

Protective extra-low-voltage

...is a preventive measure **for use under extreme conditions**. The **rated voltage (AC)** is limited by **max. 50V**.

Special working conditions like conductive environment in or on boilers, pipelines, containers, metal frames or limited freedom of motion require the use of extra-low-voltage plugs and sockets.

The new **“Twist” extra-low-voltage** series provides a **complete range of plugs, connectors and flanged sockets** which meet all installation requirements, specially developed for use on building sites, shipyards and in factories. Connecting the cable is fast and reliable! No tools are needed for the assembly of the cable gland and the housing!



TWIST EXTRA-LOW VOLTAGE

TWIST Extra-low voltage



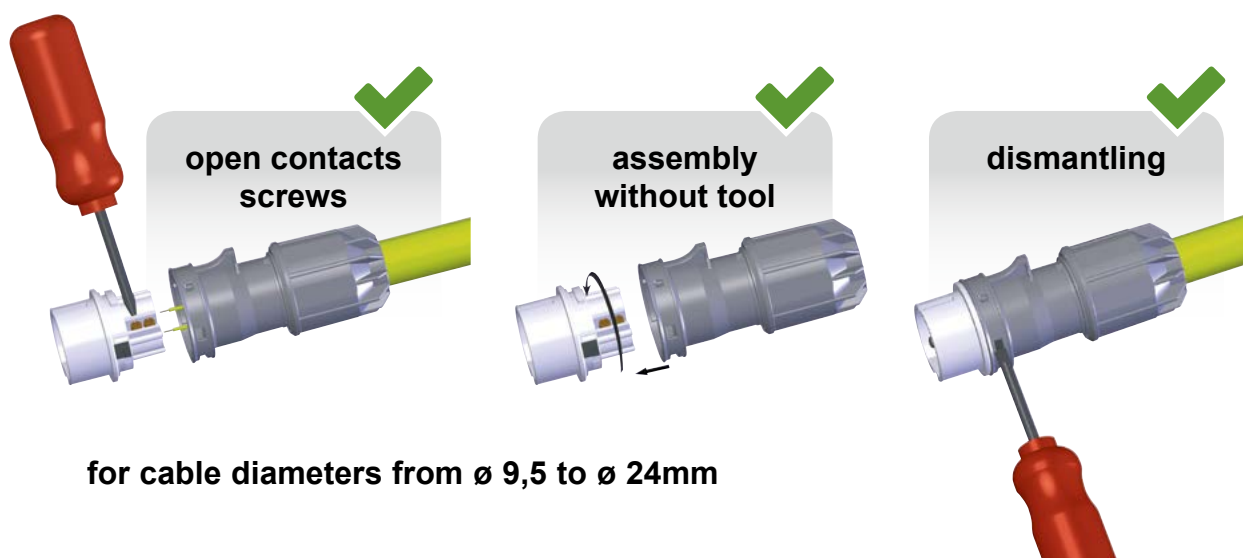
VERSIONS:

- 16A and 32A
- IP44, IP44/54 and IP67, IP66/67
- Plug, connector and sockets
- 2p and 3p
- 24V and 42V
- DC, 50/60Hz, 100 to 500 Hz



ADVANTAGES:

- easy fitting by twist-lock action
- simply unlock and twist to open
- TWIST screwless cable gland for very userfriendly, quick and easy assembly
- fast cable installation
- strain relief and sealing of the cable by tightening the cable-lock gland
- maximum cable security and 100% seal
- ample connection space
- nickel-plated contacts
- multi-ramp quick-lock system

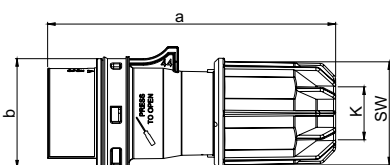


Extra-low voltage – plugs and sockets

Protective extra-low voltage

is a preventive measure for use under extreme conditions, the rated voltage (AC) is limited by max. 50V.

Special working conditions (conductive environment) e.g. in or on boilers, pipelines, containers, metal frames or limited freedom of motion require the use of extra-low voltage plugs and sockets.

