



Main catalogue

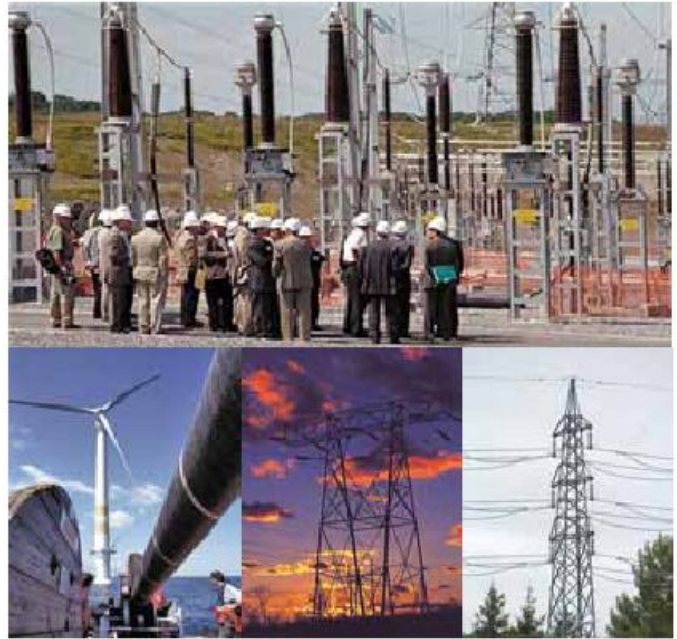
# ESSAILEC® range Test blocks

# Essailec®, Test blocks

ESSAILEC® has been especially designed to fit the electricity Utilities requirements for safe and reliable testing.

ESSAILEC® allows the testing, without any circuit break, of meters and protective relays installed in the current transformers and voltage transformers secondary circuits.

ESSAILEC® has been approved by major Utilities and has been successfully implemented for years in worldwide electricity production, transport and distribution networks.



## Applications:

- Measurement, current or voltage injection, repair, device replacement.
- Current testing without cutting the energy supply.
- Voltage testing with the possibility of cutting or not the energy supply to the device according to the voltage sockets implemented.
- Simultaneous testing of 1 to 4 independent circuits on the same socket.
- The test plug can also be connected continuously to the socket in order to supply current or voltage to secondary circuits sub assemblies.

## Characteristics and benefits:

- Fast and easy testing procedure.
- No cursor or switch element to operate manually: the current transformers short circuiting is automatically performed in the correct sequence with the current socket with "make before break contacts".

### Security for the operator:

- IP20 protection degree.
- Coding protection.
- Locking system.
- Sealed cover.
- Range and versions product identification with marking and colour coding.

### Flexibility:

- Panel and switchboard mounting: base mounting, flush mounting, rack mounting, din rail...
- Several wiring technologies, wire connection up to 10 mm<sup>2</sup>.

# ESSAILEC® Test blocks

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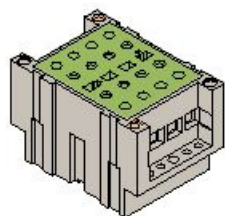
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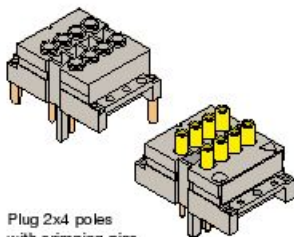
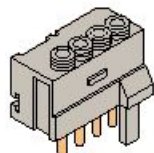
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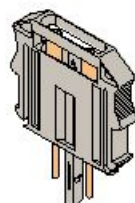




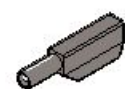
Socket

Plug 2x4 poles  
with crimping pins  
or DIA 4 mm direct outputs

Plug 4 poles



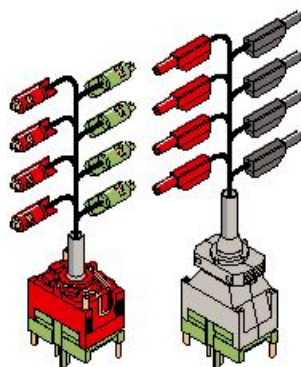
Plug 2 poles



Ø 4 mm double test plug



Bayonet security test plug



Prewired plug

## Socket

The ESSAILEC® socket is installed in the circuit and wired to the device to be tested during its installation or its servicing. The use of the cover is strongly recommended in order to prevent unauthorized access.

The sockets are available in the following designs:

- Socket with "make before break" contact design, available in the Current and Voltage ranges.
- Socket with "opened" ("break before make") contact design, available in Voltage range.
- Socket with "closed" contact design, available in Voltage range.

## Plug

The plug is connected on its other extremity to the test equipment. For testing, the cover is removed and replaced by the test plug.

The test plugs are available in the following designs:

- 2x4 poles plug: allows the testing of 4 current or voltage circuits.
- 4 poles plug: allows the testing of 4 voltage circuits.
- 2 poles plug: allows the testing of 1 current or voltage circuit.

## Compatibility between the socket and plug designs:

| Circuit type | Contacts socket   | 2 x 4 poles plug                           | 4 poles plug                |
|--------------|-------------------|--------------------------------------------|-----------------------------|
| Current ■    | Make before break | Measurement<br>Calibration<br>Distribution |                             |
|              |                   |                                            |                             |
| Voltage □    | Make before break | Measurement<br>Calibration<br>Distribution |                             |
|              | Opened            | Measurement<br>Calibration                 | Measurement<br>Calibration  |
|              | Closed            |                                            | Measurement<br>Distribution |

## Test accessories and prewired plug

The ESSAILEC® range offers a wide range of test accessories as well as prewired plugs with the following test accessories wired on its test equipment extremity:

- Security bayonet test plug (bayonet locking mechanism in the test equipment for maximized security during the testing).
- Ø 4mm IP20 test plug.

The security test plugs can be connected together with the use of two accessories: straight and H adapters. The purpose of these two accessories is to offer extra test configurations with the prewired plug.

## Socket identification:

# CC-E-VA-6.6

### CIRCUIT TYPE:

C: Current  
T: Voltage  
P: Polarity  
DE: Trip



### MOUNTING:

TH35: Symetrical rail TH35  
DS: Half-base / Base  
E: Flush  
D: Half-base  
R: Rack  
I: Reverse

### CODING:

6.6: Current  
2.2: Voltage  
8.8: Polarity

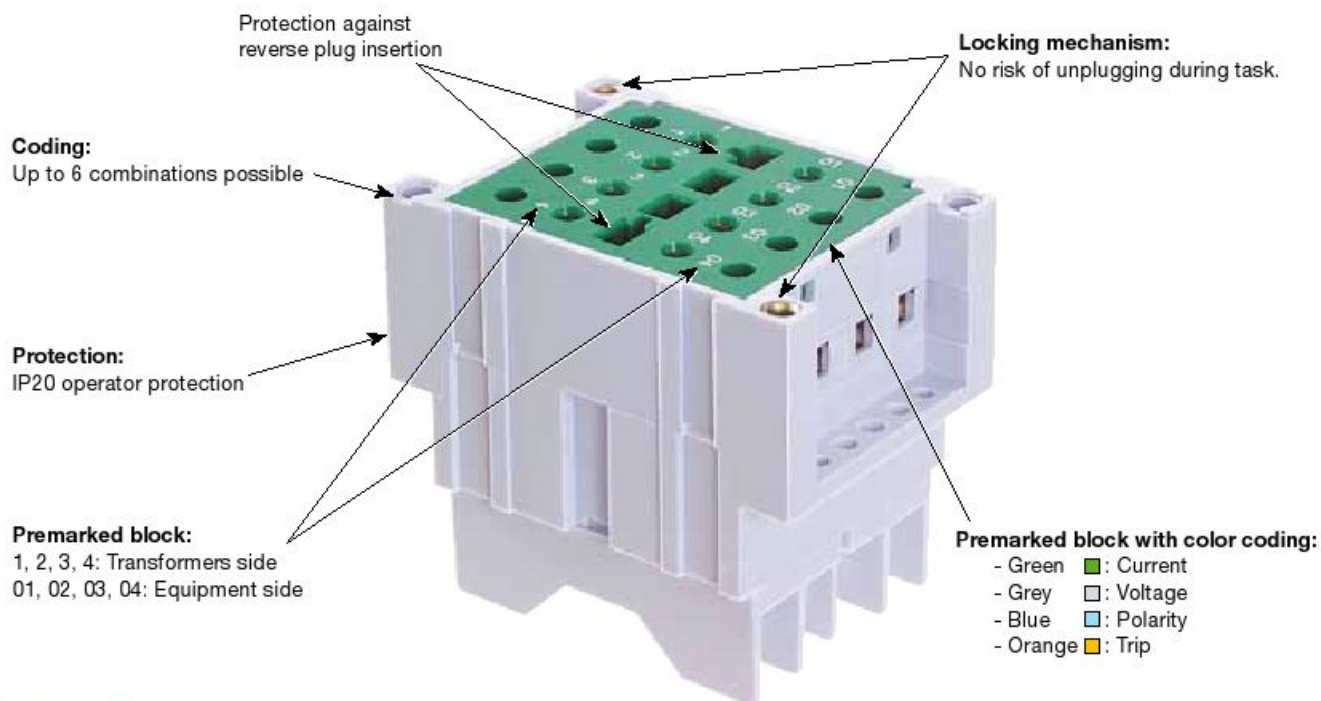
### CONTACTS:

C: Make before break  
O: Opened  
F: Closed

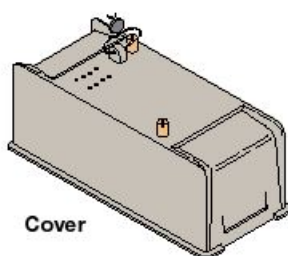
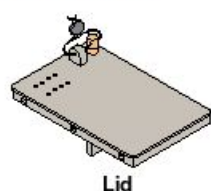
### CONNECTION:

VA: Ring-tongue  
VL: Screw clamp  
C5A: Quick-connect

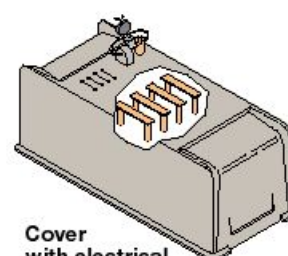
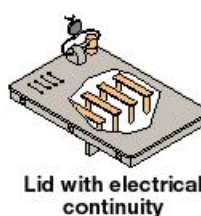
### Socket features



### Protection

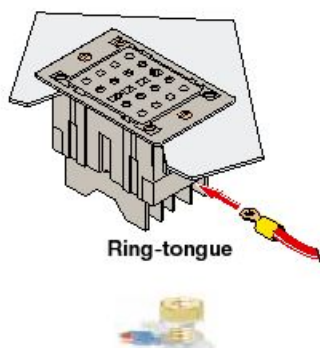


Provide dust protection and prevent unauthorised access (lead seal).

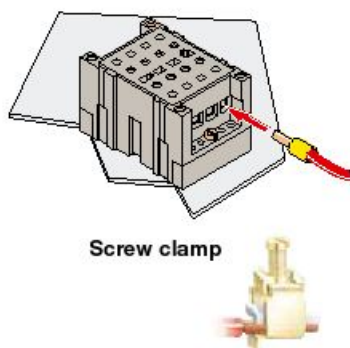


Lid and cover with electrical continuity, to be mounted on opened contacts socket.  
Provide the electrical continuity thanks to the inner pins and linking bar that close the circuit.

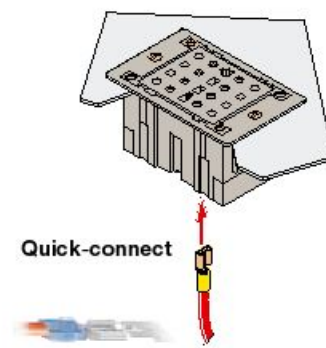
### Connection technologies



Compatible with flush, rack, half-base and reverse mounting.  
Benefits: Wire pulling safe.



