



**SOLUTIONS**  
CONNECTOR - POWER SUPPLY - ASSEMBLY

EDITION 2020/2021

E-MOBILITY  
CONNECTORS



## NICE TO MEET YOU

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We are A&C Solutions, the connector & harness distribution specialist that offers you a tailor-made solution to any e-mobility application. We complement our offer with high-end power supply solutions and we manage your stock on request.

As a full service provider, we are ready to support you into the e-mobility era of the future!

Do you want to get to know us better?



# SOLUTIONS DESIGNED AROUND YOUR BUSINESS



*'A connector solution that matches, we don't settle for anything less'*



# THIS IS HOW WE WORK

*‘We strongly believe that where focus goes, business grows’*



## ALL EYES ON YOU

We don't sell products, we sell solutions. A solution only becomes one when it fully meets your requirements. It doesn't matter whether you are looking for a single connector or a fully customized cable set. We are there to help you find the right match at the best price available in the market.



## E-MOBILITY FOCUS

We can only add value to your business when we step into your world and learn to understand it. Therefore, we have chosen to align our knowledge and range of connector & power supply solutions with targeted markets like E-mobility.



## QUALITY FIRST

Because of ISO 9001, we have a solid organization based on predefined working procedures, incoming and outgoing quality checks and ongoing self-assessment to do things even better next time.



## A SPECIALIST AT YOUR SERVICE

We have a clear focus on connector & power supply solutions. In both fields, we have built a strong expertise that helps us to advise you the best solution for your application.



## LONGTERM PARTNERSHIPS

We are a partnership builder who is convinced that success can only come from a long term focus. This is how we approach our suppliers, assembly partners and above all, our customers.



## YOUR STOCK MANAGER

Our stock management services are designed to support your ongoing production process. We deliver a large part of the conventional connector & power supply solutions directly from stock within 24 hours. And we keep designated customer stock on demand or based on periodic forecast information.





## OUR HOME BASE

LOCATED IN TURNHOUT, BELGIUM WITH A 500M<sup>2</sup> WAREHOUSE





SIGNAL

6 - 19



MOTOR

20 - 31



BATTERY

32 - 46



CABLE HARNESSES

49



SPLITTERS

50 - 51





'We clearly see that more and more customers try to further enhance the e-bike experience by adding extra features like tracking systems, GPS, electrical locks, heat grips and even heated seats. So along with an even more compact design, there is a need for extra connections and a higher data transmission. This trend keeps our R&D colleagues at Higo constantly focussed on creating smaller designs with an increasing number of poles so that in the end all connectors can still be nicely hidden away in e-bike frames.'

*Jannes Christiaensen, Account manager A&C Solutions*





**SIGNAL MINI B**

8 - 9



**SIGNAL MINI C**

10



**SIGNAL MINI E**

11



**SIGNAL MINI F / 7-POLE PLUG**

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**SIGNAL MICRO A / D**

16 - 17



**SIGNAL MAIN PLUG**

18 - 19



# SIGNAL CONNECTORS MINI B PLUG



## ARTICLE NUMBER BUILD-UP:

Number of poles:  
2 up to 6

Cable length in mm

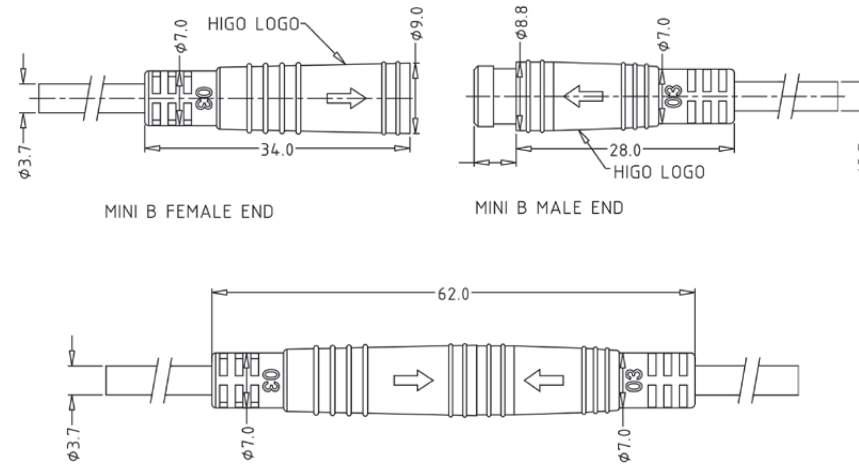
00: Standard  
01: Cable & wires stripped + tinned  
05: Customized with other connectors

Z \* 09 B \* P \* \* \* \* \*

M: Female  
G: Male

EXTENSION CABLES:  
X: Male-Female  
Y: Female-Female  
Z: Male-Male

A0: PVC cable 2x0,2mm<sup>2</sup>  
A1: PVC cable 3x0,2mm<sup>2</sup>  
A2: PVC cable 4x0,14mm<sup>2</sup>  
A3: PVC cable 5x0,14mm<sup>2</sup>  
A4: PVC cable 6x0,14mm<sup>2</sup>  
For more options: see website



## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66
Mating Cycles:	200 times
Outside Diameter:	9,0mm
Fitting Length:	62,0mm
Wire Specification:	0,14mm <sup>2</sup> / 0,2mm <sup>2</sup>

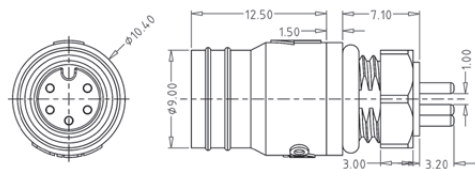


# HIGO

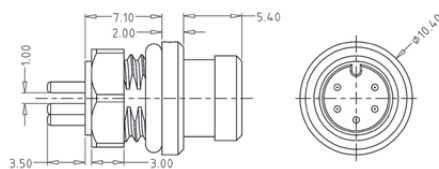




# SIGNAL CONNECTORS MINI B PANEL MOUNT



FEMALE END



MALE END

## ARTICLE NUMBER BUILD-UP:

Number of poles:  
2 up to 6

02: With solder cup contacts without wires  
03: With solder cup contacts with wires  
04: With straight PCB contacts

Z \* 09 B \* C \* \* \* \* \*

M: Female  
G: Male

oo: No cable

Cable length in mm

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66
Mating Cycles:	200 times
Outside Diameter:	9,0mm
Fitting Length:	62,0mm
Wire Specification:	0,14mm <sup>2</sup> / 0,2mm <sup>2</sup>



Cover for male:  
ZX09BG

Cover for female:  
ZX09BM

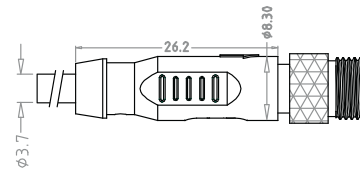
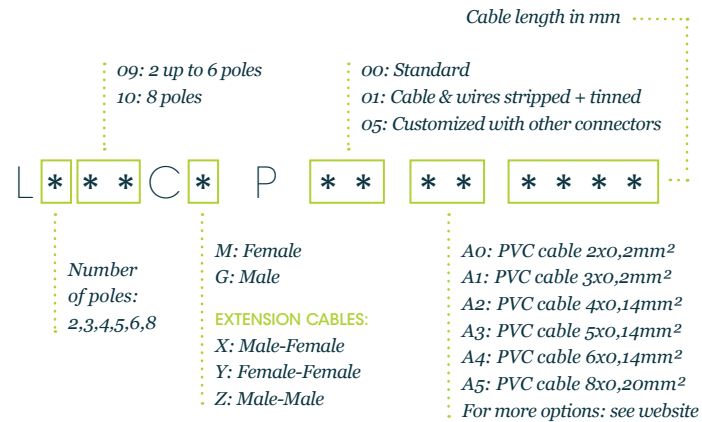
# CONNECTOR



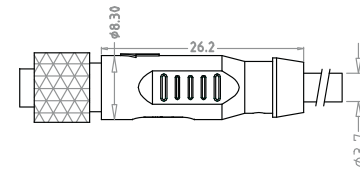
# SIGNAL CONNECTORS MINI C PLUG



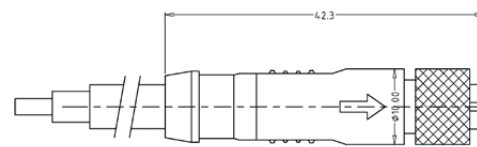
## ARTICLE NUMBER BUILD-UP:



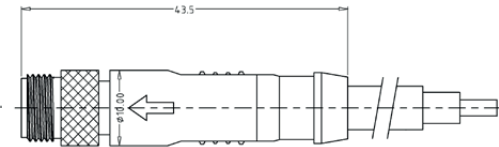
MALE END 2-6 POLE VERSION



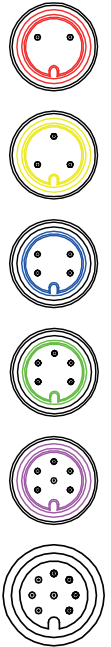
FEMALE END 2-6 POLE VERSION



FEMALE END 8- POLE VERSION



MALE END 8- POLE VERSION



## CHARACTERISTICS

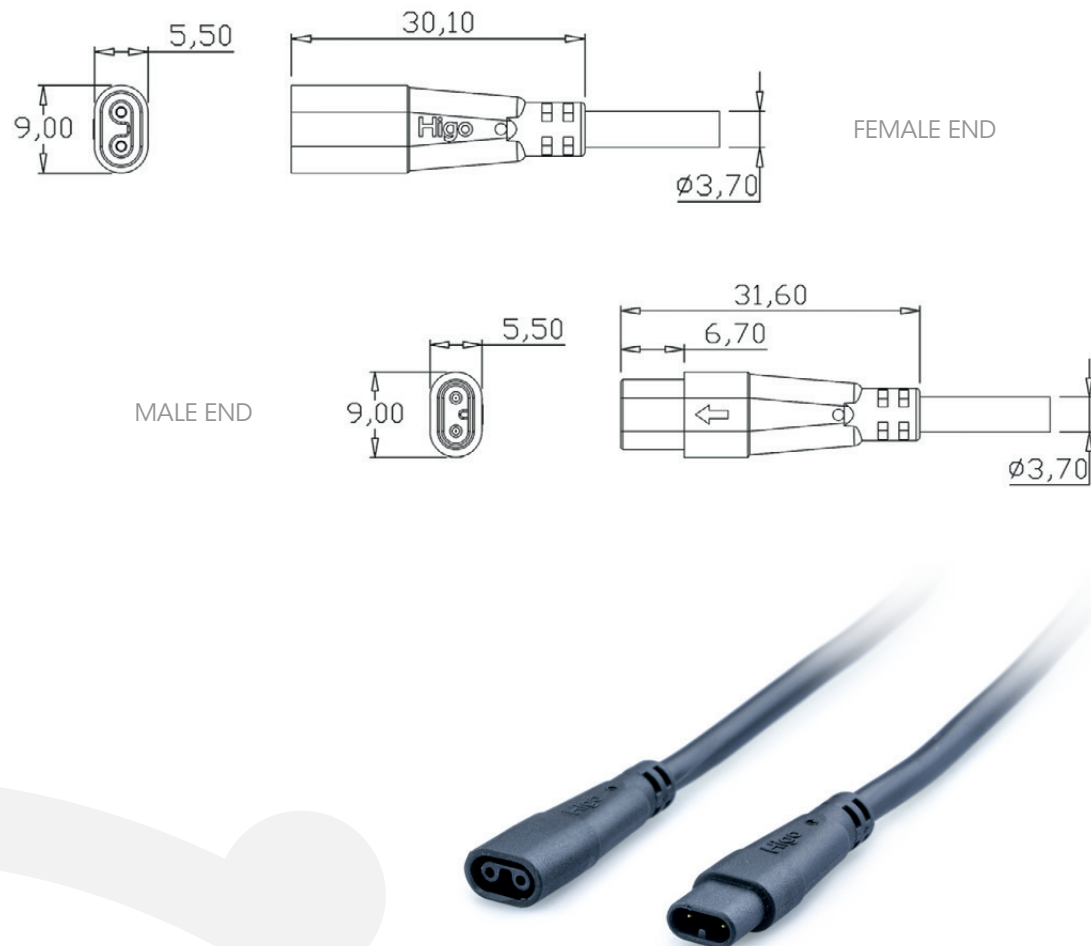
Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	9,0mm
Fitting Length:	68,6mm (2-6p) / 80,0mm (8p)
Wire Specification:	0,14mm <sup>2</sup> / 0,2mm <sup>2</sup>