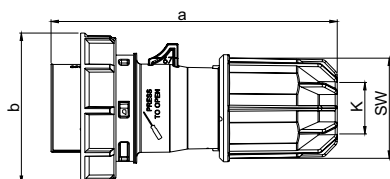


Plug IP44 TWIST

	16 Amp		32 Amp	
Poles	2	3	2	3
a [mm]	135	135	135	135
b [mm]	51	51	51	51
c [mm]	51	51	51	51
K_cable Ø [mm]	9,5-24	9,5-24	9,5-24	9,5-24
Wire flexible [mm²]	1-10			
Contact screws [Ncm]	160			
SW [mm]	48			
Weight [g]	142	160	142	160

- with screw terminals
- housing material: PA6
- contacts: nickel-plated contacts

IP44 splashproof

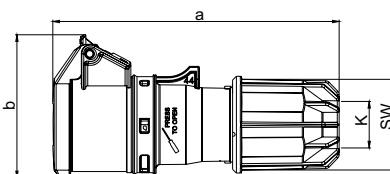


Plug IP67 TWIST

	16 Amp		32 Amp	
Poles	2	3	2	3
a [mm]	124	131	146	152
b [mm]	79	87	93	100
K_cable Ø [mm]	9,5-24	9,5-24	9,5-24	9,5-24
Wire flexible [mm²]	1-10			
Contact screws [Ncm]	160			
SW [mm]	48			
Weight [g]	164	182	164	182

- with screw terminals
- housing material: PA6
- contacts: nickel-plated contacts

IP67 watertight

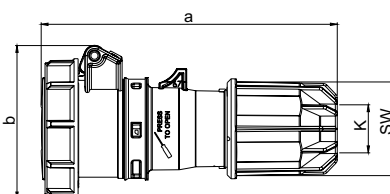


Connector IP44 TWIST

	16 Amp		32 Amp	
Poles	2	3	2	3
a [mm]	150	150	150	150
b [mm]	75	75	75	75
c [mm]	51	51	51	51
K_cable Ø [mm]	9,5-24	9,5-24	9,5-24	9,5-24
Wire flexible [mm²]	1-10			
Contact screws [Ncm]	160			
SW [mm]	48			
Weight [g]	179	199	179	199

- with screw terminals
- housing material: PA6
- contacts: nickel-plated contacts

IP44 splashproof



Connector IP67 TWIST

	16 Amp		32 Amp	
Poles	2	3	2	3
a [mm]	150	150	150	150
b [mm]	78	78	78	78
c [mm]	51	51	51	51
K_cable Ø [mm]	9,5-24	9,5-24	9,5-24	9,5-24
Wire flexible [mm²]	1-10			
Contact screws [Ncm]	160			
SW [mm]	48			
Weight [g]	199	219	199	219

- with screw terminals
- housing material: PA6
- contacts: nickel-plated contacts

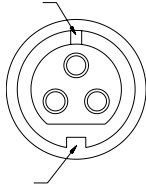
IP67 watertight

Amp.	Poles	pack. unit	24V~ 50/60Hz without Minor key	42V~ 50/60Hz 12h	24/42V~ 100-200Hz 4h	24/42V~ 300Hz 2h	24/42V~ 400Hz 3h	24/42V~ 401-500Hz 11h	24/42V~ DC 10h
			Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.

Examples:

View: socket (front)

Minor key
3 pol.



Major key
3 pol.

For extra-low voltage a minor key is used to distinguish voltage and frequency - see table.

