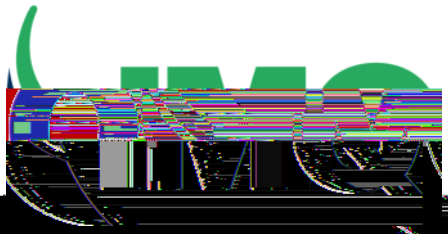

EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System inten e !or use in potenti"#y e$p#osive "tmosp%eres - &irective '()*+,*+EU

[3] EU-type Examination Certificate number: IM -). ATEX ('/ X

[4] PRODUCT: Po#y"mi e c"0#e 1#"n s "n p#u1s

TYPE/SERIES: P22-X3 422-X3 4TP22-X3 4TP22-X 5&S63 4TP22-X 5"$06

E4IP22-X3 E4IP22-X 5&S63 4I422-X2

[5] MANUFACTURER: Rose Systemtec%ni7 8m0%

[6] ADDRESS: ER9E : E8),-)/;&-,'*/< PORTA : ESTFA=ICA - 8erm"ny

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents therein referred to.

[8] IMQ, notified body N° 0051, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in Report No.: AT)<-(().>*'-()

[9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:

EN >((<?-(@'()' A A))@'(),3 EN >((<?-<@'()/3 EN >((<?-,)@ '()*

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate

[11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

II ' 8 E$ e0 IIC 80

II ' & E$ t0 IIIC &0

II ' 8& E$ e0 IIC 80 "n E$ t0 IIIC &0

This document is composed of 8 pages including 1 annex

cosign

general rules

for assessing conformity to community Directives for which IMQ operates as Notified Body and to the particular

[13] Anne$

[14] EU-type Examination Certificate number: IM -). ATEX (' / X

B) /C &escription o! pro uct

The polyamide cable glands series P22-X; 4TP22-X; 4TP22-X 5&S6; E4IP22-X; E4IP22-X 5&S6 are used to introduce permanently circular cables into enclosure.
The polyamide cable glands series 4TP22-X 5"$06 are used to introduce permanently non-circular (flat) cables into enclosure.
Plugs series 422-X and 4I422-X are used to close unused cable entry of an enclosure.
Cable glands and plugs are suitable for electrical equipment either with type of protection "Ex e" or type of protection "Ex t". Cable glands can be also used to wire intrinsically safe circuits.
Cable glands 4TP22-X 5&S6; E4IP22-X 5&S6 are provided with single (S1) or double (S1+S2) sealing rings.
Cable glands 4TP22-X; E4IP22-X are provided with single (S1) sealing rings only.
Cable glands series 4TP22-X 5"$06 are provided with sealing ring specific for non-circular (flat cables), sealing ring hole dimensions are specified in brackets.
Cable glands P..-X, HTP..-X, HTP..-X (DS), EHIP..-X, EHIP..-X (DS) can be supplied with tap, polyamide made, as accessory (PDPX), suitable to guarantee IP degree when installed according to manufacturer's instructions.
Details on sealing rings material, flat washer (placed between the body and the cover of enclosures) materials, O-ring materials and limitations are listed in Table 1.
Installation of cable glands and plugs ensures protection degree IP66/68. IP rating is achieved by use of a flat washer for plugs and a flat washer/O-ring when installing cable glands.

T"0te)i m"teri"is "n service temper"tures					
Series	Service temperature [1]	Sealing rings material	Flat washer materials	OR materials	Mechanical risk
P..-X	-40 ÷ +80 °C (See note 2)	chloroprene (neoprene) silicone	chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDM rubber, NBR	chloroprene (neoprene) silicone EPDM rubber	Low (4J)
H..-X	-40 ÷ +80 °C	-	NBR chloroprene (neoprene) EPDM rubber	-	Low (4J)
	-60 ÷ +80 °C		silicone		
	-50 ÷ +80 °C		KLINGERSIL® C-4400		
HTP..-X	-30 ÷ +70 °C	NBR	chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDM rubber, NBR	chloroprene (neoprene) silicone EPDM rubber	High (7J)
	-40 ÷ +70 °C	chloroprene (neoprene)			
	-60 ÷ +70 °C (See note 2)	silicone			
EHIP..-X	-30 ÷ +70 °C	NBR	chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDM rubber, NBR	chloroprene (neoprene) silicone EPDM rubber	High (7J)
	-40 ÷ +70 °C	chloroprene (neoprene)			
	-60 ÷ +70 °C (See note 2)	silicone			
HTP..-X (axb)	-60 ÷ +70 °C (See note 2)	silicone	chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDM rubber, NBR	chloroprene (neoprene) silicone EPDM rubber	High (7J)
HTP..-X (DS)	-30 ÷ +70 °C	NBR	chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDM rubber, NBR	chloroprene (neoprene) silicone EPDM rubber	High (7J)
	-40 ÷ +70 °C	chloroprene (neoprene)			
	-60 ÷ +70 °C (See note 2)	silicone			
EHIP..-X (DS)	-30 ÷ +70 °C	NBR	chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDM rubber, NBR	chloroprene (neoprene) silicone EPDM rubber	High (7J)
	-40 ÷ +70 °C	chloroprene (neoprene)			
	-60 ÷ +70 °C (See note 2)	silicone			
HIH..-X	-40 ÷ +70 °C	-	NBR chloroprene (neoprene) EPDM rubber	-	High (7J)
	-60 ÷ +70 °C		silicone		
	-50 ÷ +70 °C		KLINGERSIL® C-4400		

