

## IEC Appliance Inlet C14 or C18 with Filter, Circuit Breaker TA45



Protection class I with shield



Protection class II without shield



### Approvals and Compliances

#### Description

- Panel Mount :  
Screw-on mounting from front side
- 3 Functions :  
Appliance Inlet protection class I or II , circuit breaker type TA45 2-pole , Line filter in standard and medical version
- Quick connect terminals 6.3 x 0.8 mm

#### Unique Selling Proposition

- Compact power entry module with circuit breaker
- High configurability
- Easy assembly with prewired modules
- Protection class I or II

#### Characteristics

- All single elements are already wired
- Unwired versions available on request
- Circuit Breaker non-illuminated or illuminated
- Suitable for use in equipment according to IEC/UL 60950
- Suitable for use in medical equipment according to IEC/UL 60601-1

#### References

Alternative: version without line filter [6145](#)  
We recommend for new applications the new type [DF12](#)

#### Weblinks

[pdf datasheet](#), [html-datasheet](#), [General Product Information](#), [Distributor-Stock-Check](#), [Accessories](#), [Detailed request for product](#), [Microsite](#)

#### Technical Data

|                                 |                                                                             |
|---------------------------------|-----------------------------------------------------------------------------|
| Ratings IEC                     | 1 - 10A @ Ta 40 °C / 250VAC; 50Hz                                           |
| Ratings UL/CSA                  | 1 - 15A @ Ta 40 °C / 125VAC; 60Hz                                           |
| Leakage Current                 | standard < 0.5 mA (250V / 60Hz)<br>medical < 5 µA (250 V / 60 Hz)           |
| Dielectric Strength             | > 1.7 kVDC between L-N<br>> 2.7 kVDC between L/N-PE<br>Test voltage (2 sec) |
| Allowable Operation Temperature | -10 °C to 55 °C                                                             |
| Climatic Category               | 10/055/21 acc. to IEC 60068-1                                               |
| IP-Protection                   | from front side IP 40 acc. to IEC 60529                                     |
| Protection Class                | Suitable for appliances with protection class I or II acc. to IEC 61140     |
| Terminal                        | Quick connect terminals 6.3 x 0.8 mm                                        |
| Panel Thickness S               | Screw: max 8 mm<br>Mounting screw torque max 0.5 Nm                         |
| Material: Housing               | Thermoplastic, black, UL 94V-0                                              |

|                         |                                                                                                                                                                                                                                                    |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| appliance inlet/-outlet | C14 or C18 acc. to IEC 60320-1, UL 498, CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 °C, 10A, Protection Class I or II                                                                                                                |
| Circuit Breakers        | Acc. IEC/EN 60934, UL 1077, CSA 22.2 no. 235<br>2-pole rocker switch, illuminated or non-illuminated. Optional with undervoltage- or remote trip release<br>Short circuit capacity Icn:<br>at In < 3A/240VAC : 10 x In<br>at In ≥ 3A/240VAC : 300A |
| Line Filter             | Standard and Medical Version, IEC 60939, UL 1283, CSA C22.2 no. 8<br><a href="#">Technical Details</a>                                                                                                                                             |
| MTBF                    | > 100'000h acc. to MIL-HB-217 F                                                                                                                                                                                                                    |

### Approvals and Compliances

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [Details about Approvals](#)

#### Approvals

The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products.

Approval Reference Type: 5145

| Approval Logo | Certificates                  | Certification Body | Description                  |
|---------------|-------------------------------|--------------------|------------------------------|
|               | <a href="#">VDE Approvals</a> | VDE                | Certificate Number: 40035745 |
|               | <a href="#">UL Approvals</a>  | UL                 | UL File Number: E72928       |

