

## CEPro plugs and sockets: Power and control in one unit



### „Power“ circuit contacts

The CEPro Plug and Socket system is similar to the CEE system, the power contacts are arranged in a circle. However, phase, neutral and earth positions in CEPro are at a different angle which prevents incorrect mating to different systems.

### Control contact section

The pins and sleeves are from the widely used and tested WALTHER PROCON range of multipole heavy duty connectors. These control contacts are shielded from the power contacts which prevents the risk of flash-over between the two circuits.

### Termination method inside the control contact section

The cables are connected to the different control contacts by means of crimping. An important advantage of crimping technique is that a gas tight connection can be made between contact and cable conductor thereby



establishing a constantly low contact resistance. The crimp contacts snap into place in the contact cavities and can be undone with a removal tool.

### Scope of delivery

CEPro devices are provided with screw terminal power contacts.

The control contact section comes without pins and sleeves so that it can be equipped by the user himself with the required crimp contacts.

### WALTHER CEPro cable

In addition to the CEPro plugs and sockets WALTHER also offers special hybrid cables which guarantee safe transmission of power and control signals.

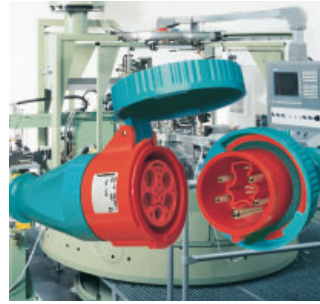
All cables consist of fine wire copper strands. The wires are twisted together and shielded in pairs.

This avoids influence by switching impulses from the power section and a good damping of interference from the outside is achieved.

The application is suitable for a temperature range of - 30 up to + 80 °C with flexing cable, but the flexing radius should not be lower than 7.5 x cable diameter.

The wires in the cables are tested against each other and the power current section is tested to the control part with 3500 V. The outside coating is made of polyurethane.

CEPro plugs and sockets in connection with CEPro cable ensure a safe power and signal transmission, guaranteeing the requirements of a „safe connection“ according to VDE 0100 T 410.



### Application areas

This system is ideal for installations and machines which operate or utilise both power and control systems: For example Production Planning Systems (PPS) or Computer Integrated Manufacturing (CIM).

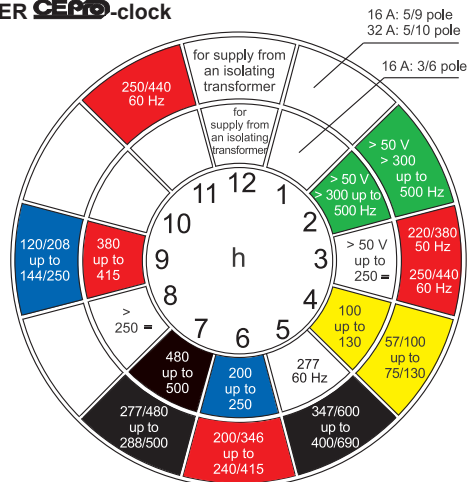
Other applications are for example connection to end-users with network-backed-up systems, like:

- crane controls
- light- and stage control
- container control etc.

CEPro plugs and sockets can transmit both power and control signals simultaneously within one compact system.

CEPro devices can be plugged and withdrawn under load.

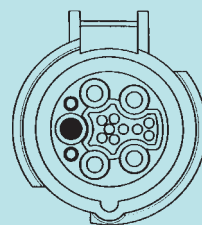
### WALTHER CEPro-clock



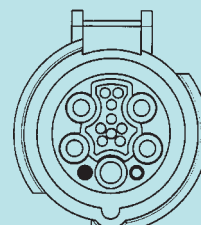
The power voltage coding was adopted from IEC/EN 60 309 and is indicated by the position of the earth contact in relation to the hour position of the keyway and the corresponding colour, as well as the pre-mating/lagging earth contact connection when plugging/withdrawing.