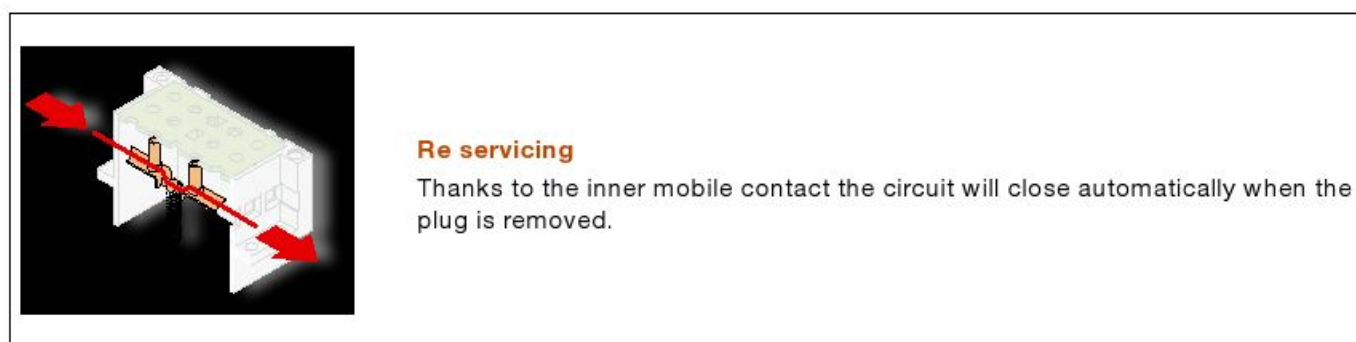
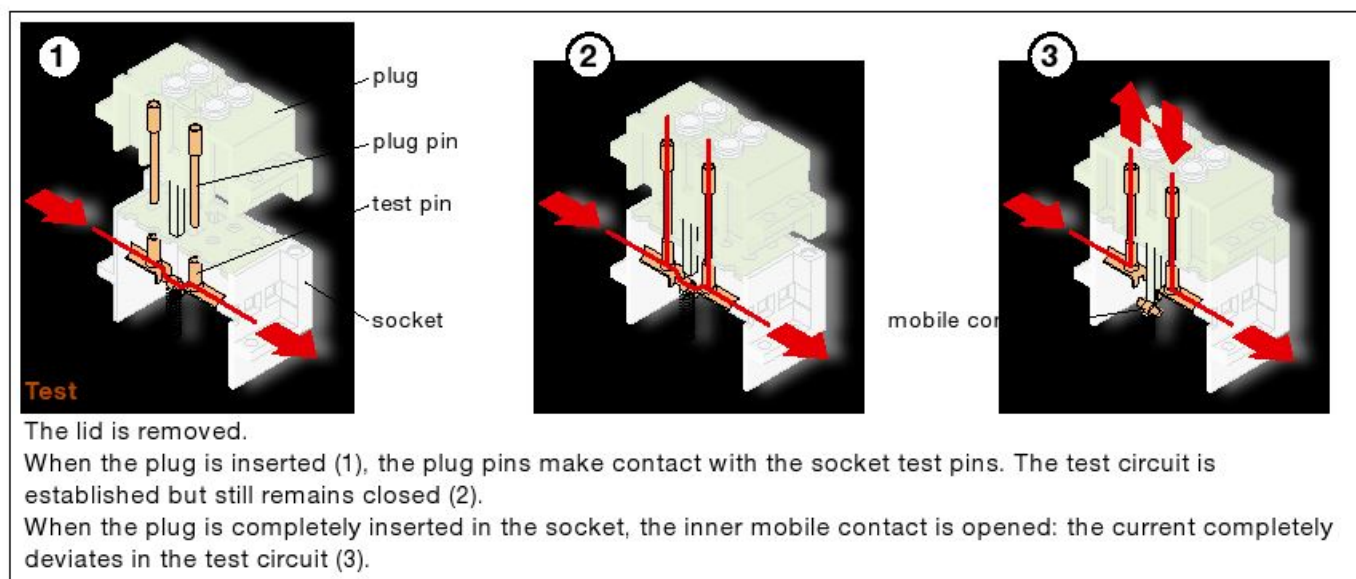
Compatible with base and half-base mounting and G32 & TH35 rails.  
Benefits: Universal connecting technology.



Compatible with flush, rack and half-base mounting.  
Benefits: Quick and vibration safe.

**Applications:**

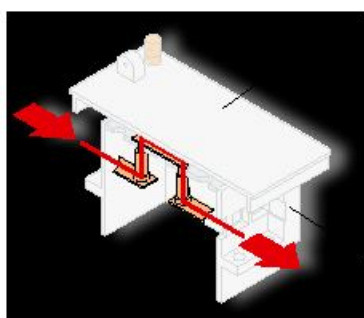
- Measurement
- Injection
- Distribution





**Applications:**

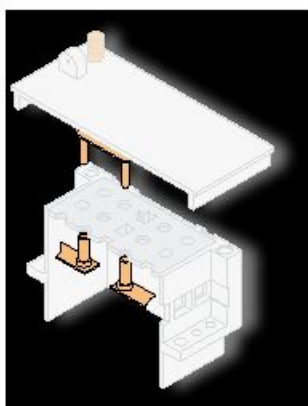
- Measurement
- Injection

**Servicing**

During normal functioning, electrical continuity is ensured by the lid with electrical continuity mounted on the socket.

socket

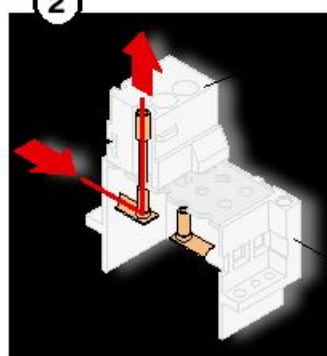
①

**Test**

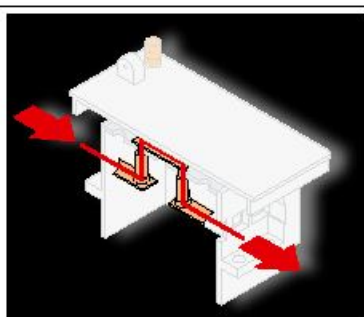
The removing of the lid opens the circuit (1).

The device to be tested is then isolated from the power supply (transformer) and is no longer energised (2).

②



socket

**Re servicing**

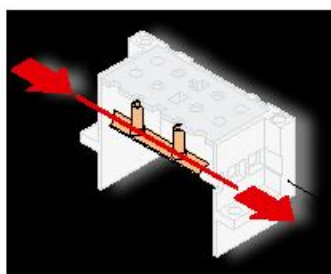
When the test is finished, the circuit is closed when the lid is reinstalled.

**Closed contacts:**

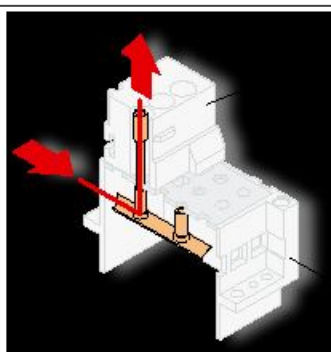
The electrical connection is continuous.  
This socket is particularly suitable for  
power distribution.

**Applications:**

- Measurement
- Distribution

**Servicing**

The electrical connection is continuous: removing or fitting the lid does not have any impact on the circuits.

**Test**

The measurement is performed by the insertion of the 4 poles test plug.

**Re servicing**

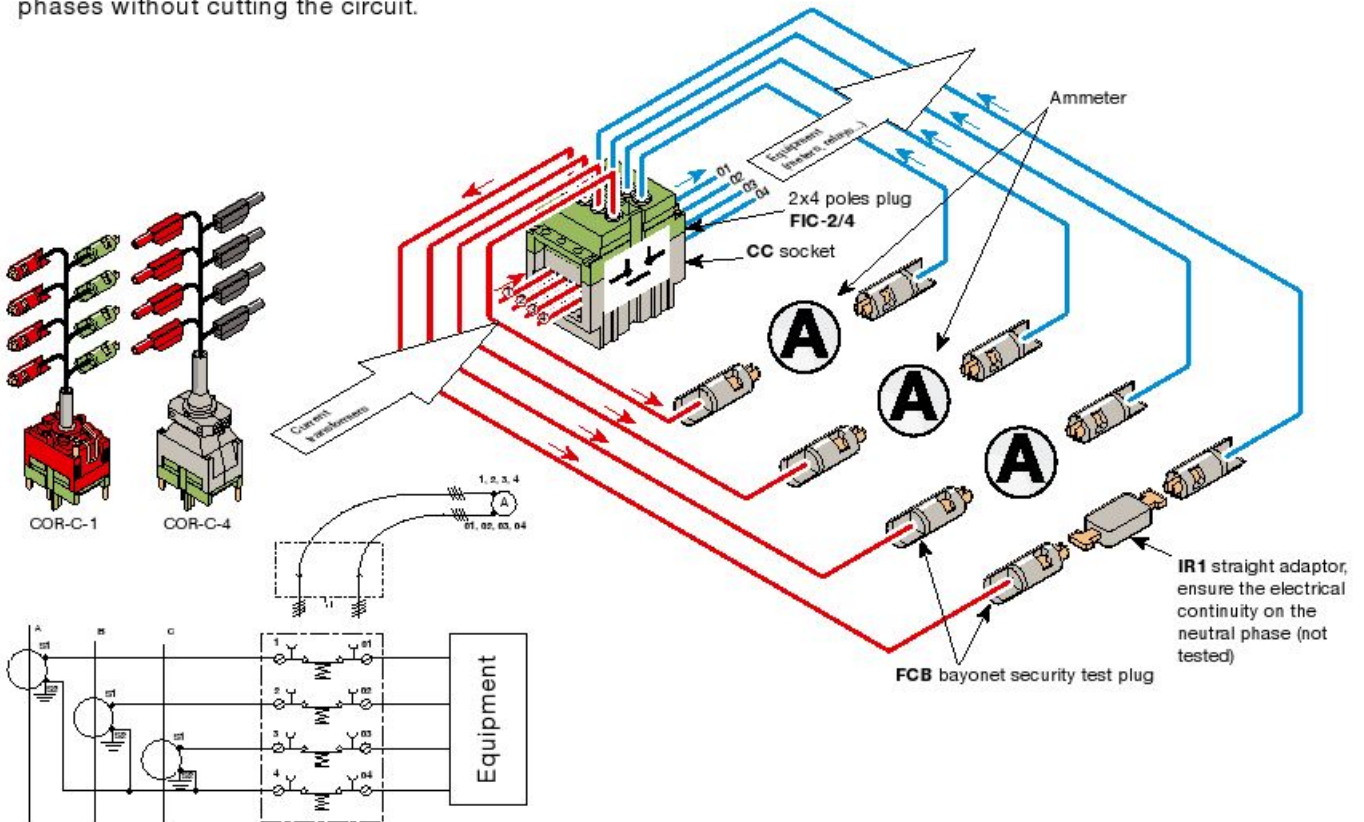
No particular procedure.





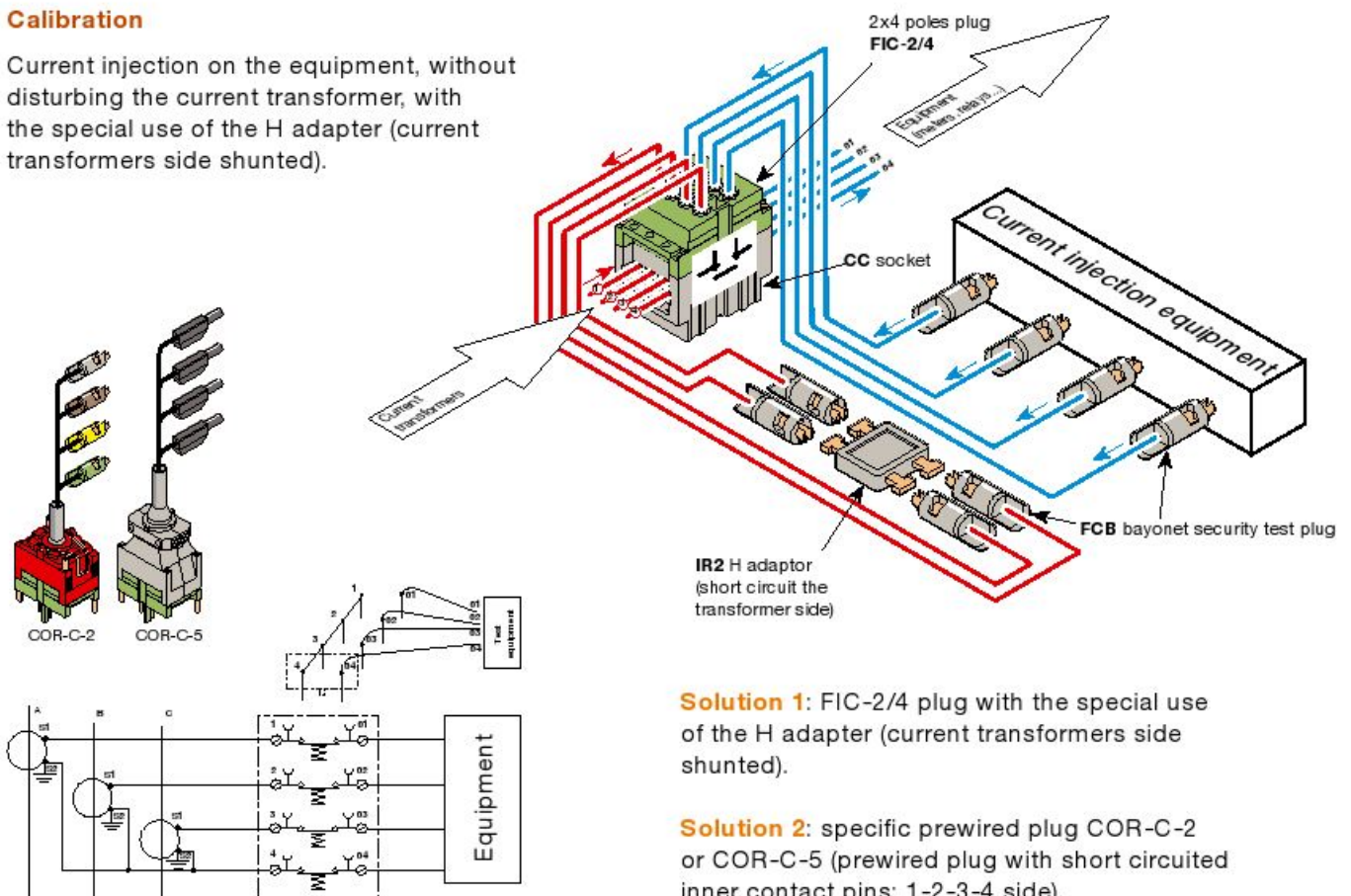
### Measurement

Simultaneous current measurement on 3 phases without cutting the circuit.



### Calibration

Current injection on the equipment, without disturbing the current transformer, with the special use of the H adaptor (current transformers side shunted).



