

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

II 2 GD

Ex eb IIC Gb

**Modular TERMINAL Blocks: A- Series****TÜV 16 ATEX 7909 U****IECEX TUR 16.0036 U****Notified Body No. of Ex - QA: 0344****Label print on package unit: 0344**

Standards:

EN 60079-0:2012 + A11 2013 and EN 60079-7:2015

IEC 60079-0: 6th Edition and IEC 60079-7: 5th Edition

**Modular Terminal Blocks: A2C 4**

Version:	A2C 4*	Order No 2051180000
in conjunction with:	A2C 4 PE*	Order No 2051360000
Accessories:	Type	Order No
end plate	AEP 2C 4*	2051680000
end bracket	AEB 35 SC/1*	1991920000
Terminal rail	TS 35/... acc.to DIN EN 60715	

Cross-connection	Plugable	Order No
	ZQV 4N/2*	1527930000
	ZQV 4N/3*	1527940000
	ZQV 4N/4*	1527970000
	ZQV 4N/5*	1527980000
	ZQV 4N/6*	1527990000
	ZQV 4N/7*	1528020000
	ZQV 4N/8*	1528030000
	ZQV 4N/9*	1528070000
	ZQV 4N/10*	1528090000

**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)

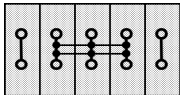
\* in all colours

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

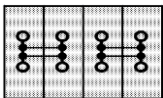
	<b>A2C 4</b>	<b>A2C 4 PE</b>
- Rated voltage	550 V	
- Rated current	28 A / $\Delta T \leq 40$ K	
- Rated current with ZQV	27 A / $\Delta T \leq 40$ K	
- Contact resistance with rated conductor, 4 mm <sup>2</sup>	0,56 mΩ	
- Rated conductor cross section	4 mm <sup>2</sup>	4 mm <sup>2</sup>
- Conductor cross section solid	0,5 - 4 mm <sup>2</sup>	0,5 - 4 mm <sup>2</sup>
- Conductor cross section stranded	0,5 - 4 mm <sup>2</sup>	0,5 - 4 mm <sup>2</sup>
- Conductor cross section flexible	0,5- 4 mm <sup>2</sup>	0,5 - 4 mm <sup>2</sup>
- cross section, American Wire Gauge	26 - 12 AWG	26 - 12 AWG
- Stripping length	12 mm	12 mm

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

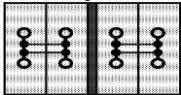
Max voltage data according to IEC/EN 60079-7 in conjunction with protective earth terminal blocks of the A-Series, (increased safety "eb"):

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

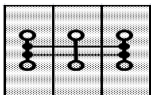
440 V

**B - Continuous with 2 cross-connections**

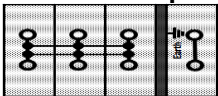
275 V

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

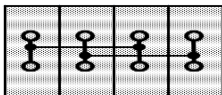
550 V

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

440 V

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

550 V

**H - Cross-connection with twin parallel**

220 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 EN 60079-0 and EN 60079-7. For combustible dust the enclosure must satisfy the requirements according to EN 60079-0 and 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 (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 A2C 4 and A2C 4 PE 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.

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.



Manually cut cross connections and cross connections with blank ends (ZQV's  $\geq 20$  poles) 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.