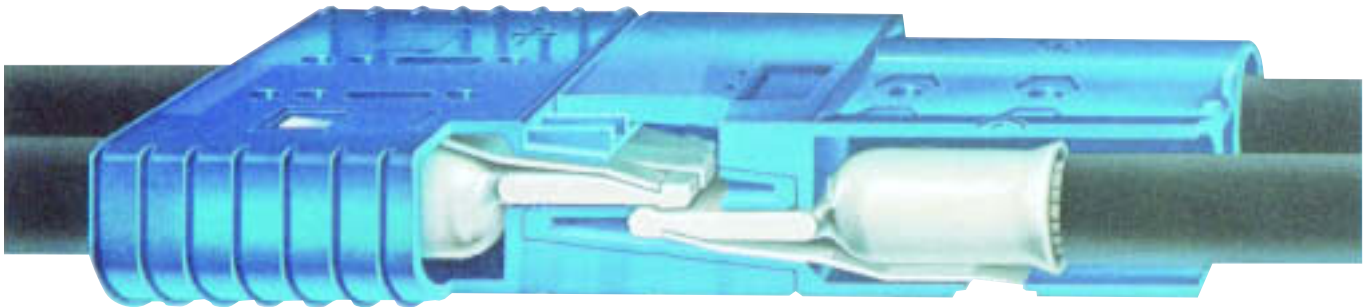


[www.umconnector.com](http://www.umconnector.com)

## The Flat Pin Connector Construction



The flat pin connector has for many years been successful all over the world. Female and Male connector has the same construction.

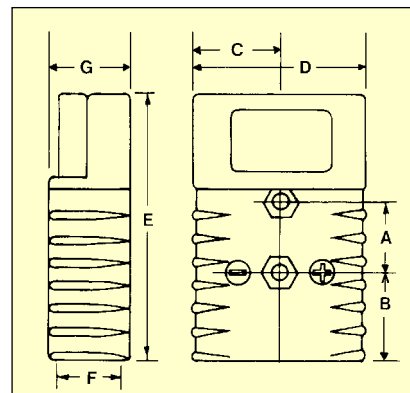
- The housing is produced of polycarbonate to stand up to heavy-duty industrial usage. Only connectors of same colour and type will interconnect.
- The stainless spring-steel springs are secured in the housing with a "fish hook" action.
- Contact release tab that allows contacts to be removed with just an ordinary screwdriver.



- The contacts are produced of silver plated copper. An overlapping action produces a wiping action, which keeps conducting surfaces clean.
- The flat pin connector has options to accessories: handle, auxiliary contacts, air-charging kit.

# S<sup>®</sup> Connector

Recognized of Underwriters Laboratories Inc. Listed by Canadian Standard Association



S 50



S 175



S 350

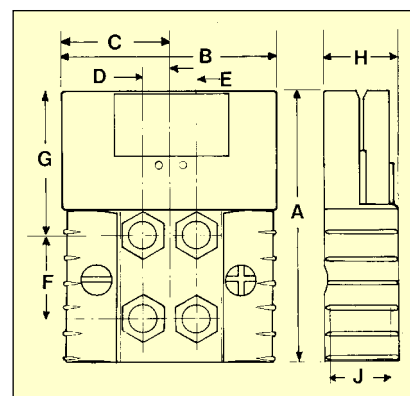
Dim. mm	A	B	C	D	E	F	G
S 50	19	6,5	18	36,5	47,5	11,5	16
S 175	29	11	28	56	80	19	25
S 350	29	35	35	70	108	27	33

Size	Amp.	Colour	Rec. Voltage	Wire Size	Part no Connector compl.	Part no Contact set
S 50	50	Red	24 V	16 mm <sup>2</sup> AWG 6	BH 49050 <sup>1</sup>	U 66-0120
		Grey	36 V		BH 49010 <sup>1</sup>	
		Black	80 V		BH 49070 <sup>1</sup>	
S 175	175	Yellow	12 V	50 mm <sup>2</sup> AWG 1/0	U 49140 <sup>2</sup>	U 66-0130
		Orange	18 V		U 49130 <sup>2</sup>	
		Red	24 V		U 49150 <sup>2</sup>	
		Grey	36 V		U 49110 <sup>2</sup>	
		Blue	48 V		U 49120 <sup>2</sup>	
		Black	80 V		U 49170 <sup>2</sup>	
S 350	350	Yellow	12 V	70 mm <sup>2</sup> AWG 2/0	BH 49240	BH 66-0140
		Red	24 V		BH 49250	
		Grey	36 V		BH 49210	
		Blue	48 V		BH 49220	
		Green	72 V		BH 49260	

