



제15-0496호

# 안 전 인 증 서

R.STAHL Schaltgerate GmbH

Am Bahnhof 30 D-74638 waldenburg Germany

위 사업장에서 제조하는 아래의 품목이 「산업안전보건법」 제34조 및 같은 법 시행규칙 제58조의4제4항에 따른 안전인증 심사 결과 안전·보건 기준에 적합하므로 안전인증표시의 사용을 인증합니다.

## 품 목

Cable Glande

## 형식 · 모델 / 용량 · 등급 / 인증번호

형식 · 모델	용량 · 등급	인증번호
8161/*_***_****_*** ***	Ex e IIC / Ex tD III C	15-GA4BO-0496X

## 인 증 기 준

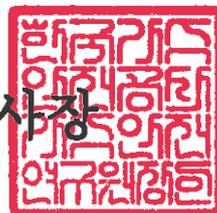
방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

## 인 증 조 건

i. Operating temperature : -40°C / -60°C ≤ Tamb ≤ +70°C

2015 년 07 월 09 일

한국가스안전공사 사장





# 인 증 조 건

## 1. 제조공장 :

“ Am Bahnhof 30 D-74638 waldenburg Germany” 에서 생산된 제품 중 아래 인증범위에 한 함.

## 2. 제품개요 :

The cable gland type 8161/\*\_\*\*\*\_\*\*\*\*\_\*\*\*\*\* is made from polyamid. It is used for Permanently wired cables entering electrical equipment of Increased Safety “ e” and Protection by enclosure “ tb” type of protection.

The cable gland is installed in enclosure with threaded holes and through-hole. The cable

## 3. 인증범위 :

첨부의 모델 및 형식에 한하여 유효 함.

## 4. 안전한 사용을 위한 조건 :

첨부 및 IECEx PTB 14.0011X 인증서를 참조하여 사용 할 것.

## 5. 인증(변경)사항 :

## 6. 그 밖의 사항 :

안전인증품의 품질관리, 확인심사수검, 변경사항신고등인증받은자의의무준수

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인증조건(2015- )



Attachment to Certificate  
IECEX PTB 14.0011 X



Applicant: R. STAHL Schaltgeräte GmbH  
Am Bahnhof 30  
74638 Waldenburg (Württ.)  
Germany

Electrical Apparatus: Cable gland type 8161/\*-\*\*\*-\*\*\*\*-\*\*\*\*\*

**Description:**

The cable gland type 8161/\*-\*\*\*-\*\*\*\*-\*\*\*\*\* is made from polyamide. It is used for permanently wired cables entering electrical equipment of Increased Safety "e" and Protection by enclosure "tb" type of protection.

The cable gland is installed in enclosures with threaded holes and through-holes.  
The cable entry consists of an adapter with connection thread; cap nut, elastomeric sealing insert and gasket at the connection thread.

**Nomenclature:**

8161	/	*	-	*	**	-	****	-	**	*	**	*
a	b	c	d	e	f	g	h	j				

- a = Designation of type
- b = Type of protection
  - 7 = increased safety "e" marked by black nut
  - 8 = intrinsic safety "I" marked by blue nut
- c = Connection thread
  - M = metric connection thread according to DIN 60423
  - N = NPT connection thread according to ANSI B1.20.1 (not included in this certification)
- d = Nominal value of connecting thread, e.g.
  - 16 = metric thread M16x1,5
  - 40 = metric thread M40x1,5
  - ½ = NPT thread ½"
  - 1 ¼ = NPT thread 1 ¼"
- e = Optional specification of an additional reducing seal insert. Reducing seal insert e.g.:
  - 0601 = M12x1,5
  - 0902 = M16x1,5
  - 1304 = M20x1,5
  - 1707 = M25x1,5
  - 2109 = M32x1,5
  - 2812 = M40x1,5
  - 3516 = M50x1,5
  - 4828 = M63x1,5
- f = Optional specification of a special case hardening temperature
  - LT = low temperature -60 °C
- g = Optional specification of a special connecting thread length
  - L = long connection thread (only for metric thread valid)
- h = Optional specification of a cable protection
  - BP = cap nut with bend protection spiral
- j = Optional specification of a special application of multiple gasket and special gasket (not included in this certification)



인증조건(2015- )



Attachment to Certificate  
IECEX PTB 14.0011 X



**Technical data:**

Connection thread size	Metric, EN 60423: M12x1.5 to M63x1.5
Connection thread length	9 mm to 18 mm
Minimum wall thickness of housing	Threaded hole, metal housing: 3 mm Threaded hole, plastic housing: 3 mm Through-hole, metal housing: 1 mm Through-hole, plastic housing: 2 mm
Suited for cable diameters	Subject to nominal size, between 1 mm and 48 mm
Suited for equipment of device group IIC with the mechanical risk level	Depends on the size and the ambient temperature. See list below
Operating temperature range	Normal type -40 °C to +75 °C LT type -60 °C to +75 °C
Ingress protection	IP66 / IP68 (5 bar, 30 min) according to EN 60529

Sealing range / Anchorage range (mm)	Type of cable gland	Reduced sealing range / Anchorage range (mm) (-RDE)	Type of cable gland	Test torques [Nm]	
				Adapter	Cap nut
3 - 6	8161/*-M12-0603-*****	1 - 3	8161/*-M12-0601-*****	2,0	2,0
4,5 - 9	8161/*-M16-0905-*****	2 - 6	8161/*-M16-0902-*****	1,8	1,3
7 - 13	8161/*-M20-1307-*****	4 - 8	8161/*-M20-1304-*****	2,3	1,5
10 - 17	8161/*-M25-1710-*****	7 - 12	8161/*-M25-1707-*****	3,0	2,0
13 - 21	8161/*-M32-2113-*****	9 - 14	8161/*-M32-2109-*****	4,5	3,0
17 - 28	8161/*-M40-2817-*****	12 - 20	8161/*-M40-2812-*****	11,0	10,0
23 - 35	8161/*-M50-3523-*****	16 - 25	8161/*-M50-3516-*****	13,0	12,0
34 - 48	8161/*-M63-4834-*****	28 - 38	8161/*-M63-4828-*****	17,0	16,0

Type of cable gland	Ambient temperature	Impact energy	Type of cable gland	Ambient temperature	Impact energy
8161/*-M12-****-*****	-40 °C to +75 °C	0J	8161/*-M12-****-LT***	-60 °C to +75 °C	0J
8161/*-M16-****-*****		0J	8161/*-M16-****-LT***		0J
8161/*-M20-****-*****		4J	8161/*-M20-****-LT***		4J
8161/*-M25-****-*****		7J	8161/*-M25-****-LT***		4J
8161/*-M32-****-*****		7J	8161/*-M32-****-LT***		4J
8161/*-M40-****-*****		7J	8161/*-M40-****-LT***		4J
8161/*-M50-****-*****		7J	8161/*-M50-****-LT***		4J
8161/*-M63-****-*****		7J	8161/*-M63-****-LT***		4J