# HIGO



# SIGNAL CONNECTORS MINI E PLUG



## ARTICLE NUMBER BUILD-UP:

Cable length in mm  
D7: PVC cable 2x0,2mm<sup>2</sup>  
A0: PVC cable 2x0,2mm<sup>2</sup>

Z209E \* P \* \* \* \* \*

M: Female  
G: Male

00: Standard  
01: Cable & wires stripped + tinned  
05: Customized with other connectors

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66
Mating Cycles:	200 times
Outside Diameter:	9,0mm
Fitting length:	55,0mm
Wire Specification:	0,2mm <sup>2</sup>

# CONNECTOR



# SIGNAL CONNECTORS MINI F PLUG



## ARTICLE NUMBER BUILD-UP:

Number of poles:  
2 up to 9

Cable length in mm

oo: Standard  
01: Cable & wires stripped + tinned  
05: Customized with other connectors

Z \* 09 F \* P \* \* \* \* \*

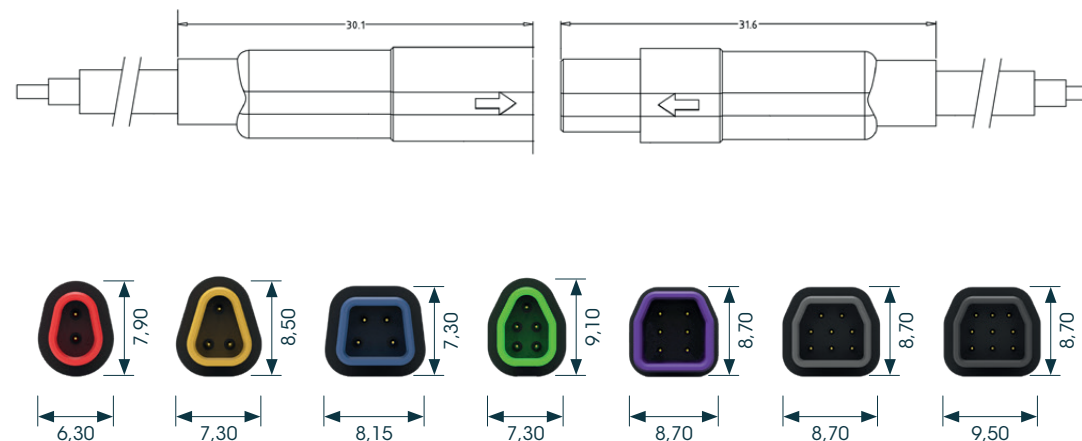
M: Female  
G: Male

EXTENSION CABLES:  
X: Male-Female  
Y: Female-Female  
Z: Male-Male

Ao: PVC cable 2 x 0,2mm<sup>2</sup>  
AW: TPU cable 2 x 0,14mm<sup>2</sup>  
A1: PVC cable 3 x 0,2mm<sup>2</sup>  
AX: TPU cable 3 x 0,2mm<sup>2</sup>  
A2: PVC cable 4 x 0,14mm<sup>2</sup>  
AY: TPU cable 4 x 0,14mm<sup>2</sup>  
A3: PVC cable 5 x 0,14mm<sup>2</sup>  
TH: TPU cable 5x0,12mm<sup>2</sup>  
A4: PVC cable 6x0,14mm<sup>2</sup>  
DL: PVC cable 8x0,14mm<sup>2</sup>  
DN: PVC cable 9x0,15mm<sup>2</sup>  
For more options: see website

FEMALE PLUG

MALE PLUG



## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66/IP67
Mating Cycles:	200 times
Fitting Length:	55,0mm
Wire Specification:	0,12mm <sup>2</sup> / 0,2mm <sup>2</sup>



# HIGO

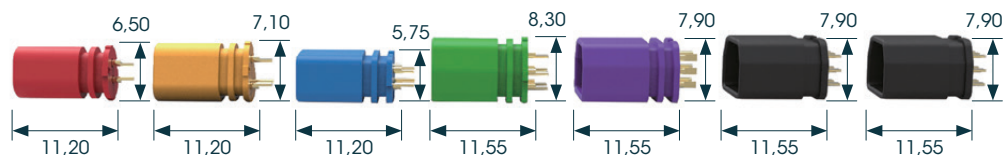


# SIGNAL CONNECTORS MINI F **PANEL MOUNT**



Z409FG:  
COVER FOR MALE

Covers for male and female connectors available from 2 to 8 poles



## ARTICLE NUMBER BUILD-UP:

Number of poles:  
2 up to 9

04: With straight PCB contacts

Z \* 09 F \* C \* \* 00 0000

M: Female  
G: Male

00: No cable

Cable length in mm

Female only available in 2,3,6 and 8 poles  
Contact our sales team for a tailor made backshell for your design

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66/IP67
Mating Cycles:	200 times

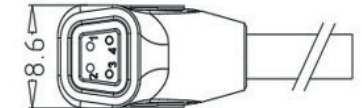
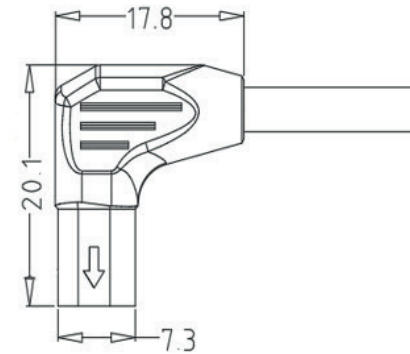
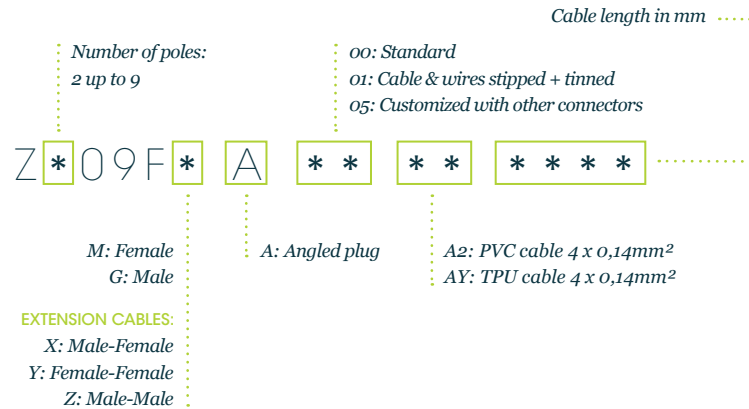
# CONNECTOR



# SIGNAL CONNECTORS MINI F ANGLED PLUG



## ARTICLE NUMBER BUILD-UP:



## CHARACTERISTICS

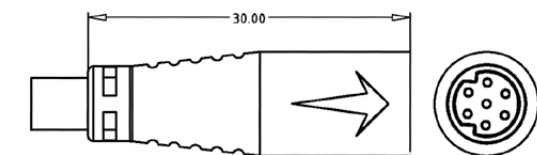
Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66
Mating Cycles:	200 times
Outside Diameter:	8,6mm x 7,3mm
Wire Specification:	0,14mm <sup>2</sup> - 0,2mm <sup>2</sup>



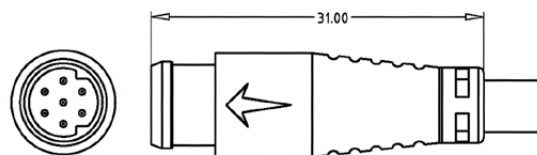
# HIGO

NEW

# SIGNAL CONNECTORS **PLUG**



FEMALE END



MALE END



## ARTICLE NUMBER BUILD-UP:

00: Standard  
01: Cable & wires stripped + tinned  
05: Customized with other connectors

Cable length in mm

Z710A\* P \*\* \*\* \* \* \* \*

Number of poles : 7 M: Female G: Male

FL: PVC Cable, OD4,00mm, 7x0,14mm<sup>2</sup>

## CHARACTERISTICS

Temperature Range: -25°C up to +80°C

Rated Voltage: 48V AC / 60V DC

Rated Current: 2A

Contact Resistance: ≤10mΩ

Insulation Resistance: ≥20MΩ

Protection Level: IPX7

Mating Cycles: 200 times

Outside Diameter: 10,0mm

Fitting Length: 55,0mm

Wire Specification: 0,14mm<sup>2</sup>

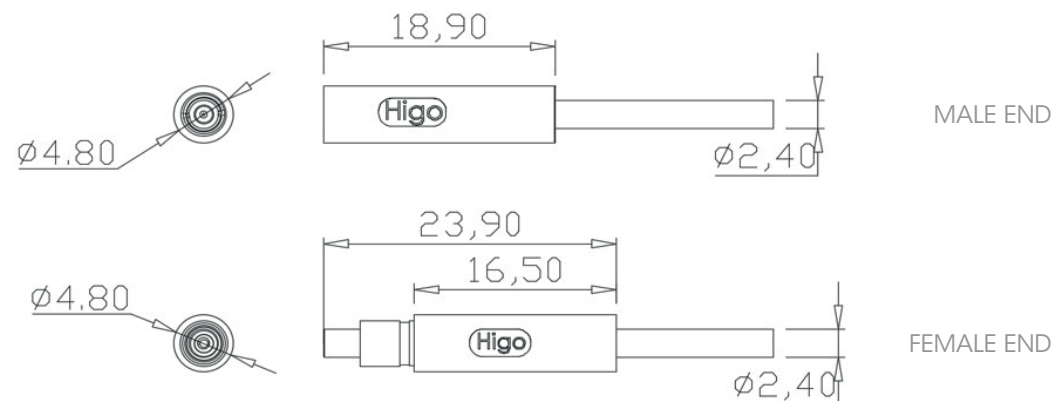
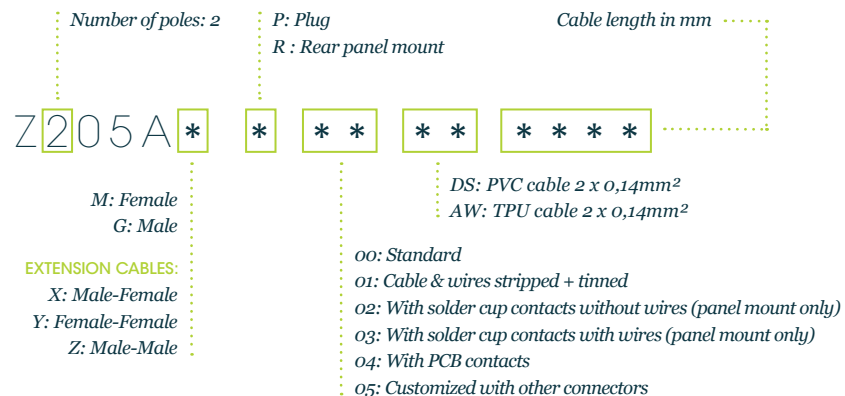
# CONNECTOR