<sup>1</sup> Exchange the last figure against 1 for 6 mm<sup>2</sup> contacts. <sup>2</sup> Exchange the last figure against 5 for 35 mm<sup>2</sup> contacts.

# SA<sup>®</sup> Connector

Recognized of Underwriters Laboratories Inc.



SA 175



SA 350

Dim. mm	A	B	C	D	E	F	G	H	J
SA 175	92	71	36	8	16	29	49	26	19
SA 350	126	86	43	8	16	29	62	34	22

Size	Amp.	Colour	Rec. Voltage	Wire Size	Part no Connector compl	Part no Contact set
SA 175	175	Yellow	12 V	50 mm <sup>2</sup> AWG 1/0	U 59140	U 66-0330
		Red	24 V		U 59150	
		Grey	36 V		U 59110	
		Blue	48 V		U 59120	
		Green	72 V		U 59160	
SA 350	350	Yellow	12 V	70 mm <sup>2</sup> AWG 2/0	U 59240	U 66-0340
		Red	24 V		U 59250	
		Grey	36 V		U 59210	
		Blue	48 V		U 59220	
		Green	72 V		U 59260	

SAE 160 replace SA 175. Same housing only new description.

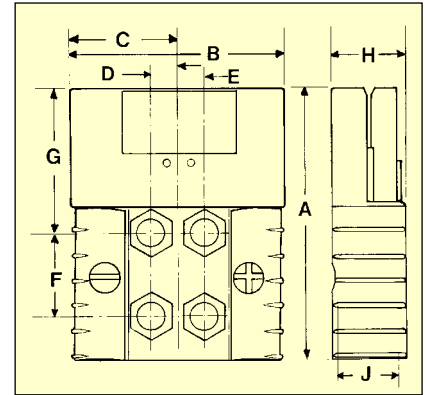
# SAE® Connector

All SAE connectors confirm to EN 1175-1.



SAE 160

Dim. mm	A	B	C	D	E	F	G	H	J
SAE 160	92	71	36	8	16	29	49	26	19
SAE 320	126	86	43	8	16	29	62	34	22

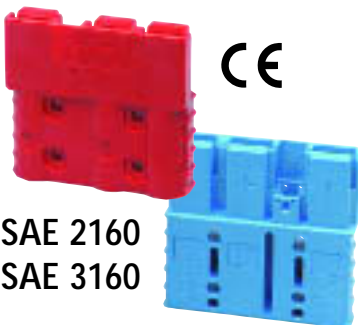


SAE 320

Size	Amp.	Colour	Rec. Voltage	Wire Size	Part no Connector compl.	Part no Contact Set
SAE 160	160	Yellow	12 V	50 mm <sup>2</sup> AWG 1/0	U 69140	U 66-0330
		Orange	18 V		U 69130	
		Red	24 V		U 69150	
		Grey	36 V		U 69110	
		Blue	48 V		U 69120	
		Green	72 V		U 69160	
		Black	80 V		U 69170	
SAE 320	320	Yellow	12 V	70 mm <sup>2</sup> AWG 2/0	U 69240	U 66-0340
		Red	24 V		U 69250	
		Grey	36 V		U 69210	
		Blue	48 V		U 69220	
		Green	72 V		U 69260	
		Black	80 V		U 69270	
		Brown	96 V		U 69280	
		Purple	120 V		U 69290	

