IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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Ex COMPONENT CERTIFICATE

Certificate No.:	**IECEx PTB 03.0004U**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 7	Issue 6 (2019-08-27) Issue 5 (2017-11-21) Issue 4 (2014-09-09) Issue 3 (2013-01-28) Issue 2 (2008-11-06) Issue 1 (2007-01-29)
Date of Issue:	2020-07-16		
Applicant:	**WAGO Kontakttechnik GmbH & Co. KG** Hansastraße 27 32423 Minden **Germany**		
Ex Component:	TOPJOB S, 2002-****/***-*** and 2002-***7/* PE & Through terminal blocks and Type 279, 280, 281, 282, 283		

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:	**Increased Safety "eb"**
Marking:	Ex eb IIC Gb or Ex eb I Mb

Approved for issue on behalf of the IECEx Certification Body:	**Dr.-Ing. Detlev Markus**
Position:	**Head of Department Explosion Protection in Energy Technology**
Signature: (for printed version)	D. Markus
Date:	17.07.2020

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Certificate issued by:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

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Certificate No.: **IECEx PTB 03.0004U**

Date of issue: 2020-07-16

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Manufacturer: **WAGO Kontakttechnik GmbH & Co. KG**
Hansastraße 27
32423 Minden
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 Report:

DE/PTB/ExTR08.0060/05

Quality Assessment Report:

DE/PTB/QAR06.0003/12

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

Description

Type TOPJOB S 2002-**/***-*** and 2002-***7/***-***

The screwless feed-through terminal block, type TOPJOB S 2002-****/***-*** series as well as screwless earthing conductor terminal block, type TOPJOB S 2002-***7/* series with two, three or four or eight clamping units, composed of insulating envelope (polyamide PA 6.6) and connection facilities with CAGE CLAMP® S.

Type 279, 280, 281, 282, 283

The screwless feed-through terminal blocks, types 279-***, 280-***, 281-***, 282-***,283-***, as well as screwless protective-conductor terminal block, types 279-***/999-950 , 280-***/999-950 , 281-***/999-950 , 282-***/999-950 , 283-***/999-950 with two, three or four clamping units are composed of insulating envelope (polyamide PA 6.6) and connection facilities with CAGE CLAMP® S.

Accessories: end cover and adapter plates, partition, bridging elements as well as retaining clip and end bracket. The terminal is fastened on mounting rails.

The terminals are used to connect copper conductors in terminal compartments of the type of protection increased safety "eb" and protection by enclosure "ta, tb, tc".

Technical data, Nomenclature and Schedule of Limitations see Annex.

SCHEDULE OF LIMITATIONS:

The terminals shall be mounted in an enclosure that meets the requirements of an approved type of protection as specified in IEC 60079-0, clause 1 or IEC 60079-31.
When installing the terminals in an enclosure designed to Increased Safety "e" type of protection as specified in IEC 60079-7, the clearance and creepage distances shown in table 2 shall be duly considered.
If accessories are used, the instructions for installation provided by the manufacturer shall be observed.
All technical specifications are contained in the technical data section of this certificate.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
1) New test according to IEC 60079-0:2017, Edition 7.0, IEC 60079-7:2017, Edition 5.1.
2) The terminal blocks of types 279, 280, 281, 282 and 283 are added.

Annex:

Attachment of IECEx CoC.pdf

Applicant: WAGO Kontakttechnik GmbH & Co. KG

Electrical Apparatus: Screwless feed-through terminal block

Type TOPJOB S 2002-****/***-*** and 2002-***7/***-***

Type 279-9**, 279-***/999-950

Type 280-***, 280-**7/999-950

Type 281-***, 281-**7/999-950

Type 282-***, 282-**7/999-950

Type 283-***, 283-**7/999-950

Description of equipment

Type TOPJOB S 2002-**/***-*** and 2002-***7/***-***
Screwless feed-through terminal block, type TOPJOB S 2002-****/***-*** series as well as screwless earthing conductor terminal block, type TOPJOB S 2002-***7/* series with two, three or four or eight clamping units, composed of insulating envelope (polyamide PA 6.6) and connection facilities with CAGE CLAMP® S.

Type 279, 280, 281, 282, 283
The screwless feed-through terminal blocks, types 279-***, 280-***, 281-***, 282-***,283-***, as well as screwless protective-conductor terminal block, types 279-***/999-950 , 280-***/999-950 , 281-***/999-950 , 282-***/999-950 , 283-***/999-950 with two, three or four clamping units are composed of insulating envelope (polyamide PA 6.6) and connection facilities with CAGE CLAMP® S.

Accessories: end cover and adapter plates, partition, bridging elements as well as retaining clip and end bracket. The terminal is fastened on mounting rails.
The terminals are used to connect copper conductors in terminal compartments of the type of protection increased safety “eb” and protection by enclosure "ta, tb, tc".