# SIGNAL CONNECTORS MICRO A **PLUG & PANEL MOUNT**

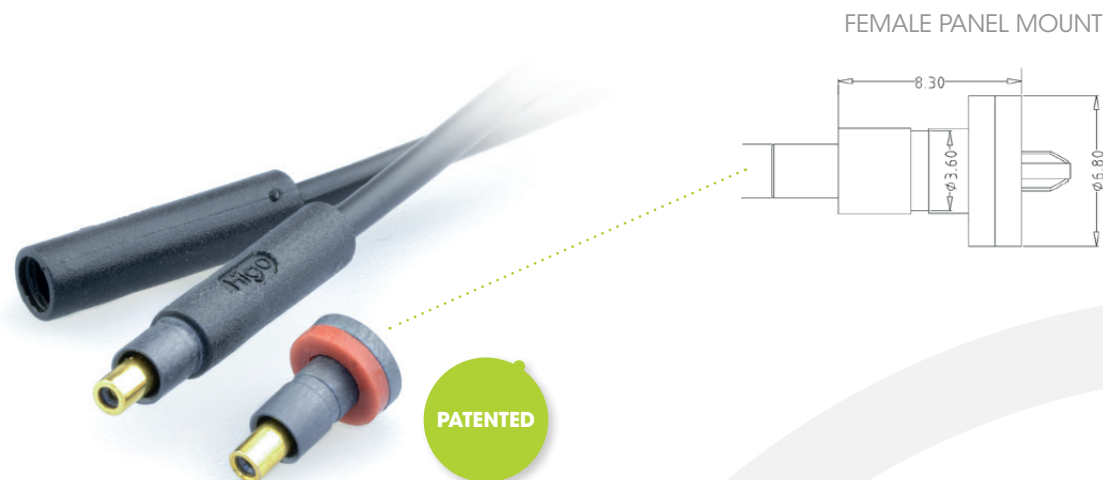


## ARTICLE NUMBER BUILD-UP:



## CHARACTERISTICS

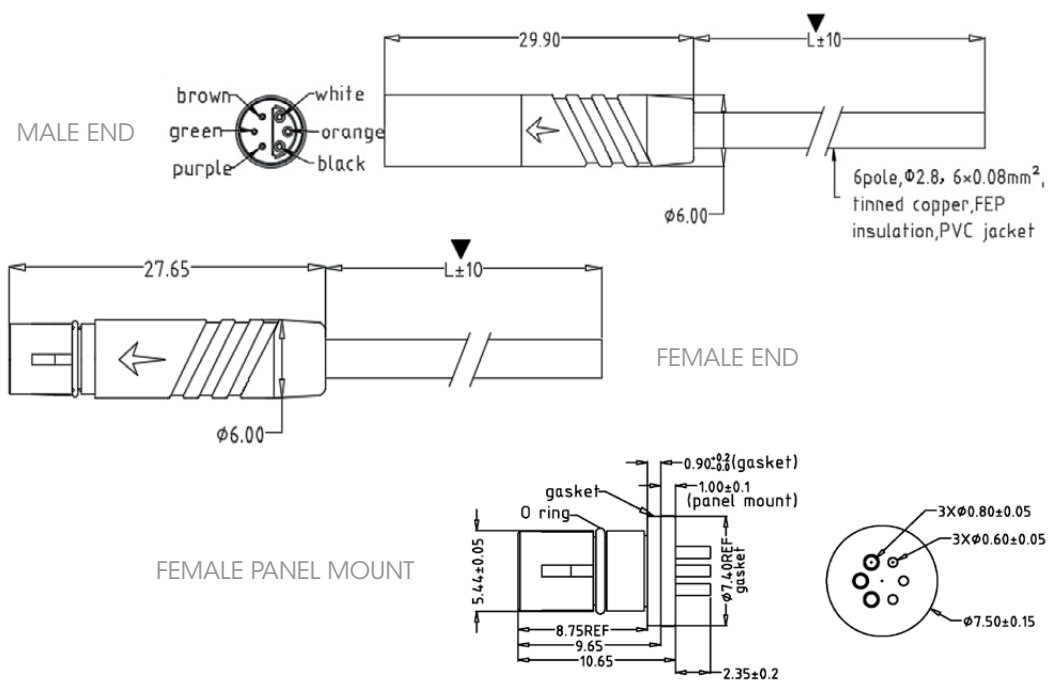
Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC/DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	4,8mm
Fitting Length:	35,4mm
Wire Specification:	0,14mm <sup>2</sup>



# HIGO

NEW

# SIGNAL CONNECTORS MICRO D PLUG & PANEL MOUNT

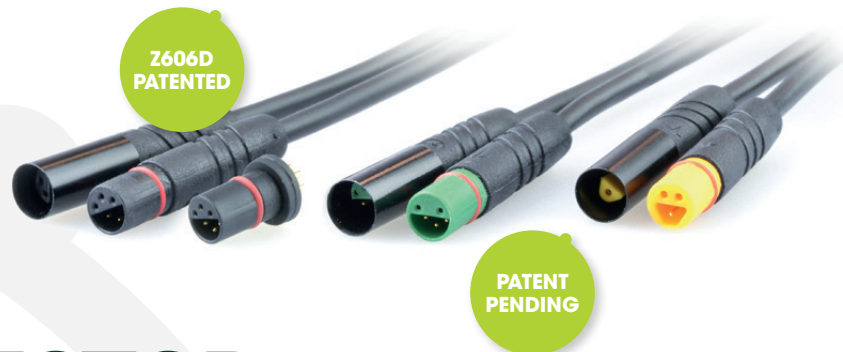


## ARTICLE NUMBER BUILD-UP:

Number of poles: 3, 5, 6		Cable length in mm	
oo: Standard		01: Cable & wires stripped + tinned	
		05: Customized with other connectors	
Z	* 0 6 D *	*	* * * *
M: Female G: Male		P: Plug C: Panel Mount	FG: PVC cable, 3x0,14mm <sup>2</sup> FW: PVC cable, 5x0,08mm <sup>2</sup> DY: PVC cable, 6x0,08mm <sup>2</sup>
EXTENSION CABLES: X: Male-Female Y: Female-Female Z: Male-Male			

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	50 times
Outside Diameter:	6,0mm
Fitting Length:	50,0mm
Wire Specification:	3 x 0,14mm <sup>2</sup> / 5 x 0,08mm <sup>2</sup> / 6 x 0,08mm <sup>2</sup>



# CONNECTOR

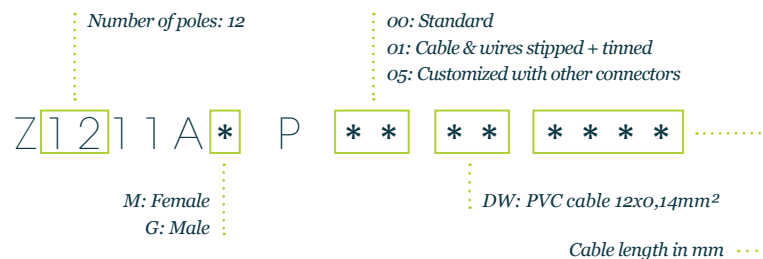
SIGNAL



# SIGNAL CONNECTORS MAIN PLUG



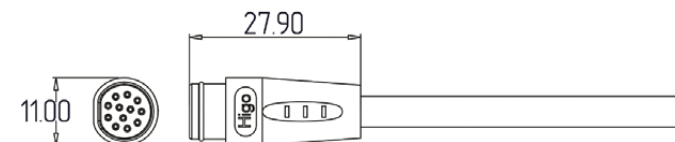
## ARTICLE NUMBER BUILD-UP:



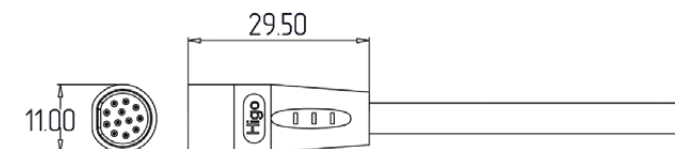
## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	11,0mm
Fitting Length:	53,0mm
Wire Specification:	0,14mm <sup>2</sup>

FEMALE END



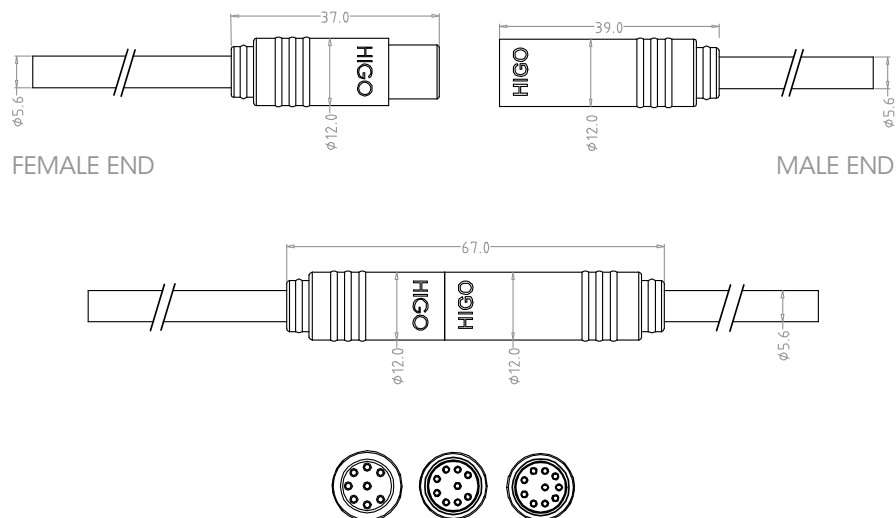
MALE END



# HIGO



# SIGNAL CONNECTORS **MAIN PLUG**



## ARTICLE NUMBER BUILD-UP:

Number of poles: 8 up to 10		Cable length in mm			
		00: Standard 01: Cable & wires stripped + tinned 05: Customized with other connectors			
Z	*	1	2	A	*
M: Female G: Male		P			
EXTENSION CABLES: X: Male-Female Y: Female-Female Z: Male-Male		* * * * *			
		A5: PVC cable 8x0,2mm <sup>2</sup> A6: PVC cable 9x0,2mm <sup>2</sup> A7: PVC cable 10x0,2mm <sup>2</sup>			

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66
Mating Cycles:	200 times
Outside Diameter:	12,0mm
Fitting Length:	67,0mm
Wire Specification:	0,2mm <sup>2</sup>

# CONNECTOR







'Where does the E-mobility market take us? What's the next big thing? And how can we add value to this? Staying ahead of what's coming is never easy. Of course, we're fortunate to be able to listen to product development plans of many E-mobility entrepreneurs every day. This pretty much gives us a good indication as to where we should focus on. Finding the blind spots in our range and coming up with smart solutions that help realizing a customer's great project, that's what makes me tick.'

**Kristof Van Wetering, Product manager A&C Solutions**



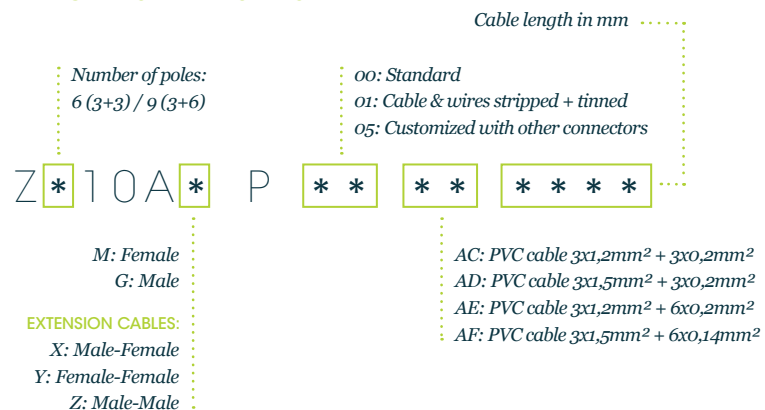




# MOTOR CONNECTORS **PLUG**

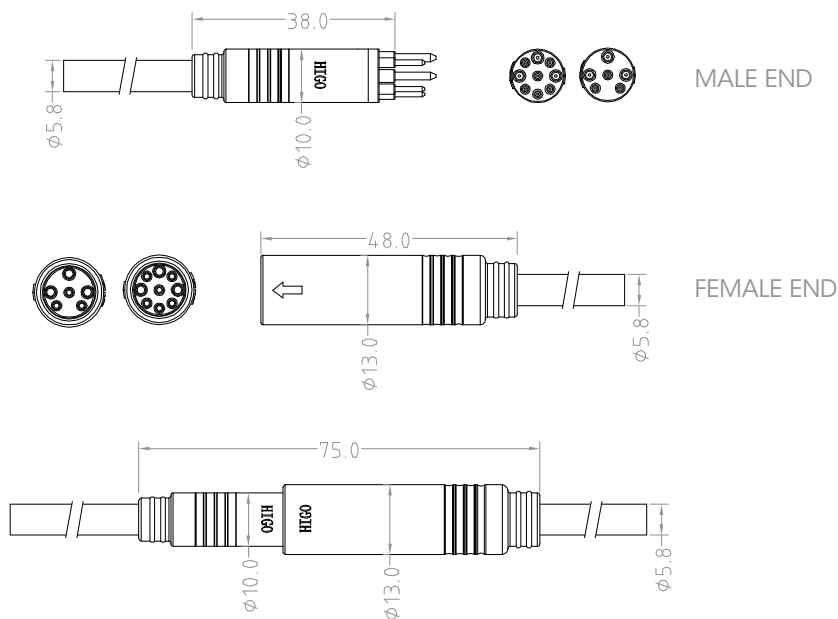


## ARTICLE NUMBER BUILD-UP:



## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	15A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66
Mating Cycles:	200 times
Outside Diameter:	13,0mm
Fitting Length:	75,0mm
Wire Specification:	1,2mm <sup>2</sup> / 1,5mm <sup>2</sup> +0,2mm <sup>2</sup>