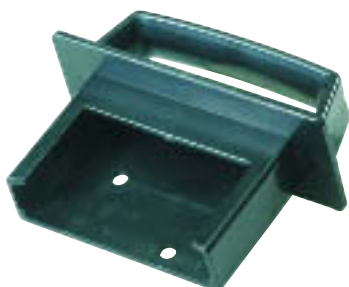
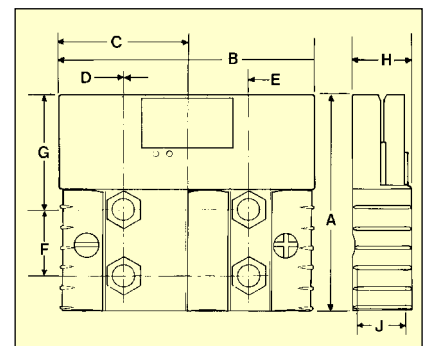
## SAE®-2160, SAE®-3160

The three pole battery connector is designed to be used where connection between the battery charger and the vehicle motor control system must be avoided. A pair of three pole connectors is fitted to the vehicle. One is fixed permanently, the other being used as a bridge key to complete the battery/motor circuit. When this is removed and a standard two pole SAE 160 connector linked to the charger is inserted, the motor control system is automatically isolated from the charging process.



SAE 2160  
SAE 3160

Dim. mm	A	B	C	D	E	F	G	H	J
SAE 2160	92	100	50	22,5	45	29	49	26	19
SAE 3160	92	100	50	22,5	45	29	49	26	19




Size	Amp.	Colour	Rec. Voltage	Wire Size	Part no Connector compl.
SAE 2160	160	Red	24 V	50 mm <sup>2</sup> AWG 1/0	U 992150
		Blue	48 V		U 992120
SAE 3160	160	Red	24 V	50 mm <sup>2</sup> AWG 1/0	U 99150
		Blue	48 V		U 99120

SAE 2160 is delivered with 2 contacts. SAE 3160 is delivered with 3 contacts.


Handle (page 5)

# Contacts

The contacts are produced of silver plated copper for maximum conductivity.

	Contacts for	Wire Size mm <sup>2</sup>	Part no.	Contacts for	Wire Size mm <sup>2</sup>	Part no.
	S 50	6	BH56-2000	SA 350	50	U56-0830
	S 50	10	U56-2010	SA 350	70	U56-0820
	S 50	16	BH66-0120	SA 350	107	U66-0341
	S 175	35	BH56-2720	SAE 160/3160	35	BH56-2710
	S 175	50	BH56-0560	SAE 160/3160	50	BH56-0822
	S 350	70	BH56-0571	SAE 320	50	U56-0830
	S 350	127	BH56-0574	SAE 320	70	U56-0820
	SA 175	35	BH56-2710	SAE 320	107	U66-0341
	SA 175	50	BH56-0822	Auxiliary Contacts	1-4	U59301

# Reducing Sleeves

	Reduces from (mm <sup>2</sup> )	Reduces to (mm <sup>2</sup> )	Part no.	Translation Table			
	16	4-6	U56-1201	AWG	mm <sup>2</sup>	AWG	mm <sup>2</sup>
	50	42	U56-0653	12	3	1/0	50
	50	35	U56-0652	10	6	2/0	70
	50	25	U56-0651	6	16	3/0	85
	50	16	U56-0654	4	25	4/0	107
	70	50	U56-0660	2	35	250	127
	107	85	U56-0661				

# Handles

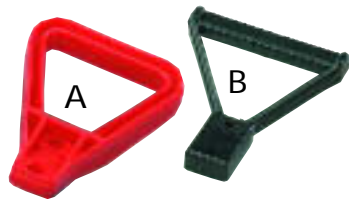


Fig.	For	Colour	Part no.
A	S 50	Red	U50-007
B	S 50	Black	U14442

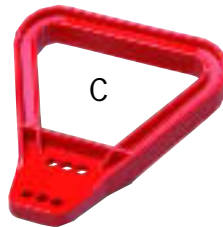


Fig.	For	Colour	Part no.
C	S 175 S 350 SA 175 SA 350 SAE 160 SAE 320 SAE 2160/3160	Red	U66-0379