## Product standards

Product standards that are referenced

| Organization                                                                     | Design                | Standard         | Description                                                           |
|----------------------------------------------------------------------------------|-----------------------|------------------|-----------------------------------------------------------------------|
|  | Designed according to | IEC 60320-1      | Appliance couplers for household and similar general purposes         |
|  | Designed according to | IEC 60939        | Passive filters for suppressing electromagnetic interference          |
|  | Designed according to | IEC 61058-1      | Switches for appliances. Part 1. General requirements                 |
|  | Designed according to | UL 498           | Standard for Attachment Plugs and Receptacles                         |
|  | Designed according to | UL 1283          | Electromagnetic interference filters                                  |
|  | Designed according to | CSA C22.2 no. 42 | General Use Receptacles, Attachment Plugs, and Similar Wiring Devices |
|  | Designed according to | CSA C22.2 no. 8  | Electromagnetic interference (EMI) filters                            |

## Application standards

Application standards where the product can be used

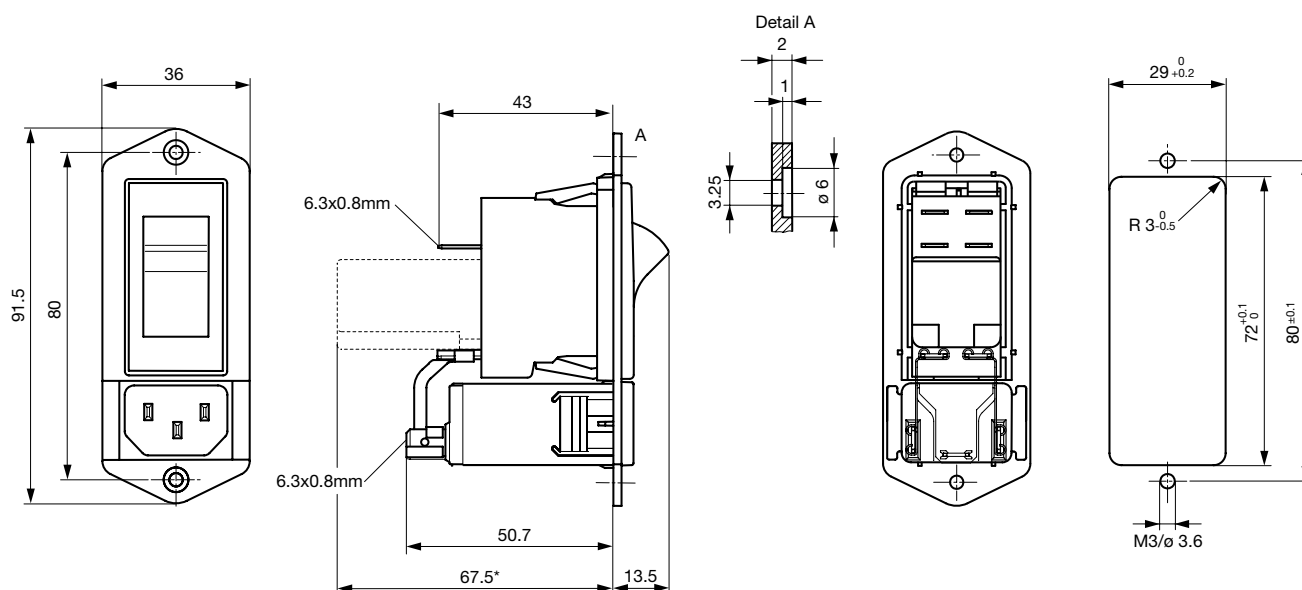
| Organization                                                                     | Design                         | Standard     | Description                                                                                            |
|----------------------------------------------------------------------------------|--------------------------------|--------------|--------------------------------------------------------------------------------------------------------|
|  | Designed for applications acc. | IEC/UL 60950 | IEC 60950-1 includes the basic requirements for the safety of information technology equipment.        |
|  | Designed for applications acc. | IEC 60601-1  | Medical electrical equipment - Part 1: General requirements for basic safety and essential performance |

