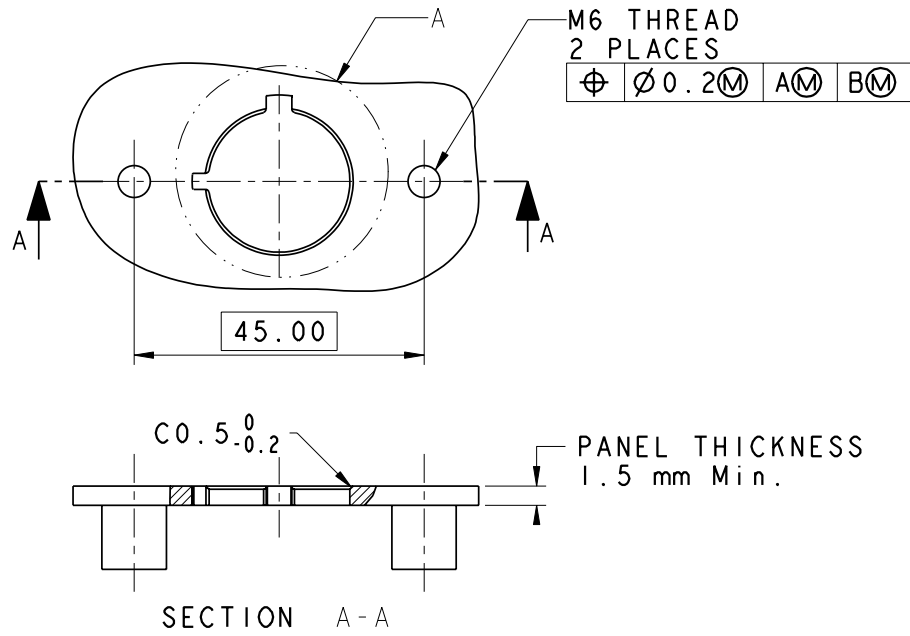
## CONTACTS

Part number	Conductor cross section (mm <sup>2</sup> )	Cable OD
HVPT 1 X 70	70	19.0±0.3
HVPT 1 X 50	50	16.5±0.3
HVPT 1 X 35	35	14.2±0.3
HVPT 1 X 25	25	11.9±0.3

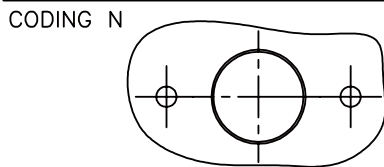
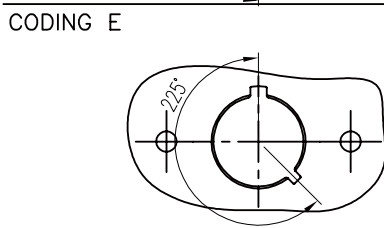
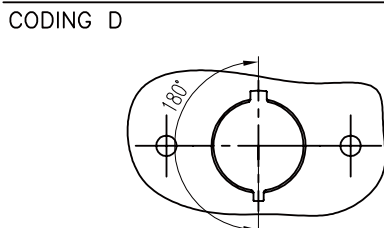
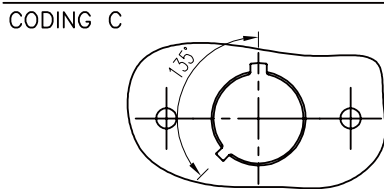
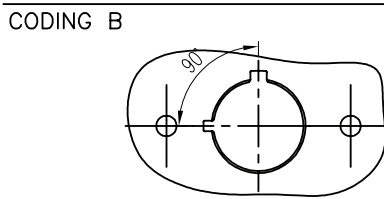
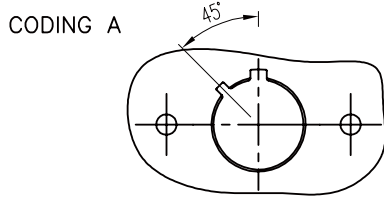
## INSERT ORIENTATIONS