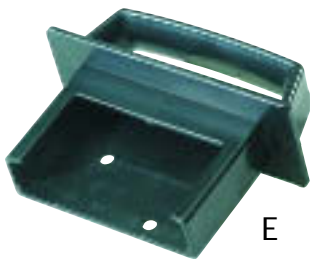


Fig.	For	Colour	Part no.
E	SAE 2160 SAE 3160	Black	U 127482

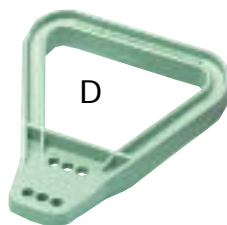


Fig.	For	Colour	Part no.
D	S 175 S 350 SA 175 SA 350 SAE 160 SAE 320 SAE 2160/3160	Grey	U66-0379G

All handles incl. hardware.

## Cable Clamps



Cable Clamp for	Material	Part no.
S 50	steel	BH65-0126
S 175	steel	BH65-0129
SA 175 SAE 160 SA 350 SAE 320	plastic	U78000

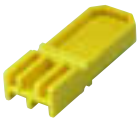
## Manual Release



Locking handle with hardware for	Part no.
SA 175, SAE 160	U65-0132
SA 350, SAE 320	U65-0167
Mounting half with hardware for	Part no.
SA 175, SAE 160	U65-0133
SA 350, SAE 320	U65-0168

## Coding Pin

Suitable for all SA and SAE connectors.



Description	Colour	Part no.
Coding pin	Yellow	U78072

## Air Supply System

The air supply system is suitable for all SA and SAE connectors.

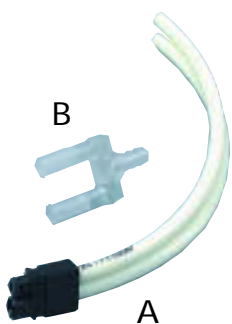


Fig.	Description	Part no.
A	Air Supply System	U78071
B	Connection	K78074

## Auxiliary Contact Kit

A safety option for use with either SA or SAE Connector. Auxiliary contacts make or break first before power contacts to reduce arcing when making-breaking under load. The kit contains: Housings with 2 contacts and 2 retaining pins.

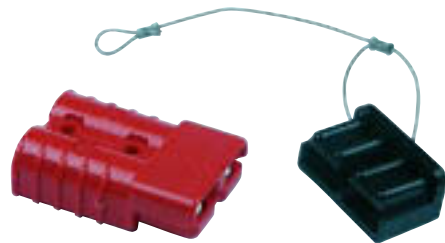


Description	Part no.
Auxiliary Contacts kit	U59300

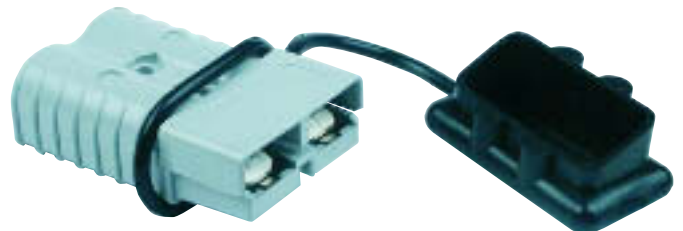
## Dust Covers



Description	Part no.
Dust Cover S50	U66-0301



Description	Part no.
Dust Cover S175	U66-0300



Description	Part no.
Dust Cover S350	U66-0302

# EUROCONNECTOR 80A



Description	Part no
80A Male, 10mm <sup>2</sup>	FD80M-10
80A Male, 16mm <sup>2</sup>	FD80M-16
80A Male, 25mm <sup>2</sup>	FD80M-25
80A Female, 10mm <sup>2</sup>	FD80F-10
80A Female, 16mm <sup>2</sup>	FD80F-16
80A Female, 25mm <sup>2</sup>	FD80F-25
Handle incl hardware	FD80-8
Air-Key Female	FD80-4*
Air-Key Male	FD80-3*
Dry-Key Green	FD80-17
Contacts	
80A Main Contact Male 10mm <sup>2</sup>	M80-1010
80A Main Contact Male 16mm <sup>2</sup>	M80-1016
80A Main Contact Male 25mm <sup>2</sup>	M80-1025
80A Main Contact Female 10mm <sup>2</sup>	F80-1110
80A Main Contact Female 16mm <sup>2</sup>	F80-1116
80A Main Contact Female 25mm <sup>2</sup>	F80-1125
80A Auxiliary Contact Male	M80-12
80A Auxiliary Contact Female	F80-13
* not available in Germany	