# HIGO



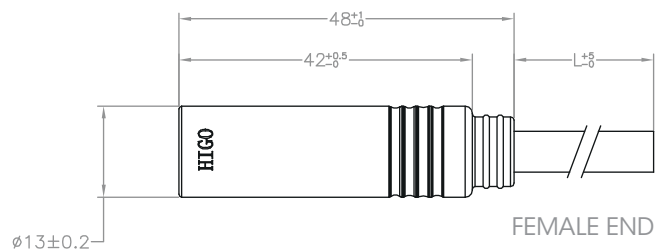
# MOTOR CONNECTORS **PLUG**

## ARTICLE NUMBER BUILD-UP:

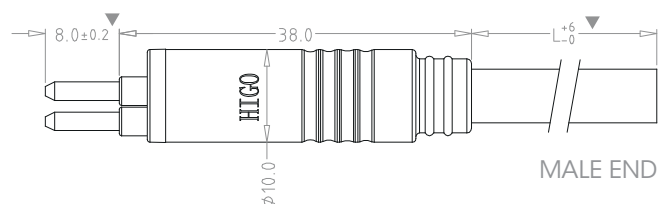
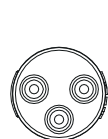
Number of poles: 3		Cable length in mm			
		00: Standard			
		01: Cable & wires stripped + tinned			
		05: Customized with other connectors			
Z	3	1	0	B	*
M: Female					
G: Male					
EXTENSION CABLES:					
X: Male-Female					
Y: Female-Female					
Z: Male-Male					
		A9: PVC cable 3x1,2mm <sup>2</sup>			
		AA: PVC cable 3x1,5mm <sup>2</sup>			
		AB: PVC cable 3x2,0mm <sup>2</sup>			

## CHARACTERISTICS

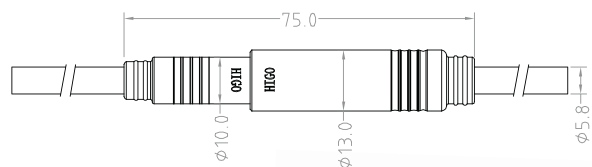
Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	15A / 25A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66
Mating Cycles:	200 times
Outside Diameter:	10,0mm / 13,0mm
Fitting Length:	75,0mm
Wire Specification:	1,2mm <sup>2</sup> / 1,5mm <sup>2</sup> / 2,0mm <sup>2</sup>



FEMALE END



MALE END



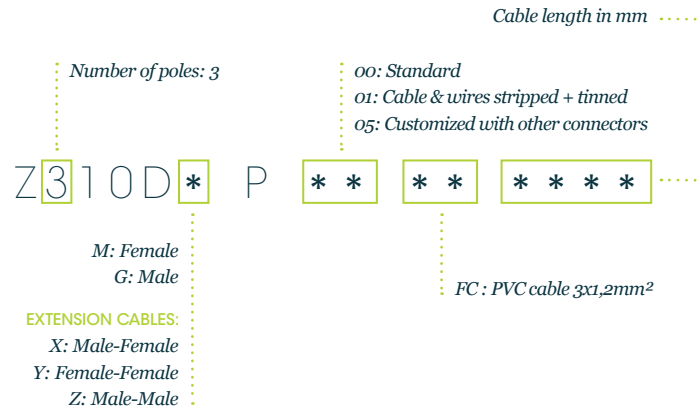
# CONNECTOR



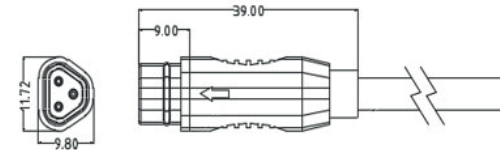
# MOTOR CONNECTORS **PLUG**



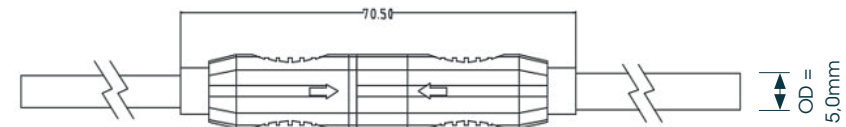
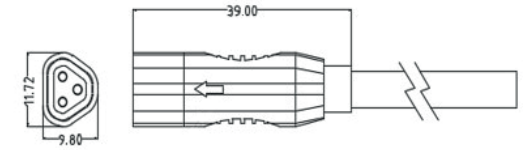
## ARTICLE NUMBER BUILD-UP:



MALE END



FEMALE END

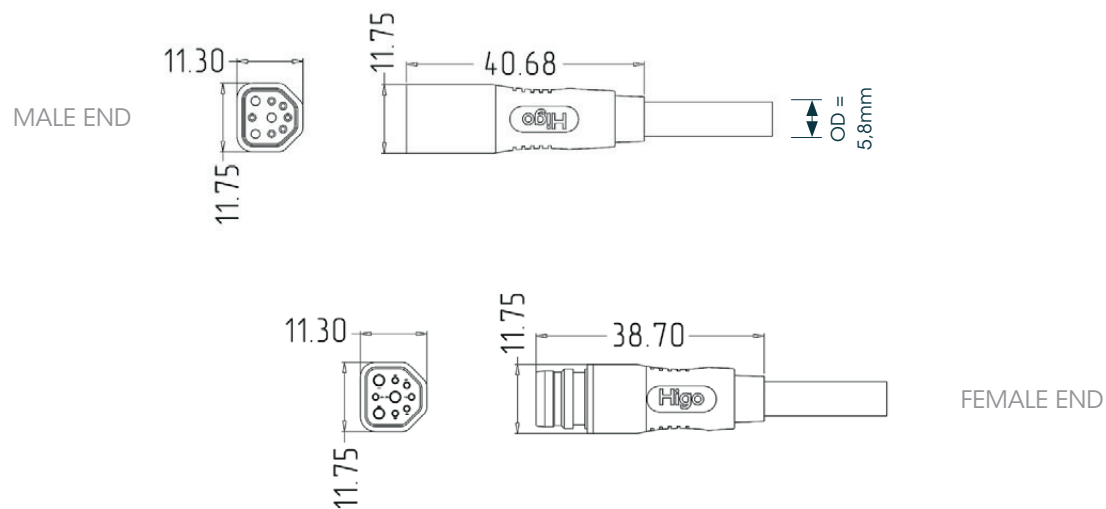


## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	15A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	11,72mm x 9,8mm
Fitting Length:	71,0mm
Wire Specification:	1,2mm <sup>2</sup>



# HIGO



## ARTICLE NUMBER BUILD-UP:

- Number of poles:  
 $9(3+6)$

- 00: Standard
- 01: Cable & wires stripped + tinned
- 05: Customized with other connectors

Z913B\* P \* \* \* \* \*

*M: Female*  
*G: Male*

- AF: PVC cable
- $3 \times 1,5 \text{ mm}^2 + 6 \times 0,14 \text{ mm}^2$

### EXTENSION CABLES:

*X: Male-Female*  
*Y: Female-Female*  
*Z: Male-Male*

## CHARACTERISTICS

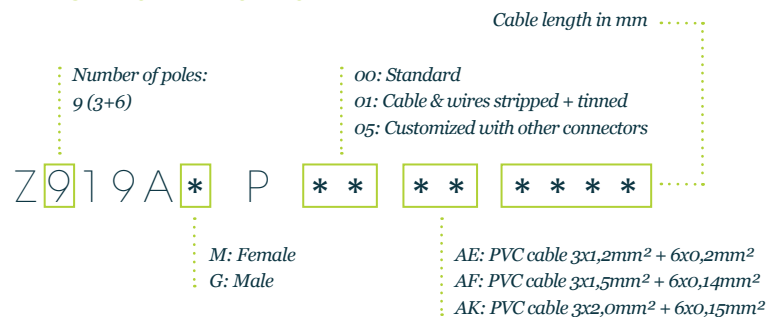
Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	15A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	11,75mm x 11,30mm
Fitting Length:	70,7mm
Wire Specification:	3 x 1,5mm <sup>2</sup> + 6 x 0,14mm <sup>2</sup> / 3 x 1,2mm <sup>2</sup> + 6 x 0,2mm <sup>2</sup>

# CONNECTOR

# MOTOR CONNECTORS **PLUG**

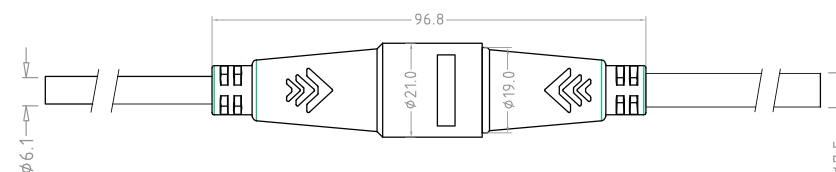
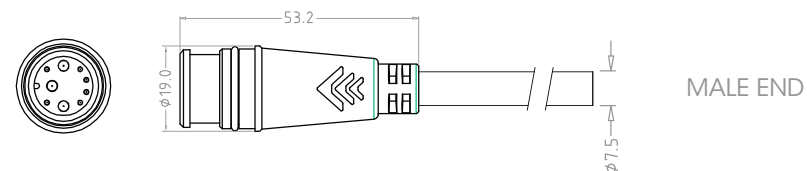
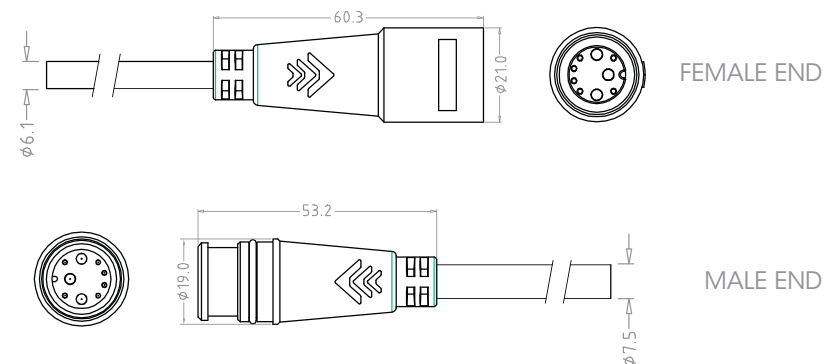


## ARTICLE NUMBER BUILD-UP:



## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	45A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66
Contact Durability:	200 times
Outside Diameter:	21,0mm
Fitting Length:	96,8mm
Wire Specification:	2,0mm <sup>2</sup> + 0,15mm <sup>2</sup>



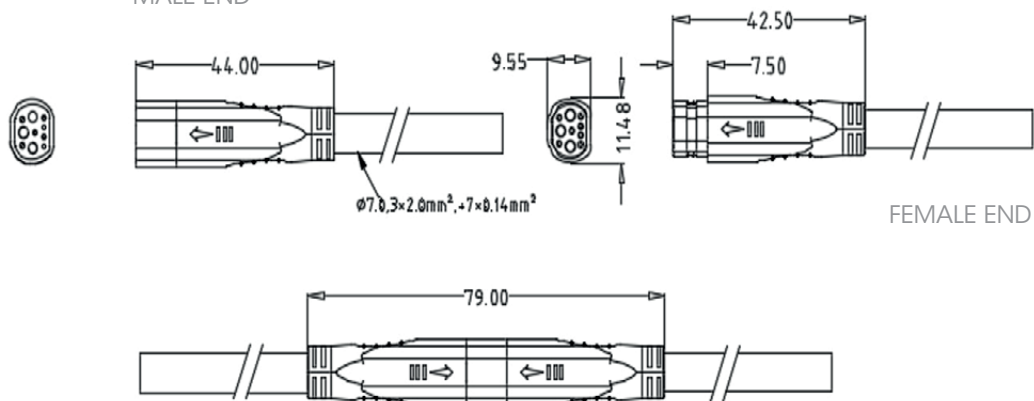
# HIGO





# MOTOR CONNECTORS **PLUG**

MALE END



## ARTICLE NUMBER BUILD-UP:

Number of poles: 3+7		Cable length in mm 00: Standard 01: Cable & wires stripped + tinned 05: Customized with other connectors			
Z	1012B*	P	* *	* *	* * * *
M: Female G: Male		FB : PVC cable 3x2,0mm <sup>2</sup> +7x0,14mm <sup>2</sup>			
EXTENSION CABLES: X: Male-Female Y: Female-Female Z: Male-Male					

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	20A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	11,48mm x 9,55mm
Fitting Length:	79,0mm
Wire Specification:	3 x 2,0mm² + 7 x 0,14mm² / 3 x 1,5mm² + 7 x 0,14mm²