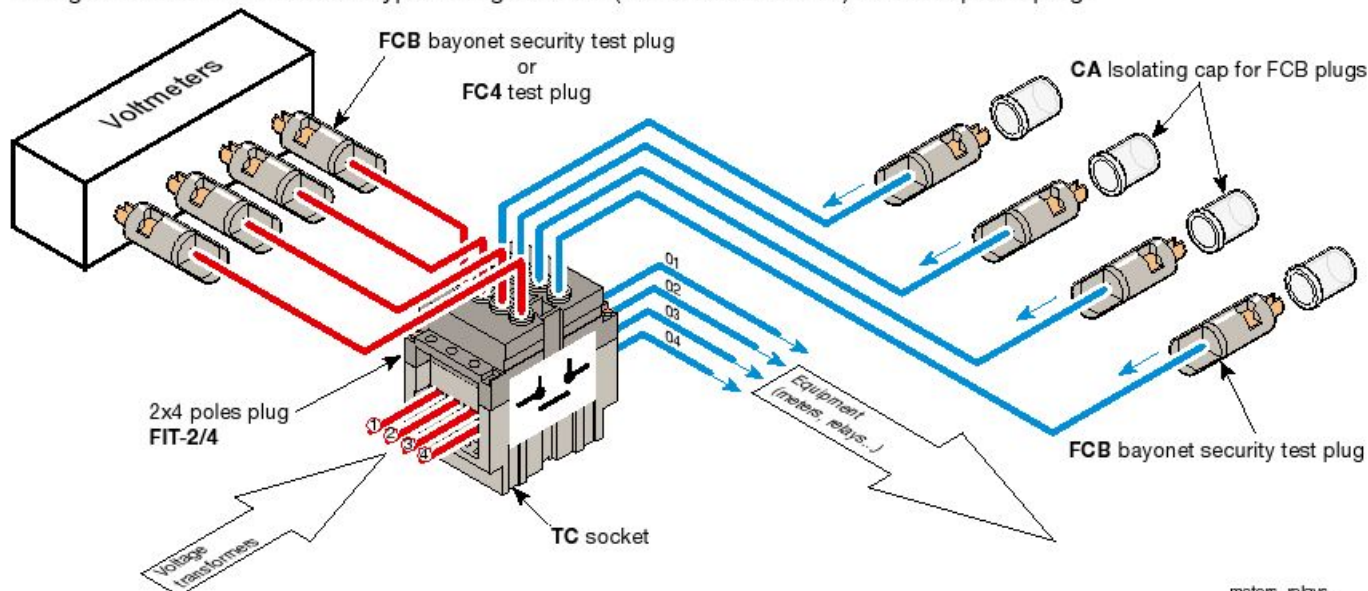
**Solution 1:** FIC-2/4 plug with the special use of the H adaptor (current transformers side shunted).

**Solution 2:** specific prewired plug COR-C-2 or COR-C-5 (prewired plug with short circuited inner contact pins: 1-2-3-4 side).

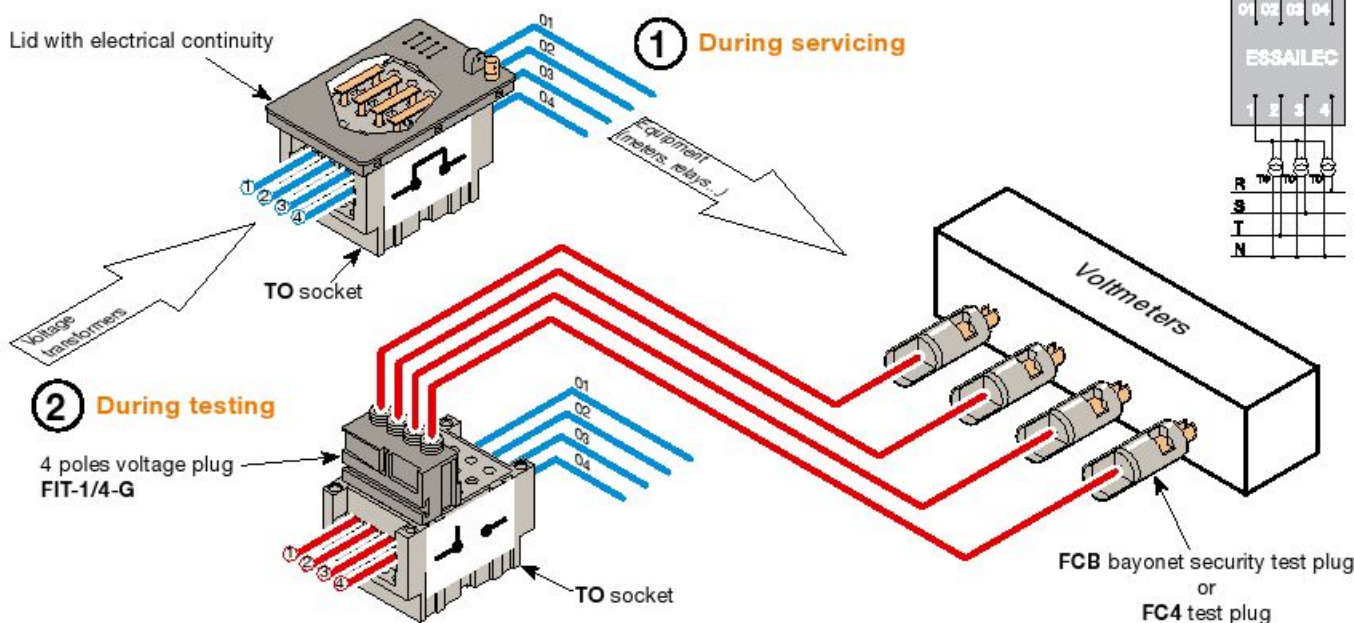


### Measurement

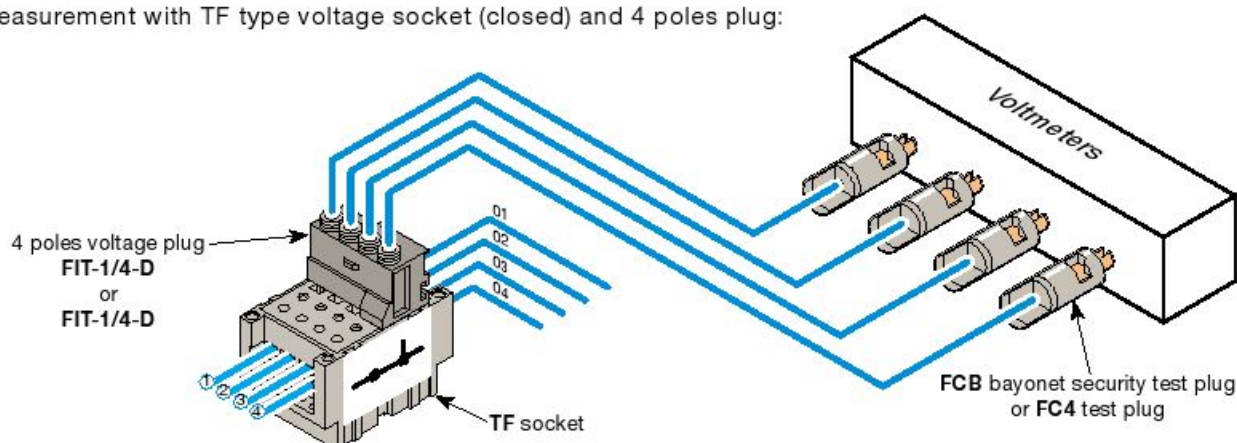
Voltage measurement with TC type voltage socket (make before break) and 2x4 poles plug:



Voltage measurement with TO type voltage socket (opened) and 4 poles plug:



Voltage measurement with TF type voltage socket (closed) and 4 poles plug:

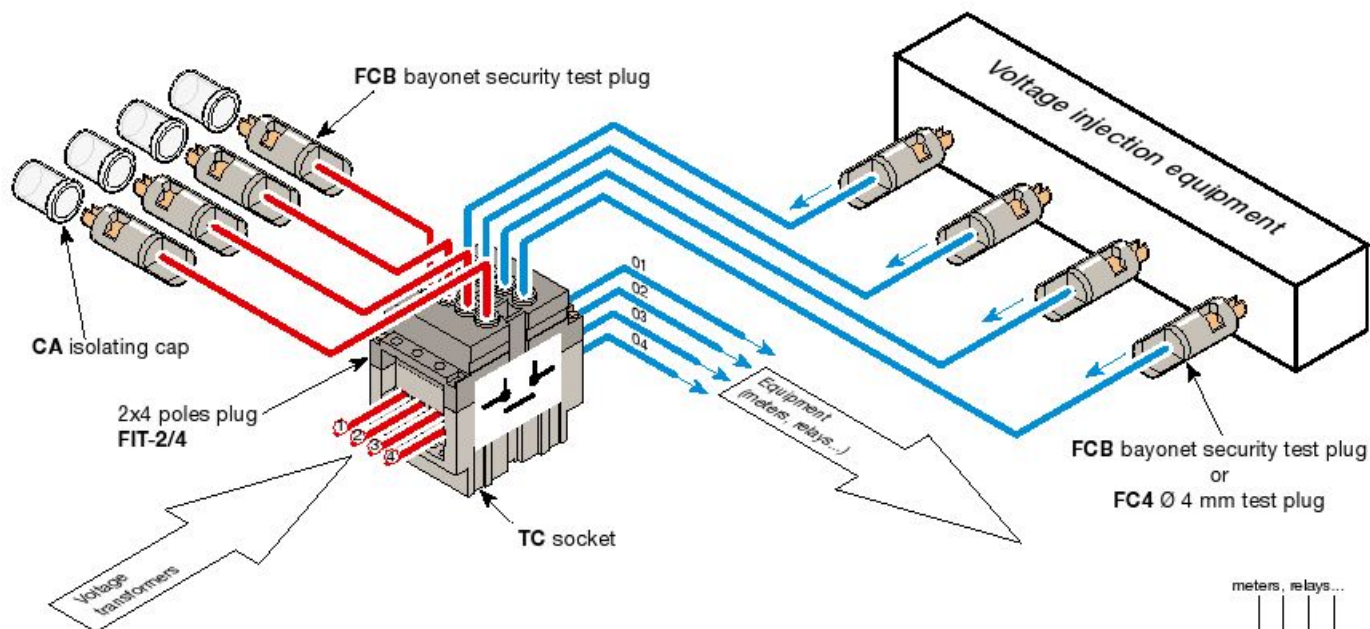






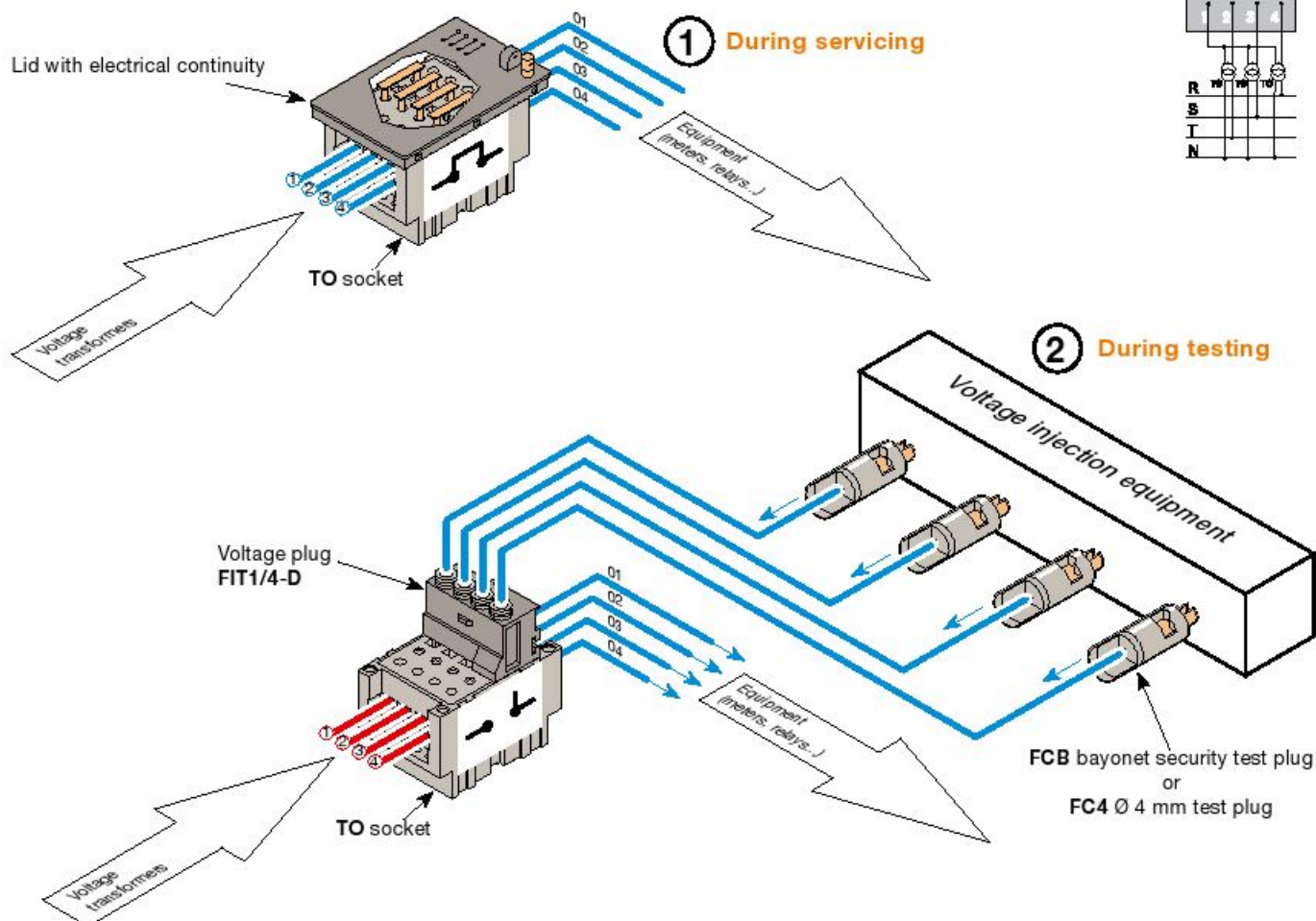
### Calibration

Voltage injection with TC type voltage socket (make before break) and 2x4 poles plug.



### Calibration

Voltage injection with TO type socket (opened) and 4 poles plug.