Notes
[1] Service temperature is related to material of sealing rings and polyamide which cable glands body is made of, but can be additionally limited by material of flat washer/O-Ring material temperature limitations:
Chloroprene (-40÷100 °C); silicone (-60÷180 °C); EPDM rubber (-40÷110 °C); KLINGERSIL® C-4400 fiber (-50÷130 °C); NBR (-40÷100 °C).
The use of these materials in flat washer/O-Ring shall be taken into account in determination of lower limit of service temperature of cable glands, while upper limit is 80 °C for series P..-X and 70°C for all other series.
[2] When blue caps are used the service temperature changes to -40÷70 °C and low mechanical risk (4J) shall be considered.
When PDPX protection taps are used mechanical risk is determined according table 4.

[13] Anne$

[14] EU-type Examination Certificate number: IM -). ATEX (' / X

B) /2)C Mo e#s+Series I entil:ic"tion@

The characteristics of the cable glands are codified according to Table 2:

T"0te '¡7ey co e												
P	1	3	-	2	4	-	5	-	6			
HIP	1	3	-	2	4	-	5	-	6			
EHIP	1	3	-	2	4	-	5	-	6			
HTP	1	-	2	4	(axb)	-	5	-	6			
HTP	1	3	-	2	4	-	(DS)	5	-	6		
EHIP	1	3	-	2	4	-	(DS)	5	-	6		

1	Thread type:	"N" – NPT ANSI ASME B1.20.1 "M" – Metric ISO pitch 1,5 (ISO 965/1 and ISO 965/3) "P" – PG DIN 40430 "PF" – ISO 228/1
2	Size and dimensions, according to Tables 3	
3	Cap:	"I" – blue cap for use in circuits Ex-i none – black cap "T"- Tampon blue print on black material
(axb)	Dimensions in mm of sealing ring, as follows: type SXL 5,0x15,0 type SXM 5,0x12,8 type SXS 6,0x10,8	
(DS) DC	double sealing ring (S1; S1+S2) double crowns (sealing rings)	
4	Sealing rings material:	C: Chloroprene seal S: Silicone seal N: NBR (only codes H.. and EH..)
5	Flat washer material:	W: same material with sealing ring WF: Fiber washer WE: EPDM washer WN: NBR washer
6	O-ring material:	Blank: None OC: Chloroprene O-Ring OS: Silicone O-Ring OE: EPDM O-Ring

H	1	-	2	3	
HIH	1	-	2	3	

1	Thread type:	"N" – NPT ANSI ASME B1.20.1 "P" – Metric ISO pitch 1,5 (ISO 965/1 and ISO 965/3) "B" – PG DIN 40430 "G" – ISO 228/1
2	Size and dimensions, according to Tables 3	
3	Flat washer material:	C: Chloroprene washer S: Silicone washer WF: Fiber washer WE: EPDM washer WN: NBR washer

Note: Flat washer must be always fitted with plug

PDPX	1	-	2	-	2	(3)

	1: color	" " – Black colour "B" – Blue colour "G" – Green colour
	2:	Size and dimensions (example; -13-22)
	3:	Plug size (example PG11)

Models included in this Certificate are shown in Tables 3.x and 4 in following pages.

