IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx IMQ 18.0005X

Issue No: 0

Certificate history:
Issue No. 0 (2018-08-28)

Status: **Current**

Date of Issue: **2018-08-28**

Applicant: **Rose Systemtechnik Gmbh**
Erbeweg 13-15
D-32457 PORTA WESTFALICA
Germany

Equipment: **Metal cable glands for circular and flat cables**

Optional accessory: *Series CGU...; CGRC…..; CGFCS...; CGEMC...; CGLTCS...; CGLTC45...; CGLTC90...; CGRCS…..; CGU...(axb); CGRC…..(axb); CGFCS.. .(axb); CGEMC.. .(axb); CGLTCS...(axb); CGLTC45…(axb); CGLTC90.. .(axb); CGRCS…..(axb)*

Type of Protection: **Ex db; Ex eb; Ex tb**

Marking:

Ex db IIC Gb

Ex eb IIC Gb

Ex tb IIIC Db

Approved for issue on behalf of the IECEx Certification Body: Mr. Mauro CASARI

Position: IMQ ExCB Manager

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 the Official IECEx Website.

Certificate issued by:

Istituto Italiano del Marchio di Qualità S.p.A
Via Quintiliano 43
20138 Milano
Italy

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Manufacturer: **Rose Systemtechnik Gmbh**
Erbeweg 13-15
D-32457 PORTA WESTFALICA
Germany

Additional Manufacturing location(s):

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 apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical 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:

IT/IMQ/ExTR18.0005/00

Quality Assessment Report:

DE/EPS/QAR17.0003/07 DE/EPS/QAR17.0003/08

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The cable glands series CGU...; CGRC…..; CGFCS...; CGEMC...; CGLTCS...; CGLTC45...; CGLTC90...; CGRCS…..are suitable for inserting circular cables into Ex db enclosures having threaded entries and Ex eb or Ex tb enclosures having either threaded or plane entries.

The cable glands series CGU...(axb); CGRC…..(axb); CGFCS.. .(axb); CGEMC.. .(axb); CGLTCS...(axb); CGLTC45…(axb); CGLTC90.. .(axb); CGRCS…..(axb) are suitable for inserting flat cables into Ex eb or Ex tb enclosures having either threaded or plane entries.

Cable glands are suitable for not-armoured cables, and are made of metal body (aluminium; stainless steel; brass; galvanized steel; nickel-plated brass). Sealing rings are made of silicon or neoprene (chloroprene) for all types, as detailed in Annex.

The degree of the IP protection is IP66/68

Cable glands are suitable for electrical equipment either with type of protection Ex db, Ex eb or type of protection Ex tb, suitability for each model is shown in following tables. Cable glands with type of protection “db” and “eb” can be also used for wiring of intrinsically safe circuits. These cable glands have a light blue painted part.

Cable glands for circular cables can be supplied with tap, commercial called “dome plug”, polyamide made, as accessory (PDPX.-.-., available in black, green, blue color), suitable to guarantee IP degree when installed according to manufacturer’s instructions. Details in Annex.
Cable glands are intended for use with any cable type where sealing and retention as well as the type of protection is ensured by gripping the outer sheath of cable according to IEC 60079-14.

Proper details to the use on installation and use of cable glands are listed in Safety, Maintenance and Mounting Instructions (RM01 rev.0 dated 2017.11.14).

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The cable glands are only suitable for fixed installations. Cables shall be effectively clamped to prevent pulling or twisting
- The coupling of the cable glands to the enclosure and torque values of cap clamping shall be made as indicated by the manufacturer in the documents annexed to this certificate in order to respect the type of protection of the electrical apparatus on which cable glands are mounted.
- The cable gland installation shall be done according to safety manufacturer instructions to maintain degree of protection.
  The cable gland installation shall be done in such a way that the temperature at the mounting point will remain within the service temperature ranges declared in this certificate.
- When cable glands are installed with polyamide insert PDP-.-21, mechanical risk have to be taken into account, depending on cable gland and insert tap. The upper operating temperature is limited to 70 °C. When insert tap is removed in order to install the proper cable, the integrity of sealing rings have to be checked, in order to guarantee the correct tightness. If necessary, sealing rings have to be replaced with new ones (original spare parts only). Precautions shall be taken in order to guarantee protection against risk of mechanical damage is provided, when insert taps are suitable for low mechanical risk (4J) only.
- Cable glands for non circular cables shall be fitted with proper cables, suitable for sealing ring, according to manufacturer’s instruction.