# CONNECTOR

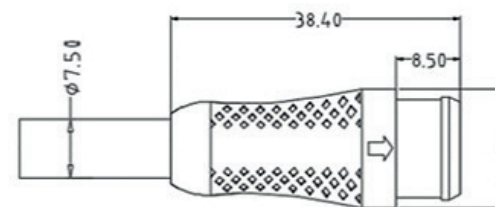
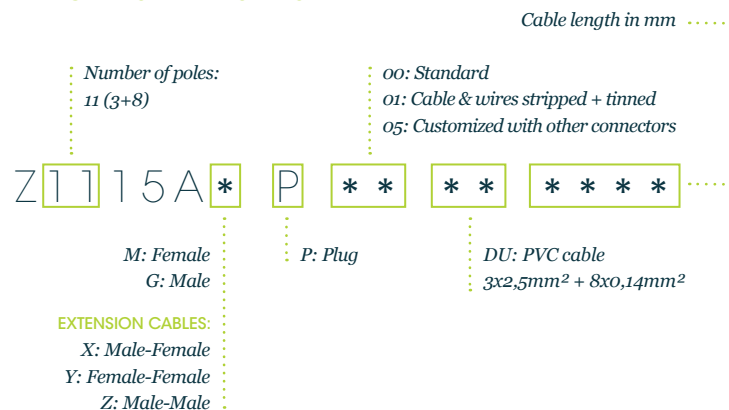


MOTOR

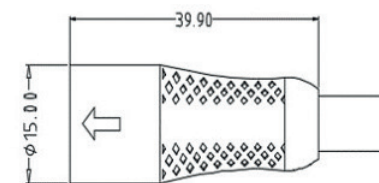
# MOTOR CONNECTORS **PLUG**



## ARTICLE NUMBER BUILD-UP:



MALE END



FEMALE END

## CHARACTERISTICS

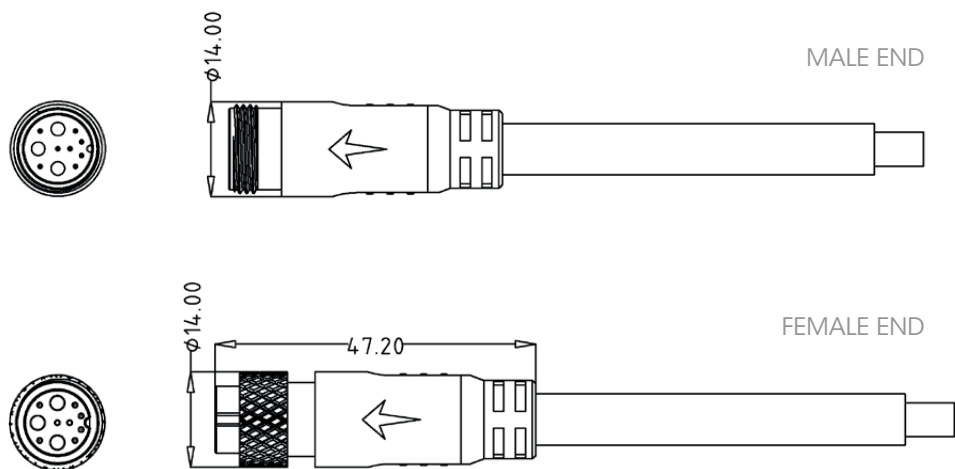
Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	25A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	15,0mm
Fitting Length:	70,0mm
Wire Specification:	3 x 2,5mm <sup>2</sup> + 8 x 0,14mm <sup>2</sup>



# HIGO

NEW

# MOTOR CONNECTORS **PLUG**



## ARTICLE NUMBER BUILD-UP:

Number of poles: 11 (8+3)	oo: Standard o1: Cable & wires stripped + tinned o5: Customized with other connectors
L1114A*	P**
M: Female G: Male	FF: PVC cable 3x2,0mm <sup>2</sup> +8x0,14mm <sup>2</sup>
EXTENSION CABLES: X: Male-Female Y: Female-Female Z: Male-Male	Cable length in mm



## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	20A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	14,0mm
Fitting Length:	80,0mm
Wire Specification:	2,0mm <sup>2</sup> / 0,14mm <sup>2</sup>

# CONNECTOR

MOTOR



# MOTOR CONNECTORS **PLUG**



## ARTICLE NUMBER BUILD-UP:

Number of poles: 3

00: Standard  
01: Cable & wires stripped + tinned  
05: Customized with other connectors

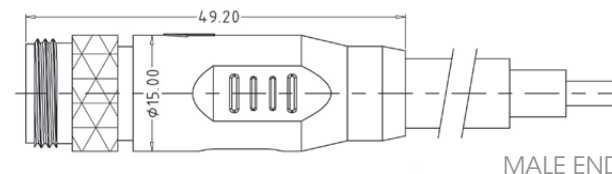
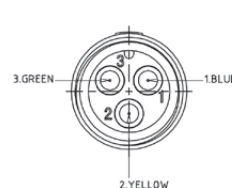
L **3** 1 5 A **\*** P **\*** **\*** **\*** **\*** **\*** **\***

M: Female  
G: Male

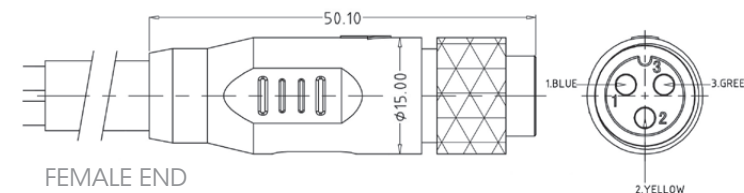
EXTENSION CABLES:  
X: Male-Female  
Y: Female-Female  
Z: Male-Male

B8: PVC cable 3x4,0mm<sup>2</sup>

Cable length in mm



MALE END



FEMALE END

## CHARACTERISTICS

Temperature Range: -25°C up to +80°C

Rated Voltage: 48V AC / 60V DC

Rated Current: 45A

Contact Resistance: ≤10mΩ

Insulation Resistance: ≥20MΩ

Protection Level: IP67

Mating Cycles: 200 times

Outside Diameter: 15,0mm

Fitting Length: 90,0mm

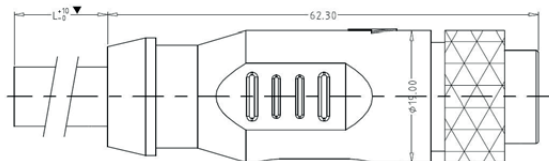
Wire Specification: 3 x 4,0mm<sup>2</sup>



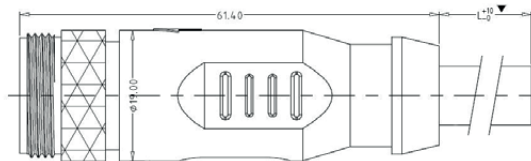
# HIGO



# MOTOR CONNECTORS **PLUG / PANEL**

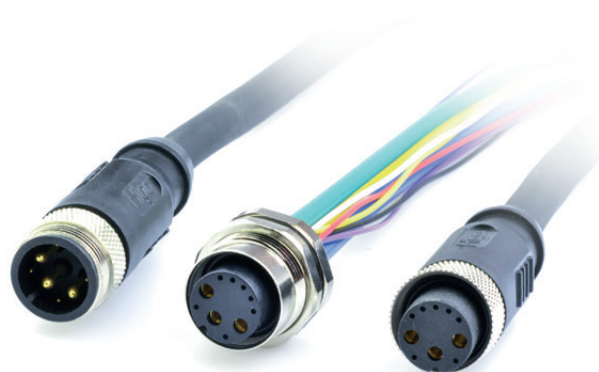
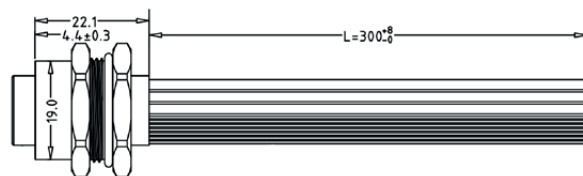


FEMALE END



MALE END

FEMALE REAR PANEL MOUNT



## ARTICLE NUMBER BUILD-UP:

Number of poles: 10 (3+7)		00: Standard	
		01: Cable & wires stripped + tinned	
		03: With solder cup contacts with wires	
		05: Customized with other connectors	
L1019A*		*	**
M: Female G: Male		AZ: PVC cable 3x4,0mm <sup>2</sup> + 7x0,14mm <sup>2</sup>	
EXTENSION CABLES: X: Male-Female Y: Female-Female Z: Male-Male		DQ: Single wires, 3x4,0mm <sup>2</sup> +7x0,20mm <sup>2</sup>	
		P: Plug	Cable length in mm
		C: Front panel mount	
		R: Rear panel mount	

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	45A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	19,0mm
Fitting Length:	114,0mm
Wire Specification:	3 x 4,0mm <sup>2</sup> + 7 x 0,14mm <sup>2</sup>

# CONNECTOR





'There where we feel we can step up, we challenge ourselves to come up with more reliable and professional solutions. The new designs in the battery connector range are good examples of this. By adding key features like self-locking mechanisms and by combining charging and discharging of batteries into one connector, we enhance the user friendliness of our products and we broaden our scope.'

**Franky Vanlerberghe, CEO A&C Solutions**





BATTERY 2 & 3P

34 - 36



BATTERY 4P

37



BATTERY 5P SCREW LOCKING

38



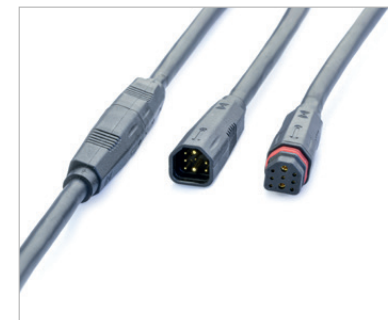
BATTERY 6P

39 - 43



BATTERY 8P SELF-LOCKING

44 - 45



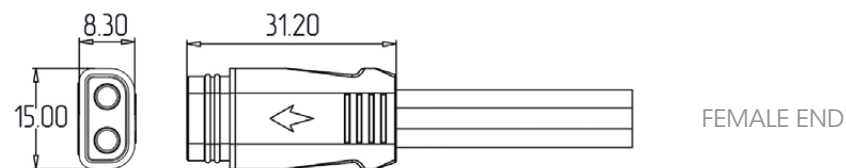
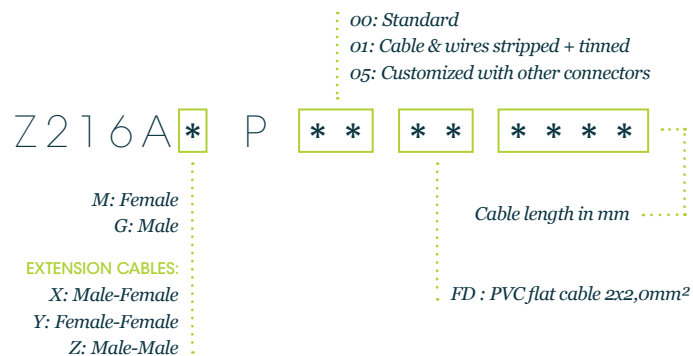
BATTERY 9P

46

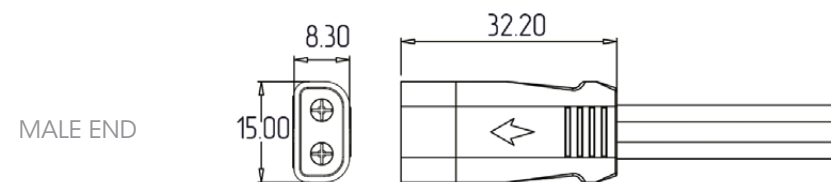
# BATTERY CONNECTORS



## ARTICLE NUMBER BUILD-UP:



FEMALE END



MALE END

## CHARACTERISTICS

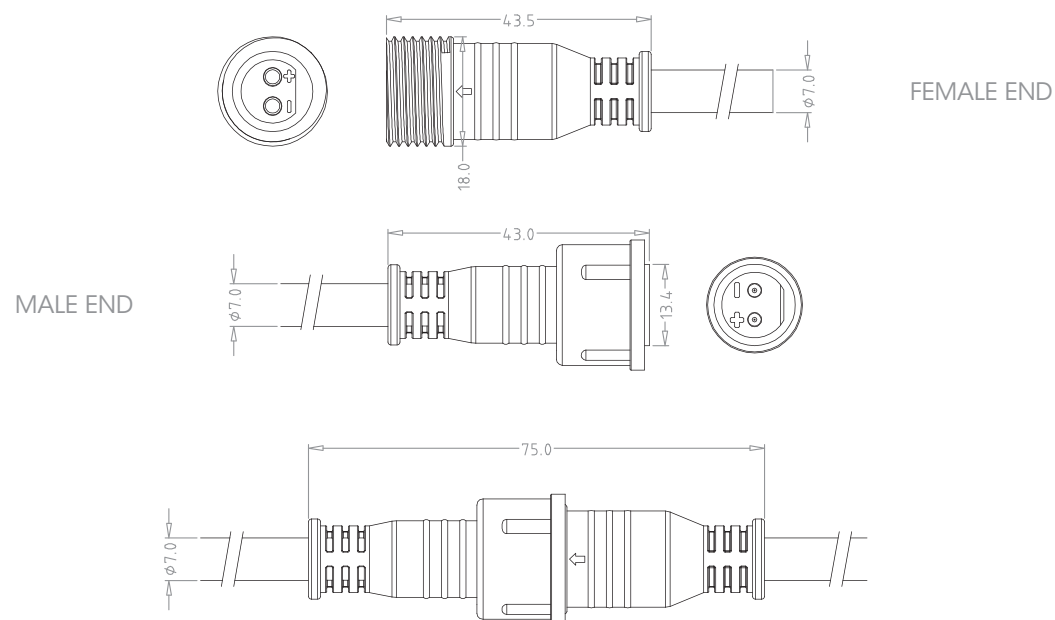
Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	25A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	15,0mm x 8,30mm
Fitting Length:	51,0mm
Wire Specification:	2,0mm <sup>2</sup>