[13] Anne$

[14] EU-type Examination Certificate number: IM -). ATEX (' / X

T" 0#e ,2)# P22-X series				
Mo e#	T%re"	Min-m"$ c" 0#e Bmm(	Torque v"#ue BNm(	Mec%"nic"# ris7
PM.-SX2	M20x1.5	5,0-10,0	2,5	Low (4J)
PM.-X2	M20x1.5	6,0-12,0	5,0	
PM.-X2L	M20x1.5	6,0-12,0	5,0	
PM.-X3	M20x1.5	10,0-14,0	5,5	
PM.-X4	M20x1.5	10,0-14,0	5,5	
PM.-SX5	M25x1.5	10,0-14,0	5,5	
PM.-X5	M25x1.5	13,0-18,0	8,0	
PM.-SX6	M25x1.5	10,0-14,0	5,5	
PM.-X6	M25x1.5	13,0-18,0	8,0	
PM.-XEU25	M25x1.5	11,0-17,0	5,0	
PM.-XEU32	M32x1.5	15,0-21,0	6,0	
PM.-SX7	M32x1.5	13,0-18,0	8,0	
PM.-X7	M32x1.5	18,0-25,0	9,0	
PM.-XEU40	M40x1.5	19,0-28,0	5,0	
PM.-XEU40L	M40x1.5	19,0-28,0	5,0	
PM.-X8	M40x1.5	22,0-32,0	17,5	
PM.-X9	M50x1.5	30,0-38,0	22,0	
PM.-X10	M63x1.5	34,0-44,0	23,0	
PN.-SX2	NPT 1/2"	5,0-10,0	2,5	Low (4J)
PN.-X2	NPT 1/2"	6,0-12,0	5,0	
PN.-LX2	NPT 1/2"	10,0-14,0	5,5	
PN.-X3	NPT 3/4"	13,0-18,0	8,0	
PN.-X4	NPT 1"	18,0-25,0	9,0	
PN.-X8	NPT 1 1/4"	22,0-32,0	17,5	
PN.-X9	NPT 1 1/2"	30,0-38,0	22,0	
PN.-X10	NPT 2"	34,0-44,0	23,0	
PPF.-SX2	PF 1/2"	5,0-10,0	2,5	Low (4J)
PPF.-X2	PF 1/2"	6,0-12,0	5,0	
PPF.-LX2	PF 1/2"	10,0-14,0	5,5	
PPF.-X3	PF 3/4"	13,0-18,0	8,0	
PPF.-X4	PF 1"	18,0-25,0	9,0	
PP.-X4	PG 13,5	6,0-12,0	5,0	Low (4J)
PP.-X5	PG 16	10,0-14,0	5,5	
PP.-X6	PG 21	13,0-18,0	8,0	
PP.-X7	PG 29	18,0-25,0	9,0	
PP.-X8	PG 36	22,0-32,0	17,5	
PP.-X9	PG 42	30,0-38,0	22,0	
PP.-X10	PG 48	34,0-44,0	23,0	

T" 0#e ,2'# 422-X series								
Mo e#	Torque v"#ue BNm(	Mo e#	Torque v"#ue BNm(	Mo e#	Torque v"#ue BNm(	Mo e#	Torque v"#ue BNm(	Mec%"nic"# ris7
HP-X02	1.5	HN-X02	1.5	HG-X02	1.5	-	-	Low (4J)
HP-X01	1.5	-	-	HG-X01	1.5	-	-	
HP-X01L	1.5	-	-	HG-X01L	1.5	-	-	
HP-X01HL	1.5	HN-X01HL	1.5	HG-X01HL	1.5	-	-	
HP-X1	2	-	-	HG-X1	2	HB-X1	1.5	
HP-X1L	2	-	-	HG-X1L	2	-	-	
HP-X1HL	2	HN-X1HL	2	HG-X1HL	2	-	-	
HP-X2	2.5	-	-	HG-X2	2.5	HB-X2	1.5	
-	-	-	-	-	-	HB-X2L	1.5	
HP-X2HL	2.5	HN-X2HL	2.5	HG-X2HL	2.5	HB-X2HL	1.5	
HP-X3	4	HN-X3	4	HG-X3	4	HB-X3	1.5	
HP-X4	6	HN-X4	6	HG-X4	6	HB-X4	2	
-	-	-	-	-	-	HB-X4L	2	
-	-	-	-	-	-	HB-X4HL	2	
HP-X5	8	HN-X5	8	HG-X5	8	HB-X5	2	
HP-X6	10	HN-X6	10	HG-X6	10	HB-X6	2.5	
-	-	-	-	-	-	HB-X6HL	2.5	
-	-	-	-	-	-	HB-X7	4	
-	-	-	-	-	-	HB-X8	6	

