

INSTALLATION INSTRUCTIONS
& CONDITIONS FOR SAFE USE

Ex eb IIC Gb

Modular TERMINAL Blocks: A- Series

TÜV 16 ATEX 7909 U
IECEx TUR 16.0036 U
TÜV21UKEX7001U

Standards:

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

Supply Terminal Blocks: ALO 6

Version:	ALO 6*	Order No	
		19917800020	
in conjunction with:		Order No	Order No
	A2C 1.5*	1552790000	A2C 2.5*
	A3C 1.5*	1552740000	A3C 2.5*
	A4C 1.5*	1552690000	A4C 2.5*
Accessories:	Type	Order No	
end bracket	AEB 35 SC/1*	1991920000	
Terminal rail	TS 35/...	acc.to DIN EN 60715	
Cross-connection	Plugable	Order No	Plugable Order No
	ZQV 1.5N/2*	1985410000	ZQV 2.5N/2* 1527540000
	ZQV 1.5N/3*	1985480000	ZQV 2.5N/3* 1527570000
	ZQV 1.5N/4*	1985490000	ZQV 2.5N/4* 1527590000
	ZQV 1.5N/5*	1985500000	ZQV 2.5N/5* 1527620000
	ZQV 1.5N/6*	1985510000	ZQV 2.5N/6* 1527630000
	ZQV 1.5N/7*	1985520000	ZQV 2.5N/7* 1527640000
	ZQV 1.5N/8*	1985540000	ZQV 2.5N/8* 1527670000
	ZQV 1.5N/9*	1985560000	ZQV 2.5N/9* 1527680000
	ZQV 1.5N/10*	1985580000	ZQV 2.5N/10* 1527690000

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	Distribution
	ALO 6	A2C 1.5	A2C 2.5
		A3C 1.5	A3C 2.5
		A4C 1.5	A4C 2.5
- Rated voltage	550 V	550 V	550 V
- Rated current with ZQV	33 A / $\Delta T \leq 40$ K	14 A / $\Delta T \leq 40$	20 A / $\Delta T \leq 40$ K
- Contact resistance	0,5 mΩ	Please see the values in the product-specific NTI's.	
- Rated conductor cross section	6 mm ²	1,5 mm ²	2,5 mm ²
- Conductor cross section solid	0,5 - 6 mm ²	0,5 - 1,5 mm ²	0,5 - 2,5 mm ²
- Conductor cross section stranded	0,5 - 6 mm ²	0,5 - 1,5 mm ²	0,5 - 2,5 mm ²
- Conductor cross section flexible	0,5- 6 mm ²	0,5 - 1,5 mm ²	0,5 - 2,5 mm ²
- cross section, American Wire Gauge	22 - 8 AWG	26 - 14 AWG	28 - 12 AWG
- conductor cross section flexible with ferrule acc. to DIN 46228 part 1	0,5- 10 mm ²	0,5- 1,5 mm ²	0,5- 4 mm ²
- conductor cross section flexible with ferrule acc. to DIN 46228 part 4	0,5- 6 mm ²	0,5- 1,0 mm ²	0,5- 2,5 mm ²
- Stripping length	12 mm	8 mm	10 mm

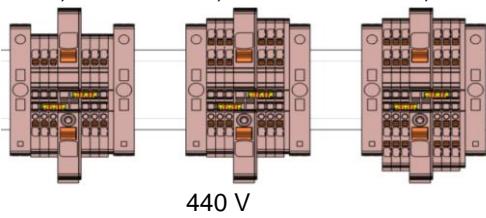
IECEx/ATEX/UKCA Terminal and Cross-Connection Arrangements:

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 1,5 mm²

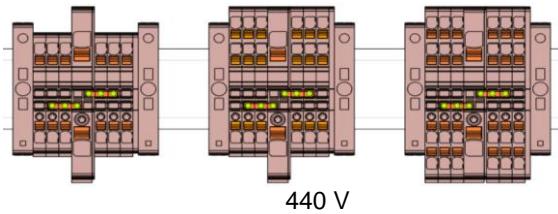
Feed In with ALO 6 and distribution with:

A2C 1,5 A3C 1,5 A4C 1,5

**A - Continuous no difference between one or two cross connections 2,5 mm²**

Feed In with ALO 6 and distribution with:

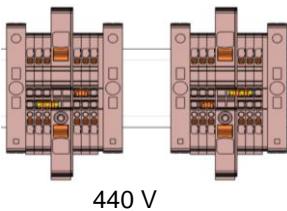
A2C 2,5 A3C 2,5 A4C 2,5



B - Continuous with 2 cross-connections 1,5 mm²

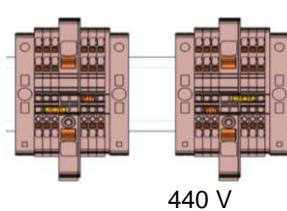
Feed In with ALO 6 and distribution with:

A2C 1,5



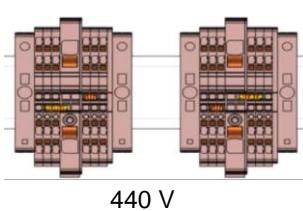
440 V

A3C 1,5



440 V

A4C 1,5

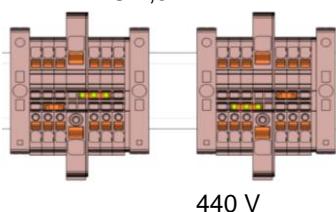


440 V

B - Continuous with 2 cross-connections 2,5 mm²

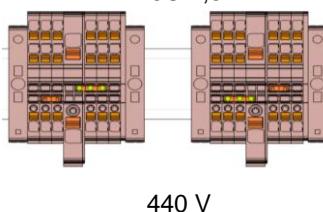
Feed In with ALO 6 and distribution with:

A2C 2,5



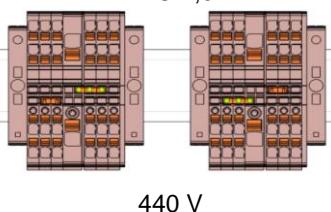
440 V

A3C 2,5



440 V

A4C 2,5



440 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 Supply terminal 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 Supply terminal 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.

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 ALO 6 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 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.