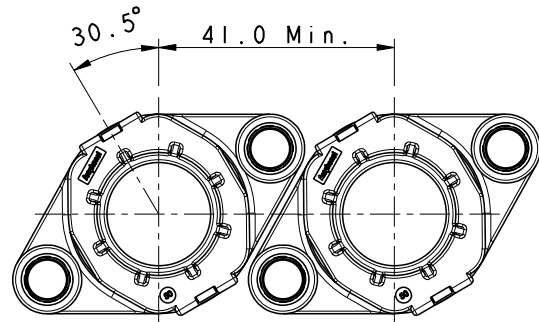
PANEL MOUNTING DIMENSIONS



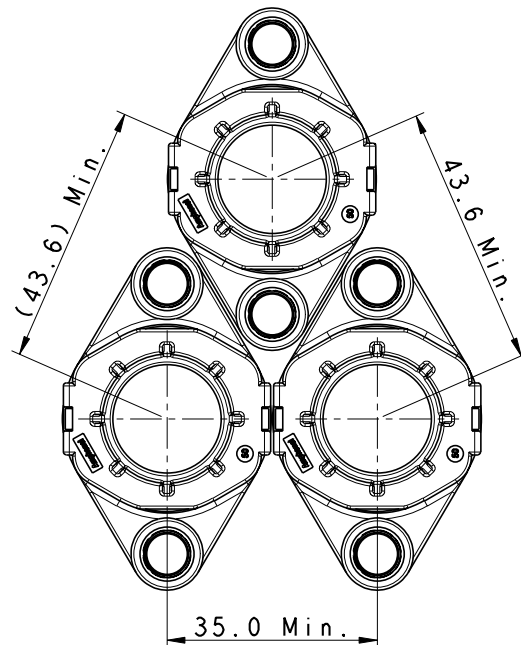
PANEL MOUNTING DIMENSIONS



RECOMMENDED LAYOUT FOR 2 UNITS

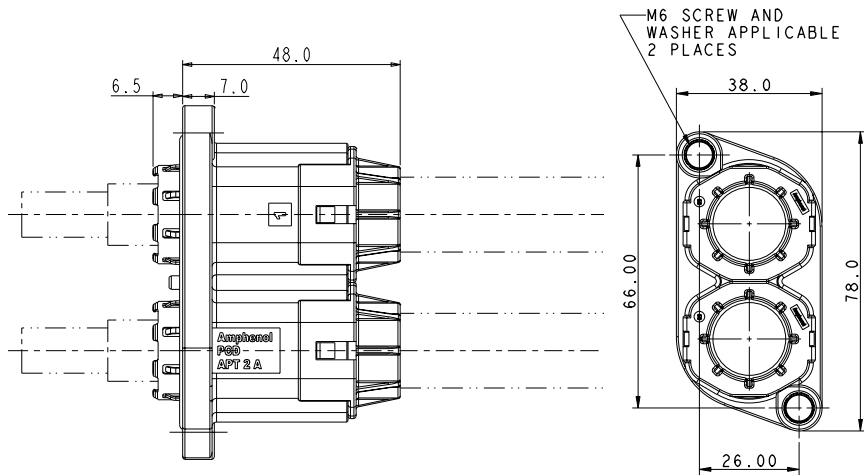


RECOMMENDED LAYOUT FOR 3 UNITS



# Excel|Mate PT (HVPT)

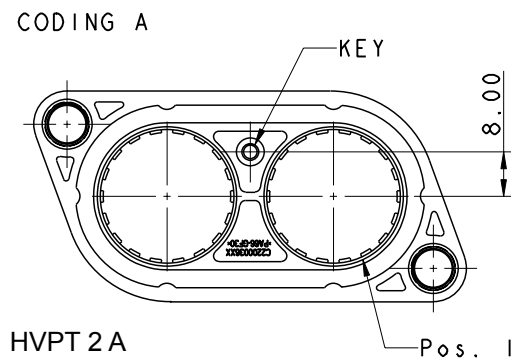