**General:** Male and female connector intended for battery applications.

**Design:** UMA Euroconnector is fully compatible with connectors complying with DIN43589-1, 150V/80A. The connector has place for 2 main contacts and 2 auxiliary contacts. All contacts are fixed by a snap in action in the contact holder. Cables are secured with the cable clamps. The handle is locked with screws. The connector can be coded for 24, 36, 48, 72, 80 and 96 V. (in accordance with DIN43589-1)

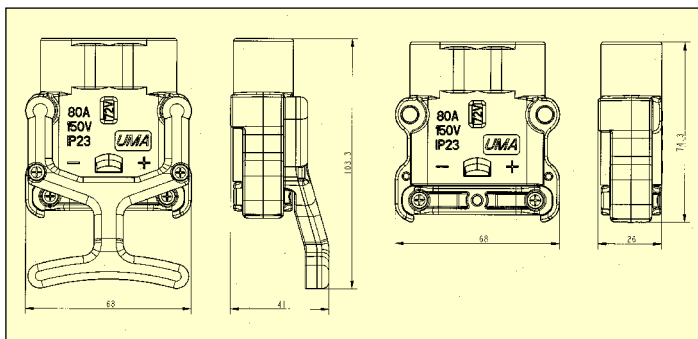
Tech. description	Wire size mm <sup>2</sup>	Type of wire connection:
	10	Crimp
	16	
	25	

Material:	
Plastic parts:	Polyamid ( GF30)
Contacts:	Copper
Contact plating:	Silver
Spring:	Spring steel
Spring plating:	Zinc

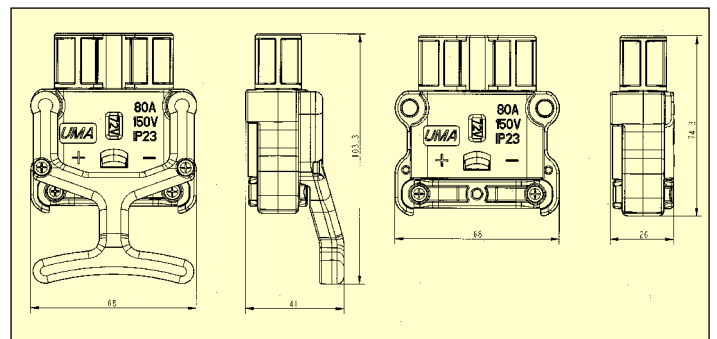
Limiting values:	Condition	Value	Unit
Quantity	DC	150	V
Voltage	Continuous, with appropriate wire size	80	A
Current			

Protection: When connected, IP 23.  
 European regulations: UMA Euroconnector is tested in accordance with EN-1175:1998 and is CE-marked.

Male



Female



# EUROCONNECTOR 160A



Description	Part no
160A Male, 16mm <sup>2</sup>	FD160M-16
160A Male, 25mm <sup>2</sup>	FD160M-25
160A Male, 35mm <sup>2</sup>	FD160M-35
160A Male, 50mm <sup>2</sup>	FD160M-50
160A Female, 16mm <sup>2</sup>	FD160F-16
160A Female, 25mm <sup>2</sup>	FD160F-25
160A Female, 35mm <sup>2</sup>	FD160F-35
160A Female, 50mm <sup>2</sup>	FD160F-50
Handle incl hardware	FD160-8
Air-Key Female	FD160-4*
Air-Key Male	FD160-3*
Dry-Key Green	FD160-17
Contacts	
160A Main Contact Male 16mm <sup>2</sup>	M160-1016
160A Main Contact Male 25mm <sup>2</sup>	M160-1025
160A Main Contact Male 35mm <sup>2</sup>	M160-1035
160A Main Contact Male 50mm <sup>2</sup>	M160-1050
160A Main Contact Female 16mm <sup>2</sup>	F160-1116
160A Main Contact Female 25mm <sup>2</sup>	F160-1125
160A Main Contact Female 35mm <sup>2</sup>	F160-1135
160A Main Contact Female 50mm <sup>2</sup>	F160-1150
160A Auxiliary Contact Male	M160-12
160A Auxiliary Contact Female	F160-13
160A Extra Auxiliary Contact Male	M160-14
160A Extra Auxiliary Contact Female	F160-15
* not available in Germany	