Rated Voltage - V	Frequency - Hz	Clockwise position		Colour acc. to EN 60309
		2P	3P	
20 - 25	50 / 60	without Minor key	without Minor key	Violet
40 - 50	50 / 60	12	12	White
20 - 25 and 40 - 50	100 - 200	4	4	Green
	300	2	2	Green
	400	3	3	Green
	> 400 - 500	11	11	Green
	DC	10	-	White

16	2	10	062v	082-12v	082-4v	082-2v	082-3v	082-11v	082-10v
16	3	10	063v	083-12v	083-4v	083-2v	083-3v	083-11v	083-10v
32	2	10	072v	092-12v	092-4v	092-2v	092-3v	092-11v	092-10v
32	3	10	073v	093-12v	093-4v	093-2v	093-3v	093-11v	093-10v



083-3v

16	2	10	0622v	0822-12v	0822-4v	0822-2v	0822-3v	0822-11v	0822-10v
16	3	10	0632v	0832-12v	0832-4v	0832-2v	0832-3v	0832-11v	0832-10v
32	2	10	0722v	0922-12v	0922-4v	0922-2v	0922-3v	0922-11v	0922-10v
32	3	10	0732v	0932-12v	0932-4v	0932-2v	0932-3v	0932-11v	0932-10v



0622v

16	2	10	262v	282-12v	282-4v	282-2v	282-3v	282-11v	282-10v
16	3	10	263v	283-12v	283-4v	283-2v	283-3v	283-11v	283-10v
32	2	10	272v	292-12v	292-4v	292-2v	292-3v	292-11v	292-10v
32	3	10	273v	293-12v	293-4v	293-2v	293-3v	293-11v	293-10v



282-4v

16	2	10	2622v	2822-12v	2822-4v	2822-2v	2822-3v	2822-11v	2822-10v
16	3	10	2632v	2832-12v	2832-4v	2832-2v	2832-3v	2832-11v	2832-10v
32	2	10	2722v	2922-12v	2922-4v	2922-2v	2922-3v	2922-11v	2922-10v
32	3	10	2732v	2932-12v	2932-4v	2932-2v	2932-3v	2932-11v	2932-10v

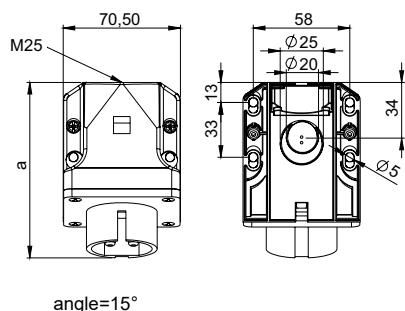


2622v



Extra-low voltage – plugs and sockets

Wall mounted plug IP44

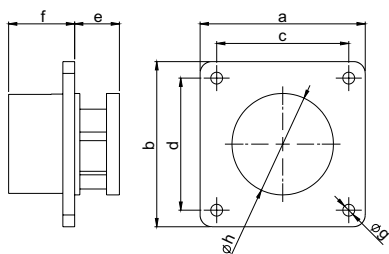


	16 Amp		32 Amp	
Poles	2	3	2	3
a [mm]	106	106	106	106
Height [mm]	77	77	77	77
M [mm]	25	25	25	25
Wire flexible [mm ²]	4-10			
Wire solid [mm ²]	4-10			
Contact screws [Ncm]	110			
Weight [g]	165	180	165	180

- with screw terminals
- housing material: PA6
- contacts: nickel-plated
- top and rear entry
- incl. threaded cable grommet

IP44 splashproof

Flanged plug straight IP44

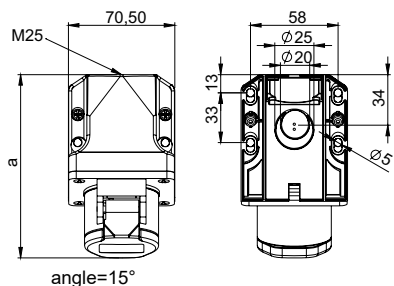


	16 Amp		32 Amp	
Poles	2	3	2	3
Flange a x b [mm]	70	70	70	70
Fixing center c x d [mm]	56	56	56	56
e [mm]	19	19	19	19
f [mm]	28	28	28	28
g [mm]	5	5	5	5
h [mm]	43	43	43	43
Wire flexible [mm ²]	4-10			
Wire solid [mm ²]	4-10			
Contact screws [Ncm]	110			
Weight [g]	77	93	77	93