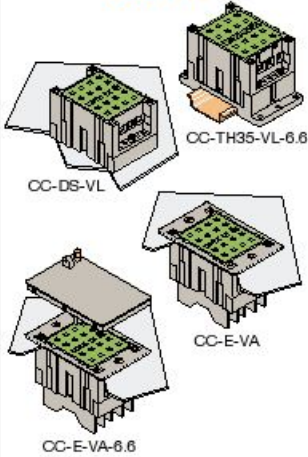


# ESSAILEC®

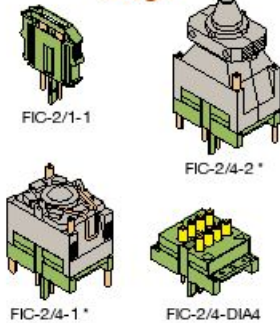
## Current range



### Sockets

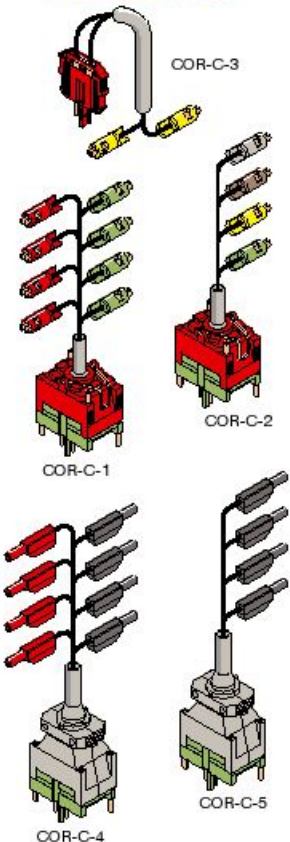


### Plugs



\* The BRE contacts pins are to be ordered separately

### Prewired plugs



Make before break  
Current range color code: Green ■  
Body: Polycarbonate  
Conductive parts: Gold-plated

### Technical data

|                           |  | IEC 947-1                  |                           |
|---------------------------|--|----------------------------|---------------------------|
|                           |  | Socket                     | Plug                      |
|                           |  | Screw clamp (VL)           | Ring-tongue (VA)          |
|                           |  | 0.2 - 6 mm <sup>2</sup>    | 0.34 - 10 mm <sup>2</sup> |
|                           |  | 0.22 - 4 mm <sup>2</sup>   |                           |
| Wire stripping length     |  | 9.5 mm / .370"             | See Datasheet             |
| Recommended screwdriver   |  | 4 mm / .157"               | 1SNC 169 040 D1701        |
| Recommended torque        |  | 0.5-0.8 Nm / 4.4-7.1 lb.in |                           |
| Ø                         |  |                            | Ø 3 mm                    |
| Width                     |  |                            | 7.5 mm                    |
| Rated voltage             |  |                            | 400 V                     |
| Impulse withstand voltage |  |                            | 4 kV                      |
| Pollution degree          |  |                            | 3                         |
| Rated current             |  |                            | 15 A                      |
| Short-circuit current     |  |                            | 100 A/5 s - 200 A/1 s     |
| Storage temperature range |  |                            | -25 °C ~ +70 °C           |
| Working temperature range |  |                            | -10 °C ~ +55 °C           |
| Front panel protection    |  | with cover                 | IP40                      |
|                           |  | without cover              | IP20                      |

### Ordering details

| Description                        | Type      | Order code     | Packaging          | Weight kg |
|------------------------------------|-----------|----------------|--------------------|-----------|
| <b>Sockets (a)</b>                 |           |                |                    |           |
| TH35 rail mounting                 | Screw     | CC-TH35-VL-6.6 | 1SNA 166 963 R0000 | 1         |
| Half-base mounting / base mounting | Screw     | CC-DS-VL       | 1SNA 166 500 R0000 | 1         |
| Flush mounting                     | R. tongue | CC-E-VA        | 1SNA 166 737 R2000 | 1         |
| Half-base mounting                 | R. tongue | CC-D-VA        | 1SNA 166 738 R0100 | 1         |
| Rack mounting                      | R. tongue | CC-R-VA        | 1SNA 166 523 R1200 | 1         |
| Reverse mounting                   | R. tongue | CC-I-VA-2      | 1SNA 166 941 R2500 | 1         |
| Flush mounting                     | R. tongue | CC-E-VA-6.6    | 1SNA 166 625 R2000 | 1         |
| with lid and coding 6.6            |           |                |                    |           |

Other preequipped sockets: consult us

|                                                 |  |              |                    |   |
|-------------------------------------------------|--|--------------|--------------------|---|
| <b>Plugs</b>                                    |  |              |                    |   |
| Plug 2 poles with 2.5 mm <sup>2</sup> pins      |  | FIC-2/1-1    | 1SNA 166 819 R2300 | 1 |
| Plug 2x4 poles (b)                              |  | FIC-2/4-2    | 1SNA 166 936 R1000 | 1 |
| Plug 2x4 poles (b)                              |  | FIC-2/4-1    | 1SNA 166 525 R1400 | 1 |
| Plug 2x4 poles, rack mounting R.(b)             |  | FIC-2/4-R    | 1SNA 166 529 R2000 | 1 |
| Plug 2x4 poles, reverse mounting I.(b)          |  | FIC-2/4-I    | 1SNA 166 589 R2500 | 1 |
| Plug 2x4 poles, with direct insertion Dia. 4 mm |  | FIC-2/4-DIA4 | 1SNA 167 937 R0000 | 1 |

Please refer to selection guide for socket compatibility

|                                                |          |           |  |  |
|------------------------------------------------|----------|-----------|--|--|
| <b>Prewired plugs (c)</b>                      |          |           |  |  |
| 2 poles prewired plug made of:                 |          |           |  |  |
| 1 plug 2 poles                                 | Red ■    | FIC-2/1-1 |  |  |
| 2 bayonet security test plugs                  | Yellow ■ | FCB..     |  |  |
| 2x4 poles prewired plug made of:               |          |           |  |  |
| 1 plug 2x4 poles                               | Green ■  | FIC-2/4-1 |  |  |
| 4 bayonet security test plugs                  | Green ■  | FCB..     |  |  |
| 4 bayonet security test plugs                  | Red ■    | FCB..     |  |  |
| 2x4 poles prewired plug made of:               |          |           |  |  |
| 1 plug 2x4 poles                               | Green ■  | FIC-2/4-2 |  |  |
| 4 x Ø 4 mm test plugs                          | Black ■  | FC4-5     |  |  |
| 4 x Ø 4 mm test plugs                          | Red ■    | FC4-4     |  |  |
| 2x4 poles prewired plug for injection made of: |          |           |  |  |
| 1 plug 2x4 poles                               | Green ■  | FIC-2/4-1 |  |  |
| with 4 short circuited pins (1-2-3-4)          |          |           |  |  |
| 1 bayonet security test plug                   | Green ■  | FCB..     |  |  |
| 1 bayonet security test plug                   | Grey ■   | FCB..     |  |  |
| 1 bayonet security test plug                   | Brown ■  | FCB..     |  |  |
| 1 bayonet security test plug                   | Yellow ■ | FCB..     |  |  |
| 2x4 poles prewired plug for injection made of: |          |           |  |  |
| 1 plug 2x4 poles                               | Green ■  | FIC-2/4-2 |  |  |
| with 4 short circuited pins (1-2-3-4)          |          |           |  |  |
| 4 x Ø 4 mm test plugs                          | Black ■  | FC4-5     |  |  |

(a) The various accessories necessary for each mounting option are supplied with the socket as well as the 2 coding pins COP-E-1 (see coding section). For rack and reverse mounting sockets drawing, refer to "Outer dimensions, mounting instructions" section.

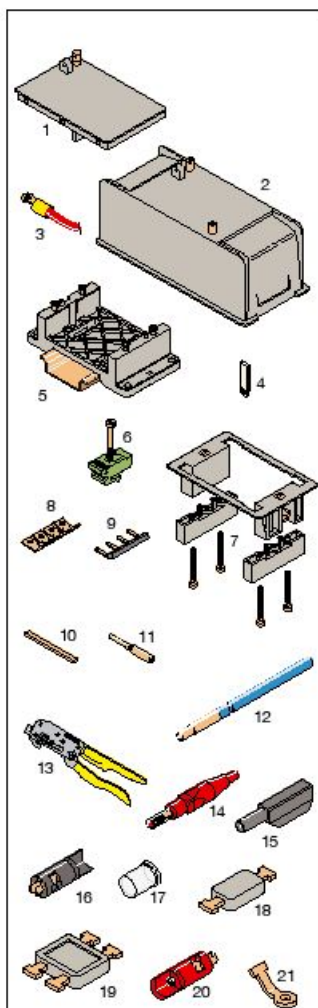
(b) Plugs supplied with 8 locking pins and 2 coding pins COP-F-1, the BRE contacts pins are to be ordered separately.

(c) Cable length: 2m/ 6.6" - Conductors section: 2.5 mm<sup>2</sup>, all conductors marked (marking begins with 0 on the equipment side) - Prewired: 6.6. Caution: The prewired test leads must be connected to the equipment prior to the insertion of the ESSAILEC® prewired plug on the socket.



# ESSAILEC®

## Current range



### Accessories

| Rep. Description                                        | Type          | Order code         | Packaging | Weight kg |
|---------------------------------------------------------|---------------|--------------------|-----------|-----------|
| <b>For sockets</b>                                      |               |                    |           |           |
| 1 Lid                                                   | CPC-1         | 1SNA 166 578 R0100 | 1         |           |
| 2 Cover (a)                                             | CPC-7         | 1SNA 166 734 R2500 | 1         | 0.07      |
| 3 Ring-tongue lug for 10 mm² wire                       | CS-10         | 1SNA 167 700 R1100 | 10        |           |
| 4 Socket interlocking peg                               | CVABM         | 1SNA 183 436 R0500 | 10        |           |
| 5 TH35 rail mounting kit                                | KEM-3         | 1SNA 166 962 R0000 | 10        | 0.02      |
| 6 Mounting kit for DIN 1 rail (a)                       | FX            | 1SNA 167 682 R2300 | 10        |           |
| 7 Replacement kit for flush mounting (b)                | KEM-1         | 1SNA 166 928 R2000 | 50        | 0.02      |
| 8 Comb-type jumper bar (b)                              | PCVA          | 1SNA 167 496 R1100 | 10        |           |
| 9 Comb-type jumper bar IP20 (c)                         | PCVL          | 1SNA 167 681 R2200 | 10        |           |
| 10 Jumper bar for 2 sockets (c)                         | BJ-VL         | 1SNA 167 680 R0500 | 10        |           |
| <b>For plugs</b>                                        |               |                    |           |           |
| 11 Pin 1 mm²                                            | BRE-C-1       | 1SNA 167 264 R0700 | 10        |           |
| Pin 1.5 mm²                                             | BRE-C-1.5     | 1SNA 167 265 R0000 | 10        |           |
| Pin 2.5 mm²                                             | BRE-C-2.5     | 1SNA 167 260 R1700 | 10        |           |
| Pin 4 mm²                                               | BRE-C-4       | 1SNA 205 876 R0400 | 10        |           |
| Pin 6 mm²                                               | BRE-C-6       | 1SNA 168 146 R0200 | 10        |           |
| 12 Pin extraction tool                                  | EXBR1         | 1SNA 167 008 R0300 | 1         |           |
| 13 Crimping tool for BRE pins                           | PSC           | 1SNA 173 181 R1300 | 1         |           |
| <b>For test</b>                                         |               |                    |           |           |
| 14 Ø 4 mm test plugs                                    |               |                    |           |           |
| 15 IP20 with mobile protection                          | Red ■ FC4-1   | 1SNA 167 927 R1000 | 10        | 0.01      |
| 16 IP20 with permanent protection                       | Black ■ FC4-5 | 1SNA 167 931 R1400 | 10        | 0.01      |
|                                                         | Red ■ FC4-4   | 1SNA 167 930 R2700 | 10        | 0.01      |
| 17 Bayonet security test plug                           | Black ■ FCB-1 | 1SNA 167 690 R0700 | 10        | 0.01      |
|                                                         | Red ■ FCB-2   | 1SNA 167 692 R2500 | 10        | 0.01      |
| 18 Isolating cap for FCB plug                           | CA            | 1SNA 167 697 R2200 | 10        |           |
| 19 Straight adaptor                                     | IR1           | 1SNA 167 622 R2600 | 5         |           |
| 20 H adaptor                                            | IR2           | 1SNA 167 623 R2700 | 5         |           |
| 21 Isolating cap for IR1 & IR2 adaptors                 | DI            | 1SNA 167 981 R1700 | 10        | 0.01      |
| Adaptor between FCB plug and ring-tongue test interface | IR3           | 1SNA 167 624 R2000 | 10        |           |

(a) Compatible with base mounting only.

(b) Compatible with ring-tongue connection type socket only (VA).

(c) Compatible with screw connection type socket only (VL).

### Selection guide

|                |                | Lids  | Covers | Plugs                          |           |           |           |                              |                                 |   |
|----------------|----------------|-------|--------|--------------------------------|-----------|-----------|-----------|------------------------------|---------------------------------|---|
|                |                | CPC-1 | CPC-7  | FIC-2/4-DIA4<br>Universal plug | FIC-2/1-1 | FIC-2/4-2 | FIC-2/4-1 | FIC-2/4-R<br>rack mounting R | FIC-2/4-I<br>reverse mounting I |   |
| Mounting       | Sockets        |       |        |                                |           |           |           |                              |                                 |   |
| TH35 Rail      | CC-TH35-VL-6.6 | ●     | ●      | ●                              | ●         | ●         | ●         |                              |                                 |   |
| Base           |                | ●     | ●*     | ●                              | ●         | ●         | ●         |                              |                                 |   |
| Half-base      | CC-DS-VL       |       |        |                                |           |           |           |                              |                                 |   |
| Flush          | CC-E-VA        | ●     |        | ●                              | ●         | ●         | ●         |                              |                                 |   |
| Half-base      | CC-D-VA        | ●     |        | ●                              | ●         | ●         | ●         |                              |                                 |   |
| Rack           | CC-R-VA        |       |        | ●                              | ●         |           |           | ●                            |                                 |   |
| Reverse        | CC-I-VA-2      |       |        |                                | ●         |           |           |                              |                                 | ● |
| Flush with lid | CC-E-VA-6.6    |       |        | ●                              | ●         | ●         | ●         |                              |                                 |   |

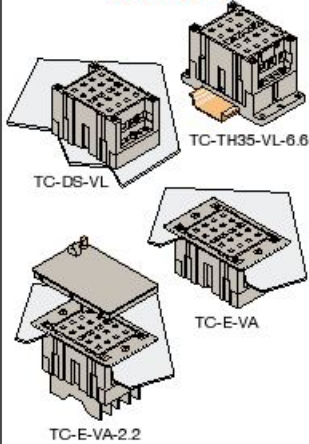
\* Nota: CPC-7 compatible with CC-DS-VL socket only in 'base' mounting option.