# HIGO



# BATTERY CONNECTORS



FEMALE END

MALE END



## ARTICLE NUMBER BUILD-UP:

L218A\* P \*\* \*\* \* \* \* \*

M: Female  
G: Male

00: Standard  
01: Cable & wires stripped + tinned  
05: Customized with other connectors

AM: PVC cable 2x2,5mm<sup>2</sup>  
Cable length in mm

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	25A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Terminal Material:	Copper Alloy (Gold or Silver Plated)
Protection Level:	IP67
Contact Durability:	200 times
Outside Diameter:	19,0mm
Fitting Length:	75,0mm
Wire Specification:	2,5mm <sup>2</sup>

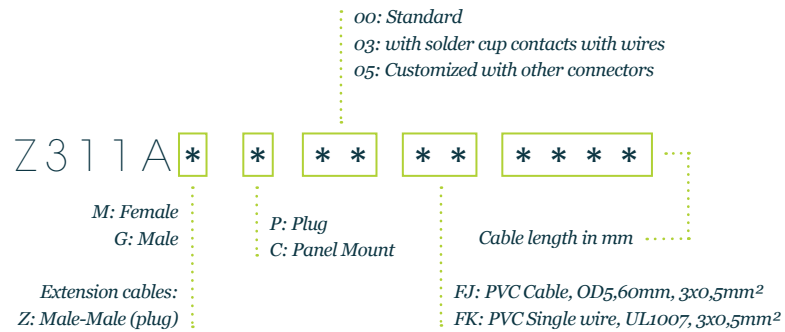
# CONNECTOR



# BATTERY CONNECTORS

NEW

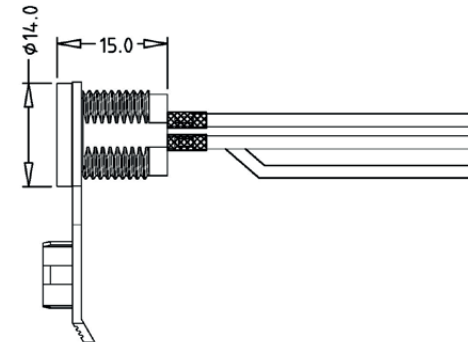
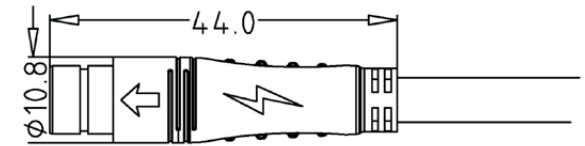
## ARTICLE NUMBER BUILD-UP:



## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	5A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP66
Mating Cycles:	200 times
Outside Diameter:	10,8mm (P) / 14,0mm (C)
Wire Specification:	0,5mm <sup>2</sup>

MALE PLUG



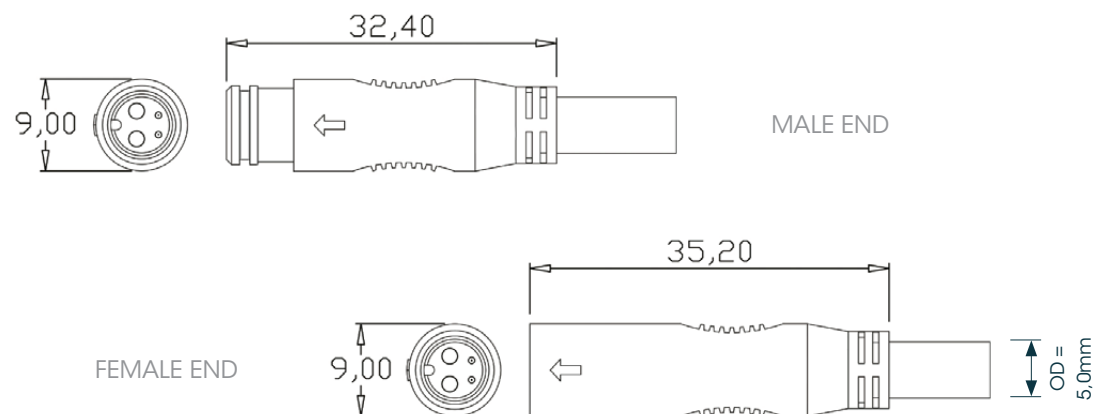
FEMALE PANEL MOUNT



# HIGO



# BATTERY CONNECTORS



## ARTICLE NUMBER BUILD-UP:

Number of poles: 4 (2+2)	00: Standard 01: Cable & wires stripped + tinned 05: Customized with other connectors
Z409E* P	* * * * *
M: Female G: Male	Cable length in mm
EXTENSION CABLES: X: Male-Female Y: Female-Female Z: Male-Male	FE: PVC cable 2 x 1,0mm <sup>2</sup> + 2x0,14mm <sup>2</sup> D5: TPU cable 2 x 1,0mm <sup>2</sup> + 2x0,14mm <sup>2</sup> FT: PVC cable 2x1,3mm <sup>2</sup> + 2x0,14mm <sup>2</sup>

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	15A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	9,0mm
Fitting Length:	61,0mm
Wire Specification:	2 x 1,0mm <sup>2</sup> + 2 x 0,14mm <sup>2</sup>

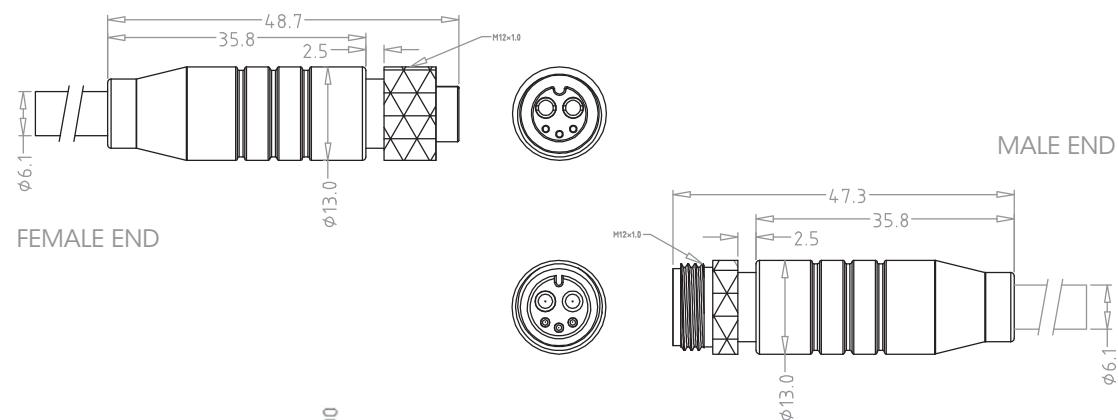
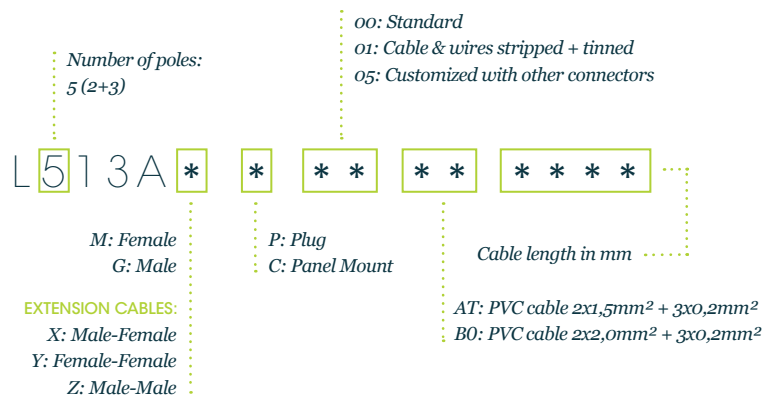
# CONNECTOR



# BATTERY CONNECTORS

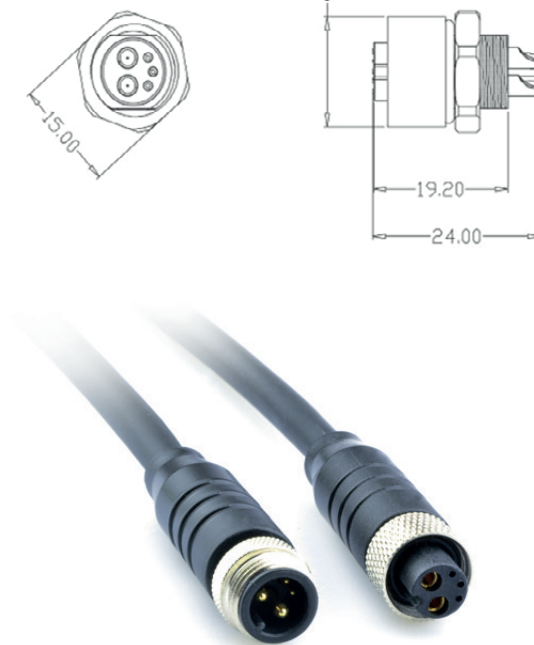


## ARTICLE NUMBER BUILD-UP:



## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	25A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating cycles:	200 times
Outside Diameter:	13,0mm
Fitting length:	96,0mm
Wire Specification:	1,5mm <sup>2</sup> + 0,2mm <sup>2</sup> / 2,0mm <sup>2</sup> + 0,2mm <sup>2</sup>

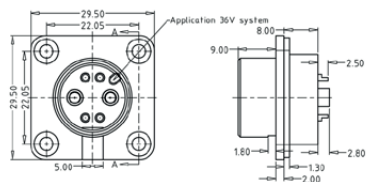


# HIGO

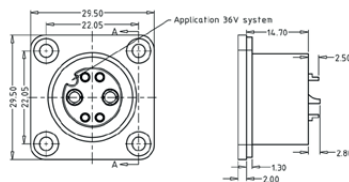




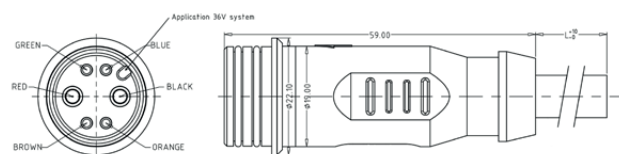
# 36V BATTERY CONNECTORS



MALE PANEL MOUNT



FEMALE PANEL MOUNT



MALE PLUG

## ARTICLE NUMBER BUILD-UP: (Coding only for 36v applications)

Number of poles: 6 (2+4)	00: Standard 01: Cable & wires stripped + tinned 03: with solder cup contacts with wires 05: Customized with other connectors
Z624C*	* * * *
M: Female G: Male	P: Plug C: Panel Mount
EXTENSION CABLES: X: Male-Female Y: Female-Female Z: Male-Male	Cable length in mm DR: PVC single wires 2xAWG12+4xAWG22 D1: PVC single wires 2xAWG14 + 4xAWG22 B6: PVC single wires 2xAWG16 + 4xAWG22 D9: PVC single wires 2xAWG18 + 4xAWG22 FH: TPU cable 2x2,0mm <sup>2</sup> + 4x0,34mm <sup>2</sup>

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	40A / 5A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	3000 times
Outside Diameter:	19,0mm (P) / 29,5mm (C)



# CONNECTOR

# 48V BATTERY CONNECTORS



## ARTICLE NUMBER BUILD-UP:

(Coding only for 48v applications)

**Number of poles:**  
6 (2+4)

**oo: Standard**  
01: Cable & wires stripped + tinned  
03: with solder cup contacts with wires  
05: Customized with other connectors