## Compliances

The product complies with following Guide Lines

| Identification                                                                     | Details                                      | Initiator   | Description                                                                                                                                                                                           |
|------------------------------------------------------------------------------------|----------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <a href="#">CE declaration of conformity</a> | SCHURTER AG | The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008. |
|  | <a href="#">RoHS</a>                         | SCHURTER AG | EU Directive RoHS 2011/65/EU                                                                                                                                                                          |
|  | <a href="#">China RoHS</a>                   | SCHURTER AG | The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.                                                                                  |
|  | <a href="#">REACH</a>                        | SCHURTER AG | On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.                               |
|  | <a href="#">Medical Equipment</a>            | SCHURTER AG | Suitable for use in medical equipment according to IEC/UL 60601-1                                                                                                                                     |

# Dimension [mm]



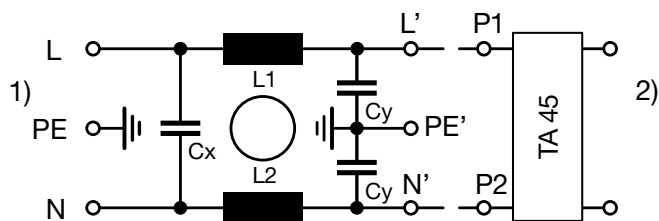
\* --- Version TA45 with undervoltage release

## Technical Data of Filter-Components

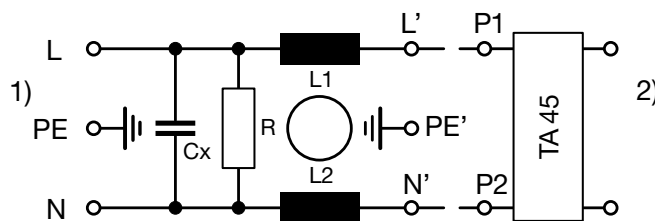
| Rated Current<br>[A] | Filter-Type          | Inductances<br>L [mH] | Capacitance<br>CX [nF] | Capacitance<br>CY [nF] | R [MΩ] |
|----------------------|----------------------|-----------------------|------------------------|------------------------|--------|
| 1                    | Standard Version     | 2 x 11                | 47                     | 2.2                    | -      |
| 2                    | Standard Version     | 2 x 4                 | 47                     | 2.2                    | -      |
| 3                    | Standard Version     | 2 x 2.5               | 47                     | 2.2                    | -      |
| 4                    | Standard Version     | 2 x 1.6               | 47                     | 2.2                    | -      |
| 6                    | Standard Version     | 2 x 0.7               | 47                     | 2.2                    | -      |
| 8                    | Standard Version     | 2 x 0.6               | 47                     | 2.2                    | -      |
| 10                   | Standard Version     | 2 x 0.4               | 47                     | 2.2                    | -      |
| 15                   | Standard Version     | 2 x 0.1               | 47                     | 2.2                    | -      |
| 1                    | Medical Version (M5) | 2 x 11                | 47                     | -                      | 1      |
| 2                    | Medical Version (M5) | 2 x 4                 | 47                     | -                      | 1      |
| 6                    | Medical Version (M5) | 2 x 0.7               | 47                     | -                      | 1      |
| 8                    | Medical Version (M5) | 2 x 0.6               | 47                     | -                      | 1      |
| 10                   | Medical Version (M5) | 2 x 0.4               | 47                     | -                      | 1      |
| 15                   | Medical Version (M5) | 2 x 0.1               | 47                     | -                      | 1      |

## Diagrams

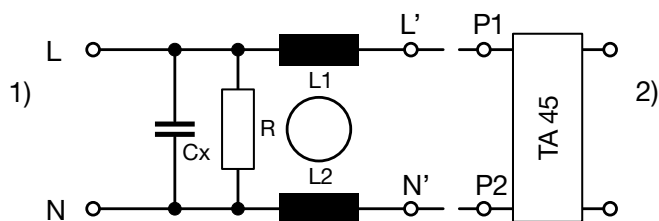
Standard version



Medical version (M5)



Medical filter (M5) protection class II

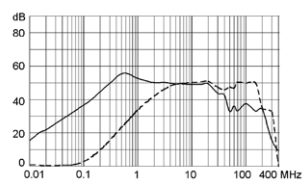


## Attenuation Loss

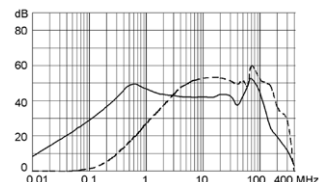
- - - 50Ω differential mode \_\_\_\_ 50Ω common mode

