

**INSTALLATION INSTRUCTIONS**  
**& CONDITIONS FOR SAFE USE**



II 2 GD

Ex eb IIC Gb

**Modular TERMINAL Blocks: W- Series**

**CNEX 18 ATEX 0016U**

**IECEx CNEX 18.0010U**

**Notified Body No. of Ex - QA: 0344**

**Label print on package unit: 0344**

**ExVeritas 21UKEX0918U**

**Approved Body No. of UK Ex - QA: xxxx**  
**(see product marking)**

**Standards:**

EN IEC 60079-0:2018 and EN IEC 60079-7:2015 A1:2018  
IEC 60079-0:2017 7th Edition and IEC 60079-7:2017 5.1th Edition

**Modular Terminal Blocks: WPD 231**

|   |  |                                      |
|---|--|--------------------------------------|
| Version:                                | WPD 231                                    | Order No<br>2502750000               |
| Accessories:                            | Type<br>WPDPC X31 GY<br>DEK 5/5 MC NE W    | Order No<br>2503370000<br>1609801044 |
| Description:                            | Power Feed In Terminal Block               |                                      |
| <b>Insulation material base:</b>        |  |                                      |
| - Type                                  | PA6  |                                      |
| - Operating temperature range           | -60°C...+100°C (insulating material limit) |                                      |
| - Ambient temperature range             | -60°C...+40°C (for T6 applications)        |                                      |
| - Ambient temperature range             | -60°C...+55°C (for T5 applications)        |                                      |
| - Ambient temperature range             | -60°C...+60°C (for T4 applications)        |                                      |
| <i>Screw Drive for Wire Connection:</i> |  |                                      |
| Slotted head                            |  |                                      |
| Phillips-head                           |  |                                      |
| Phillips-Combo                          |  |                                      |
| Allen-Screw                             |  |                                      |
| Torx                                    |  |                                      |
| Torx-Minus                              |  |                                      |

\* in all colours and optional with hexagon and six lobe drive

**Technical data according to IEC/EN 60079-7 (increased safety "e", protection level "eb"):**

|   |                         |
|---|-------------------------|
|   | <b>WPD 231</b>          |
| - Rated voltage   | 880 V                   |
| - Rated current   | 232 A / $\Delta T$ 40 K |
| - Temperature rise with rated current                         | $\leq 40$ K / 232 A     |
| - Contact resistance with rated conductor, 50 mm <sup>2</sup> | 0,02m $\Omega$          |
| - Conductor cross section (input = output)                    |                         |

|   | solid                 | stranded                 | Finely stranded with wire end ferrule | Tightening Torque |
|---|-----------------------|--------------------------|---------------------------------------|-------------------|
| Rated conductor cross section:                | 16-95 mm <sup>2</sup> | 16-95 mm <sup>2</sup>    | 10-70 mm <sup>2</sup>                 | 19 Nm             |
| conductor cross section, American Wire Gauge: | 6 - 3/0 AWG           | 6 - 3/0 AWG              | 8 - 2/0 AWG                           | 22,6 Nm           |
| conductor cross section:                      | 50-95 mm <sup>2</sup> | 50-95 mm <sup>2</sup>    | 35-70 mm <sup>2</sup>                 | 19 Nm             |
| conductor cross section:                      | 16-35 mm <sup>2</sup> | 16-35 mm <sup>2</sup>    | 10-25 mm <sup>2</sup>                 | 14 Nm             |
| Auxiliary connection                          |                       |                          |                                       |                   |
| rated conductor cross section:                |                       | 1,5 - 10 mm <sup>2</sup> | 1,5 - 6 mm <sup>2</sup>               | 1,2 Nm            |
| conductor cross section, American Wire Gauge: |                       | 16 - 8 AWG               | 16 - 10 AWG                           | 1,2 Nm            |

**Electrical Data:**

## Max. rated voltage [V]:

| Model:  | WPD 231 |
|---|---------|
| Screw (direct) mounting with screw acc. to DIN 4762 | 880     |
| TS 35 mounting                                      | 880     |
| For busbar (Flexibar) with screw mounting           | NA      |
| For busbar (Flexibar) with TS35 mounting            | NA      |