Annex:

IECEx IMQ 18.0005X issue No. 0 Annex.pdf

"ene$al &esc$iption

The cable glands series ! "###$!% &##$!' (###$!)M ###$!*T (###$!*T 4+###$!*T ,0###$!% (&##are suitable for inserting circular cables into)- db enclosures ha.ing threaded entries and)- eb or)- tb enclosures ha.ing either threaded or /lane entries#

The cable glands series ! "###0a-b1$!% &##0a-b1$!' (## #0a-b1$!)M ## #0a-b1$!*T (###0a-b1$!*T 4+&0a-b1$!*T ,0## #0a-b1$!% (&##0a-b1 are suitable for inserting flat cables into)- eb or)- tb enclosures ha.ing either threaded or /lane entries#

Con&itions o' use

- The cable glands are onl3 suitable for fi-ed installations# ables shall be effecti.el3 cla2/ed to /re.ent /ulling or t9isting

- The cou/ling of the cable glands to the enclosure and tor8ue .alues of ca/ cla2/ing shall be 2ade as indicated b3 the 2anufacturer in the docu2ents anne-ed to this certificate in order to res/ect the t3/e of /rotection of the electrical a//aratus on 9hich cable glands are 2ounted#

-

3esi%n options

-a#le 1: %ated a2bient te2/erature range 0A 1 of sealing 2aterial		
Se$ie:	Ex e# **4** Ex t# execution	Ex &# execution
! "##	neo/rene sealing ring¢ -40A D E80A silicon sealing ring¢ -60A D E140A	neo/rene sealing ring¢ -40A D E80A silicon sealing ring¢ -60A D E80A
! % &##		
! ' (#		
!)M ##		
! *T (##		
! *T 4+##		
! *T ,0##		
! % (&##		
! "##0a-b1	silicone sealing ring¢ -60A D E140A	Fot a.ailable for flat cables#
! % ##0a-b1		
! ' (##0a-b1		
!)M ##0a-b1		
! *T (##0a-b1		
! *T 4+##0a-b1		
! *T ,0##0a-b1		
! % (##0a-b1		

-a#le **5**: Mate$ials [1]					
(eries	God3 2aterials	(ealing rings 2aterial	'lat 9asher 2aterials	H-ring	Iccessories
! "##	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	chloro/rene 0neo/rene1 silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher do2e /lug
! % &##	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	chloro/rene 0neo/rene1 silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher do2e /lug
! ' (##	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	chloro/rene 0neo/rene1 silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher do2e /lug
!)M ##	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	chloro/rene 0neo/rene1 silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher do2e /lug
! *T (##	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	chloro/rene 0neo/rene1 silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher do2e /lug
! *T 4+##	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	chloro/rene 0neo/rene1 silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher do2e /lug
! *T ,0##	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	chloro/rene 0neo/rene1 silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher do2e /lug
! % (&##	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	chloro/rene 0neo/rene1 silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher do2e /lug
! "##0a-b1	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher
! % &0a-b1	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher
! ' (## 0a-b1	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher
!)M ## 0a-b1	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher
! *T (## 0a-b1	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher
! *T 4+## 0a-b1	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher
! *T ,0## 0a-b1	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher
! % (&0a-b1	stainless steel$ brass $ alu2iniu2$ nic5el /lated brass$ gal.ani4ed steel	silicone	chloro/rene 0neo/rene1, silicone,)P<M rubber, fiber J*IF!)%(I*K -4400, PI 9asher	neo/rene silicone)P<M, Viton	serrated 9asher