- with screw terminals
- housing material: PA6
- contacts: nickel-plated
- According to EN 60309:
For correct use a locking device has to be provided (see page 10)

IP44 splashproof

Wall socket IP44

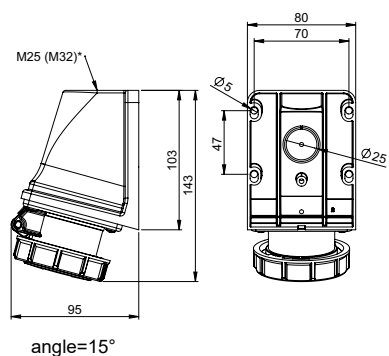


	16 Amp		32 Amp	
Poles	2	3	2	3
a [mm]	119	119	119	119
Height [mm]	85	85	85	85
M [mm]	25	25	25	25
Wire flexible [mm ²]	1-10			
Wire solid [mm ²]	1,5-10			
Contact screws [Ncm]	110			
Weight [g]	198	215	198	215

- with screw terminals
- housing material: PA6
- contacts: nickel-plated
- top and rear entry
- incl. threaded cable grommet

IP44 splashproof

Wall socket IP66/67



	16 Amp		32 Amp	
Poles	2	3	2	3
a [mm]	143	143	143	143
Height [mm]	95	95	95	95
M [mm]	25	25	25	25
Wire flexible [mm ²]	1-10			
Wire solid [mm ²]	1,5-10			
Contact screws [Ncm]	110			
Weight [g]	231	251	231	251

- with screw terminals
- housing material: PA6
- contacts: nickel-plated
- top and rear entry
- incl. threaded bung

IP66/67 watertight

* Option: M32

Amp.	Poles	pack. unit	24V~ 50/60Hz without Minor key	42V~ 50/60Hz 12h	24/42V~ 100-200Hz 4h	24/42V~ 300Hz 2h	24/42V~ 400Hz 3h	24/42V~ 401-500Hz 11h	24/42V= DC 10h
			Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.

16	2	10	562v	582-12v	582-4v	582-2v	582-3v	582-11v	582-10v
16	3	10	563v	583-12v	583-4v	583-2v	583-3v	583-11v	583-10v
32	2	10	572v	592-12v	592-4v	592-2v	592-3v	592-11v	592-10v
32	3	10	573v	593-12v	593-4v	593-2v	593-3v	593-11v	593-10v



582-12v

with flange 70 x 70 - fixing center 56 x 56									
16	2	10	662v	682-12v	682-4v	682-2v	682-3v	682-11v	682-10v
16	3	10	663v	683-12v	683-4v	683-2v	683-3v	683-11v	683-10v
32	2	10	672v	692-12v	692-4v	692-2v	692-3v	692-11v	692-10v
32	3	10	673v	693-12v	693-4v	693-2v	693-3v	693-11v	693-10v



682-12v

16	2	10	162v	182-12v	182-4v	182-2v	182-3v	182-11v	182-10v
16	3	10	163v	183-12v	183-4v	183-2v	183-3v	183-11v	183-10v
32	2	10	172v	192-12v	192-4v	192-2v	192-3v	192-11v	192-10v
32	3	10	173v	193-12v	193-4v	193-2v	193-3v	193-11v	193-10v



162v

16	2	10	1622v	1822-12v	1822-4v	1822-2v	1822-3v	1822-11v	1822-10v
16	3	10	1632v	1832-12v	1832-4v	1832-2v	1832-3v	1832-11v	1832-10v
32	2	10	1722v	1922-12v	1922-4v	1922-2v	1922-3v	1922-11v	1922-10v
32	3	10	1732v	1932-12v	1932-4v	1932-2v	1932-3v	1932-11v	1932-10v



