

**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 12...**

		Order No
Version:	AAP12 10 LO RD*	1988190000
	AAP12 10 FE*	1988200000
	AAP12 2.5 LI RD*	1988290000

Accessories:	Type	Order No
end plate	AEP AP12	1988300000
end bracket	AEB 35 SC/1*	1991920000

Terminal rail	TS 35/... acc.to DIN EN 60715
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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:**

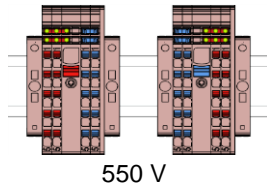
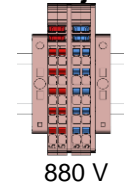
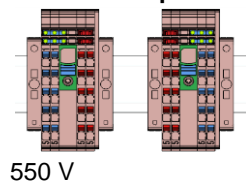
- Type	Wemid
- Tracking resistance (A) to IEC 60112	CTI ≥ 600
- Flammability class to UL 94	V0
- Operating temperature range	-60°C...+110°C (insulating material limit)
- Ambient temperature range	-60°C...+40°C (for T6 applications)
- Ambient temperature range	-60°C...+55°C (for T5 applications)
- Ambient temperature range	-60°C...+70°C (for T4 applications)

\* in all colours

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

	<b>Feed - In</b>	<b>Distribution</b>	<b>FE terminal</b>
	<b>AAP12 10 LO...</b>	<b>AAP12 2.5 LI...</b>	<b>AAP12 10 FE</b>
- Rated voltage	690 V	690 V	
- Rated current (total) terminal with ZQV	45 A / $\Delta T \leq 40$ K	20 A / $\Delta T \leq 40$ K	
- Contact resistance with rated conductor	1,52 m $\Omega$ (1 Feed-In terminal block, 3 Distribution terminal blocks and one ZQV 2.5N/4)		
- Rated conductor cross section	10 mm <sup>2</sup>	2,5 mm <sup>2</sup>	10 mm <sup>2</sup>
- Conductor cross section solid	0,5 - 10 mm <sup>2</sup>	0,5 - 2,5 mm <sup>2</sup>	0,5 - 10 mm <sup>2</sup>
- Conductor cross section stranded	0,5 - 10 mm <sup>2</sup>	0,5 - 2,5 mm <sup>2</sup>	0,5 - 10 mm <sup>2</sup>
- Conductor cross section flexible	0,5- 10 mm <sup>2</sup>	0,5 - 2,5 mm <sup>2</sup>	0,5- 10 mm <sup>2</sup>
- 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 <sup>2</sup>	0,5 - 2,5 mm <sup>2</sup>	0,5 - 10 mm <sup>2</sup>
- 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 (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 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.

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 AAP12 10 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 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.