

INSTALLATION INSTRUCTIONS
& CONDITIONS FOR SAFE USE



Ex eb IIC Gb

Modular TERMINAL Blocks: W- Series

TÜV 22 ATEX 8827 U

IECEx TUR 22.0020U

Notified Body No. of Ex - QA: 0344

TÜV 22 UKEX 7090 U

Approved Body No. of UK Ex - QA: 8505

Standards:

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

Modular Terminal Blocks: W2C 4...

| Version: | | Order No |
|----------|---------------|------------|
| | W2C 4 FT* | 2892650000 |
| | W2C 4 FT STB* | 2892680000 |

| in conjunction with: | | Order No |
|----------------------|------------------|------------|
| | W2C 4 FT-PE* | 2892690000 |
| | W2C 4 FT-PE STB* | 2892700000 |

| Accessories: | Type | Order No |
|---------------|-------------------------------|------------|
| End Plate | WEP 2C 4* | 2894210000 |
| End bracket | WEW 35/2* | 1061200000 |
| Terminal rail | TS 35/... acc.to DIN EN 60715 | |

| Cross-connection | Plugable | |
|------------------|-----------|------------|
| | ZQV 4N/2* | ZQV 4N/7* |
| | ZQV 4N/3* | ZQV 4N/8* |
| | ZQV 4N/4* | ZQV 4N/9* |
| | ZQV 4N/5* | ZQV 4N/10* |
| | ZQV 4N/6* | |

Insulation material:

| | |
|--|--|
| - Type | Wemid |
| - Tracking resistance (A) to IEC 60112 | CTI \geq 600 |
| - Flammability class to UL 94 | V0 |
| - Operating temperature range | -60°C...+110°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...+70°C (for T4 applications) |

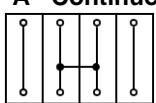
* in all colours

Technical data according to IEC/EN 60079-7 (increased safety "eb"):

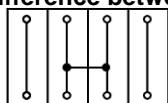
| | W2C 4 FT | W2C 4 FT-PE |
|---|---------------------------|---------------------------|
| | W2C 4 FT STB | W2C 4 FT-PE STB |
| - Rated voltage | 550 V | |
| - Rated current | 29 A / ΔT 40 K | |
| - Rated current with ZQV.. | 28,5 A / ΔT 40 K | |
| - Contact resistance with rated conductor, 4,0mm ² | 0,4 mΩ | 0,4 mΩ |
| - Rated conductor cross section | 4mm ² | 4mm ² |
| - Conductor cross section solid | 0,5 - 4,0 mm ² | 0,5 - 4,0 mm ² |
| - Conductor cross section flexible | 0,5 - 4,0 mm ² | 0,5 - 4,0 mm ² |
| - Conductor cross section flexible with ferrule | 0,5 - 4,0 mm ² | 0,5 - 4,0 mm ² |
| - cross section, American Wire Gauge | 24 - 12 AWG | 24 - 12 AWG |
| - Tightening torque range, terminal screw | 0,5 - 0,8 Nm | 0,5 - 0,8 Nm |
| - Tightening torque range, STB | 0,5 - 0,7 Nm | 0,5 - 0,7 Nm |
| - Stripping length | 8 mm | 8 mm |

IECEx / ATEX / UKCA Terminal and Cross-Connection Arrangements:

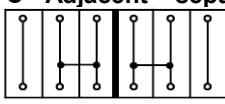
Max voltage data according to IEC/EN 60079-7 in conjunction with protective earth terminal blocks of the A-Series, (increased safety "eb"):

Application Case**A - Continuous no difference between one or two cross connections**

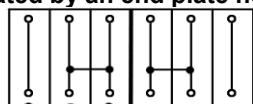
550 V



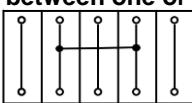
550 V

C - Adjacent – separated by an end plate no difference between one or two cross-connections

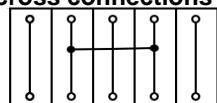
550 V



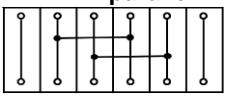
550 V

D - Intermediate - bridging one or more unconnected terminals (e.g. every 3rd terminal) no difference between one or two cross connections

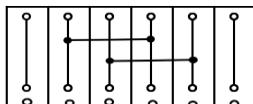
550 V



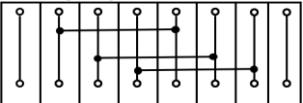
550 V

H - Twin parallel

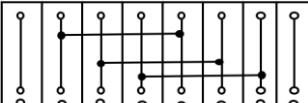
550 V



550 V

I - Triple parallel

550 V



550 V

Information for further cross-connector arrangements will be provided on request.

Note:

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 W2C 4 FT/W2C 4 FT-PE - 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.

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

Schedule of Limitations:

The terminal blocks shall be placed inside a suitable IECEx/ATEX/UKCA certified IP54 enclosure for gas atmosphere. For dust atmosphere the terminal blocks shall be mounted inside a suitable IECEx/ATEX/UKCA certified certified 't' enclosure (IEC/EN60079-31).

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 110 °C under any condition.

T6 (- 60°C ... +40 °C)
 T5 (- 60°C ... +55 °C)
 T4 (- 60°C ... +70 °C)

When using the type W2C 4 FT/W2C 4 FT-PE especially with other terminal blocks series or sizes or accessories the requirements for clearance and creepage distances according to IEC/EN60079-7 must be observed. Regarding the use of covers, cross-connectors and end brackets the instructions of the manufacturer must be followed.

For cross connection accessories, current rating, resistance across the terminal and torque values please refer to the table under "technical data" above.

The terminal can be used with either one or two wires into either side of the terminal. When two wires are used they must be of the same type, and of equal sizes. 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.

When assembling with other approved terminal blocks series, sizes and accessories the required creepage distances and clearances must be considered.

Unused terminals shall be tightened.



- Cross connections with blank ends shall not be used.
- Manually cut cross connections shall not be used.

Essential Health and Safety Requirements:

Concerning ESRs this Schedule verifies compliance with the Annex II of ATEX / Schedule 1 of UKCA 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 / Schedule 1 of these Directives.