1922-4v



Extra-low voltage – plugs and sockets

Extra-low voltage: flanged sockets straight 16/32A, 2p/3p, <50V

- with screw terminals
- housing material: PA6
- contacts: nickel-plated



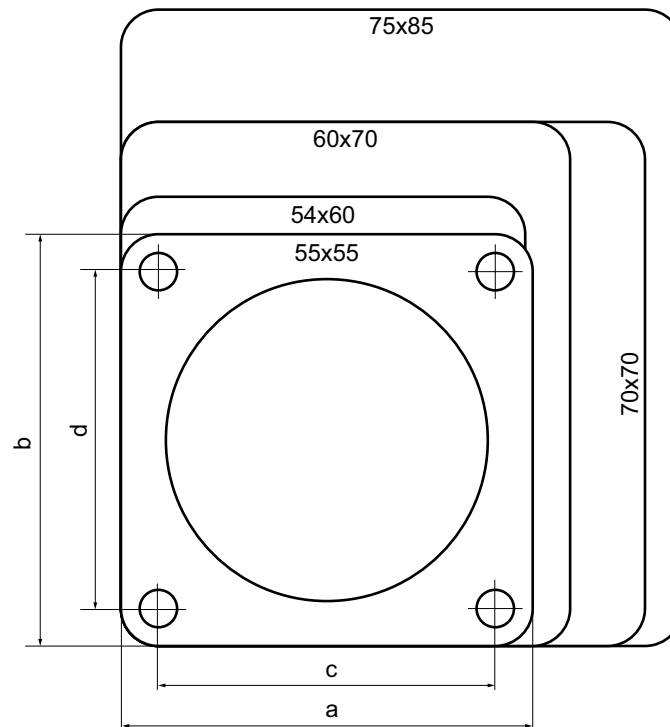
ADVANTAGES:

- reinforced lid
- **one-piece housing**
- bigger terminal connection area
- 6 different flanges available (others on request)
- **IP44/54** dust- & splashproof or
- **IP66/67** watertight



Flanged socket straight

Dimensions:



Versions:

Flange		Fixing center		Page	16A		32A	
a	b	c	d	#	2p	3p	2p	3p
54	60	44	44	130-131	IP44	IP44	IP44	IP44
				132-133	IP67	IP67	IP67	IP67
55	55	41	41	130-131	IP44	IP44	IP44	IP44
55	55	45	45	130-131	IP44	IP44	IP44	IP44
60	70	47	53	130-131	IP44	IP44	IP44	IP44
70	70	56	56	130-131	IP44	IP44	IP44	IP44
75	85	60	60	130-131	IP44	IP44	IP44	IP44
				132-133	IP67	IP67	IP67	IP67



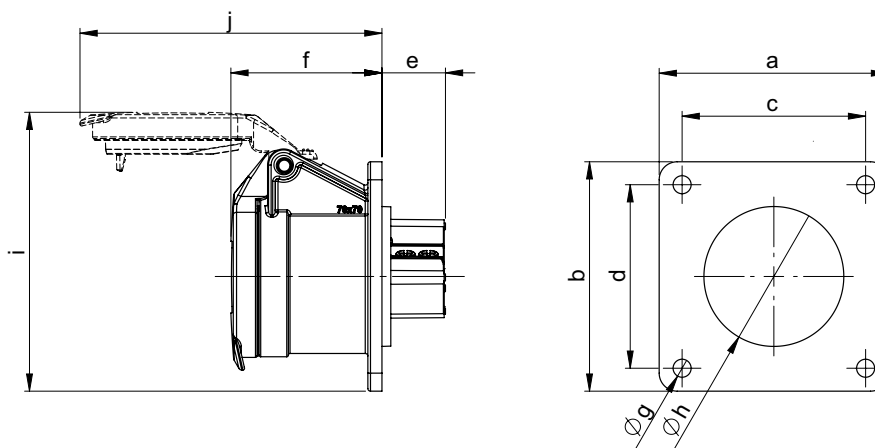
Extra-low voltage – plugs and sockets

Flanged socket straight IP44/54

- with screw terminals
- housing material: PA6
- contacts: nickel-plated
- reinforced lid
- large connection area