**General:** Male and female connector intended for battery applications.

**Design:** UMA Euroconnector is fully compatible with connectors complying with DIN43589-1, 150V/160A. The connector has place for 2 main contacts and 4 auxiliary contacts. All contacts are fixed by a snap in action in the contact holder. Cables are secured with the cable clamps. The handle is locked with screws. The connector can be coded for 24, 36, 48, 72, 80 and 96 V. (in accordance with DIN43589-1)

## Tech. description

Wire size mm <sup>2</sup>	Type of wire connection:
16	Crimp
25	
35	
50	

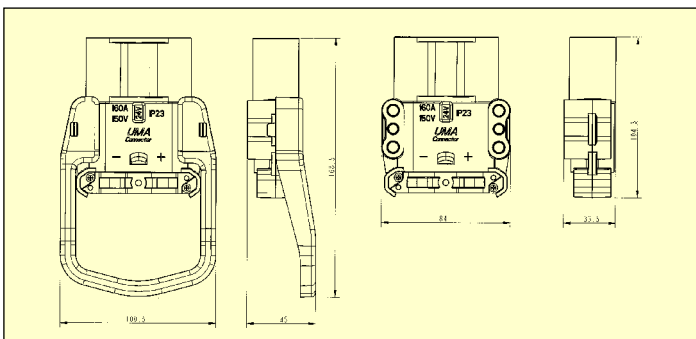
## Material:

Plastic parts:	Polyamid ( GF30)
Contacts:	Copper
Contact plating:	Silver
Spring:	Spring steel
Spring plating:	Zinc

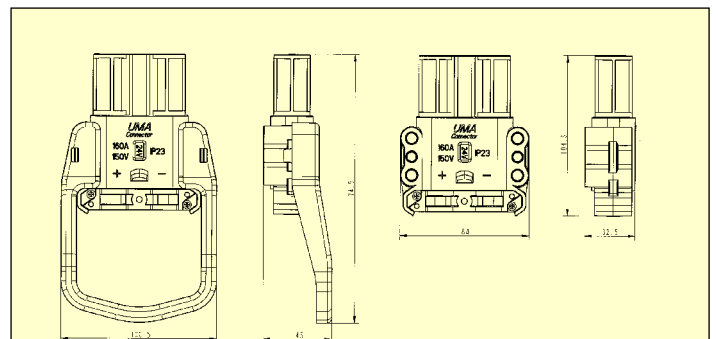
## Limiting values:

Quantity	Condition	Value	Unit
Voltage	DC	150	V
Current	Continous, with appropriate wire size	160	A
Protection:	When connected, IP 23.		
European regulations:	UMA Euroconnector is tested in accordance with EN-1175:1998 and is CE-marked.		

Male



Female



# EUROCONNECTOR 320A



Description	Part no
320A Male, 50mm <sup>2</sup>	FD320M-50
320A Male, 70mm <sup>2</sup>	FD320M-70
320A Male, 95mm <sup>2</sup>	FD320M-95
320A Female, 50mm <sup>2</sup>	FD320F-50
320A Female, 70mm <sup>2</sup>	FD320F-70
320A Female, 95mm <sup>2</sup>	FD320F-95
Handle incl hardware	FD320-8
Air-Key Female	FD160-4*
Air-Key Male	FD160-3*
Dry-Key Green	FD160-17
<b>Contacts</b>	
320A Main Contact Male 50mm <sup>2</sup>	M320-1050
320A Main Contact Male 70mm <sup>2</sup>	M320-1070
320A Main Contact Male 95mm <sup>2</sup>	M320-1095
320A Main Contact Female 50mm <sup>2</sup>	F320-1150
320A Main Contact Female 70mm <sup>2</sup>	F320-1170
320A Main Contact Female 95mm <sup>2</sup>	F320-1195
320A Auxiliary Contact Male	M160-12
320A Auxiliary Contact Female	F160-13
320A Extra Auxiliary Contact Male	M160-14
320A Extra Auxiliary Contact Female	F160-15
* not available in Germany	

