INSTALLATION INSTRUCTIONS & CONDITIONS FOR SAFE USE

Ⓔx II 2 GD

Ex eb IIC Gb

Modular TERMINAL Blocks: A- Series

TÜV 16 ATEX 7909 U
IECEx TUR 16.0036 U

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

Modular Terminal Blocks: A4C 6

		Order No
Version:	A4C 6*	2881450000
		Order No
in conjunction with:	A4C 6 PE	2881490000

Accessories:	Type	Order No
end plate	AEP 4C 6*	2876180000
end bracket	AEB 35 SC/1*	1991920000
Terminal rail	TS 35/… acc.to DIN EN 60715	
Cross-connection	Plugable	
	ZQV 6N/2*	1985740000
	ZQV 6N/3*	1985760000
	ZQV 6N/4*	1985780000
	ZQV 6N/6*	2733950000
	ZQV 6N/7*	2733960000
	ZQV 6N/10*	2733970000

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"):

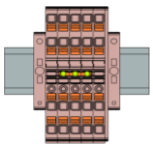
	A4C 6	A4C 6 PE
- Rated voltage	550 V	
- Rated current	37 A / ΔT ≤ 40 K	
- Rated current with ZQV	37 A / ΔT ≤ 40 K	
- Contact resistance with rated conductor, 6 mm²	0,6 mΩ	
- Rated conductor cross section	6 mm²	6 mm²
- Conductor cross section solid	0,5 - 6 mm²	0,5 - 6 mm²
- Conductor cross section stranded	0,5 - 6 mm²	0,5 - 6 mm²
- Conductor cross section flexible	0,5 - 6 mm²	0,5 - 6 mm²
- cross section, American Wire Gauge	22 - 8 AWG	22 - 8 AWG
- conductor cross section flexible with ferrule acc. to DIN 46228 part 1	0,5- 10 mm²	0,5- 10 mm²
- conductor cross section flexible with ferrule acc. to DIN 46228 part 4	0,5- 6 mm²	0,5- 6 mm²
- Stripping length	12 mm	12 mm

IECEx / ATEX 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"):

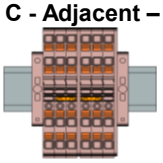
Application Case

A - Continuous no difference between one or two cross connections



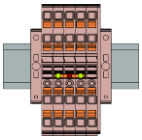
440 V

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



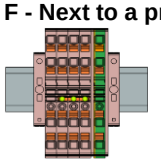
550 V

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



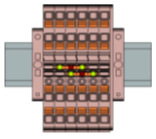
352 V

F - Next to a protective conductor terminal (earth) with end plate



550 V

H - Cross-connection with twin parallel



275 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 Feed-through terminals and PE 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 PE 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/EN60079-0 and IEC/EN60079-7. For combustible dust the enclosure must satisfy the requirements according to IEC/EN60079-0 and IEC/EN60079-31.

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 types A4C 6 and A4C 6 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 please refer to the table under “Technical data” above.

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.

- 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 III 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.