## 2 POSITION PASS-THROUGH



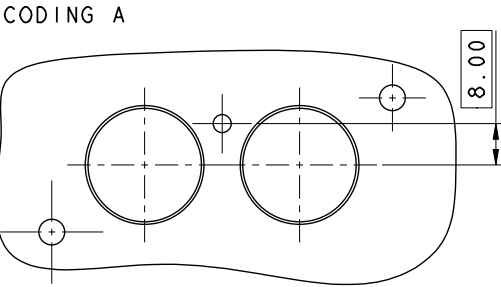
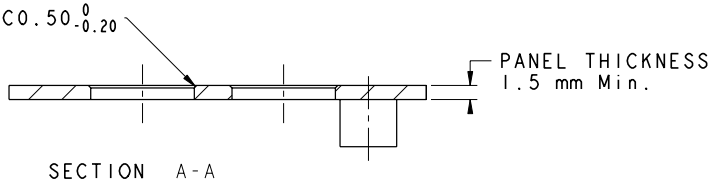
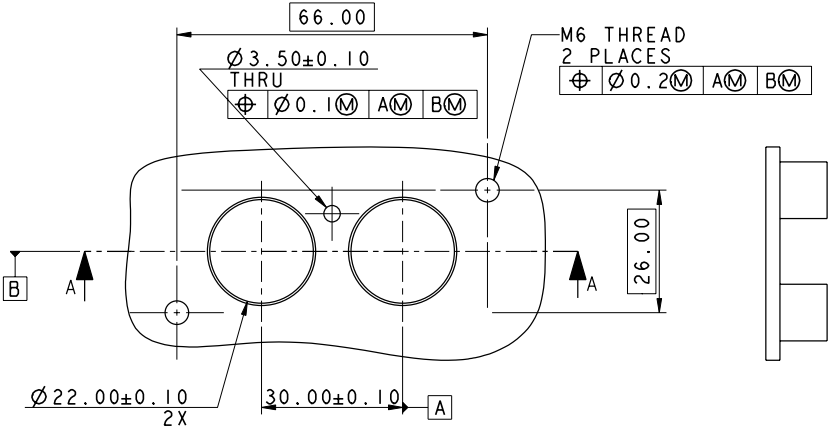
## CONTACTS

Part number	Conductor cross section (mm <sup>2</sup> )	Cable OD
HVPT 2 X 70	70	19.0±0.3
HVPT 2 X 50	50	16.5±0.3
HVPT 2 X 35	35	14.2±0.3
HVPT 2 X 25	25	11.9±0.3