**General:** Male and female connector intended for battery applications.

**Design:** UMA Euroconnector is fully compatible with connectors complying with DIN43589-1, 150V/320A. The connector has place for 2 main contacts and 4 auxiliary contacts. All contacts are fixed by a snap in action in the contact holder. Cables are secured with the cable clamps. The handle is locked with screws. The connector can be coded for 24, 36, 48, 72, 80 and 96 V. ( in accordance with DIN43589-1)

**Tech. description**

Wire size mm <sup>2</sup>	Type of wire connection:
50	Crimp
70	
95	

**Limiting values:**

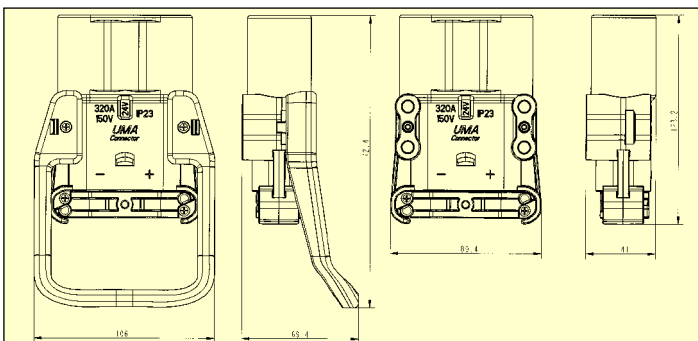
Quantity	Condition	Value	Unit
Voltage	DC	150	V
Current	Continuous, with appropriate wire size	320	A

**Material:**

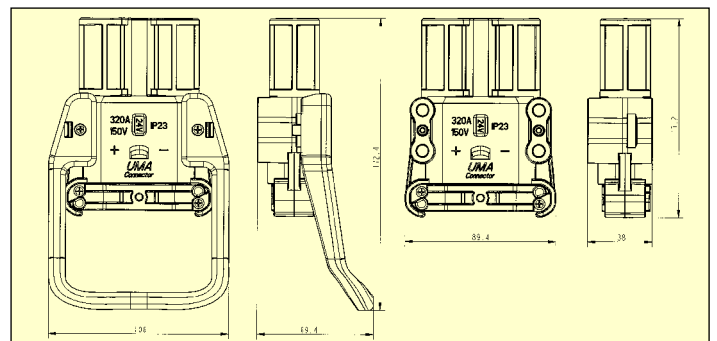
Plastic parts:	Polyamid ( GF30)
Contacts:	Copper
Contact plating:	Silver
Spring:	Spring steel
Spring plating:	Zinc

**Protection:** When connected, IP 23.  
**European regulations:** UMA Euroconnector is tested in accordance with EN-1175:1998 and is CE-marked.

Male



Female



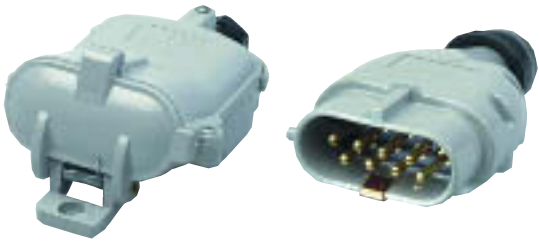
## Connector FKKP 2150 - MPKP 2150



Type	Description	Amp.	Colour	Part no
FKKP 2150	Female	150	Grey	U64959
MPKP 2150	Male	150	Grey	U64960

The connector is produced of modified polycarbonate. Contacts of brass.

## 8-pole Trailer Connector



Type	Description	Colour	Part no
MKP 806	Female	Grey	1960111
MPP 806	Male	Grey	1960011

The Trailer Connector is produced of modified polycarbonate. Contacts of brass.