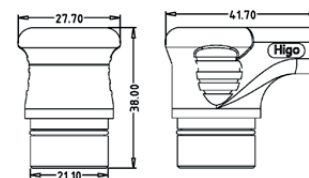
**M: Female**  
**G: Male**

**EXTENSION CABLES:**  
X: Male-Female  
Y: Female-Female  
Z: Male-Male

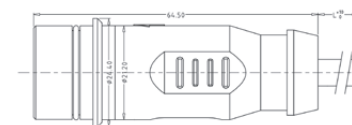
**P: Plug**  
**C: Panel Mount**  
**A: Angled Plug**

**Cable length in mm**

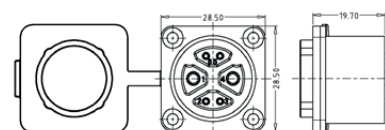
D1: PVC single wires 2xAWG14 + 4xAWG22  
B6: PVC single wires 2xAWG16 + 4xAWG22  
D9: PVC single wires 2xAWG18 + 4xAWG22  
FH: TPU cable 2x2,0mm<sup>2</sup> + 4x0,34mm<sup>2</sup>  
DR: PVC single wires 2xAWG12+4xAWG22



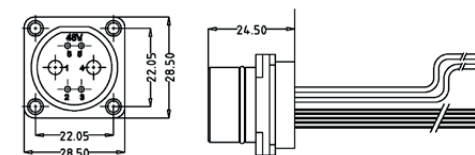
MALE ANGLED PLUG



MALE PLUG



FEMALE PANEL MOUNT



MALE PANEL MOUNT

## CHARACTERISTICS

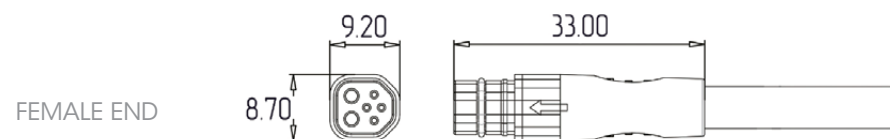
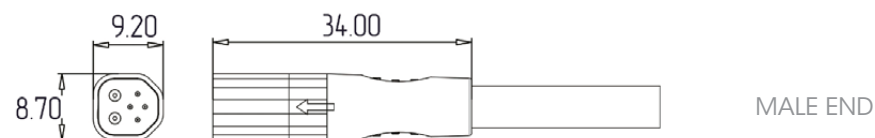
Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	40A / 5A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	3000 times
Outside Diameter:	21,2mm (P) / 28,5mm (C)



# HIGO



# BATTERY CONNECTORS



## ARTICLE NUMBER BUILD-UP:

Number of poles:  
6 (2+4)

oo: Standard  
01: Cable & wires stripped + tinned  
05: Customized with other connectors

Z610C\* P \*\* \*\* \*\*\*\*

M: Female  
G: Male

EXTENSION CABLES:  
X: Male-Female  
Y: Female-Female  
Z: Male-Male

Cable length in mm

DZ : PVC cable 2x1,5mm<sup>2</sup>+4x0,14mm<sup>2</sup>

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	15A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside Diameter:	8,70mm x 9,20mm
Fitting length:	59,0mm
Wire Specification:	2 x 1,5mm <sup>2</sup> + 4 x 0,14mm <sup>2</sup>

# CONNECTOR

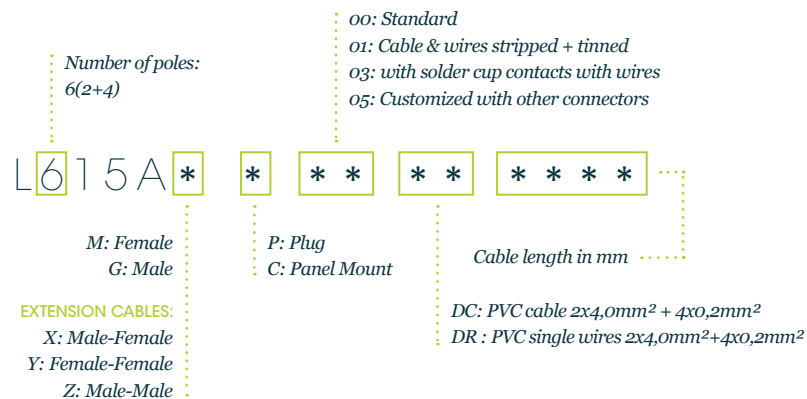




# BATTERY CONNECTORS

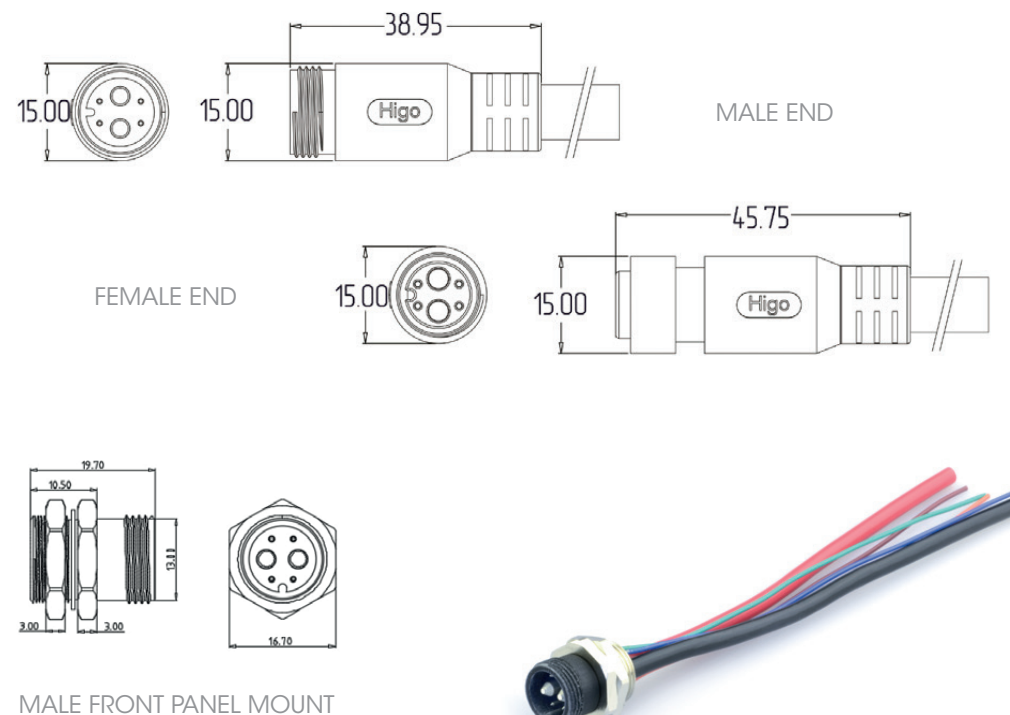


## ARTICLE NUMBER BUILD-UP:



## CHARACTERISTICS

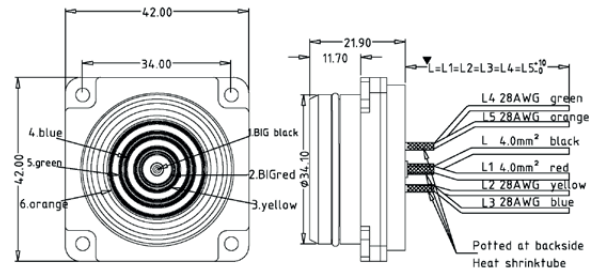
Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	45A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside diameter:	15,0mm
Fitting length:	77,5mm
Wire Specifications:	2 x 4,0mm <sup>2</sup> / 4 x 0,2mm <sup>2</sup>



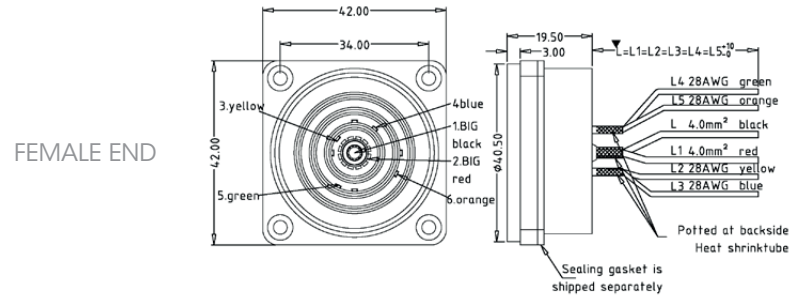
# HIGO



# BATTERY CONNECTORS

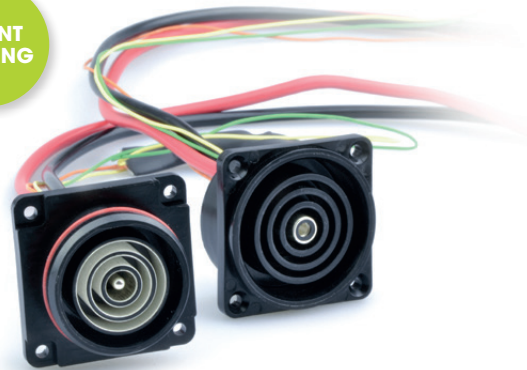


MALE END



FEMALE END

PATENT  
PENDING



## ARTICLE NUMBER BUILD-UP:

Number of poles:  
6 (2+4)

Z 6 4 2 B \* C \* \* \* \* \*

M: Female  
G: Male

EXTENSION CABLES:  
X: Male-Female  
Y: Female-Female  
Z: Male-Male

oo: Standard  
01: Cable & wires stripped + tinned  
02: With solder cup contacts without wires  
03: With solder cup contacts with wires  
05: Customized with other connectors

Cable length in mm

D1: PVC single wires 2xAWG14 + 4xAWG22  
B6: PVC single wires 2xAWG16 + 4xAWG22  
D9: PVC single wires 2xAWG18 + 4xAWG22  
DR: PVC single wires 2x4,0mm² + 4x0,2mm²

## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	40A / 5A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IPX7
Mating Cycles:	200 times
Outside diameter:	47,0mm x 42,0mm
Fitting length:	30,0mm
Wire Specification:	2 x 4,0mm² / 4 x 0,08 ~ 1,0mm²

# CONNECTOR

# BATTERY CONNECTORS

CHARGING & DISCHARGING IN 1, SELF-LOCKING

NEW

## ARTICLE NUMBER BUILD-UP:

Number of poles: 8

S 8 2 8 A \*

M: Female  
G: Male

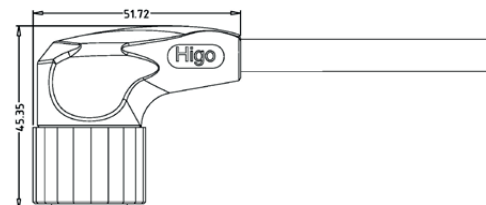
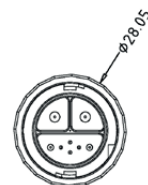
EXTENSION CABLES:  
X: Male-Female  
Y: Female-Female  
Z: Male-Male

A: Angled Plug  
C: Panel Mount

Cable length in mm

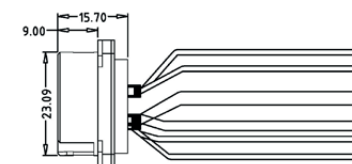
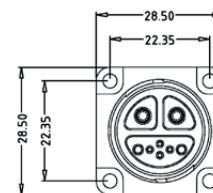
00: Standard  
01: Cable & wires stripped + tinned  
03: With solder cup contacts with wires  
05: Customized with other connectors

FM: PVC Cable, OD8,00mm, UL2661, 2xAWG13+2xAWG16+4xAWG14  
FN: PVC Single wire, UL1007, 4xAWG24, UL1015, 2xAWG16, OD3,20mm, 2x2,5mm<sup>2</sup>



MALE PLUG

FEMALE PANEL MOUNT



## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	25A / 10A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	3000 times
Outside diameter:	28,05mm (P) / 23,09mm (C)
Wire Specifications:	2,5mm <sup>2</sup> / 1,5mm <sup>2</sup> / 0,8mm <sup>2</sup>

