

INSTALLATION INSTRUCTIONS
& CONDITIONS FOR SAFE USE II 3 G Ex ec II C Gc**Modular TERMINAL Blocks: A- Series****TÜV 16 ATEX 7939 U****IECEX TUR 16.0045 U****TÜV 21 UKEX 7066 U**

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: AAP21 4 DT

Version:	AAP21 4 DT*	Order No 2428980000
in conjunction with:	AAP21 4 LI RD*	2428930000
	AAP21 4 FS*	2428950000
	AAP21 4 FS 10-36V*	2458990000
	AAP21 4 FS 30-70V*	2460200000
	AAP21 4 FS 60-150V*	2460190000
	AAP21 4 FS 100-250V*	2460180000
	AAP21 10 LO RD*	2428910000
Accessories:	Type	Order No
	end plate AEP AP21*	2429020000
	end bracket AEB 35 SC/1*	1991920000
Terminal rail	TS 35/... acc.to DIN EN 60715	
Cross-connection	Pluggable	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...+130°C (insulating material limit)

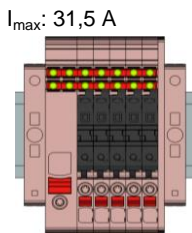
* in all colours

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

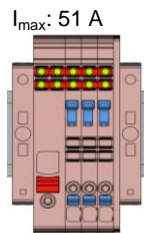
	AAP21 10 LO...		
- Rated voltage	250 V		
- Rated current	51 A / $\Delta T < 40$ K		
- Contact resistance with rated conductor	0,4 m Ω		
- Rated conductor cross section	10 mm ²		
- Conductor cross section solid	0,5 - 10mm ²		
- Conductor cross section stranded	0,5 - 10mm ²		
- Conductor cross section flexible	0,5 - 10mm ²		
- cross section, American Wire Gauge	20 - 6 AWG		
- Stripping length	18 mm		
	AAP21 4 DT	AAP21 4 FS	AAP21 4 LI...
- Rated voltage	250 V	250 V	250 V
- Rated current	19 A / $\Delta T < 40$ K	6,3 A / $\Delta T < 40$ K	22 A / $\Delta T < 40$ K
- Contact resistance with rated conductor	1,3 m Ω	4,5 m Ω <small>with dummy fuse link no. 2</small>	0,3 m Ω
- Rated conductor cross section	4 mm ²	4 mm ²	4 mm ²
- Conductor cross section solid	0,5 - 4mm ²	0,5 - 4mm ²	0,5 - 4mm ²
- Conductor cross section stranded	0,5 - 4mm ²	0,5 - 4mm ²	0,5 - 4mm ²
- Conductor cross section flexible	0,5 - 4mm ²	0,5 - 4mm ²	0,5 - 4mm ²
- cross section, American Wire Gauge	26 - 12 AWG	26 - 12 AWG	26 - 12 AWG
- Stripping length	12 mm	12 mm	12 mm
Service life acc. to IEC 60947-7-1			
- max. no. of actuations	50 cycles		

Allocated currents of AAP21 10 LO... combination with:

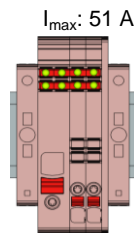
AAP21 10 LO...	51 A / $\Delta T < 40$ K	
AAP21 4 LI...	51 A / $\Delta T < 40$ K	distribution terminals ≥ 2
AAP21 4 DT	51 A / $\Delta T < 40$ K	distribution terminals ≥ 3
AAP21 4 FS	31,5 A / $\Delta T < 40$ K	distribution terminals ≥ 5

IECEX / ATEX / UKCA Terminal and Cross-Connection Arrangements:**Max voltage data according to IEC/EN 60079-7 (increased safety "ec"):****Application Case****A - Continuous feed in with supply terminal and share with distribution terminal blocks**

I_{\max} : 5 * 6.3 A
AAP21 10 LO... / 5 x AAP21 4 FS
250 V



I_{\max} : 2 * 19 A + 13 A
AAP21 10 LO... / 3 x AAP21 4 DT
250 V



I_{\max} : 2 * 22 A
AAP21 10 LO... / 2 x AAP21 4 LI...
250 V

Please attend the details in the technical data above.

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

Mounting instructions:

The disconnect 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.

In combination with other terminal block series and sizes and if other accessories are used, the applicable creepage and clearance distances shall be met.

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

Schedule of Limitations:

The disconnect terminal blocks 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 these enclosures must satisfy the requirements according to IEC/EN 60079-31.

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

The enclosure shall be constructed to block all sun and UV light from affecting the terminal

Under normal operating conditions the temperature rise of the terminal blocks is max 40 K, measured with the max 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 as shown below. No part of terminal block must exceed 130 °C under any condition.

WARNING – Do not remove or replace the test disconnect switch (AAP21 4 DT) when energized!
– Do not remove or replace the test fuse disconnect switch (AAP21 4 FS) when energized!

When using the types of disconnect terminals especially with other terminal blocks series or sizes or accessories the requirements for clearance and creepage distances of EN 60079-7 must be maintained. 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.

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.

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.

A thermal assessment for the classification into the temperature classes T6.....T1 shall be performed. No part of terminal block must exceed 130 °C under any condition.

The terminal blocks may be used, based on the self-heating when used at the nominal current and at ambient temperatures of - 60 °C to + 40 °C at the mounting position in electrical apparatus, e.g. junction and connection boxes, for temperature class T6. when the terminal blocks are used in electrical apparatus of temperature classes T1 up to T5, the highest temperature of the insulating material shall not exceed the max. value of the operating temperature range.



- 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.