# ESSAILEC®

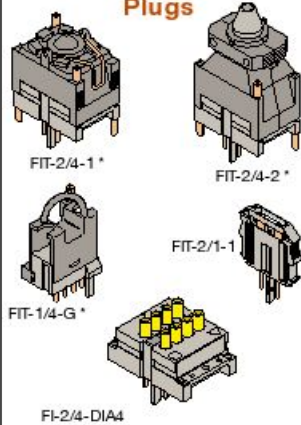
## Voltage range



### Sockets



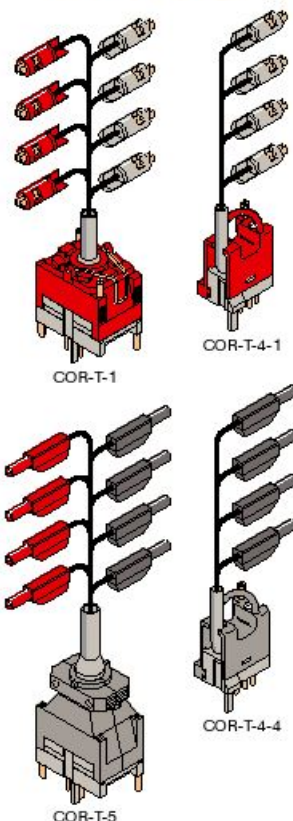
### Plugs



FIT-2/4-DIA4

\* The BRE contacts pins are to be ordered separately

### Prewired plugs



Contacts: - Make before break  
- Opened  
- Closed

Voltage range color code: Grey ☐  
Body: Polycarbonate  
Conductive parts: Silver-plated

### Technical data

| IEC 947-1                 |  |                            |                           |         |
|---------------------------|--|----------------------------|---------------------------|---------|
|                           |  | Socket                     |                           | Plug    |
|                           |  | Screw clamp (VL)           | Ring-tongue (VA)          | Pin BRE |
| Connecting capacity       |  | 0.2 - 6 mm <sup>2</sup>    | 0.34 - 10 mm <sup>2</sup> |         |
| Wire stripping length     |  | 0.22 - 4 mm <sup>2</sup>   |                           |         |
|                           |  | 9.5 mm / .370"             |                           |         |
| Recommended screwdriver   |  | 4 mm / .157"               |                           |         |
| Recommended torque        |  | 0.5-0.8 Nm / 4.4-7.1 lb.in |                           |         |
| Width                     |  |                            | Ø 3 mm                    |         |
|                           |  |                            | 7.5 mm                    |         |
| Rated voltage             |  |                            | 400 V                     |         |
| Impulse withstand voltage |  |                            | 4 kV                      |         |
| Pollution degree          |  |                            | 3                         |         |
| Rated current             |  |                            | 8 A                       |         |
| Short-circuit current     |  |                            | 25 A/5 s - 800 A/25 ms    |         |
| Storage temperature range |  |                            | -25 °C ~ +70 °C           |         |
| Working temperature range |  |                            | -10 °C ~ +55 °C           |         |
| Front panel protection    |  | with cover                 | IP40                      |         |
|                           |  | without cover              | IP20                      |         |

### Ordering details

| Description                                 | Type     | Order code         | Packaging          | Weight kg |
|---------------------------------------------|----------|--------------------|--------------------|-----------|
| <b>Sockets (a)</b>                          |          |                    |                    |           |
| TH35 rail mounting short circuited contacts | Screw    | <b>TC-TH35-VL</b>  | 1SNA 166 964 R0000 | 1 0.11    |
| Half-base mounting / base mounting          | Screw    |                    |                    |           |
| opened contacts                             |          | TO-DS-VL           | 1SNA 166 741 R0400 | 1 0.1     |
| short-circuited contacts                    |          | <b>TC-DS-VL</b>    | 1SNA 166 742 R0500 | 1 0.1     |
| closed contacts                             |          | TF-DS-VL           | 1SNA 166 503 R2700 | 1         |
| Flush mounting                              | R.tongue |                    |                    |           |
| opened contacts                             |          | TO-E-VA            | 1SNA 166 743 R0600 | 1         |
| short-circuited contacts                    |          | <b>TC-E-VA</b>     | 1SNA 166 747 R0200 | 1 0.14    |
| closed contacts                             |          | TF-E-VA            | 1SNA 166 745 R0000 | 1         |
| Half-base mounting                          | R.tongue |                    |                    |           |
| opened contacts                             |          | TO-D-VA            | 1SNA 166 744 R0700 | 1         |
| short-circuited contacts                    |          | TC-D-VA            | 1SNA 166 748 R1300 | 1         |
| closed contacts                             |          | TF-D-VA            | 1SNA 166 746 R0100 | 1 0.12    |
| Reverse mounting                            | R.tongue |                    |                    |           |
| opened contacts                             |          | TO-I-VA-2          | 1SNA 166 945 R2100 | 1         |
| Flush mounting with lid                     | R.tongue |                    |                    |           |
| short-circuited contacts and pre-coded 2.2  |          | <b>TC-E-VA-2.2</b> | 1SNA 166 627 R2200 | 1 0.15    |

Other pre-equipped sockets: consult us

|                                                 |  |                    |                    |         |
|-------------------------------------------------|--|--------------------|--------------------|---------|
| <b>Plugs</b>                                    |  |                    |                    |         |
| Plug 2 poles with 2.5 mm <sup>2</sup> pins      |  | <b>FIT-2/1-1</b>   | 1SNA 166 821 R1500 | 1       |
| Plug 2x4 poles (b)                              |  | <b>FIT-2/4-2</b>   | 1SNA 166 937 R1100 | 1 0.11  |
| Plug 2x4 poles (b)                              |  | <b>FIT-2/4-1</b>   | 1SNA 166 550 R0100 | 1 0.09  |
| Plug 2x4 poles, reverse mounting (c)            |  | <b>FIT-2/4-1</b>   | 1SNA 166 672 R0700 | 1       |
| Plug 4 poles - insertion 1-2-3-4 (c)            |  | <b>FIT-1/4-G</b>   | 1SNA 166 547 R2200 | 1       |
| Plug 4 poles - insertion 01-02-03-04 (c)        |  | <b>FIT-1/4-D</b>   | 1SNA 166 546 R2100 | 1       |
| Plug 2x4 poles, with direct insertion Dia. 4 mm |  | <b>FI-2/4-DIA4</b> | 1SNA 167 936 R1100 | 1 0.064 |

Other 2 poles plugs: consult us

Please refer to selection guide for socket compatibility

|                                   |                                |                  |                    |        |
|-----------------------------------|--------------------------------|------------------|--------------------|--------|
| <b>Prewired plugs (d)</b>         |                                |                  |                    |        |
| 4 poles prewired plug made of:    |                                |                  |                    |        |
| 1 plug 4 poles                    | Grey <input type="checkbox"/>  | <b>COR-T-4-1</b> | 1SNA 166 640 R1300 | 1      |
| 4 bayonet security test plugs     | Grey <input type="checkbox"/>  | <b>FIT-1/4-D</b> |                    |        |
| 4 poles prewired plug made of:    |                                |                  |                    |        |
| 1 plug 4 poles                    | Grey <input type="checkbox"/>  | <b>COR-T-4-4</b> | 1SNA 167 935 R1000 | 1      |
| 4 x Ø 4 mm test plugs             | Black <input type="checkbox"/> | <b>FIT-1/4-D</b> |                    |        |
| 2x4 poles prewired plug made of:  |                                |                  |                    |        |
| 1 plug 2x4 poles (pre-coded: 2.2) | Grey <input type="checkbox"/>  | <b>FC4-5</b>     |                    |        |
| 4 bayonet security test plugs     | Red <input type="checkbox"/>   | <b>COR-T-1</b>   | 1SNA 166 639 R0600 | 1 0.87 |
| 4 bayonet security test plugs     | Grey <input type="checkbox"/>  | <b>FIT-2/4-1</b> |                    |        |
| 2x4 poles prewired plug made of:  |                                |                  |                    |        |
| 1 plug 2x4 poles (pre-coded: 2.2) | Grey <input type="checkbox"/>  | <b>FC4-5</b>     |                    |        |
| 4 x Ø 4 mm test plugs             | Black <input type="checkbox"/> | <b>COR-T-5</b>   | 1SNA 167 933 R1600 | 1 0.87 |
| 4 x Ø 4 mm test plugs             | Red <input type="checkbox"/>   | <b>FIT-2/4-2</b> |                    |        |
| 4 x Ø 4 mm test plugs             | Red <input type="checkbox"/>   | <b>FC4-4</b>     |                    |        |

(a) The various accessories necessary for each mounting option are supplied with the socket as well as the 2 coding pins COP-E-1 (see coding section). For reverse mounting sockets drawing, refer to "Outer dimensions, mounting instructions" section.

(b) Plugs supplied with 8 locking pins and 2 coding pins COP-F-1, the BRE contacts pins are to be ordered separately.

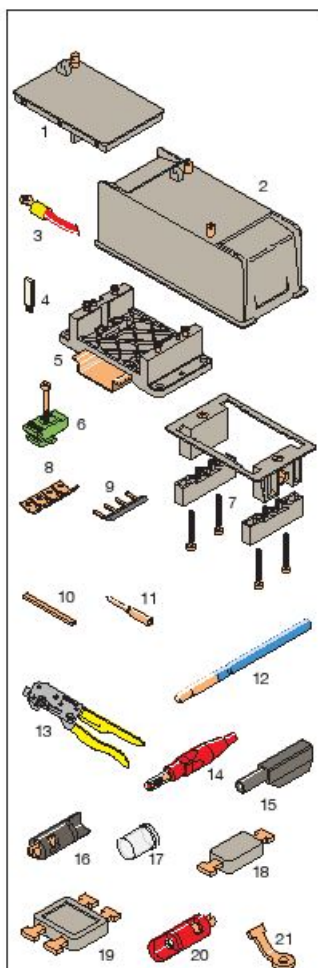
(c) Plugs supplied with 4 locking pins, the BRE contacts pins are to be ordered separately.

(d) Cable length: 2m / 6.6" - Conductors section: 2.5 mm<sup>2</sup>, all conductors marked (marking starting with 0 on the equipment side). Caution: The prewired test leads must be connected to the equipment prior to the insertion of the ESSAILEC® prewired plug on the socket.



# ESSAILEC®

## Voltage range



### Accessories

| Rep.               | Description                                             | Type            | Order code         | Packaging | Weight kg |
|--------------------|---------------------------------------------------------|-----------------|--------------------|-----------|-----------|
| <b>For sockets</b> |                                                         |                 |                    |           |           |
| 1                  | Lid                                                     | CPT-1           | 1SNA 166 646 R0500 | 1         |           |
|                    | Lid with electrical continuity                          | CPT-2           | 1SNA 166 577 R2000 | 1         |           |
| 2                  | Cover (a)                                               | CPT-5           | 1SNA 166 930 R2600 | 1         | 0.07      |
|                    | Cover with electrical continuity (a)                    | CPT-4           | 1SNA 166 733 R2400 | 1         | 0.08      |
| 3                  | Ring-tongue lug for 10 mm² wire                         | CS-10           | 1SNA 167 700 R1100 | 10        |           |
| 4                  | Socket interlocking peg                                 | CVABM           | 1SNA 183 436 R0500 | 10        |           |
| 5                  | TH35 rail mounting kit                                  | KEM-3           | 1SNA 166 962 R0000 | 10        | 0.02      |
| 6                  | Mounting kit for DIN 1 rail (a)                         | FX              | 1SNA 167 682 R2300 | 10        |           |
| 7                  | Replacement kit for flush mounting (b)                  | KEM-1           | 1SNA 166 928 R2000 | 50        | 0.02      |
| 8                  | Comb-type jumper bar (b)                                | PCVA            | 1SNA 167 496 R1100 | 10        |           |
| 9                  | Comb-type jumper bar IP20 (c)                           | PCVL            | 1SNA 167 681 R2200 | 10        |           |
| 10                 | Jumper bar for 2 sockets (c)                            | BJ-VL           | 1SNA 167 680 R0500 | 10        |           |
| <b>For plugs</b>   |                                                         |                 |                    |           |           |
| 11                 | Pin 0.22-0.34 mm²                                       | BRE-T-0.34      | 1SNA 168 160 R1400 | 50        |           |
|                    | Pin 0.75 mm²                                            | BRE-T-0.75      | 1SNA 167 779 R1300 | 50        |           |
|                    | Pin 1 mm²                                               | BRE-T-1         | 1SNA 164 921 R1700 | 50        |           |
|                    | Pin 1.5 mm²                                             | BRE-T-1.5       | 1SNA 164 922 R1000 | 50        |           |
|                    | Pin 2.5 mm²                                             | BRE-T-2.5       | 1SNA 164 923 R1100 | 50        |           |
|                    | Pin 6 mm²                                               | BRE-T-6         | 1SNA 168 147 R0300 | 50        |           |
| 12                 | Pin extraction tool                                     | EXBR1           | 1SNA 167 008 R0300 | 1         |           |
| 13                 | Crimping tool for BRE pins                              | 1 to 2.5mm² PSC | 1SNA 173 181 R1300 | 1         |           |
| <b>For test</b>    |                                                         |                 |                    |           |           |
|                    | Ø 4 mm test plugs                                       |                 |                    |           |           |
| 14                 | IP20 with mobile protection                             | Red ■ FC4-1     | 1SNA 167 927 R1000 | 10        | 0.01      |
|                    |                                                         | Black ■ FC4-5   | 1SNA 167 931 R1400 | 10        | 0.01      |
| 15                 | IP20 with permanent protection                          | Red ■ FC4-4     | 1SNA 167 930 R2700 | 10        | 0.01      |
|                    |                                                         | Black ■ FCB-1   | 1SNA 167 690 R0700 | 10        | 0.01      |
| 16                 | Bayonet security test plug                              | Red ■ FCB-2     | 1SNA 167 692 R2500 | 10        | 0.01      |
|                    |                                                         | Red ■ FCB-3     | 1SNA 167 697 R2200 | 10        |           |
| 17                 | Isolating cap for FCB plug                              | CA              | 1SNA 167 622 R2600 | 5         |           |
| 18                 | Straight adaptor                                        | IR1             | 1SNA 167 623 R2700 | 5         |           |
| 19                 | H adaptor                                               | IR2             | 1SNA 167 981 R1700 | 10        | 0.01      |
| 20                 | Isolating cap for IR1 & IR2 adaptors                    | DI              |                    |           |           |
| 21                 | Adaptor between FCB plug and ring-tongue test interface | IR3             | 1SNA 167 624 R2000 | 10        |           |

(a) Compatible with base mounting only.