## INSERT ORIENTATIONS



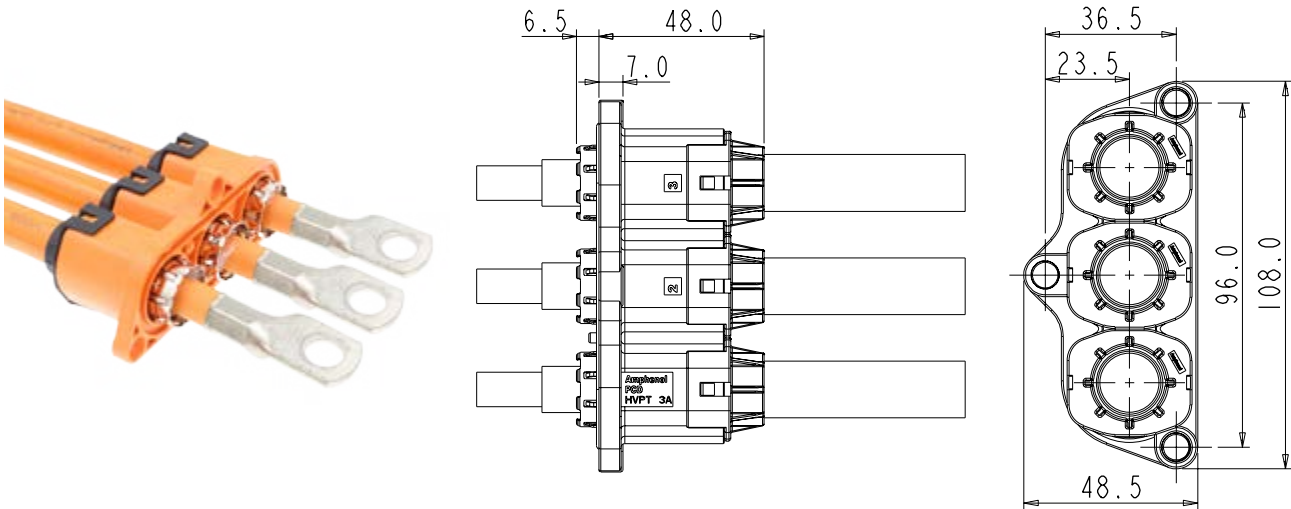
PANEL MOUNTING DIMENSIONS





# Excel|Mate PT (HVPT)

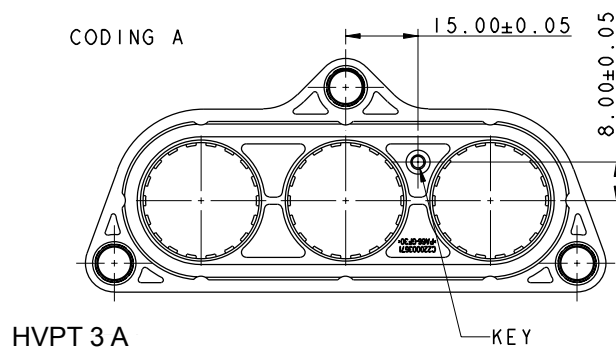
## 3 POSITION PASS-THROUGH



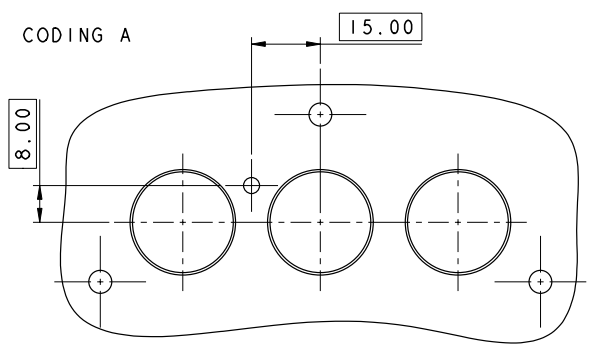
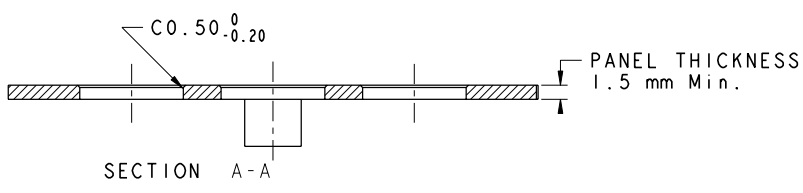
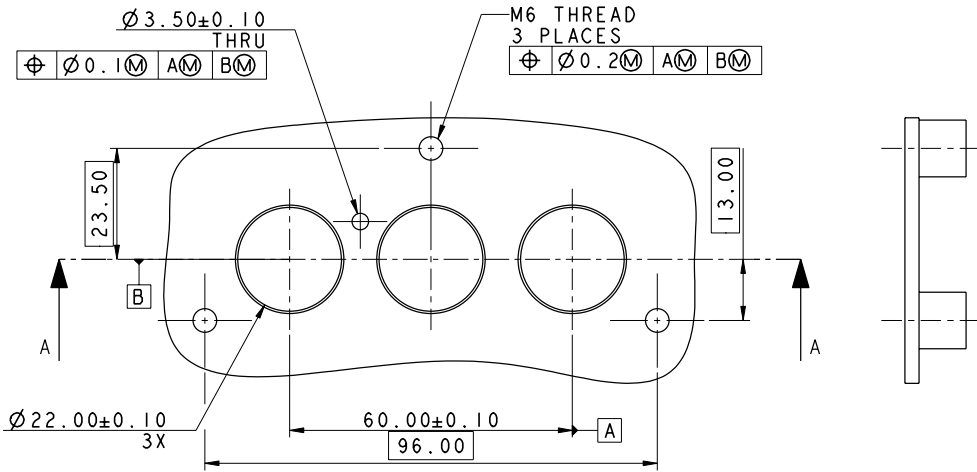
## CONTACTS

Part number	Conductor cross section (mm <sup>2</sup> )	Cable OD
HVPT 3 X 70	70	19.0±0.3
HVPT 3 X 50	50	16.5±0.3
HVPT 3 X 35	35	14.2±0.3
HVPT 3 X 25	25	11.9±0.3

