IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Ex COMPONENT CERTIFICATE

Certificate No.: **IECEx CNEX 16.0005U**

Page 1 of 5

Certificate history:
Issue 1 (2017-11-23)
Issue 0 (2017-03-28)

Status: **Current**

Issue No: 2

Date of Issue: 2021-05-03

Applicant: **Weidmueller Interface GMBH & Co KG**
Klingenbergstraβe 26
Detmold D-32758
Germany

Ex Component: Modular Terminal Blocks models WPD 104 to WPD 109

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **'eb'**

Marking: Ex eb IIC Gb

Approved for issue on behalf of the IECEx Certification Body: **Hou Yandong**

Position: **Certification Officer**

Signature: (for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

CNEX-Global B.V.
Utrechtseweg 310-B38
6812AR, Arnhem
Netherlands

IECEx Certificate of Conformity

Certificate No.: **IECEx CNEX 16.0005U** Page 2 of 5

Date of issue: 2021-05-03 Issue No: 2

Manufacturer: **Weidmueller Interface GMBH & Co KG**
Klingenbergstraβe 26
Detmold D-32758
Germany

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

NL/CNEX/ExTR16.0005/00 NL/CNEX/ExTR16.0005/01 NL/CNEX/ExTR16.0005/02

Quality Assessment Report:

NL/DEK/QAR12.0052/07

IECEx Certificate of Conformity

Ex Component(s) covered by this certificate is described below:

The modular terminal blocks models WPD 104 to WPD 109 are power distribution blocks, where one incoming current supply cable is distributed through one connection block over multiple outgoing cable connections. The insulating body is made of polyamide PA66 and the protective cover is made of polycarbonate.

Operating temperature range

The operating temperature range is limited to -60 °C … +100 °C

The ambient temperature range is limited to -60 °C … +40 °C (for T6 applications)

The ambient temperature range is limited to -60 °C … +55 °C (for T5 applications)

The ambient temperature range is limited to -60 °C … +60 °C (for T4 applications)

Electrical Data

See Annex.

SCHEDULE OF LIMITATIONS:

The modular terminal blocks models WPD 104 to WPD 109 shall always be installed inside suitable certified enclosures. For use in flammable gases these enclosures must satisfy the requirements according to EN/IEC 60079-0 and EN/IEC 60079-7. For use in combustible dust these enclosures must satisfy the requirements according to EN/IEC 60079-0 and EN/IEC 60079-31.

When installed, all connections, even if unused, shall be tightened with the torques specified in the manufacturer’s instructions.

The transparent covers are always to be applied on the terminal blocks.

For each modular terminal block, there shall always be only one cable installed in the incoming connection side of the terminal block.

Multiple wires installed into one connection are not allowed.

When combined with other terminal block series and accessories, the applicable creepage and

clearance distances shall be observed.

The insulation material has a limiting temperature of +100 °C.

The temperature rise in the terminals does not exceed 40 K at 110 % of the rated current.

IECEx Certificate of Conformity

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 'eb' for gas atmosphere. For dust atmosphere the terminal blocks shall be mounted inside a suitable certified IP6X enclosure (EN/IEC 60079-31) in type of protection 'tb'.

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 100 °C under any condition.

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.

The resistance across the terminals, at rated conductor cross-section, are given as follows:

Model:	WPD 104	WPD 105	WPD 106	WPD 107	WPD 108	WPD 109
contact resistance [mOhm]	< 0,32	< 0,26	< 0,2	< 0,14	< 0,13	< 0,1

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Changes for issue 1:

Changed construction for WPD 108 and WPD 109.

Changes for issue 2:

Update to IEC 60079-0:2017 Ed. 7.0.

Update to IEC 60079-7:2017 Ed. 5.1.