(b) Compatible with ring-tongue connection type socket only (VA).

(c) Compatible with screw connection type socket only (VL).

### Selection guide

| Mounting          | Sockets     | Lids  |       | Covers |       | Plugs                         |          |          |          |          |                                |  |
|-------------------|-------------|-------|-------|--------|-------|-------------------------------|----------|----------|----------|----------|--------------------------------|--|
|                   |             | CPT-1 | CPT-2 | CPT-5  | CPT-4 | FT-2/4-DJA4<br>Universal plug | FT-2/4-2 | FT-2/4-1 | FT-1/4-D | FT-1/4-G | FT-2/4-I<br>reverse mounting I |  |
| TH35 Rail         | TC-TH35-VL  | •     | •     | •      | •     | •                             | •        | •        | •        | •        |                                |  |
| Base<br>Half-base | TO-DS-VL    |       | •     |        | •*    | •                             | (•)      | (•)      | •        | •        |                                |  |
|                   | TC-DS-VL    | •     |       | •*     |       | •                             | •        | •        | (•)      | (•)      |                                |  |
|                   | TF-DS-VL    | •     |       | •*     |       |                               |          |          | •        | •        |                                |  |
| Flush             | TO-E-VA     |       | •     |        |       | •                             | (•)      | (•)      | •        | •        |                                |  |
|                   | TC-E-VA     | •     |       |        |       | •                             | •        | •        | (•)      | (•)      |                                |  |
|                   | TF-E-VA     | •     |       |        |       |                               |          |          | •        | •        |                                |  |
| Half-base         | TO-D-VA     |       | •     |        |       | •                             | (•)      | (•)      | •        | •        |                                |  |
|                   | TC-D-VA     | •     |       |        |       | •                             | •        | •        | (•)      | (•)      |                                |  |
|                   | TF-D-VA     | •     |       |        |       |                               |          |          | •        | •        |                                |  |
| Reverse           | TO-I-VA     |       |       |        |       |                               |          |          |          |          | •                              |  |
| Flush with lid    | TC-E-VA-2.2 |       |       |        |       | •                             | •        | •        |          |          |                                |  |

\* Nota: CPT-4 and CPT-5 compatible with TO-DS-VL, TC-DS-VL and TF-DS-VL sockets only in "base" mounting option.

(•) Compatible with some restrictions, please consult us.

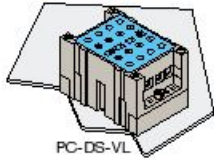


# ESSAILEC®

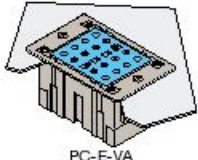
## Polarity range



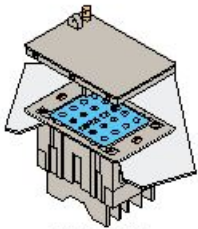
### Sockets



PC-DS-VL



PC-E-VA

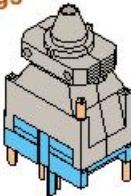


PC-E-VA-8.8

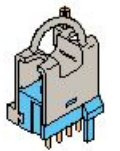
### Plugs



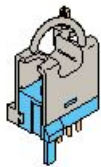
FIP-2/4-1 \*



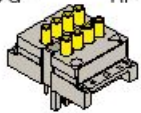
FIP-2/4-2 \*



FIP-1/4-G \*



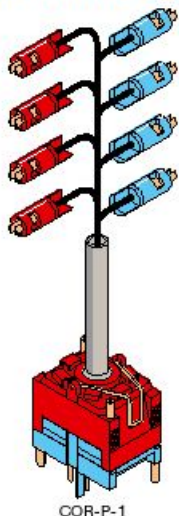
FIP-1/4-D \*



FI-2/4-DIA4

\* The BRE contacts pins are to be ordered separately

### Prewired plugs



COR-P-1

Contacts: - Make before break  
- Opened  
- Closed

Polarity range color code: Blue ■  
Body: Polycarbonate  
Conductive parts: Silver-plated

### Technical data

|                           | IEC                                                 |                           |                                     |
|---------------------------|-----------------------------------------------------|---------------------------|-------------------------------------|
|                           | Socket                                              | Plug                      |                                     |
| Connecting capacity       | Screw clamp (VL)                                    | Ring-tongue (VA)          | Pin BRE                             |
|                           | Rigid conductor<br>Flexible conductor               |                           |                                     |
| Wire stripping length     | 0.2 - 6 mm <sup>2</sup><br>0.22 - 4 mm <sup>2</sup> | 0.34 - 10 mm <sup>2</sup> | See Datasheet<br>1SNC 169 040 D1701 |
| Wire stripping length     | 9.5 mm / .370"                                      |                           |                                     |
| Recommended screwdriver   | 4 mm / .157"                                        |                           |                                     |
| Recommended torque        | 0.5-0.8 Nm / 4.4-7.1 lb.in                          |                           |                                     |
| Ø                         |                                                     | Ø 3 mm                    |                                     |
| Width                     |                                                     | 7.5 mm                    |                                     |
| Rated voltage             |                                                     | 400 V                     |                                     |
| Impulse withstand voltage |                                                     | 4 kV                      |                                     |
| Pollution degree          |                                                     | 3                         |                                     |
| Rated current             |                                                     | 8 A                       |                                     |
| Short-circuit current     |                                                     | 25 A/5 s - 800 A/25 ms    |                                     |
| Storage temperature range |                                                     | -25 °C ~ +70 °C           |                                     |
| Working temperature range |                                                     | -10 °C ~ +55 °C           |                                     |
| Front panel protection    | with cover<br>without cover                         | IP40<br>IP20              |                                     |

### Ordering details

| Description                                | Type        | Order code         | Packaging | Weight kg |
|--------------------------------------------|-------------|--------------------|-----------|-----------|
| <b>Sockets (a)</b>                         |             |                    |           |           |
| Half-base mounting / base mounting         | Screw       |                    |           |           |
| opened contacts                            | PO-DS-VL    | 1SNA 166 757 R0400 | 1         |           |
| short-circuited contacts                   | PC-DS-VL    | 1SNA 166 758 R1500 | 1         |           |
| closed contacts                            | PF-DS-VL    | 1SNA 166 506 R2200 | 1         |           |
| Flush mounting                             | R.tongue    |                    |           |           |
| opened contacts                            | PO-E-VA     | 1SNA 166 759 R1600 | 1         |           |
| short-circuited contacts                   | PC-E-VA     | 1SNA 166 763 R0200 | 1         |           |
| closed contacts                            | PF-E-VA     | 1SNA 166 761 R0000 | 1         |           |
| Half-base mounting                         | R.tongue    |                    |           |           |
| opened contacts                            | PO-D-VA     | 1SNA 166 760 R1300 | 1         |           |
| short-circuited contacts                   | PC-D-VA     | 1SNA 166 764 R0300 | 1         |           |
| closed contacts                            | PF-D-VA     | 1SNA 166 762 R0100 | 1         |           |
| Flush mounting with lid                    | R.tongue    |                    |           |           |
| short-circuited contacts and pre-coded 8.8 | PC-E-VA-8.8 | 1SNA 166 630 R0100 | 1         |           |

Other pre-equipped sockets: consult us

|                                                 |             |                    |   |       |
|-------------------------------------------------|-------------|--------------------|---|-------|
| <b>Plugs</b>                                    |             |                    |   |       |
| Plug 2x4 poles (b)                              | FIP-2/4-2   | 1SNA 166 939 R2300 | 1 | 0.11  |
| Plug 2x4 poles (b)                              | FIP-2/4-1   | 1SNA 166 559 R0600 | 1 | 0.09  |
| Plug 4 poles - Insertion 1-2-3-4 (c)            | FIP-1/4-G   | 1SNA 166 556 R2300 | 1 |       |
| Plug 4 poles - Insertion 01-02-03-04 (c)        | FIP-1/4-D   | 1SNA 166 555 R2200 | 1 |       |
| Plug 2x4 poles, with direct insertion Dia. 4 mm | FI-2/4-DIA4 | 1SNA 167 936 R1100 | 1 | 0.064 |

Please refer to selection guide for socket compatibility

|                                                  |                                                    |                    |   |      |
|--------------------------------------------------|----------------------------------------------------|--------------------|---|------|
| <b>Prewired plugs (d)</b>                        |                                                    |                    |   |      |
| 2x4 poles prewired plug (pre-coded 8.8) made of: | COR-P-1                                            | 1SNA 166 642 R0100 | 1 | 0.87 |
| 1 plug 2x4 poles                                 | Blue <span style="color: blue;">■</span> FIP-2/4-1 |                    |   |      |
| 4 bayonet security test plugs                    | Red <span style="color: red;">■</span> FCB..       |                    |   |      |
| 4 bayonet security test plugs                    | Blue <span style="color: blue;">■</span> FCB..     |                    |   |      |

(a) The various accessories necessary for each mounting option are supplied with the socket as well as the 2 coding pins COP-E-1 (see coding section).

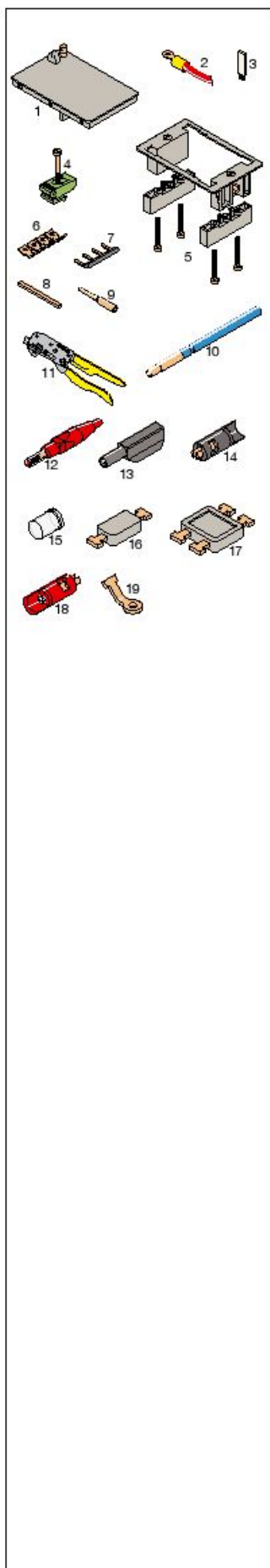
(b) Plugs supplied with 8 locking pins and 2 coding pins COP-F-1, the BRE contacts pins are to be ordered separately.

(c) Plugs supplied with 4 locking pins, the BRE contacts pins are to be ordered separately.