## INSERT ORIENTATIONS



PANEL MOUNTING DIMENSIONS



# Excel|Mate PT (HVPT B)

## HVPT B PASS-THROUGH

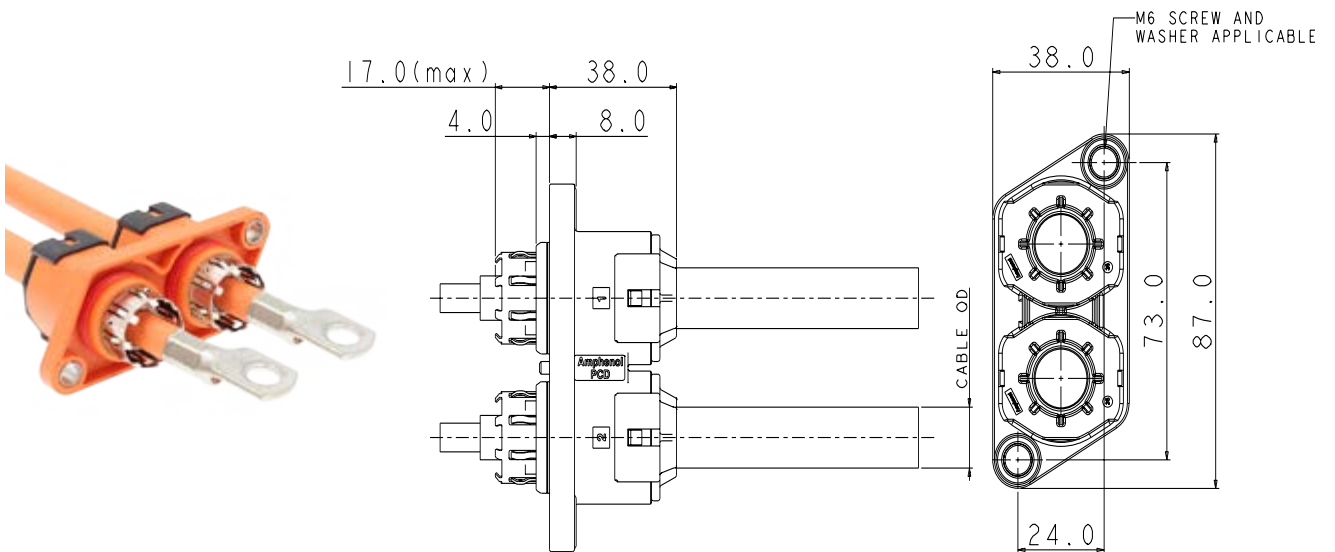


MECHANICAL	
Wire range	25 to 70 mm <sup>2</sup> shielded wires
Connection type	Crimping
ELECTRICAL	
Rated voltage	1000V DC
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Temperature range	-40°C to 125°C
MATERIAL	
Housing	PA66 + GF

### KEY FEATURES

- 2 & 3 positions available
- Light in weight with plastic shell
- Easy to install, reliable connection
- Sealing, IP67 (mated), IP6K9K
- Multiple coding positions
- 360° shielded from wire to device
- Economical