IP44/54

dust- & splashproof



Flange		Fixing center		Amp	Poles	e	f	Ø g	Ø h	i	j	Weight [g]
a	b	c	d									
54	60	44	44	16	2	19	47	5,5	43	81	93	109
				3	3							130
				32	2							109
				3	3							130
55	55	41	41	16	2	19	47	4,5	43	79	93	109
				3	3							129
				32	2							109
				3	3							129
55	55	45	45	16	2	19	47	4,5	43	79	93	108
				3	3							128
				32	2							108
				3	3							128
60	70	47	53	16	2	19	47	5,5	43	86	93	113
				3	3							133
				32	2							113
				3	3							133
70	70	56	56	16	2	19	47	5,5	43	86	93	118
				3	3							138
				32	2							118
				3	3							138
75	85	60	60	16	2	19	47	5,5	43	93	93	136
				3	3							146
				32	2							126
				3	3							146

- Connection type: Screw terminal
- Wire flexible: 1-10 mm²
- Wire solid: 1,5-10 mm²
- Contact screws: 110 Ncm

Flange (Fixing center)	Amp.	Poles	24V~ 50/60Hz without Minor key	42V~ 50/60Hz 12h	24/42V~ 100-200Hz 4h	24/42V~ 300Hz 2h	24/42V~ 400Hz 3h	24/42V~ 401-500Hz 11h	24/42V= DC 10h
			Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.
54 x 60 (44 x 44)	16	2	362f9v	382-12f9v	382-4f9v	382-2f9v	382-3f9v	382-11f9v	382-10f9v
	16	3	363f9v	383-12f9v	383-4f9v	383-2f9v	383-3f9v	383-11f9v	383-10f9v
	32	2	372f9v	392-12f9v	392-4f9v	392-2f9v	392-3f9v	392-11f9v	392-10f9v
	32	3	373f9v	393-12f9v	393-4f9v	393-2f9v	393-3f9v	393-11f9v	393-10f9v
55 x 55 (41 x 41)	16	2	362f4v	382-12f4v	382-4f4v	382-2f4v	382-3f4v	382-11f4v	382-10f4v
	16	3	363f4v	383-12f4v	383-4f4v	383-2f4v	383-3f4v	383-11f4v	383-10f4v
	32	2	372f4v	392-12f4v	392-4f4v	392-2f4v	392-3f4v	392-11f4v	392-10f4v
	32	3	373f4v	393-12f4v	393-4f4v	393-2f4v	393-3f4v	393-11f4v	393-10f4v
55 x 55 (45 x 45)	16	2	362f5v	382-12f5v	382-4f5v	382-2f5v	382-3f5v	382-11f5v	382-10f5v
	16	3	363f5v	383-12f5v	383-4f5v	383-2f5v	383-3f5v	383-11f5v	383-10f5v
	32	2	372f5v	392-12f5v	392-4f5v	392-2f5v	392-3f5v	392-11f5v	392-10f5v
	32	3	373f5v	393-12f5v	393-4f5v	393-2f5v	393-3f5v	393-11f5v	393-10f5v
60 x 70 (47 x 53)	16	2	362f8v	382-12f8v	382-4f8v	382-2f8v	382-3f8v	382-11f8v	382-10f8v
	16	3	363f8v	383-12f8v	383-4f8v	383-2f8v	383-3f8v	383-11f8v	383-10f8v
	32	2	372f8v	392-12f8v	392-4f8v	392-2f8v	392-3f8v	392-11f8v	392-10f8v
	32	3	373f8v	393-12f8v	393-4f8v	393-2f8v	393-3f8v	393-11f8v	393-10f8v
70 x 70 (56 x 56)	16	2	362v	382-12v	382-4v	382-2v	382-3v	382-11v	382-10v
	16	3	363v	383-12v	383-4v	383-2v	383-3v	383-11v	383-10v
	32	2	372v	392-12v	392-4v	392-2v	392-3v	392-11v	392-10v
	32	3	373v	393-12v	393-4v	393-2v	393-3v	393-11v	393-10v
75 x 85 (60 x 60)	16	2	362f87v	382-12f87v	382-4f87v	382-2f87v	382-3f87v	382-11f87v	382-10f87v
	16	3	363f87v	383-12f87v	383-4f87v	383-2f87v	383-3f87v	383-11f87v	383-10f87v
	32	2	372f87v	392-12f87v	392-4f87v	392-2f87v	392-3f87v	392-11f87v	392-10f87v
	32	3	373f87v	393-12f87v	393-4f87v	393-2f87v	393-3f87v	393-11f87v	393-10f87v