Annex:

P21033IA-CCA IECEx CNEX 160005U issue 02 Annex_1.pdf

Annex to
Certificate IECEx CNEX 16.0005U issue 02

Equipment or Protective System: Modular terminal blocks models WPD 104 – WPD 109

Manufacturer: Weidmueller Interface GmbH & Co

Address: Klingenbergstraβe 26, Detmold D-32758 Germany

Electrical Data:

Max. rated voltage [V]:

Model:	WPD 104	WPD 105	WPD 106	WPD 107	WPD 108	WPD 109
Screw mounting	550	690	550	880	880	880
TS35 mounting	550	690	880	440	1100	1100
For Busbar (Flexibar) with Screw Mounting	NA	NA	550	NA	880	880
For Busbar (Flexibar) with TS35 mounting	NA	NA	690	NA	1100	1100

Rated incoming currents:

Model:	WPD 104	WPD 105	WPD 106	WPD 107	WPD 108	WPD 109
Current [A]:	101	125	160	232	250	353

Rated conductor cross sections:

Model	Wire type	Incoming connection Size [mm²]			Outgoing connections Size [mm²]		
		left	Center	Right	Top level	Middle level	Bottom level
WPD 104	Solid	1x 2.5…25	-	1x 1.5…16	3x 1.5…10	-	2x 1.5…16
WPD 104	Stranded	1x 2.5…25	-	1x 1.5…16	3x 1.5…10	-	2x 1.5…16
WPD 104	Flexible with Ferrule	1x 1.5…16		1x 1.5…10	3x 1.5…6	-	2x 1.5…16
WPD 105	Solid	1x 4…35	-	1x 1.5…16	3x 1.5…16	-	2x 2.5…25
WPD 105	Stranded	1x 4…35	-	1x 1.5…16	3x 1.5…16	-	2x 2.5…25
WPD 105	Flexible with Ferrule	1x 2,5…25	-	1x 1.5…10	3x 1.5…16	-	2x 1.5…16

Annex to
Certificate IECEx CNEX 16.0005U issue 02

WPD 106	Solid	-	1x 10…70	-	3x 1.5…16	-	2x 2.5…25
WPD 106	Stranded	-	1x 10…70	-	3x 1.5…16	-	2x 2.5…25
WPD 106	Flexible with Ferrule	-	1x 6…50	-	3x 1.5…16	-	2x 1.5…16
WPD 106	Flexible busbar	-	15.5 x 5 mm^2	-	3x 1.5…16	-	2x 2.5…25
WPD 107	Solid	1x 4…35	1x 16…95	1x 4...35	4x 2.5…25	-	4x 2.5…25
WPD 107	Stranded	1x 4…35	1x 16…95	1x 4...35	4x 2.5…25	-	4x 2.5…25
WPD 107	Flexible with Ferrule	1x 2,5…25	1x 10…70	1x 2,5…25	4x 1.5…16	-	4x 1.5…16
WPD 108	Solid	-	1x 35…120	-	3x 2.5…25	4x 2.5…25	2x 4…35
WPD 108	Stranded	-	1x 35…120	-	3x 2.5…25	4x 2.5…25	2x 4…35
WPD 108	Flexible with Ferrule	-	1x 25…95	-	3x 1.5…16	4x 1.5…16	2x 2.5…25
WPD 108	Flexible busbar	-	24 x 10 mm^2	-	-	-	-
WPD 109	Solid	-	95...185	-	3x 2.5…25	4x 2.5…25	2x 4…35
WPD 109	Stranded	-	95...185	-	3x 2.5…25	4x 2.5…25	2x 4…35
WPD 109	Flexible with Ferrule	-	70...150	-	3x 1.5…16	4x 1.5…16	2x 2.5…25
WPD 109	Flexible busbar	-	24 x 10 mm^2	-	-	-	-

Mounting Instructions:
Refer to the manufacturer's instructions.

Installation Instructions:
Refer to the manufacturer's instructions.

Routine Tests:
Routine dielectric strength tests conform IEC 60079-7 cl. 7.1 are applicable.

Descriptive Documents:
Detailed in the Test Report Cover document. (ref. P21033IA-CS)