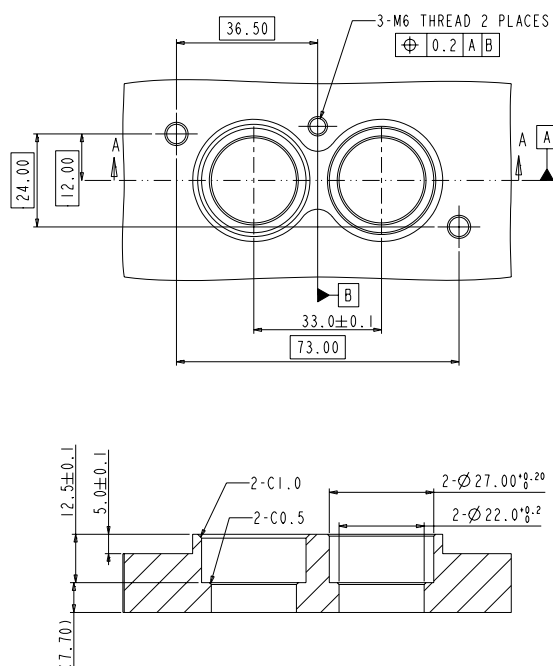
## HVPTB 2 POSITION PASS-THROUGH



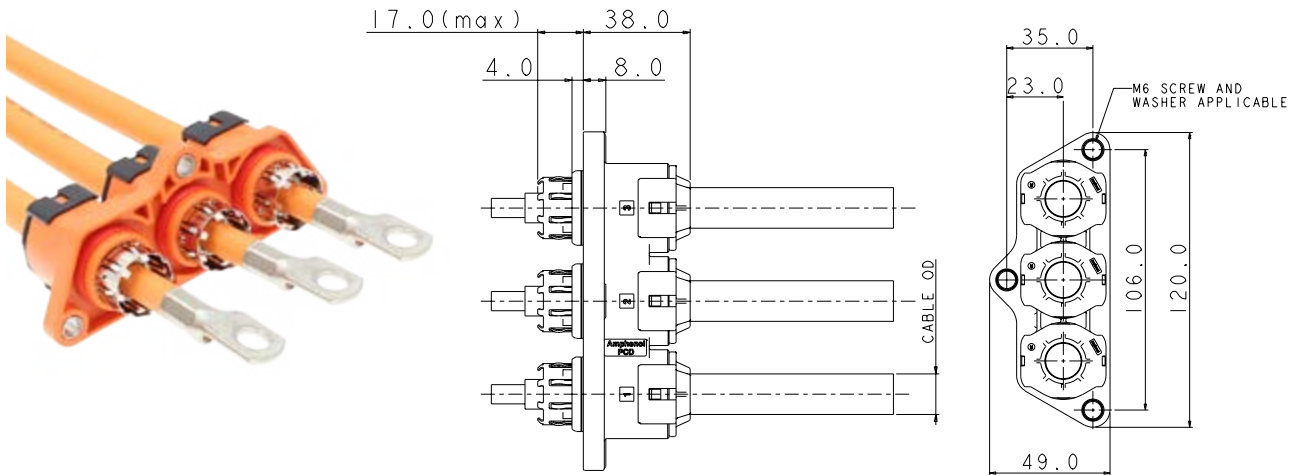
## PART NUMBER

Part number	Conductor cross section (mm <sup>2</sup> )	Cable OD
HVPTB 2 B 70	70	19.0±0.3
HVPTB 2 B 50	50	16.5±0.3
HVPTB 2 B 35	35	14.2±0.3
HVPTB 2 B 25	25	11.9±0.3

## PANEL MOUNTING DIMENSIONS



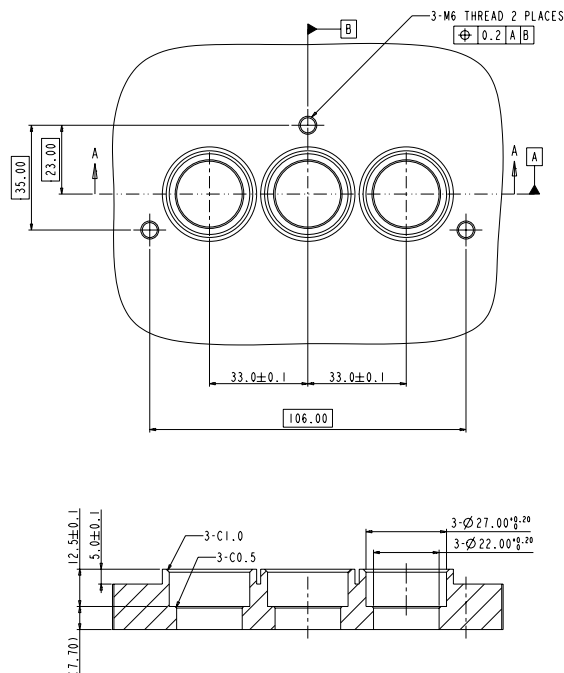
## HVPTB 3 POSITION PASS-THROUGH



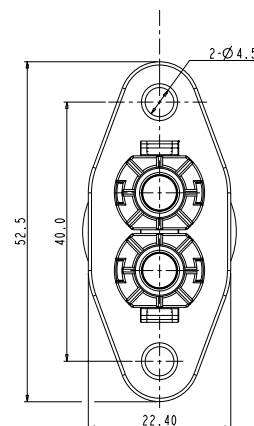
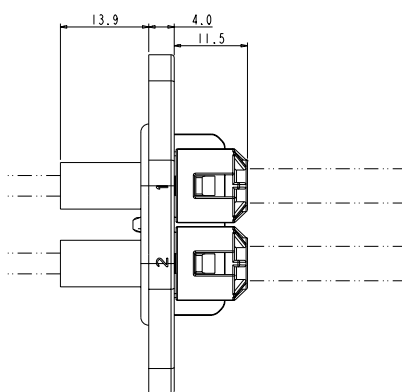
## PART NUMBER