Standard version

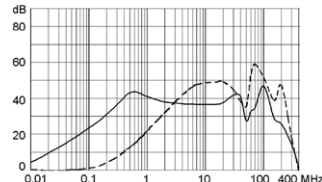
1 A



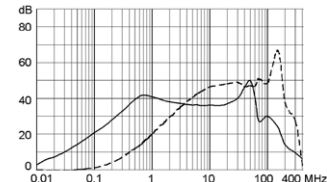
2 A



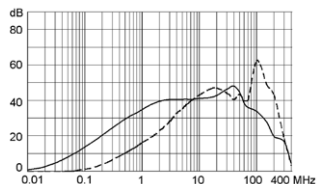
3 A



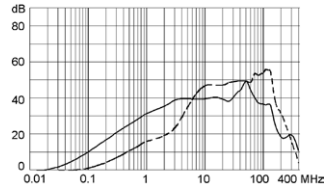
4 A



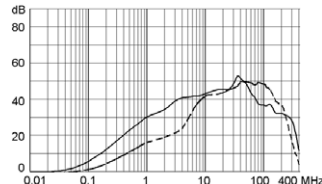
6 A



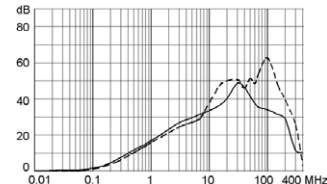
8 A



10 A

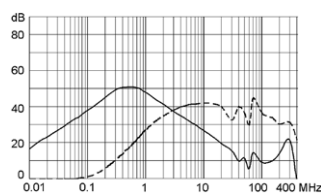


15 A

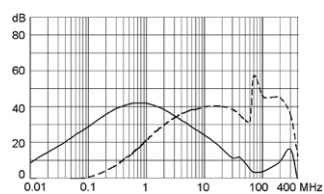


Medical version (M5)

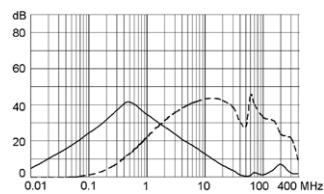
1 A



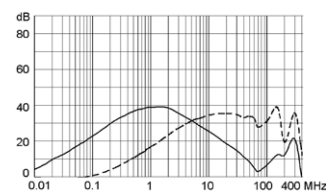
2 A



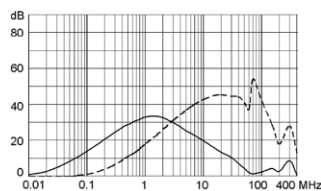
3 A



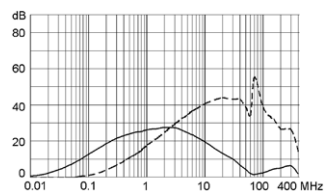
4 A



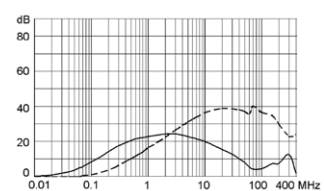
6 A



8 A



10 A



15 A

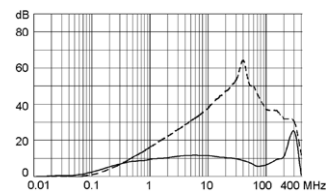
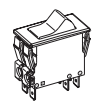


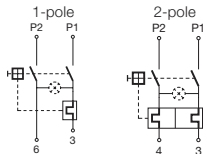
Table 1 Selection for type TA45  
Order example



- Circuit Breaker of Equipment
  - 2-pole, rocker actuated
  - Quick connect terminal
- Other types on request

Diagram

Thermal overload protection



Without illumination

ABT

ABD

With illumination

220...240 V

A12

A32

110...120 V

A14

A34

Colours

Switch front

W black  
B black  
6 black

Rocker

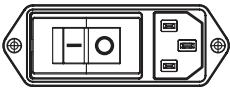
white  
black  
— orange transp.