[13] Annex

[14] EU-type Examination Certificate number: IM -). ATEX (' / X

D T" 0#e ,2,# 4TP22-X "n E4IP22-X series				
Mo e#		Min-m"$ c" 0#e Bmm(	Torque v"#ue BNm(	Mec%"nic"# ris7
HTP..-0XS	EHIP..-0XS	4-6.5	2	
HTP..-XS	EHIP..-XS	4-6.5	2	
HTP..-SX1	EHIP..-SX1	5-8	4	
HTP..-SX1L	EHIP..-SX1L	5-8	4	
HTP..-X1	EHIP..-X1	6-10	4	
HTP..-X1L	EHIP..-X1L	6-10	4	
HTP..-SX2	EHIP..-SX2	6-10	2.5	
HTP..-X2	EHIP..-X2	7-12	5	
HTP..-X2L	EHIP..-X2L	7-12	5	
HTP..-MX2	EHIP..-MX2	7-13	4.5	
HTP..-X3	EHIP..-X3	11-14	5.5	
HTP..-X4	EHIP..-X4	11-14	5.5	
HTP..-SX5	EHIP..-SX5	11-14	5.5	
HTP..-SX6	EHIP..-SX6	11-14	5.5	High (7J)
HTP..-XEU25	EHIP..-XEU25	12-17	5	
HTP..-XEU25L	EHIP..-XEU25L	12-17	5	
HTP..-X5	EHIP..-X5	14-18	8	
HTP..-X6	EHIP..-X6	14-18	8	
HTP..-SX7	EHIP..-SX7	14-18	8	
HTP..-XEU32	EHIP..-XEU32	16-21	6	
HTP..-XEU32L	EHIP..-XEU32L	16-21	6	
HTP..-X7	EHIP..-X7	19-25	9	
HTP..-XEU40	EHIP..-XEU40	20-28	5	
HTP..-XEU40L	EHIP..-XEU40L	20-28	5	
HTP..-X8	EHIP..-X8	23-32	17.5	
HTP..-X9	EHIP..-X9	31-38	22	
HTP..-X10	EHIP..-X10	35-44	24	

D T" 0#e ,2/# 4TP22-X 5&S6 "n E4IP22-X 5&S6 series					
Mo e#		Min-m"$ c" 0#e Bmm(DD	Torque v"#ue BNm(		Mec%"nic"# ris7
			S)AS'	S)	
HTP..-0XS(DS)	EHIP..-0XS(DS)	3-6.5	1	2	
HTP..-XS(DS)	EHIP..-XS(DS)	3-6.5	1	2	
HTP..-SX1(DS)	EHIP..-SX1(DS)	4-8	3.5	4	
HTP..-SX1L(DS)	EHIP..-SX1L(DS)	4-8	3.5	4	
HTP..-X1(DS)	EHIP..-X1(DS)	4-10	3.5	4	
HTP..-X1L(DS)	EHIP..-X1L(DS)	4-10	3.5	4	
HTP..-SX2(DS)	EHIP..-SX2(DS)	4-10	3.2	2.5	
HTP..-X2(DS)	EHIP..-X2(DS)	6-12	5	5	
HTP..-X2L(DS)	EHIP..-X2L(DS)	6-12	5	5	
HTP..-MX2(DS)	EHIP..-MX2(DS)	4-13	3.5	4.5	
HTP..-X3(DS)	EHIP..-X3(DS)	8-14	5.5	5.5	
HTP..-X4(DS)	EHIP..-X4(DS)	8-14	5.5	5.5	
HTP..-SX5(DS)	EHIP..-SX5(DS)	8-14	5.5	5.5	
HTP..-SX6(DS)	EHIP..-SX6(DS)	8-14	5.5	5.5	High (7J)
HTP..-XEU25(DS)	EHIP..-XEU25(DS)	9-17	5.5	5	
HTP..-XEU25L(DS)	EHIP..-XEU25L(DS)	9-17	5.5	5	
HTP..-X5(DS)	EHIP..-X5(DS)	10-18	5	8	
HTP..-X6(DS)	EHIP..-X6(DS)	10-18	5	8	
HTP..-SX7(DS)	EHIP..-SX7(DS)	10-18	4.5	8	
HTP..-XEU32(DS)	EHIP..-XEU32(DS)	12-21	5.5	6	
HTP..-XEU32L(DS)	EHIP..-XEU32L(DS)	12-21	4.5	6	
HTP..-X7(DS)	EHIP..-X7(DS)	14-25	8	9	
HTP..-XEU40(DS)	EHIP..-XEU40(DS)	17-28	5	5	
HTP..-XEU40L(DS)	EHIP..-XEU40L(DS)	17-28	5	5	
HTP..-X8(DS)	EHIP..-X8(DS)	21-32	15	17.5	
HTP..-X9(DS)	EHIP..-X9(DS)	22-38	18	22	
HTP..-X10(DS)	EHIP..-X10(DS)	28-44	22	24	

