INSTALLATION INSTRUCTIONS & CONDITIONS FOR SAFE USE

Ex II 2 GD

Ex eb IIC Gb

Modular TERMINAL Blocks: W- Series

DEMKO 15 ATEX 1357U
IECEx ULD 15.0004U
UL21UKEX2120U

Standards:
EN IEC 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: WFF

	Type	Order No e.g.
Version:	WFF 185*	1028600000
	WFF 185/AH*	1029600000

Accessories:	Type	Order No e.g.
Partition Plate	WTW WFF185/300*	1067400000
End bracket	WEW 35/1*	1059000000
End bracket	MEW 35/1	1805610000
Terminal rail	TS 35/… acc.to IEC 60715	

Cross-connection	Pluggable*	Order No e.g.
	WQL 2 WFF185	1065200000
	WQL 3 WFF185	1065700000

Auxiliary /control line connection	Type	Order No
	WZAF 185	1066400000

Insulation material:

- Type	Wemid
- Tracking resistance (A) to IEC 60112	CTI ≥ 600
- Operating temperature range	-60°C…+100°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…+60°C (for T4 applications)

* in all colours

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

	WFF 185 WFF 185/AH
- Rated voltage	1100 V
- Rated current	353 A / ΔT 40 K
- Rated current with WQL	353 A / ΔT 40 K
- Contact resistance with rated conductor, 185 mm²	0,1 mΩ
- Rated conductor cross section	185 mm²
- Cable lug to DIN 46234	10 - 185 mm²
- Cable lug to DIN 46235	25 - 185 mm²
- 2 x Cable lug to DIN 46234	10 - 185 mm²
- 2 x Cable lug to DIN 46235	25 - 185 mm²
- cross section, American Wire Gauge	MCM 500 - 8 AWG
- Tightening torque range, terminal screw	14 - 31 Nm

Use of the auxiliary /control line connection WZAF 185

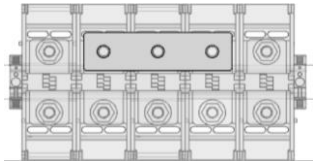
- Rated voltage	1100 V	
- Rated current	16 A / ΔT 40 K	
- Cable lug:	Type	Order No
	LIR 2,5M4 V	9200170000
	LIR 6M4 V	9200230000
- Conductor cross section	2,5 - 6 mm²	
- Tightening torque range, terminal screw	1,2 Nm	

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

Max voltage data according to IEC/EN 60079-7 of the WFF-Series, (increased safety "eb"):

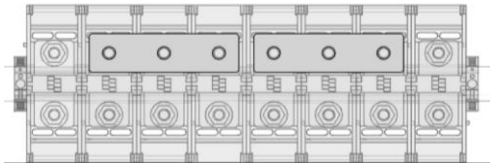
Application Case

A Continuous



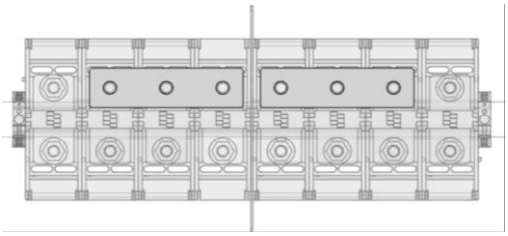
Snap-on the DIN Rail	1100 V
Direct mounting with fixing screw (DIN 7984)	1100 V
Direct mounting with fixing screw (DIN 4762)	1100 V

B Continuous with 2 cross-connections



Snap-on the DIN Rail	1100 V
Direct mounting with fixing screw (DIN 7984)	1100 V
Direct mounting with fixing screw (DIN 4762)	1100 V

C Adjacent – separated by a partition plate



Snap-on the DIN Rail	1100 V
Direct mounting with fixing screw (DIN 7984)	1100 V
Direct mounting with fixing screw (DIN 4762)	1100 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 WFF series is 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.

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

Schedule of Limitations:
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 100 °C under any condition.

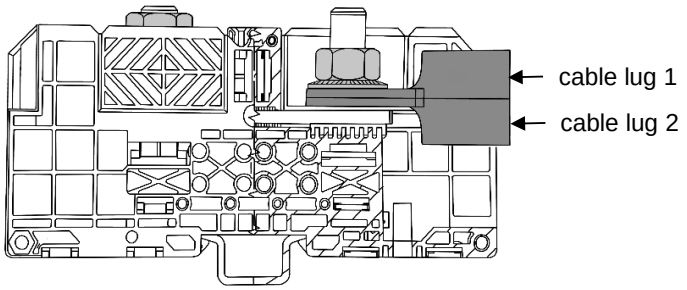
T6 (- 60°C ... +40 °C)
T5 (- 60°C … +55 °C)
T4 (- 60°C ... +60 °C)

When using the type WFF 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.

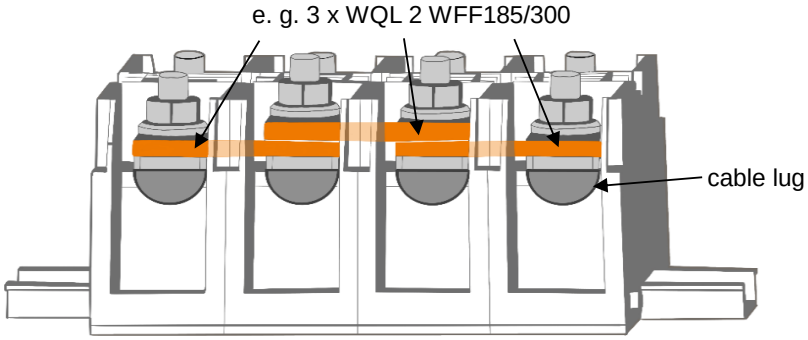
The terminal can be used with either one or two wires into either side of the terminal. When two wires are used they must be of the same type, and of equal sizes. No other wire sizes or types than the ones specified in instructions must be used. The terminal blocks must either be mounted next to another block of the same type and size or with an end plate.

Use of 2 cable lugs acc. to DIN 46234 or DIN 46235:

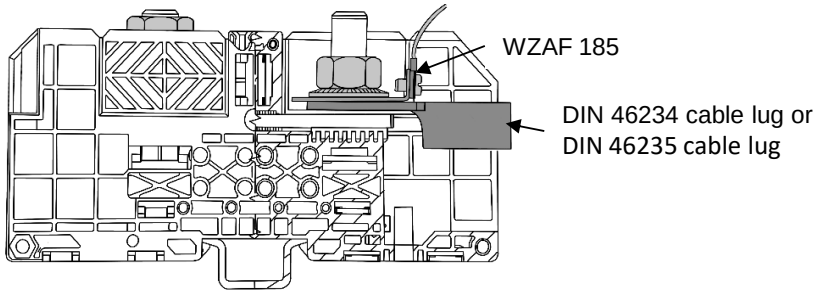


The cable lugs of neighbouring terminals have to be installed parallel to each other.

Use the cross connection posibility "Extend":



Use the assembly auxiliary / control line connection WZAF 185:



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.

Unused terminals shall be tightened.

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.