Rocker legend

| Surface              | Illustration | Colour of print |
|----------------------|--------------|-----------------|
| F embossed / Relief  | — O          |                 |
| H printed / bedruckt | ON OFF       | white / weiss   |
| K printed / bedruckt | ON OFF       | black / schwarz |
| L printed / bedruckt | — O          | white / weiss   |

| Surface   | Illustration | Colour of print |
|-----------|--------------|-----------------|
| M printed | — O          | black           |
| P printed | I O          | white           |
| R printed | I O          | black           |

Position of the rocker legend  
e.g F



Rated current circuit breaker of equipment

| I <sub>n</sub> | Code | I <sub>n</sub> | Code | I <sub>n</sub> | Code | I <sub>n</sub> | Code |
|----------------|------|----------------|------|----------------|------|----------------|------|
| 0,1            | J01  | 1,3            | J13  | 2,8            | J28  | 10,0           | 100  |
| 0,2            | J02  | 1,4            | J14  | 3,0            | 030  | 11,0           | 110  |
| 0,3            | J03  | 1,5            | J15  | 3,5            | 035  | 12,0           | 120  |
| 0,4            | J04  | 1,6            | J16  | 4,0            | 040  | 13,0           | 130  |
| 0,5            | J05  | 1,7            | J17  | 4,5            | 045  | 14,0           | 140  |
| 0,6            | J06  | 1,8            | J18  | 5,0            | 050  | 15,0           | 150  |
| 0,7            | J07  | 1,9            | J19  | 6,0            | 060  | 20,0           | 200  |
| 0,8            | J08  | 2,0            | J20  | 6,5            | 065  |                |      |
| 0,9            | J09  | 2,1            | J21  | 7,0            | 070  |                |      |
| 1,0            | J10  | 2,2            | J22  | 7,5            | 075  |                |      |
| 1,1            | J11  | 2,3            | J23  | 8,0            | 080  |                |      |
| 1,2            | J12  | 2,5            | J25  | 9,0            | 090  |                |      |

Without release: code C0

Undervoltage release

|   |   |   |
|---|---|---|
|   |   |   |
| • | • | • |
| • | • | • |
| • | • | • |

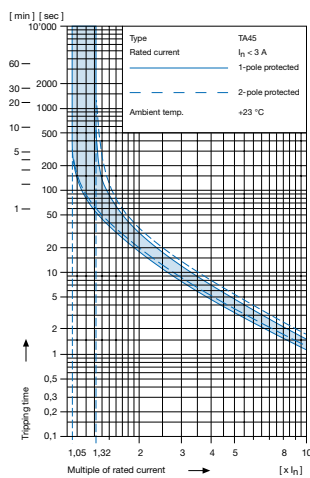
Remote trip release

|   |      |                              |
|---|------|------------------------------|
|   | Code | Rated voltage U <sub>n</sub> |
| • | 2    | 240 V AC                     |
| • | 3    | 230 V AC                     |
| • | 4    | 120 V AC                     |

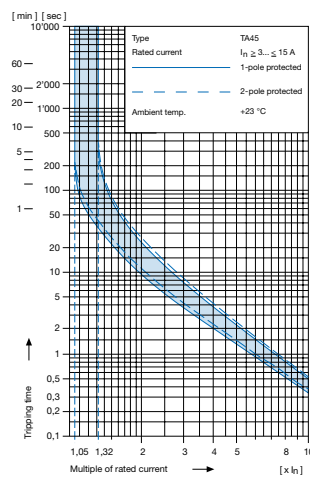
**Technical data (continued)**

### Circuit breaker

### Tripping characteristics

 $I_D < 3 \text{ A}$ 

### Tripping characteristics

$$I_n \geq 3 \dots \leq 15 \text{ A}$$


### Effect of ambient temperature <sup>1)</sup>

The unit is calibrated for an ambient temperature of +23 °C. To determine the rated current for a lower or higher ambient temperature, use a correction factor from the table below.

