

INSTALLATION INSTRUCTIONS
& CONDITIONS FOR SAFE USE



II 2 GD

Ex eb IIC Gb

Modular TERMINAL Blocks: A- Series

TÜV 17 ATEX 8030 U

IECEX TUR 17.0015 U

Notified Body No. of Ex - QA: 0344

Label print on package unit: 0344

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: AAP 14...

| | | Order No |
|----------|-----------------|------------|
| Version: | AAP14 10 LO LO* | 1988250000 |
| | AAP14 10 FE-LO* | 1988240000 |
| | AAP14 2.5 LI-LI | 1988230000 |

| Accessories: | Type | Order No |
|--------------|--------------|------------|
| end plate | AEP AP14* | 1988340000 |
| end bracket | AEB 35 SC/1* | 1991920000 |

| | |
|---------------|-------------------------------|
| Terminal rail | TS 35/... acc.to DIN EN 60715 |
|---------------|-------------------------------|

| Cross-connection | Plugable | Order No |
|------------------|--------------|------------|
| | ZQV 2,5N/2* | 2108470000 |
| | ZQV 2,5N/3* | 2108690000 |
| | ZQV 2,5N/4* | 2108700000 |
| | ZQV 2,5N/5* | 2108710000 |
| | ZQV 2,5N/6* | 2108720000 |
| | ZQV 2,5N/7* | 2108810000 |
| | ZQV 2,5N/8* | 2108870000 |
| | ZQV 2,5N/9* | 2108900000 |
| | ZQV 2,5N/10* | 2108910000 |

Insulation material:

| | |
|--|--|
| - Type | Wemid |
| - Tracking resistance (A) to IEC 60112 | CTI ≥ 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

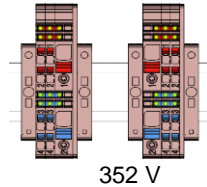
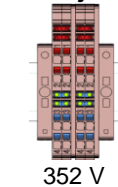
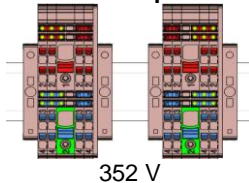
Technical data according to IEC/EN 60079-7 (increased safety "eb"):

| | Feed - In | Distribution | Feed - In/ FE terminal |
|---|--|-----------------------------|-------------------------------|
| | AAP14 10 LO-LO | AAP14 2.5 LI-LI | AAP14 10 FE-LO |
| - Rated voltage | 352 V | 352 V | 352 V |
| - Rated current (total) terminal with ZQV | 45 A / $\Delta T \leq 40$ K | 20 A / $\Delta T \leq 40$ K | 45 A / $\Delta T \leq 40$ K |
| - Contact resistance with rated conductor | 1,34 mΩ (1 Feed-In terminal block, 3 Distribution terminal blocks and one ZQV 2.5N/4) | | |
| - Rated conductor cross section | 10 mm ² | 2,5 mm ² | 10 mm ² |
| - Conductor cross section solid | 0,5 - 10 mm ² | 0,5 - 2,5 mm ² | 0,5 - 10 mm ² |
| - Conductor cross section stranded | 0,5 - 10 mm ² | 0,5 - 2,5 mm ² | 0,5 - 10 mm ² |
| - Conductor cross section flexible | 0,5- 10 mm ² | 0,5 - 2,5 mm ² | 0,5 - 10 mm ² |
| - cross section, American Wire Gauge | 20 - 6 AWG | 28 - 12 AWG | 20 - 6 AWG |
| - conductor cross section flexible with ferrule acc. to DIN 46228 part 1 + 4 | 0,5 - 10 mm ² | 0,5 - 2,5 mm ² | 0,5 - 10 mm ² |
| - Stripping length | 18 mm | 10 mm | 18 mm |

Attention: The cross section reduction shall be observed and protected.

IECEx / ATEX Terminal and Cross-Connection Arrangements:

Max voltage data according to IEC/EN 60079-7:

Application Case**A - Continuous no difference between one or two cross connections****C - Adjacent – separated by an end plate no difference between one or two cross-connections****E - Next to a protective conductor terminal (earth)**

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 Feed-through terminals and FE terminals of the A-series are 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 Feed-through terminals and FE terminals of the A-series are suitable for use in enclosures in atmospheres with flammable gases or combustible dust. For flammable gases these enclosures must satisfy the requirements according to IEC/EN 60079-0 and IEC/EN 60079-7. For combustible dust the enclosure must satisfy the requirements according to IEC/EN 60079-0 and IEC/EN 60079-31.

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 110 °C under any condition.

T6 (- 60°C ... +40 °C)

T5 (- 60°C ... +55 °C)

T4 (- 60°C ... +70 °C)

When using the Feed-through terminals and FE terminals of the A-series especially with other terminal blocks series or sizes or accessories the requirements for clearance and creepage distances according to table 1 of EN 60079-7 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 please refer to the table under "Technical data" above. Always two cross connections parallel must be used for the Feed-In terminal block AAP14 10 LO-LO.

When using ferrules for flexible conductors, it must be ensured that the test requirements of DIN 46228-1 and DIN 46228-4 are complied with. Therefore we recommend the use of the appropriate Weidmüller crimping tools. The length of the copper ferrule must correspond to the specified stripping length.

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.

Attention: The cross section reduction shall be observed and protected.



- 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 directive 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.