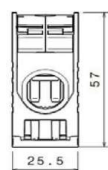
## Rated incoming currents

| Model:       | WPD 231 |
|--------------|---------|
| current [A]: | 232     |

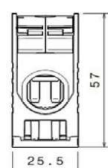
## Rated conductor cross sections

## Model

## WPD 231



| Wire type             | Incoming connection<br>Size [mm <sup>2</sup> ] |                        |       |
|-----------------------|--|------------------------|-------|
|                       | Left   | Center                 | Right |
| Solid                 | -  | 16...95mm <sup>2</sup> | -     |
| Stranded              | -  | 16...95mm <sup>2</sup> | -     |
| Flexible with ferrule | -  | 10...70mm <sup>2</sup> | -     |



| Wire type             | Outgoing connections<br>Size [mm <sup>2</sup> ] |                        |                         |
|-----------------------|---|------------------------|-------------------------|
|                       | Left  | Center                 | Right                   |
| Solid                 | -   | 16...95mm <sup>2</sup> | 1.5...10mm <sup>2</sup> |
| Stranded              | -   | 16...95mm <sup>2</sup> | 1.5...10mm <sup>2</sup> |
| Flexible with ferrule | -   | 10...70mm <sup>2</sup> | 1.5...6mm <sup>2</sup>  |

**Note:**

The creepage and clearance distances were determined in the worst case. (with tightened screw)  
If smaller cross sections than the rated cross section are used, the belonging lower current has to be laid down in the IECEx/EC-Type Examination Certificate of the complete apparatus.

**Mounting instructions:**

The WPD series is suitable for application in enclosures in atmospheres with flammable gases or combustible dust. For use in flammable gases these enclosures must satisfy the requirements according to IEC/EN60079-0 and IEC/EN60079-7. For use in combustible dust these enclosures must satisfy the requirements according to IEC/EN60079-0 and IEC/EN60079-31.

In combination with other terminal block series and sizes and if other accessories are used, the applicable creepage and clearance distances shall be met.

To connect 2 wires in 1 connection point, please use twin end ferrules with DIN or Weidmüller colour code in combination with the correct Weidmüller Crimping Tool.

Regarding the use of accessories the instructions of the manufacturer must be followed.

**Schedule of Limitations:**

The modular terminal blocks (busbar) models WPD X3X shall always be installed inside suitable certified enclosures. For use in flammable gases these enclosures must satisfy the requirements conform IEC/EN 60079-0 and IEC/EN 60079-7. For use in combustible dust these enclosures must satisfy the requirements conform IEC/EN 60079-0 and IEC/EN 60079-31.

When installed, all connections, even if unused, shall be tightened with the torques specified in the manufacturer's instructions.

For each modular terminal block (busbar), there shall always be only one cable installed in the incoming connection side of the terminal block (busbar).

Multiple wires installed into one connection are not allowed.

When combined with other terminal block (busbar) series and accessories, the applicable creepage and clearance distances shall be observed.

The insulation material has a limiting temperature of +100 °C.

The temperature rise in the terminals does not exceed 40 K at 110 % of the rated current.

The enclosure shall be constructed to block all sun and UV light from affecting the terminal blocks. The terminal blocks shall be placed inside a suitable certified IP54 enclosure in type of protection "e" for gas atmosphere. For dust atmosphere the terminal blocks shall be mounted inside a suitable certified enclosure (IEC/EN60079-31) in type of protection "t".

Under normal operating conditions the temperature rise of the terminal blocks is maximum 40 K, measured at the maximum permitted rated current. Due to the above mentioned, the terminal blocks may be used in apparatus of temperature classes T6..T1 as long as the terminal block ambient temperature range is not exceeded. No part of terminal block must exceed 100 °C under any condition.

T6 (- 60°C ... +40 °C)

T5 (- 60°C ... +55 °C)

T4 (- 60°C ... +60 °C)

When using the type WPD especially with other terminal blocks series or sizes or accessories the requirements for clearance and creepage distances according to IEC/EN 60079-7 must be observed. Regarding the use of covers, cross-connectors and end brackets the instructions of the manufacturer must be followed.

No other wire sizes or types than the ones specified in instructions must be used. The terminal blocks must either be mounted next to another block of the same type and size or with an end plate.

If smaller conductor cross sections than the rated conductor cross sections are used, then the corresponding lower current shall be stated in the Certificate of the complete apparatus.

**Essential Health and Safety Requirements:**

Concerning ESRs this Schedule verifies compliance with the Annex II of ATEX directive and Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016 only. By placing the product on the market, the manufacturer declares compliance with other relevant Directives, and all other safety related requirements including those of Annex II of this Directive.