\* Ambient temperature [°C] Correction factor

|     |      |
|-----|------|
| -10 | 0,89 |
| - 5 | 0,91 |
| 0   | 0,92 |
| +23 | 1,00 |
| +30 | 1,03 |
| +40 | 1,08 |
| +55 | 1,16 |

\* Temperature must be measured at the rear of the breaker next to the terminals after equipment operating temperature has been reached.

### 1) Example

Rated current at +23 °C

6.0 A

Ambient temperature

+40 °C

Correction factor

1,08

Chosen rated current at

+ 40 °C ambient temperature

$$6 \text{ A} \times 1,08 = 6,5 \text{ A}$$

### Configuration code (example)

|             |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type</b> | <b>Order code TA45</b><br>(2-pole rocker-switch<br>without accessories)           | <b>Optional Variants</b><br><b>00</b> standard<br><b>21</b> V-Lock notch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|             | <b>5145</b> - <b>ABTWF150C0</b> - <b>000</b> - <b>111</b> - <b>10</b> - <b>00</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|             | <div> <div>see table 1</div> </div>                                               | <b>Terminal PE</b><br><b>0</b> without (PCI)<br><b>1</b> QC 6.3x0.8<br><br><b>Terminal L and N</b><br><b>1</b> QC 6.3x0.8, without connection to TA45<br><b>3</b> Connection to TA45 non insulated<br><br><b>Metal Shield Filter</b><br><b>0</b> with metal shield (PCI)<br><b>1</b> without metal shield (PCI and PCII)<br><br><b>Type of mains filter / capacitor / bleed resistor</b><br><b>1</b> standard                      X2,Y2                      without<br><b>3</b> medical M5                      X2                      with<br><br><b>Rated current</b> 2)<br><b>1</b> 1A<br><b>2</b> 2A<br><b>3</b> 3A<br><b>4</b> 4A<br><b>5</b> 6A<br><b>6</b> 8A<br><b>7</b> 10A<br><b>8</b> 15A |

1) Not in conjunction with PC II

1) Not in conjunction with PC II

2) The rated current of the line-filter must be equal or more than the rated current of TA45.

Packaging unit 20 Pcs

Accessories

Description



Assorted Covers  
Rear Cover

0859.0074

Mating Outlets/Connectors

Category / Description

Appliance Outlet Overview complete



|                                                                                                   |      |
|---------------------------------------------------------------------------------------------------|------|
| IEC Appliance Outlet F, Screw-on Mounting, Front Side, Solder Terminal                            | 4787 |
| IEC Appliance Outlet F, Snap-in Mounting, Front Side, Solder or Quick-connect Terminal            | 4788 |
| IEC Appliance Outlet F or H, Screw-on Mounting, Front Side, Solder, PCB or Quick-connect Terminal | 5091 |

Appliance Outlet further types to 5145

Connector Overview complete



|                                                                                 |         |
|---------------------------------------------------------------------------------|---------|
| 4782 Mounting: Power Cord, 3 x 1 mm² / 3 x 18 AWG, Cable, Connector: IEC C13    | 4782    |
| 4022 Mounting: Power Supply Cord, 3 x 1.5 mm², Screw clamps, Connector: IEC C13 | 4022    |
| 4785 Mounting: Power Cord, 3 x 1 mm² / 3 x 18 AWG, Cable, Connector: IEC C13    | 4785    |
| 4300-06 Mounting: Power Cord, 3 x 1 mm² / 3 x 18 AWG, Cable, Connector: IEC C13 | 4300-06 |
| 4012 Mounting: Power Supply Cord, 3 x 1.5 mm², Screw clamps, Connector: IEC C13 | 4012    |

Connector further types to 5145

...

Mating Outlets/Connectors shuttered



Power Cord Overview complete

|                                                     |         |
|-----------------------------------------------------|---------|
| Power cord with IEC connector C17, V-Lock, straight | VAC17KS |
|-----------------------------------------------------|---------|

Power Cord further types to 5145