### CEPro coding

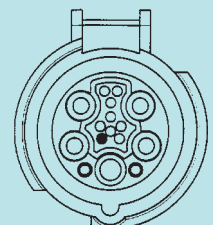
In installations where several CEPro sockets are in close proximity but performing different functions, the sockets and plugs have to be made unmistakable. This is achieved either by **mechanical** or **electrical coding**.



• 9-hour position



• key pin



• dummy sleeve

### Mechanical Coding:

- Use of screwable key pins in connection with blanking plugs
- Allocation of different hour positions
- Snapping-in of blind sleeves in the control contact section.

### Electrical Coding:

Electrical connections are only set-up in dependence of a stored program controller (SPS).

Since the complete control contact section is lagging the power contact section when plugging, there is a large number of different electrical locking possibilities by using different pairs of control contacts.

	Ampère	Poles	Control contacts maximum	110 V 50 a. 60 Hz		230 V 50 a. 60 Hz		400 V 50 a. 60 Hz		440 V 60 Hz	500 V 50 a. 60 Hz			
				3pole 4h	5pole 4h	3pole 6h	5pole 9h	3pole 9h	5pole 6h	5pole 11h	3pole 7h	5pole 7h		
<b>Part numbers</b>														
	16	3	6 ea.*	7 119 304	<b>7 119 306</b>	7 119 309							5	407
	16	5	9 ea.*	7 119 504	7 119 509	<b>7 119</b>		7 119 511	7 119 507				5	470
	32	5	10 ea.*	7 139 504	7 139 509	<b>7 139</b>		7 139 511	7 139 507				5	549
7119	<b>Wall sockets IP 67</b> ☹️, internal fixing, 2 knock-out cable entries (top & bottom)													
	16	3	6 ea.*	7 219 304	<b>7 219 306</b>	7 219 309							10	137
	16	5	9 ea.*	7 219 504	7 219 509	<b>7 219</b>		7 219 511	7 219 507				10	207
	32	5	10 ea.*	7 239 504	7 239 509	<b>7 239</b>		7 239 511	7 239 507				10	314
7219	<b>Plugs IP 67</b> ☹️ with gland entry													
	16	3	6 ea.*	7 618 304	<b>7 618 306</b>	7 618 309							5	312
	16	5	9 ea.*	7 618 504	7 618 509	<b>7 618</b>		7 618 511	7 618 507				5	406
	32	5	10 ea.*	7 638 504	7 638 509	<b>7 638</b>		7 638 511	7 638 507				5	479
7618	<b>Wall mount appliance inlets IP 67</b> ☹️, internal fixing, 2 knock-out cable entries (top & bottom)													
	16	3	6 ea.*	7 518 304	<b>7 518 306</b>	7 518 309							10	207
	16	5	9 ea.*	7 518 504	7 518 509	<b>7 518</b>		7 518 511	7 518 507				10	299
	32	5	10 ea.*	7 538 504	7 538 509	<b>7 538</b>		7 538 511	7 538 507				5	412
7518	<b>Panel sockets IP 67</b> ☹️, right-angled													
	16	3	6 ea.*	7 319 304	<b>7 319 306</b>	7 319 309							10	178
	16	5	9 ea.*	7 319 504	7 319 509	<b>7 319</b>		7 319 511	7 319 507				10	270
	32	5	10 ea.*	7 339 504	7 339 509	<b>7 339</b>		7 339 511	7 339 507				10	384
7319	<b>Couplers IP 67</b> ☹️, with gland entry													
	16	3	6 ea.*	7 419 304	<b>7 419 306</b>	7 419 309							10	159
	16	5	9 ea.*	7 419 504	7 419 509	<b>7 419</b>		7 419 511	7 419 507				10	247
	32	5	10 ea.*	7 439 504	7 439 509	<b>7 439</b>		7 439 511	7 439 507				10	320
7419	<b>Panel sockets IP 67</b> ☹️, straight													
	16	3			<b>613 300</b>								10	34
	16	5			<b>613 500</b>								10	54
	32	5			<b>633 500</b>								10	89
633500	<b>Protective caps IP 67</b> ☹️, for plugs and appliance inlets													