* metric threads cable glands sizes are shown; models with other threads, as detailed in table 2, are available. Full list is shown in "Relevant

[13] Anne$

[14] EU-type Examination Certificate number:

[13] Anne$

[14] EU-type Examination Certificate number: IM -). ATEX (' / X

B) /2,C S"!ety R"tin1s@

None

B) /2*C Am0ient temper"ture "n temper"ture c#"sses@

Cable glands P..-X (sealing rings: silicone; neoprene) have the working temperature of: -40°C ÷ +80°C.
Plugs H..-X have the working temperature of -40°C ÷ +80°C, except when used with silicone flat washer (-60°C ÷ +80°C) or KLINGERSIL flat washer (-50°C ÷ +80°C).

Others equipment have the working temperature of:

- -30÷+70°C with NBR sealing rings
- -40÷+70°C with neoprene sealing rings
- -60÷+70°C with silicone sealing rings

More details in Table 1 at [15].

B) /2/C &e1ree o! protection 5IP co e6@

IP66/68

B) /2>C : "min1s@

For gas installations (only for cable glands with M50/PG42/PF 1 ½"/NPT 1 ½" threads) and dust installations:
Warning. Potential electrostatic charging hazard - See instructions. Clean only with antistatic clothes.

B)>C Report@ AT17-0018642-01

B)>2)C Routine 5!"ctory6 tests@

The manufacturer shall carry out the routine test prescribed at clauses 27 of the EN 60079-0.

B)>2'C Con!ormity Git% t%e ocument"tion@

The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.
Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety matters;
- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

B)>2,C Inst"#"tion con itions@

Above referred equipment is foreseen to be installed in locations where there are environmental conditions, as clearly specified at clause 1, par. 2 of EN 60079-0.
Installation and use in atmospheric and environmental conditions that are out of above mentioned intervals request special considerations and additional measures by the side of installer or user.
These should be specified to the manufacturer by the user;
It is not a required by applicable standard listed in [9] that the certification body confirm suitability for the adverse conditions.
Installation of equipment has to proceed according to EN 60079-14 and to safety manufacturer instructions to maintain degree of protection.

[13] Anne$

[14] EU-type Examination Certificate number: IM -). ATEX (' / X

pulling or twisting.
- The cable glands/plugs and the relevant cables, shall be used where a protection against risk of mechanical damage is provided, when they are suitable for low mechanical risk (4J) only.
- The cable gland installation shall be carried out according to Manufacturer's safety instructions to maintain degree of protection.
- For gas installations (only for cable glands with M50/PG42/PF 1 ½"/NPT 1 ½" threads and following) and dust installations: Warning. Potential electrostatic charging hazard - See instructions. Clean only with antistatic clothes.
- When cable glands are installed with polyamide insert PDPX, mechanical risk have to be taken into account, depending on cable gland and insert tap. 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).
- Cable glands for non circular cables shall be fitted with proper cables, suitable for sealing ring, according to manufacturer's instruction.

B).C Essenti"# 4e"#t% "n s"!ety Requirements@
This Certificate oes not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].
This Certificate oes not cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN 60079-0.

ESHR 1.2.7 According Annex VIII of the Directive
ESHR 1.4 Not verified.
ESHR 1.5 Not verified.
ESHR 3 Not applied.

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:
None

B)?C &escriptive ocuments@ DL-AT17-0018642-01 dated 2018.08.28

B'(C Certi!ic"tion H"#i ity Con itions@
The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.
The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per 19.
One copy of the mentioned documentation is kept in IMQ file.

B')C In accordance with Article 41 of Directive 2014/34/EU, Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. New issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

B''C H"ri"tions

First issue