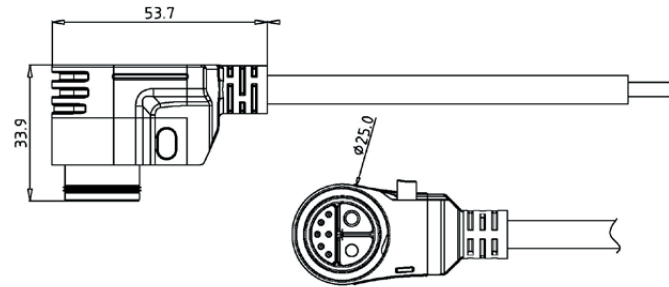


# HIGO



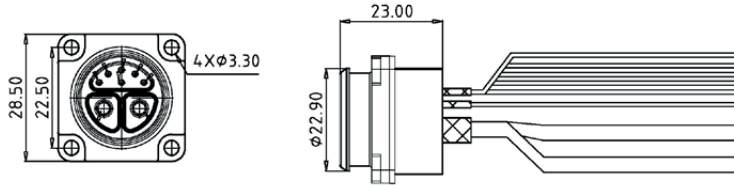
NEW

# BATTERY CONNECTORS SELF-LOCKING, BUTTON RELEASE



MALE PLUG

FEMALE PANEL MOUNT



# CONNECTOR

## ARTICLE NUMBER BUILD-UP:

Number of poles: 8 (6+2)														00: Standard													
A: rated current = 70A / 2A														01: Cable & wires stripped + tinned													
B: rated current = 40A / 2A														03: With solder cup contacts with wires													
														05: Customized with other connectors													
S	8	2	4	*	*	*	*	*	*	*	*	*	*	*	*	*											
M: Female														P: Plug													
G: Male														C: Panel Mount													
EXTENSION CABLES:														A type:													
X: Male-Female														FP: PVC cable, 2x10,0mm <sup>2</sup> + 6x0,20mm <sup>2</sup>													
Y: Female-Female														FQ: PVC single wires, 2x10,0mm <sup>2</sup> + 6x0,20mm <sup>2</sup>													
Z: Male-Male														B type:													
														FR: PVC cable, 2x4,0mm <sup>2</sup> + 6x0,20mm <sup>2</sup>													
														FS: PVC single wires, 2x4,0mm <sup>2</sup> + 6x0,20mm <sup>2</sup>													

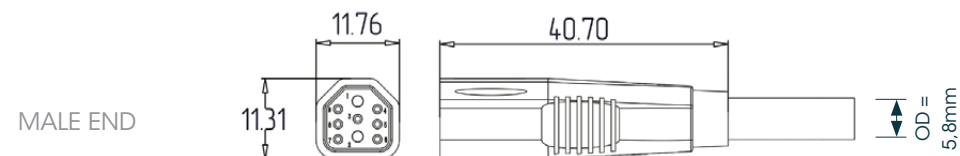
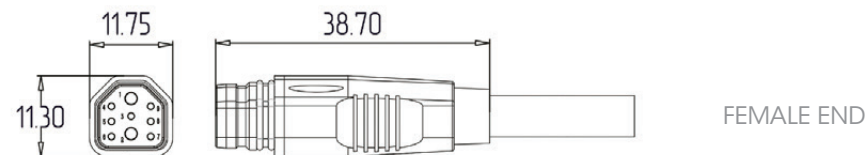
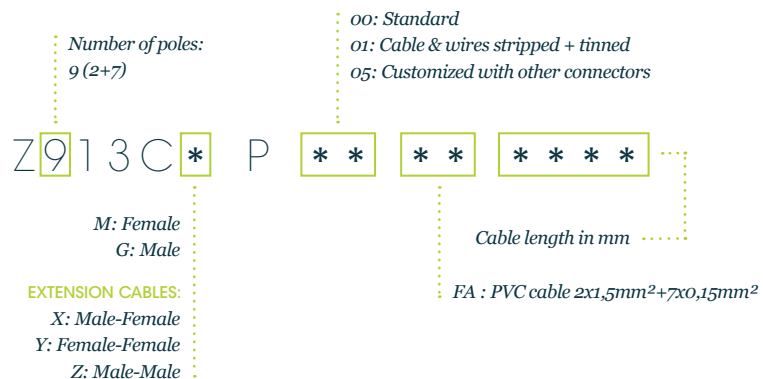
## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	70A (A) or 40A (B) / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	3000 times
Outside diameter:	25,0mm <sup>2</sup> (P) / 22,9mm <sup>2</sup> (C) <sup>2</sup>
Wire Specification:	6 x 0,2mm <sup>2</sup> + 2 x 4,0mm <sup>2</sup>

# BATTERY CONNECTORS



## ARTICLE NUMBER BUILD-UP:



## CHARACTERISTICS

Temperature Range:	-25°C up to +80°C
Rated Voltage:	48V AC / 60V DC
Rated Current:	15A / 2A
Contact Resistance:	≤10mΩ
Insulation Resistance:	≥20MΩ
Protection Level:	IP67
Mating Cycles:	200 times
Outside diameter:	11,31mm x 11,76mm
Fitting length:	71,0mm
Wire Specification:	2 x 1,5mm <sup>2</sup> + 7 x 0,15mm <sup>2</sup>



# HIGO

# DISCOVER OUR COMPLETE CONNECTOR & POWER SUPPLY PROGRAM

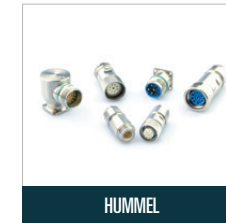


## CONNECTORS

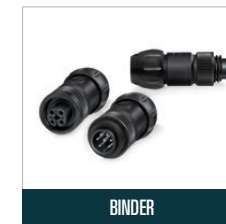
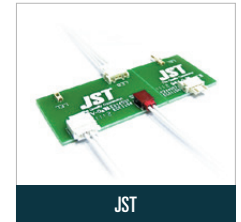
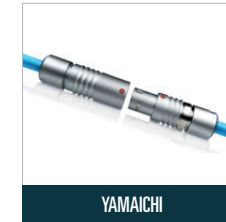
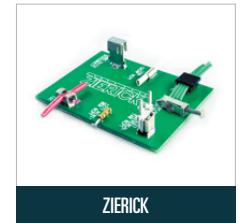
### RECTANGULAR



### CIRCULAR



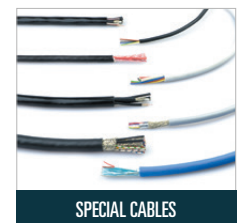
### PCB



## POWER SUPPLIES



## TAILOR MADE SOLUTIONS



## RAILWAY



## TAILOR MADE SOLUTIONS







'Standard connectors just don't fit the widespread market anymore. Many of the new e-bike designs we come across require more complicated, tailor made connections. We want to be there with the right solution within a short lead time. That's why Higo recently expanded its production area with 32.000m2. It invested heavily in the further automation of its production lines and accommodated its R&D and sales department in a new location in Suzhou that is designed to quickly respond to prototype requests and perform adequate testing. In the end, we are convinced that it is the power of customization that makes the difference.'

**Agostino Gobbato, Account manager A&C Solutions**



CABLE HARNESSES

49



SPLITTERS

50 - 51



# CABLE HARNESSES



When you need to design your connector into a cable assembly, A&C Solutions can provide you with an interesting alternative to do this in-house at attractive conditions.

A&C Solutions works with various, certified (ISO9001) production locations in Eastern Europe and China. These plants are specialised in cable assemblies and are fully equipped with the latest technology to ensure optimal cost-efficiency.

Being a connector distributor, A&C Solutions is able to offer you the best match in custom assembly because it has:

- the stock
- the right knowledge
- the right connector tooling
- and the best price

This means that by assembling your connector with A&C Solutions, you will decrease your direct- and indirect costs substantially and at the same time you are assured that your connector is assembled according to your specifications.

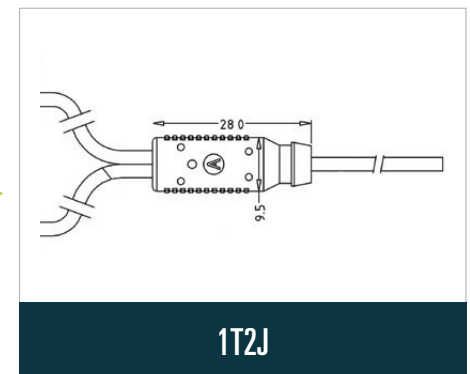
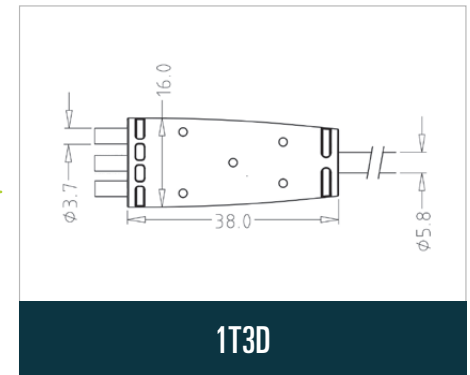
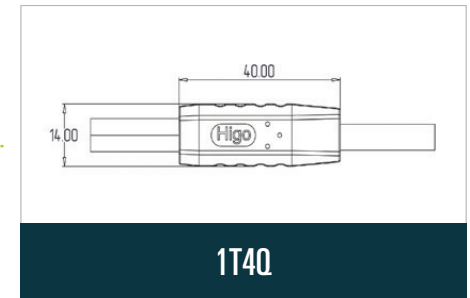
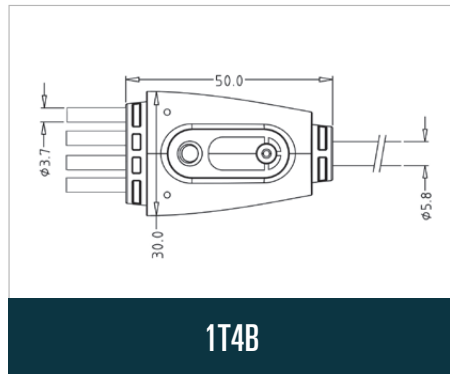
*Production site*



# SPLITTERS



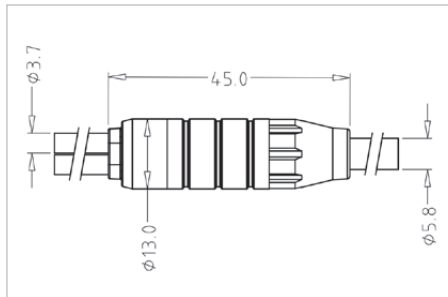
A&C Solutions offers a wide range of possibilities when it comes to customized splitters. Splitters are mainly used for the parallel circuiting of signals to other e-bike parts. But they can also simplify the wiring diagram which accelerates the actual installation process. Higo makes the installation process of splitters even more easy by working with color-coded signal connectors to prevent any wiring errors from happening.



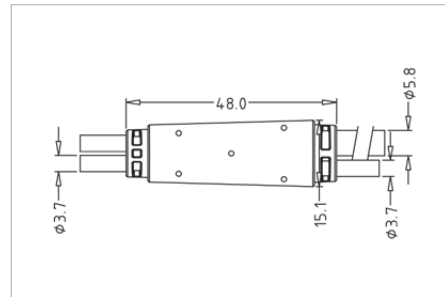


# SPLITTERS

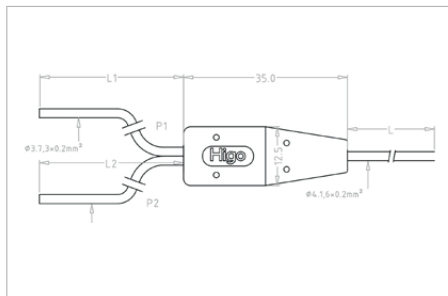
Any kind of e-mobility splitter can be fully designed around each customer's requirements. It is up to the customer to determine the cable length, the cable type (PVC or TPU) and the level of finishing (crimped, stripped or with a different contact) needed for the application.



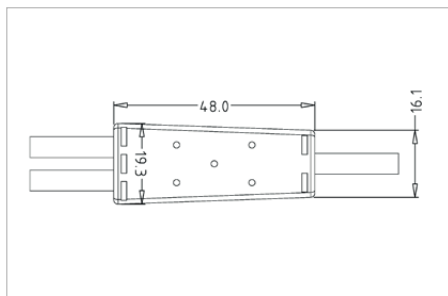
1T4G



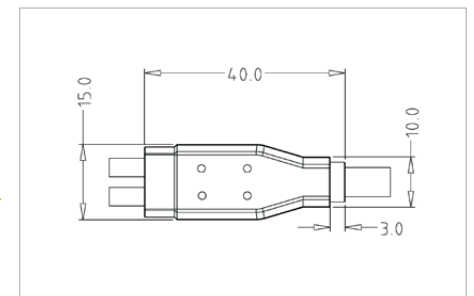
1T3H



1T3K



1T2S



1T2W

## CONNECTORS



HIGO



HUMMEL



TECHNO



YAMAICHI



JST



ZIERICK



ILME



ADELS



SHIELD



BINDER

## POWER SUPPLIES



NEXTYS



DELTA



DAITRON

## A&amp;C SOLUTIONS' MARKETS



LIGHTING INDUSTRY



E-MOBILITY

ELECTRONICS &  
AUTOMATION

If you require more information, **please contact us.**



**SOLUTIONS**  
CONNECTOR - POWER SUPPLY - ASSEMBLY

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