## Warning Lights



**9510**  
Strobe 12-110V

**Dimension**  
Ø Base 128 mm  
Height 93 mm



**5010**  
Strobe 12-110V

**Dimension**  
Length 140 mm  
Width 60 mm  
Height 66 mm



**2010**  
Strobe 12-80V

**Dimension**  
Ø 65 mm  
Height 130 mm



**3010**  
Flasher, magnetic mount 12V

**Dimension**  
Length 200 mm  
Width 140 mm  
Height 140 mm





## Battery Cable

Description	Part no
Cable 16 mm <sup>2</sup>	EKS16
Cable 25 mm <sup>2</sup>	EKS25
Cable 35 mm <sup>2</sup>	EKS35
Cable 50 mm <sup>2</sup>	EKS50
Cable 70 mm <sup>2</sup>	EKS70
Cable 95 mm <sup>2</sup>	EKS95
Twin Cable 16 mm <sup>2</sup>	PKS16
Twin Cable 25 mm <sup>2</sup>	PKS25
Twin Cable 35 mm <sup>2</sup>	PKS35
Twin Cable 50 mm <sup>2</sup>	PKS50
Twin Cable 70 mm <sup>2</sup>	PKS70



## Crimping Tool

adjustable rotating dies.  
for 6mm<sup>2</sup> - 95 mm<sup>2</sup>

Length 660 mm  
Weight 3,3 kg  
Part no K1095

## Cable Rewinder

Increase safety in your battery charging bay.  
Avoid the unnecessary cost of replacing damaged  
cables and charging plugs. Use a cable rewriter.

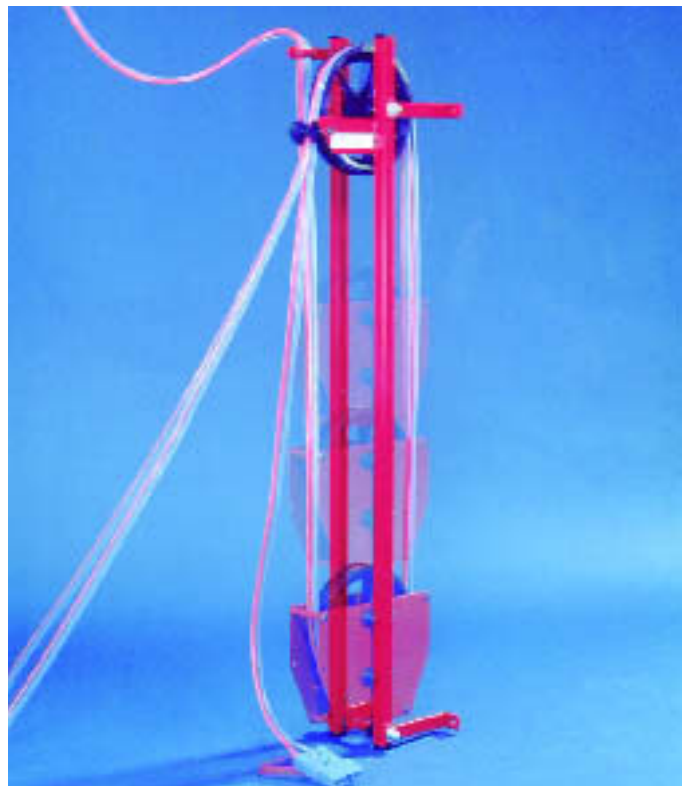


Part no.	Weight range
U79004	0.9-1.8 kg
U79006	1.8-2.7 kg

The cable rewriter kit contains  
cable rewriter and holder.

## Cable Rewinder

UMA cable rewriter is delivered as you wish. With or  
without cable and connectors installed.





### ***UMA Connector AB***

UMA Connector AB is a manufacture of power connectors for applications in

**Telecom  
UPS  
Rectifiers  
Fork Lift Trucks  
Sweepers  
Wheel Chairs  
Office/Power distribution  
or wherever electrical connections are required.**

The company was founded 1989 to continue the production of connectors after ABB Cewe.

The products are marketed with the brand UMA.

In the Nordic countries the brand Brad Harrison, owned by Woodhead Connectivity Ltd, is also used.



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