[1] (er.ice te2/erature is related to 2aterial of sealing rings 9hich cable glands bod3 is 2ade of, but can be additionall3 li2ited b3 2aterial of flat 9asher?H%?accessories 2aterial te2/erature li2itations¢ chloro/rene 0-40D100 A 1$ silicone 0-60D180 A 1$)P<M rubber 0-40D110 A 1$ J*IF!)%(I*K -4400 fiber 0-+0D130 A 1$ FG% 0-40D100 A 1, PI 0-60D6+ A 1$ Viton 0-1?D210 A 1# The use of these 2aterials has to be ta5en into account in deter2ination of lo9er and u//er li2it of ser.ice te2/erature of cable glands#

! % 011 021 031 041 0+1 061 0?1 081 ! % (011 021 031 041 0+1 061 0?1 081	011C 2ale si4e, according to related table 021C 2ale thread t3/eC :F; L FPT IF(II(M) G1#20#1 :M; L Metric I(H /itch 1,+ 0I(H ,6+71 and I(H ,6+731 031C fe2ale si4e, according to related table 041C fe2ale thread t3/eC :F; L FPT IF(II(M) G1#20#1 :M; L Metric I(H /itch 1,+ 0I(H ,6+71 and I(H ,6+731 0+1C bod3 2aterialC :G; L brass :=; L stainless steel :I; L alu2iniu2 :GF; - Fic5el Plated Grass :M; - !al.ani4ed (teel 061C (ealing 2aterialC : ; - hloro/rene :(; - (ilicon 0?1C 'lat 9asher 2aterialC Glan5 -Fone :@ ; L hloro/rene :@(; - (ilicon :@'; - 'iber :@); -)P<M :@P; - Pol3a2ide 081C (ealing hole t3/e Glan5 L ircular sealing ring hole di2ensios 0a-b1 L 'lat sealing ring hole di2ensions

Ca#le %lan& si6es:

-a#le 7.18: C" (*

Mo&el	

Annex to:	IECEx IMQ 18.0005X issue No. 0
Applicant:	Rose Systemtec ni! "m#
Appa$atus:	Metal ca#le %lan&s 'o$ ci$cula$ an& 'lat ca#les se$ies C" (...) C"RC * ..) C"+CS...) C"EMC...) C", -CS...) C", -C.5...) C", -C/0...) C"RCS * ..)
	C" (...0ax#1) C"RC * ..0ax#1) C"+CS.. .0ax#1) C"EMC.. .0ax#1) C", -CS...0ax#1) C", -C.5 * 0ax#1) C", -C/0.. .0ax#1) C"RCS * ..0ax#1

-a#le 7.78: C"+CS *						
Mo&el	Min$max ca#le : mm	-o$;ue <alue =Nm>			Suita#le 'o$	
		S1?S5?S7 t$iple sealin% $in%	S1?S5 &ou#le sealin% $in%	S1 sin%le sealin% $in%	Ex &#	Ex e# Ex t#
! ' (0(#	4-8	20	18	-	no	3es
! ' (01(#	3-,	-	2+	18	3es	3es
! ' (01#	4-12	20	18	16	3es	3es
! ' (1(#	3-,	-	2+	18	3es	3es
! ' (1#	4-12	20	18	16	3es	3es
! ' (12#	10-16	2+	22	18	3es	3es
! ' (2#	10-18	2+	22	18	3es	3es

-a#le ..18: C" (* 0ax#1

Mo&el

-a#le 5: A3A.9.9.			
+$om si6e *	* to si6e	Mate$ial	Mec anical $is!
M127P ! ?7P ' 174;7 FPT174;	M327P ! 217P ' 1;7 FPT 1;	/ol3a2ide	Oigh 0?B1
M327P ! 217P ' 1;7 FPT 1;	M637P ! 487P ' 2;7 FPT 2;		Oigh 0?B1 at TP-40A *o9 04B1 at TQ-40A

-a#le @: +lat sealin% $in% &etails							
Sealin% $in% type	Sealin% $in% &imensions =mm x mm>	Ca#le min =mm x mm>	Ca#le max =mm x mm>	Sealin% $in% type	Sealin% $in% &imensions =mm x mm>	Ca#le min =mm x mm>	Ca#le max =mm x mm>
' -I1	+ - 12,2	+ - 10	+,?+ - 12,2	' -I2	+ - 12,8	+ - 10,4	+,+ - 14