(d) Prewired plug cable length: 2 m / 6.6" - Wire section 2.5 mm<sup>2</sup>

# ESSAILEC®

## Polarity range



### Accessories

| Rep. Description                                           | Type                        | Order code         | Packaging | Weight kg |
|------------------------------------------------------------|-----------------------------|--------------------|-----------|-----------|
| <b>For sockets</b>                                         |                             |                    |           |           |
| 1 Lid                                                      | CPP-1                       | 1SNA 166 647 R0600 | 1         |           |
| Lid with electrical continuity                             | CPP-2                       | 1SNA 166 645 R0400 | 1         |           |
| 2 Ring-tongue lug for 10 mm <sup>2</sup> wire              | CS-10                       | 1SNA 167 700 R1100 | 10        |           |
| 3 Socket interlocking peg                                  | CVABM                       | 1SNA 183 436 R0500 | 10        |           |
| 4 Mounting kit for DIN 1 rail (a)                          | FX                          | 1SNA 167 682 R2300 | 10        |           |
| 5 Replacement kit for flush mounting (b)                   | KEM-1                       | 1SNA 166 928 R2000 | 50        | 0.02      |
| 6 Comb-type jumper bar (b)                                 | PCVA                        | 1SNA 167 496 R1100 | 10        |           |
| 7 Comb-type jumper bar IP20 (c)                            | PCVL                        | 1SNA 167 681 R2200 | 10        |           |
| 8 Jumper bar for 2 sockets (c)                             | BJ-VL                       | 1SNA 167 680 R0500 | 10        |           |
| <b>For plugs</b>                                           |                             |                    |           |           |
| 9 Pin 0.22-0.34 mm <sup>2</sup>                            | BRE-T-0.34                  | 1SNA 168 160 R1400 | 50        |           |
| Pin 0.75 mm <sup>2</sup>                                   | BRE-T-0.75                  | 1SNA 167 779 R1300 | 50        |           |
| Pin 1 mm <sup>2</sup>                                      | BRE-T-1                     | 1SNA 164 921 R1700 | 50        |           |
| Pin 1.5 mm <sup>2</sup>                                    | BRE-T-1.5                   | 1SNA 164 922 R1000 | 50        |           |
| Pin 2.5 mm <sup>2</sup>                                    | BRE-T-2.5                   | 1SNA 164 923 R1100 | 50        |           |
| Pin 6 mm <sup>2</sup>                                      | BRE-T-6                     | 1SNA 168 147 R0300 | 50        |           |
| 10 Pin extraction tool                                     | EXBR1                       | 1SNA 167 008 R0300 | 1         |           |
| 11 Crimping tool for BRE pins                              | 1 to 2.5mm <sup>2</sup> PSC | 1SNA 173 181 R1300 | 1         |           |
| <b>For test</b>                                            |                             |                    |           |           |
| Ø 4 mm test plugs                                          |                             |                    |           |           |
| 13 IP20 with mobile protection                             | Red ■ FC4-1                 | 1SNA 167 927 R1000 | 10        | 0.01      |
| 14 IP20 with permanent protection                          | Black ■ FC4-5               | 1SNA 167 931 R1400 | 10        | 0.01      |
|                                                            | Red ■ FC4-4                 | 1SNA 167 930 R2700 | 10        | 0.01      |
| 14 Bayonet security test plug                              | Black ■ FCB-1               | 1SNA 167 690 R0700 | 10        | 0.01      |
|                                                            | Red ■ FCB-2                 | 1SNA 167 692 R2500 | 10        | 0.01      |
| 15 Isolating cap for FCB plug                              | CA                          | 1SNA 167 697 R2200 | 10        |           |
| 16 Straight adaptor                                        | IR1                         | 1SNA 167 622 R2600 | 5         |           |
| 17 H adaptor                                               | IR2                         | 1SNA 167 623 R2700 | 5         |           |
| 18 Isolating cap for IR1 & IR2 adaptors                    | DI                          | 1SNA 167 981 R1700 | 10        | 0.01      |
| 19 Adaptor between FCB plug and ring-tongue test interface | IR3                         | 1SNA 167 624 R2000 | 10        |           |

(a) Compatible with base mounting only.

(b) Compatible with ring-tongue connection type socket only (VA).

(c) Compatible with screw connection type socket only (VL).

### Selection guide

|           |             | Lids  |       | Plugs      |           |           |           |
|-----------|-------------|-------|-------|------------|-----------|-----------|-----------|
|           |             | CPP-1 | CPP-2 | FL-2/4-DI4 | FIP-2/4-2 | FIP-2/4-1 | FIP-1/4-D |
| Mounting  | Sockets     |       |       |            |           |           |           |
|           | PO-DS-VL    |       | ●     | ●          | (●)       | (●)       | ●         |
|           | PC-DS-VL    | ●     |       | ●          | ●         | ●         | (●)       |
| Base      | PF-DS-VL    | ●     |       | ●          |           |           | ●         |
|           | PO-E-VA     |       | ●     | ●          | (●)       | (●)       | ●         |
|           | PC-E-VA     | ●     |       | ●          | ●         | ●         | (●)       |
| Flush     | PF-E-VA     | ●     |       | ●          |           |           | ●         |
|           | PO-D-VA     |       | ●     | ●          | (●)       | (●)       | ●         |
|           | PC-D-VA     | ●     |       | ●          | ●         | ●         | (●)       |
| Half-base | PF-D-VA     | ●     |       | ●          |           |           | ●         |
|           | PO-E-VA-2.2 |       |       |            | ●         | ●         |           |

(●) Compatible with some restrictions, please consult us.





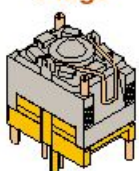
## Sockets



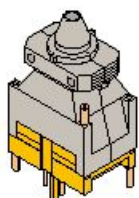
DEO-E-VA

DEO-D-VA  
DEF-D-VA

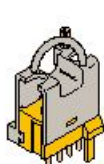
## Plugs



FIDE-2/4 \*



FIDE-2/4-2 \*



FIDE-1/4-G \*



FIDE-1/4-D \*



FI-2/4-DIA4 \*

\* The BRE contacts pins are to be ordered separately

Contacts: - Opened  
- Closed

Trip range color code: Orange ■  
Body: Polycarbonate  
Conductive parts: Silver-plated

## Technical data

|                           |                                  | IEC                        |                           | Plug<br>Pin BRE                     |
|---------------------------|----------------------------------|----------------------------|---------------------------|-------------------------------------|
|                           |                                  | Socket<br>Screw clamp (VL) | Ring-tongue (VA)          |                                     |
| Connecting capacity       | Rigid conductor                  | 0.2 - 6 mm <sup>2</sup>    |                           |                                     |
|                           | Flexible conductor               | 0.22 - 4 mm <sup>2</sup>   | 0.34 - 10 mm <sup>2</sup> |                                     |
| Wire stripping length     | wire 0.22 - 0.34 mm <sup>2</sup> | 9.5 mm / .370"             |                           | See Datasheet<br>1SNC 169 040 D1701 |
|                           | wire 0.75 - 6 mm <sup>2</sup>    |                            |                           |                                     |
| Recommended screwdriver   |                                  | 4 mm / .157"               |                           |                                     |
| Recommended torque        |                                  | 0.5-0.8 Nm / 4.4-7.1 lb.in |                           |                                     |
| Ø                         |                                  |                            | Ø 3 mm                    |                                     |
| Width                     |                                  |                            | 7.5 mm                    |                                     |
| Rated voltage             |                                  |                            | 400 V                     |                                     |
| Impulse withstand voltage |                                  |                            | 4 kV                      |                                     |
| Pollution degree          |                                  |                            | 3                         |                                     |
| Rated current             |                                  |                            | 8 A                       |                                     |
| Short-circuit current     |                                  |                            | 25 A/5 s - 800 A/25 ms    |                                     |
| Storage temperature range |                                  |                            | -25 °C ~ +70 °C           |                                     |
| Working temperature range |                                  |                            | -10 °C ~ +55 °C           |                                     |
| Front panel protection    |                                  | with cover                 | IP40                      |                                     |
|                           |                                  | without cover              | IP20                      |                                     |

## Ordering details

| Description               | Type      | Order code         | Packaging | Weight kg |
|---------------------------|-----------|--------------------|-----------|-----------|
| <b>Sockets (a)</b>        |           |                    |           |           |
| Flush mounting            | R. tongue |                    |           |           |
| opened contacts           | DEO-E-VA  | 1SNA 166 878 R0600 | 1         |           |
| Half-base mounting        | R. tongue |                    |           |           |
| opened contacts           | DEO-D-VA  | 1SNA 166 874 R2200 | 1         |           |
| closed contacts           | DEF-D-VA  | 1SNA 166 896 R1100 | 1         |           |
| Other sockets: consult us |           |                    |           |           |

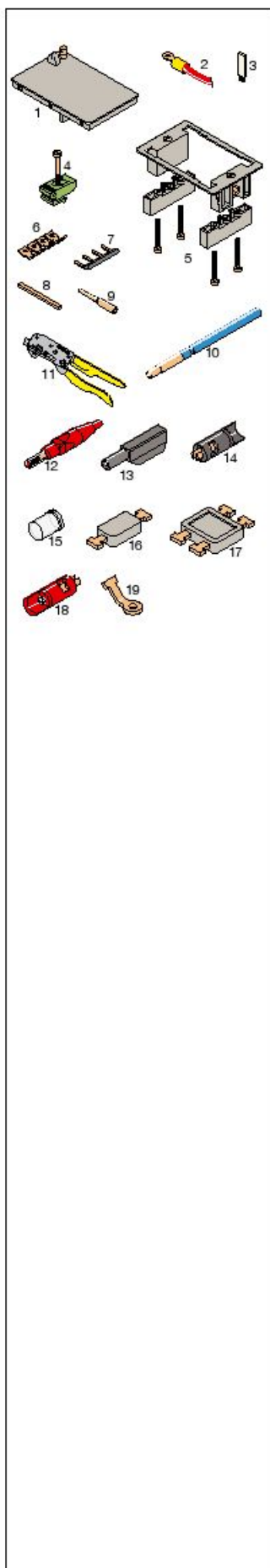
## Plugs

|                                                 |             |                    |   |       |
|-------------------------------------------------|-------------|--------------------|---|-------|
| Plug 2x4 poles (b)                              | FIDE-2/4    | 1SNA 166 877 R2500 | 1 | 0.09  |
| Plug 2x4 poles (b)                              | FIDE-2/4-2  | 1SNA 166 943 R2700 | 1 | 0.11  |
| Plug 4 poles - insertion 1-2-3-4 (c)            | FIDE-1/4-G  | 1SNA 166 898 R2300 | 1 |       |
| Plug 4 poles - insertion 01-02-03-04 (c)        | FIDE-1/4-D  | 1SNA 166 897 R1200 | 1 |       |
| Plug 2x4 poles, with direct insertion Dia. 4 mm | FI-2/4-DIA4 | 1SNA 167 936 R1100 | 1 | 0.064 |

(a) The various accessories necessary for each mounting option are supplied with the socket as well as the 2 coding pins COP-E-1 (see coding section).

(b) Plugs supplied with 8 locking pins and 2 coding pins COP-F-1, the BRE contacts pins are to be ordered separately.

(c) Plugs supplied with 4 locking pins, the BRE contacts pins are to be ordered separately.



## Accessories

| Rep. Description                                           | Type            | Order code         | Packaging | Weight kg |
|------------------------------------------------------------|-----------------|--------------------|-----------|-----------|
| <b>For sockets</b>                                         |                 |                    |           |           |
| 1 Lid                                                      | CPDE-1          | 1SNA 166 876 R2400 | 1         |           |
| Lid with electrical continuity                             | CPDE-2          | 1SNA 166 926 R1600 | 1         |           |
| 2 Ring-tongue lug for 10 mm² wire                          | CS-10           | 1SNA 167 700 R1100 | 10        |           |
| 3 Socket interlocking peg                                  | CVABM           | 1SNA 183 436 R0500 | 10        |           |
| 4 Mounting kit for DIN 1 rail (a)                          | FX              | 1SNA 167 682 R2300 | 10        |           |
| 5 Replacement kit for flush mounting (b)                   | KEM-1           | 1SNA 166 928 R2000 | 50        | 0.02      |
| 6 Comb-type jumper bar (b)                                 | PCVA            | 1SNA 167 496 R1100 | 10        |           |
| 7 Comb-type jumper bar IP20 (c)                            | PCVL            | 1SNA 167 681 R2200 | 10        |           |
| 8 Jumper bar for 2 sockets (c)                             | BJ-VL           | 1SNA 167 680 R0500 | 10        |           |
| <b>For plugs</b>                                           |                 |                    |           |           |
| 9 Pin 0.22-0.34 mm²                                        | BRE-T-0.34      | 1SNA 168 160 R1400 | 50        |           |
| Pin 0.75 mm²                                               | BRE-T-0.75      | 1SNA 167 779 R1300 | 50        |           |
| Pin 1 mm²                                                  | BRE-T-1         | 1SNA 164 921 R1700 | 50        |           |
| Pin 1.5 mm²                                                | BRE-T-1.5       | 1SNA 164 922 R1000 | 50        |           |
| Pin 2.5 mm²                                                | BRE-T-2.5       | 1SNA 164 923 R1100 | 50        |           |
| Pin 6 mm²                                                  | BRE-T-6         | 1SNA 168 147 R0300 | 50        |           |
| 10 Pin extraction tool                                     | EXBR1           | 1SNA 167 008 R0300 | 1         |           |
| 11 Crimping tool for BRE pins                              | 1 to 2.5mm² PSC | 1SNA 173 181 R1300 | 1         |           |
| <b>For test</b>                                            |                 |                    |           |           |
| Ø 4 mm test plugs                                          |                 |                    |           |           |
| 12 IP20 with mobile protection                             | Red ■ FC4-1     | 1SNA 167 927 R1000 | 10        | 0.01      |
| 13 IP20 with permanent protection                          | Black ■ FC4-5   | 1SNA 167 931 R1400 | 10        | 0.01      |
|                                                            | Red ■ FC4-4     | 1SNA 167 930 R2700 | 10        | 0.01      |
| 14 Bayonet security test plug                              | Black ■ FCB-1   | 1SNA 167 690 R0700 | 10        | 0.01      |
|                                                            | Red ■ FCB-2     | 1SNA 167 692 R2500 | 10        | 0.01      |
| 15 Isolating cap for FCB plug                              | CA              | 1SNA 167 697 R2200 | 10        |           |
| 16 Straight adaptor                                        | IR1             | 1SNA 167 622 R2600 | 5         |           |
| 17 H adaptor                                               | IR2             | 1SNA 167 623 R2700 | 5         |           |
| 18 Isolating cap for IR1 & IR2 adaptors                    | DI              | 1SNA 167 981 R1700 | 10        | 0.01      |
| 19 Adaptor between FCB plug and ring-tongue test interface | IR3             | 1SNA 167 624 R2000 | 10        |           |

(a) Compatible with base mounting only.

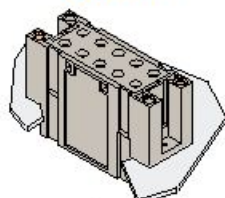
(b) Compatible with ring-tongue connection type socket only (VA).

(c) Compatible with screw connection type socket only (VL).