Part number	Conductor cross section (mm <sup>2</sup> )	Cable OD
HVPTB 3 N 70	70	19.0±0.3
HVPTB 3 N 50	50	16.5±0.3
HVPTB 3 N 35	35	14.2±0.3
HVPTB 3 N 25	25	11.9±0.3

## PANEL MOUNTING DIMENSIONS



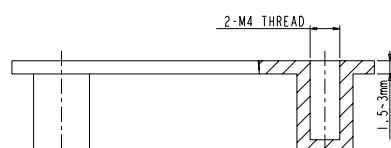
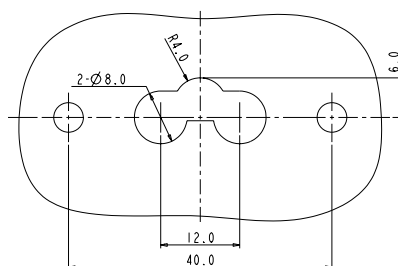
## HVPTB 2A POSITION PASS-THROUGH



## PART NUMBER

Part number	Conductor cross section (mm <sup>2</sup> )	Cable OD (mm)
HVPTB 2 A 03	2.5 / 3.0	5.2 ± 0.2

## PANEL MOUNTING DIMENSIONS



# Excel|Mate PT (HVPC)

## HVPC PASS-THROUGH

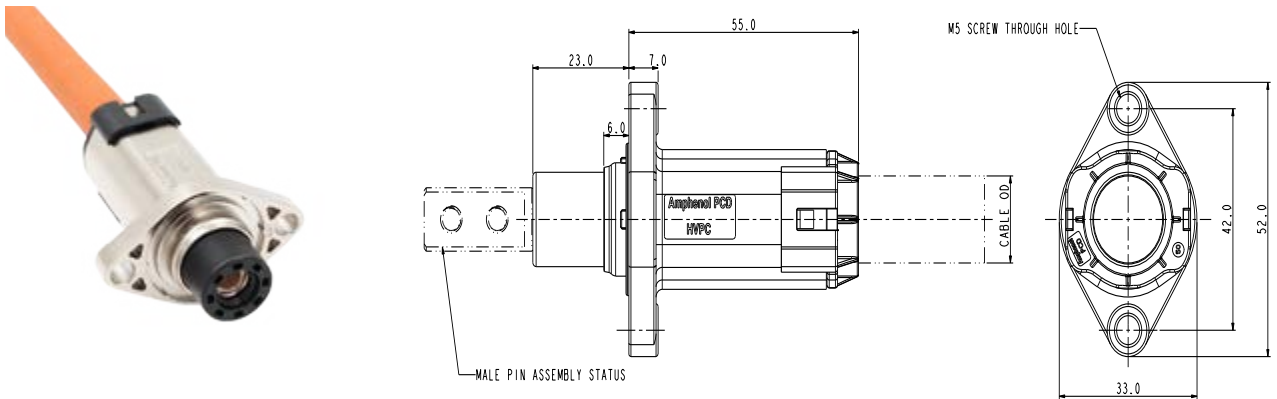


MECHANICAL	
Wire range	35 to 50mm <sup>2</sup> shielded wires
Connection type	Crimping
ELECTRICAL	
Rated voltage	1000V DC
Dielectric withstand voltage	3000V AC
Shielding	360° from wire to device
ENVIRONMENTAL	
Sealing	IP67, IP6K9K (mated)
Temperature range	-40°C to 125°C
Salt spray	96 hours
MATERIAL	
Housing	Metal