373f87v



392-3f87v

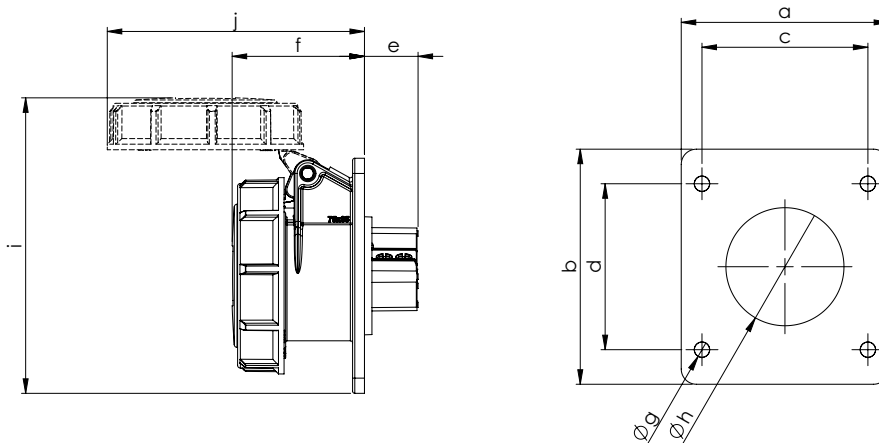
Extra-low voltage – plugs and sockets

Flanged socket straight IP66/67

- with screw terminals
- housing material: PA6
- contacts: nickel-plated
- closing lid
- large connection area

IP66/67

watertight



Flange		Fixing center		Amp	Poles	e	f	Ø g	Ø h	i	j	Weight [g]
a	b	c	d									
54	60	44	44	16	2	19	48	5,5	43	95	93	131
				3	3							151
				32	2							131
				3	3							151
75	85	60	60	16	2	19	48	5,5	43	107	93	145
				3	3							165
				32	2							145
				3	3							165

- Connection type: Screw terminal
- Wire flexible: 1-10 mm²
- Wire solid: 1,5-10 mm²
- Contact screws: 110 Ncm

Flange (Fixing center)	Amp.	Poles	24V~ 50/60Hz without Minor key	42V~ 50/60Hz 12h	24/42V~ 100-200Hz 4h	24/42V~ 300Hz 2h	24/42V~ 400Hz 3h	24/42V~ 401-500Hz 11h	24/42V= DC 10h
			Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Cat.No.
54 x 60 (44 x 44)	16	2	3622f9v	3822-12f9v	3822-4f9v	3822-2f9v	3822-3f9v	3822-11f9v	3822-10f9v
	16	3	3632f9v	3832-12f9v	3832-4f9v	3832-2f9v	3832-3f9v	3832-11f9v	3832-10f9v
	32	2	3722f9v	3922-12f9v	3922-4f9v	3922-2f9v	3922-3f9v	3922-11f9v	3922-10f9v
	32	3	3732f9v	3932-12f9v	3932-4f9v	3932-2f9v	3932-3f9v	3932-11f9v	3932-10f9v
75 x 85 (60 x 60)	16	2	3622f87v	3822-12f87v	3822-4f87v	3822-2f87v	3822-3f87v	3822-11f87v	3822-10f87v
	16	3	3632f87v	3832-12f87v	3832-4f87v	3832-2f87v	3832-3f87v	3832-11f87v	3832-10f87v
	32	2	3722f87v	3922-12f87v	3922-4f87v	3922-2f87v	3922-3f87v	3922-11f87v	3922-10f87v
	32	3	3732f87v	3932-12f87v	3932-4f87v	3932-2f87v	3932-3f87v	3932-11f87v	3932-10f87v



3922-4f9v



3722f87v