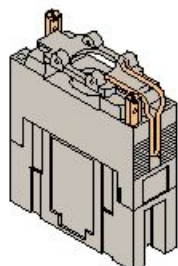




## Sockets

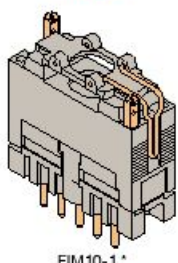


M10-D-C5A

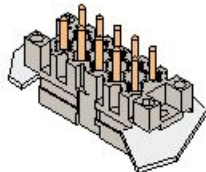


M10-I-C5A-1

## Plugs

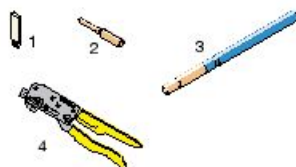


FIM10-1 \*



FIM10-I-1 \*

\* The BRT contacts pins are to be ordered separately



Application:  
High density panel board wiring.  
Alternative to large terminal strips.

Body: Polycarbonate  
Conductive parts: Silver-plated

## Technical data

|                                  | IEC                    |                                     |
|----------------------------------|------------------------|-------------------------------------|
|                                  | Socket                 | Plug                                |
|                                  | Quick-connect (C5A)    | Pin BRE                             |
| Connecting capacity              |                        |                                     |
| Rigid conductor                  |                        |                                     |
| Flexible conductor               | 2.5 mm <sup>2</sup>    |                                     |
| Wire stripping length            |                        | See Datasheet<br>1SNC 169 040 D1701 |
| wire 0.22 - 0.34 mm <sup>2</sup> |                        |                                     |
| wire 0.75 - 6 mm <sup>2</sup>    |                        |                                     |
| Quick-connect                    | 5 x 0.8 mm             |                                     |
| Rated voltage                    | 400 V                  |                                     |
| Impulse withstand voltage        | 4 kV                   |                                     |
| Pollution degree                 | 3                      |                                     |
| Rated current                    | 8 A                    |                                     |
| Short-circuit current            | 25 A/5 s - 800 A/25 ms |                                     |
| Storage temperature range        | -25 °C ~ +70 °C        |                                     |
| Working temperature range        | -10 °C ~ +55 °C        |                                     |
| Front panel protection           | IP 20                  |                                     |

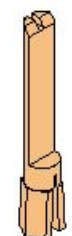
## Ordering details

| Description                 | Type      | Order code         | Packaging          | Weight kg |
|-----------------------------|-----------|--------------------|--------------------|-----------|
| <b>Sockets</b>              |           |                    |                    |           |
| Half-base mounting          | Q-connect | M10-D-C5A          | 1SNA 166 513 R1000 | 10 0.06   |
| Rack mounting               | Q-connect | M10-R-C5A          | 1SNA 166 566 R2500 | 10        |
| Reverse mounting            | Q-connect | M10-I-C5A-1        | 1SNA 166 774 R0500 | 10        |
| Reverse mounting            | Q-connect | M20-I-C5A          | 1SNA 166 777 R0000 | 1         |
| Extension mounting          | Q-connect | M10-P-C5A          | 1SNA 166 772 R0300 | 1         |
| Other sockets: consult us   |           |                    |                    |           |
| <b>Plugs</b>                |           |                    |                    |           |
| Plug for M10-D-C5A socket   | FIM10-1   | 1SNA 166 516 R1300 | 10                 | 0.06      |
| Plug for M10-R-C5A socket   | FIM10-R   | 1SNA 166 573 R2400 | 1                  |           |
| Plug for M10-I-C5A-1 socket | FIM10-I-1 | 1SNA 166 574 R2500 | 1                  |           |
| Plug for M20-I-C5A socket   | FIM20-I   | 1SNA 166 576 R2700 | 1                  |           |

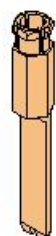
The various accessories necessary for each mounting option are supplied with the socket as well as the 2 coding pins COP-E-1 (see coding section).

## Accessories

| Rep. Description                | Type                        | Order code         | Packaging | Weight kg |
|---------------------------------|-----------------------------|--------------------|-----------|-----------|
| <b>For sockets</b>              |                             |                    |           |           |
| 1 Socket interlocking peg       | CVABM                       | 1SNA 183 436 R0500 | 10        |           |
| <b>For plugs</b>                |                             |                    |           |           |
| 2 Pin 0.22-0.34 mm <sup>2</sup> | BRE-T-0.34                  | 1SNA 168 160 R1400 | 50        |           |
| Pin 0.75 mm <sup>2</sup>        | BRE-T-0.75                  | 1SNA 167 779 R1300 | 50        |           |
| Pin 1 mm <sup>2</sup>           | BRE-T-1                     | 1SNA 164 921 R1700 | 50        |           |
| Pin 1.5 mm <sup>2</sup>         | BRE-T-1.5                   | 1SNA 164 922 R1000 | 50        |           |
| Pin 2.5 mm <sup>2</sup>         | BRE-T-2.5                   | 1SNA 164 923 R1100 | 50        |           |
| Pin 6 mm <sup>2</sup>           | BRE-T-6                     | 1SNA 168 147 R0300 | 50        |           |
| 3 Pin extraction tool           | EXBR1                       | 1SNA 167 008 R0300 | 1         |           |
| 4 Crimping tool for BRE pins    | 1 to 2.5mm <sup>2</sup> PSC | 1SNA 173 181 R1300 | 1         |           |



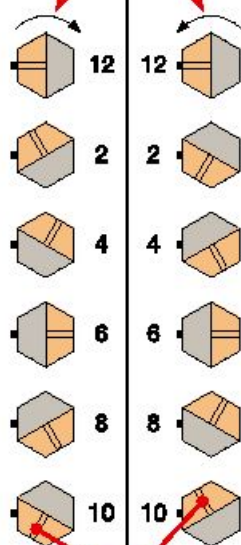
COP-E-1



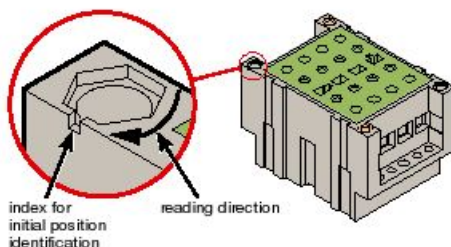
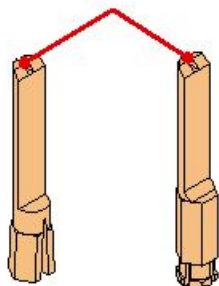
COP-FI-1

**Socket****Plug**

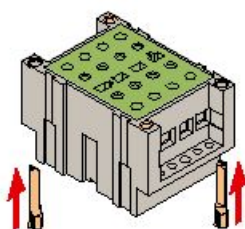
Reading direction



Coding pins index

**On socket:**

- 1 Choose a coding code (12-12 for instance).



- 2 Insert completely the coding pin COP-E-1 in its housing.

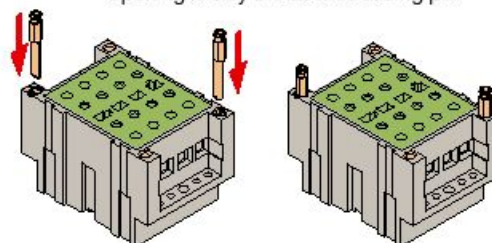


Position 12

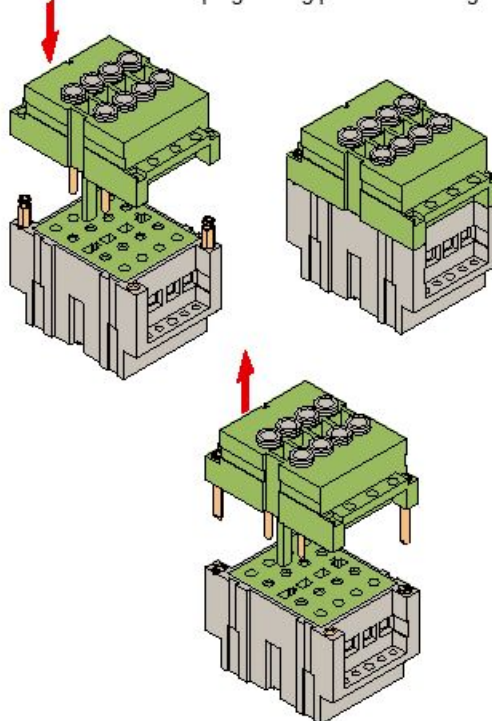
**On plug:**

In order to guarantee a perfect compatibility between the socket coding and the plug coding, the following must be done:

- 1 Place the COP-FI-1 coding pin in the opening left by the socket coding pin.

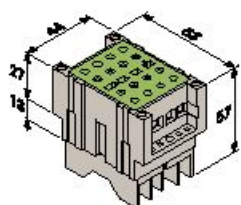
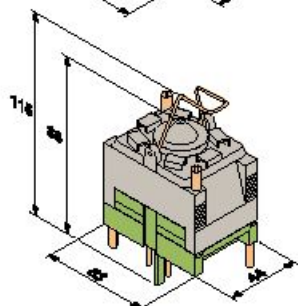
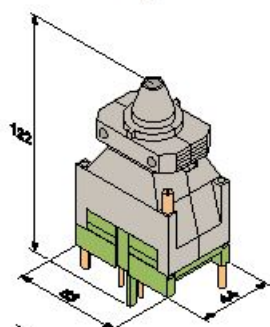
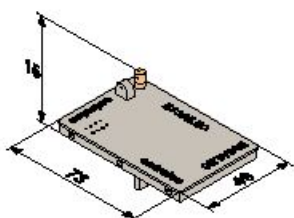
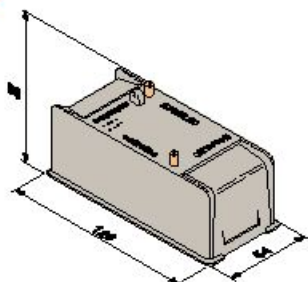
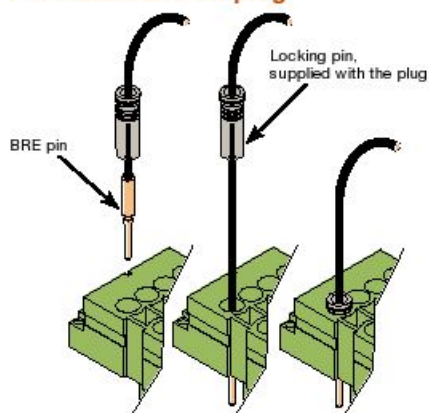
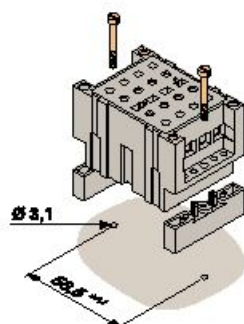


- 2 Connect the plug on the socket in order to insert the plug coding pin in its housing.



| Description                     | Type     | Order code         | Packaging | Weight kg |
|---------------------------------|----------|--------------------|-----------|-----------|
| Socket coding pin               | COP-E-1  | 1SNA 167 379 R1200 | 10        |           |
| Plug coding pin                 | COP-FI-1 | 1SNA 167 378 R1100 | 10        |           |
| Supplied with sockets and plugs |          |                    |           |           |

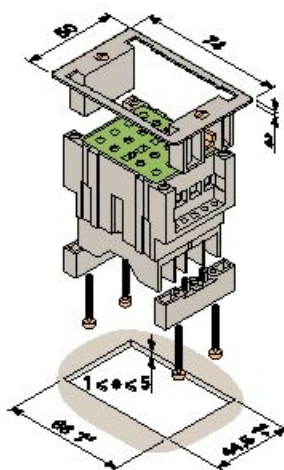


**Socket****Plugs****Lid****Cover****Pin installation on plug****Base mounting**

0.5 Nm < Tightening torque < 0.8 Nm

**Flush mounting**

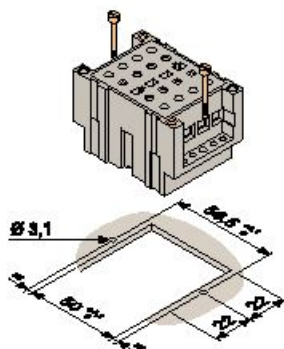
The flush mounting kit must be mounted on the socket prior to the installation on the panel.



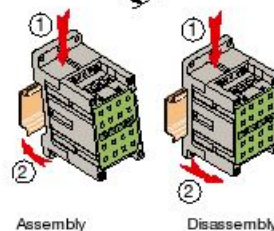
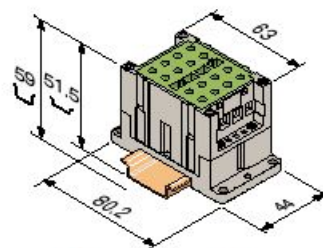
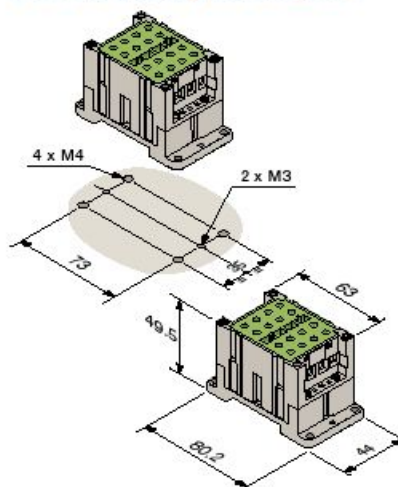
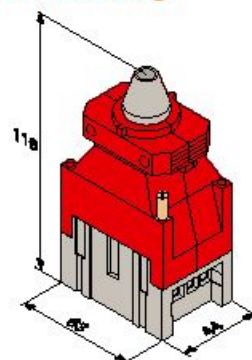
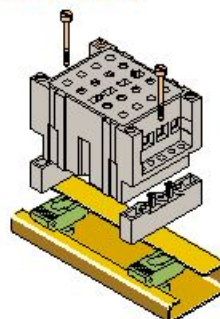
Tightening torque = 0.5 Nm maxi.

**Half-base mounting  
Rack mounting**

The rack mounting is supplied with 2 additional guiding pins.



0.5 Nm < Tightening torque < 0.8 Nm

**TH35 rail mounting****Base mounting with KEM-3****Reverse mounting****G32 rail mounting**





# Contact us

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