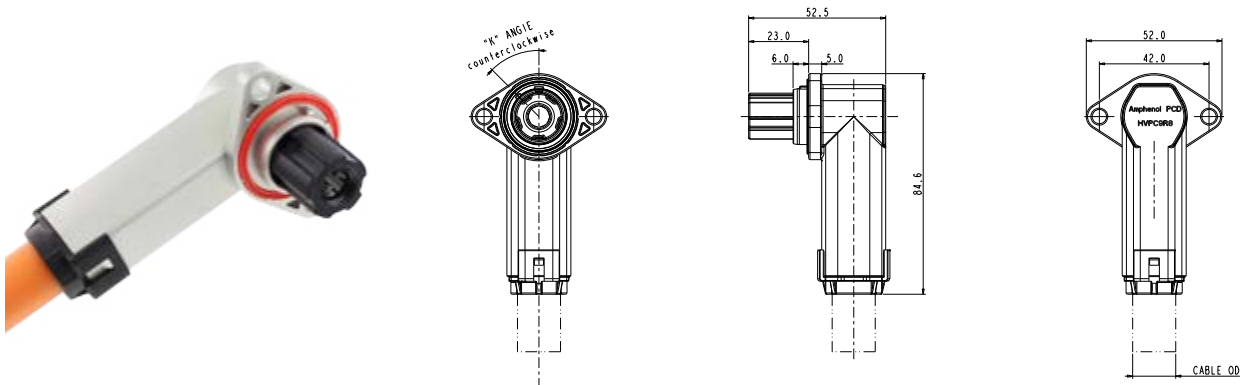
### KEY FEATURES

- Easy to install, reliable connection
- Sealing, IP67 (mated), IP6K9K
- Multiple coding positions
- 360° shielded from wire to device
- Economical

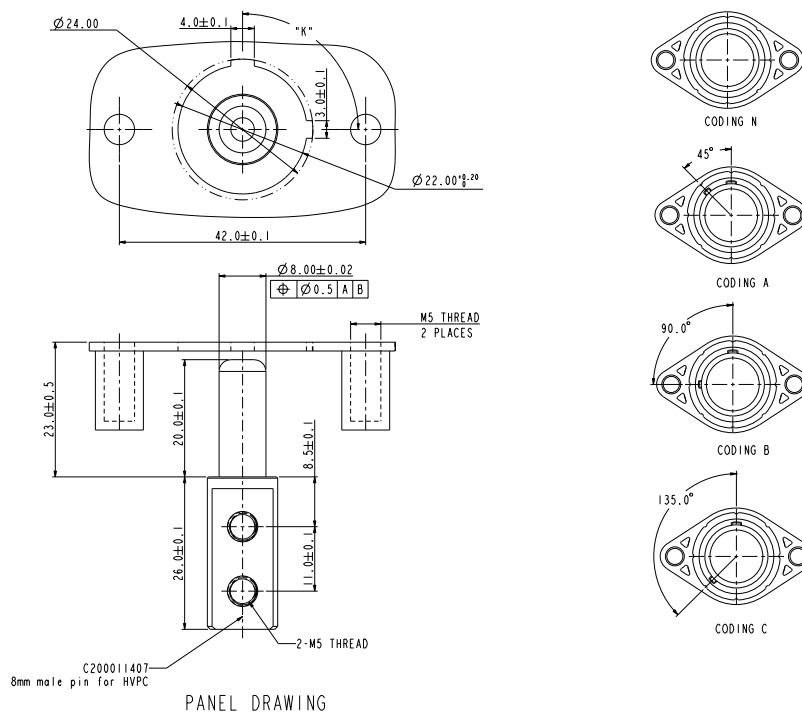
## HVPC 1 POSITION PASS-THROUGH



## HVPC 1 POSITION RIGHT-ANGLE



## PANEL MOUNTING DIMENSIONS





# HOW TO ORDER (HVPC)

## HOW TO ORDER

	HVPC	7	R8	1	A	35
<b>Product type:</b>						
<b>7:</b> Straight						
<b>9:</b> Right angle						
<b>Insert size:</b>						
<b>R8:</b> 8mm pin contact						
<b>Position:</b>						
<b>1:</b> 1 position						
<b>Coding:</b>						
<b>A:</b> Coding A						
<b>B:</b> Coding B						
<b>C:</b> Coding C						
<b>D:</b> Coding D (Right-Angle only)						
<b>E:</b> Coding E (Right-Angle only)						
<b>N:</b> Coding N (Straight only)						
<b>Wire type:</b>						
<b>35:</b> 35mm <sup>2</sup> shielded wire						
<b>50:</b> 50mm <sup>2</sup> shielded wire						

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