Technical data

Type 2002	-22**	-24** -27**	-32**	-12** -13** -14** -63** -64**	-22**	-24** - 1441	-27**	-41**	-12** -13** -14** -63** -64**	-1**7 -22*7 -22*7/999-950 -2**7 -2**7/999-950 -32*7 -32*7/999-950 -41*7 -63*7 -64*7
	with jumper plug				without jumper plug					
Rated insulation voltage in V	400	500	400	500	400	500	500	500	500	--
Operating voltage in V	440	550	440	550	440	550	550	550	550	--
Rated current, max. in A	18	17 [1]	17	20	20	21	17.5	19	22	--

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Rated cross section, in mm²	2.5 mm² (1.5 mm²: 2002-2*07, -2*37, -3207, 3237)
Resistance in mΩ	1.6 mΩ (2.5 mm²)
Capacity	min. 0,25 mm² to 4 mm² , single- and multi-wire, finely stranded
Number of wires per clamping point	1 wire per clamping point
Service temperature range in °C	-55 °C up to +75 °C (2002-6***, -22**, -32**, -55 °C up to +85 °C (2002-1441, -24**,-41**) -55 °C up to +110 °C (2002-1*0*, 27**)
[1]: 16 A with staggered jumper, The staggered jumper is only for the 4 conductor double-deck terminal 2002-24**.	

Type 279	279-99*	279-98*	279-990 279-992 279-993 279-994	279-**7/999-950
	without jumper plug		with jumper plug	PE
Rated insulation voltage in V	500	500	500	--
Operating voltage in V	550	550	550	--
Rated current, max. in A	15	15	15	--
Rated cross section, in mm²	1.5 mm²			
Resistance in mΩ	1.7 mΩ			
Capacity	min. 0.2 mm² to 1.5 mm² , single- and multi-wire, finely stranded			
Number of wires per clamping point	1 wire per clamping point			
Service temperature range in °C	-55 °C up to +85 °C			

Type 280 with or without jumper plug	280-691 280-698 280-991 280-992 280-996 280-998	280-989 280-990 280-993	280-699 280-994 280-995 280-999	280-6*7/999-950 280-907/999-950 280-837/999-950
				PE
Rated insulation voltage in V	500	500	500	--
Operating voltage in V	550	550	550	--
Rated current, max. in A	23	22	20	--
Rated cross section, in mm²	2.5 mm²			
Resistance in mΩ	1.6 mΩ			
Capacity	min. 0.2 mm² to 2.5 mm² , single- and multi-wire, finely stranded			
Number of wires per clamping point	1 wire per clamping point			
Service temperature range in °C	-55 °C up to +85 °C			

Type 281	281-655 281-693 281-695 281-991	281-691 281-992 281-993 281-994 281-998	281-101/999-950	281-6*7/999-950 281-907/999-950 281-107/999-950
	with or without jumper plug	with or without jumper plug resp. staggered jumper	with or without jumper plug resp. staggered jumper	PE
Rated insulation voltage in V	500	500	500	--
Operating voltage in V	550	550	550	--
Reduced max. rated voltage by using staggered jumper in V	275	275	275	--
Rated current, max. in A	30	30	28 26/24	--
Rated cross section, in mm²	4 mm²			
Resistance (4 mm²) in mΩ	1.2 mΩ			
Capacity	min. 0.2 mm² to 4 mm² , single- and multi-wire, finely stranded			
Number of wires per clamping point	1 wire per clamping point			
Service temperature range in °C	-55 °C up to +85 °C			

Type 282	282-691 282-992 282-993	282-691 282-992 282-993	282-607/999-950 282-907/999-950 282-687/999-950
	without jumper plug	with jumper plug	PE
Rated insulation voltage in V	500	500	--
Operating voltage in V	550	550	--
Rated current, max. in A	39	35	--
Rated cross section, in mm²	6 mm²		
Resistance (6 mm²) in mΩ	0.8 mΩ		
Capacity	min. 0.5 mm² to 6 mm² , single- and multi-wire, finely stranded		
Number of wires per clamping point	1 wire per clamping point		
Service temperature range in °C	-55 °C up to +85 °C		

Type 283	283-691	283-992 283-998	283-691 283-992	283-6*7/999-950 283-907/999-950 283-677/999-950
	without jumper plug	without jumper plug	with jumper plug	PE
Rated insulation voltage in V	500	500	500	--
Operating voltage in V	550	550	550	--
Rated current, max. in A	72	68	54	--
Rated cross section, in mm²	16 mm²			

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Resistance (4 mm²) in mΩ	0.5 mΩ
Capacity	min. 0.5 mm² to 16 mm² , single- and multi-wire, finely stranded
Number of wires per clamping point	1 wire per clamping point
Service temperature range in °C	-55 °C up to +85 °C

Nomenclature code carrier terminal blocks

TOPJOB S 2002-**/***-*** and 2002-***7/***-*****

TOPJOB S	2002-	*	*	**	/***-***
1	2	3	4	5	6

1: Type designation
2: Serie
3: Feed-through terminal block
4: Number of clamping units
5: Color
6: Additional option (e.g. special colors, customer variant, etc.)

Types 279, 280, 281 282, 283

279-, 280-, 281-´, 282-, 283-	***	/***-***
1	2	3

1: Serie
2: Type of construction
3: Additional option (e.g. special colors, customer variant, etc.), 999-950= PE terminal blocks, green yellow

Schedule of limitations

When the terminals are installed in a terminal compartment, the requirements according to IEC 60079-0 must be met.
Concerning the use of accessories, the instructions of the manufacturer shall be considered.
When feed-through terminals with earthing conductor terminal blocks are mounted side by side, end cover plates or adaptor plates are to be provided.
Installation of electrical components requires a further assessment by an ExCB.

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