

# Explosion Proof (Ex)







ASTERIA lighting fixture, Golnoor series of flame proof light fittings, is the ideal solution for lighting in hazardous areas. This product benefits from a robust flameproof enclosure with the light transmitting part made of borosilicate glass and metallic part made of copper free aluminum covered with coatings making it suitable for use in corrosive, high temperature, and humid environments. The fixture is also suitable for outdoor applications due to its high degree of protection, IP67.

Maintenance is simplified due to gathering of all electrical components on a single frame moving on guides outwards thus eliminating the need for removal of the whole fixture for servicing. Through-wiring is included as the default feature which along with the movable frame helps to keep connected lightings turned on if one is out of service.

Brackets are available for ceiling, pole, and pendant mountings. Using the available auxiliary bracket along with main brackets facilitates and speeds up servicing. In case fixtures are used in locations with high risk of mechanical impacts an external protection and wire guard is available upon request.

Various electrical circuits meet the diverse need of lighting industry in hazardous areas. Fluorescent and LED light sources with various powers are supplied. Emergency models are provided to ensure lighting in case of power failures and sign models are available for lighting exit routes and identification of emergency exits.

#### **ASTERIA**

Explosion proof linear lighting fixtures
The ideal solution for lighting in hazardous areas

- Flameproof enclosure
- . Zone 1, 2, 21, 22
- Degree of protection IP66/IP67
- LED/Fluorescent light source
- Normal/ Emergency/ Sign applications
- . Through wiring
- Simplified maintenance

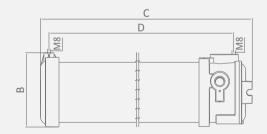
#### **STANDARDS**

For ASTERIA product family the following standards have been followed wherever applicable:

- . IEC 60079-0
- IEC 60079-1
- IEC 60079-31
- IEC 60598-1
- . IEC60598-2-22
- . IEC 60529

#### **FIXTURE SIZES**





#### **Dimensions (mm)**

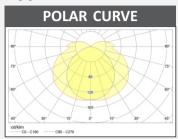
Size code

	Α	В	С	D
1	140	148	1319	1265
2	140	148	709	655
3	140	148	459	405



### **FLUORESCENT LUMINAIRES**

Types: NF, EF

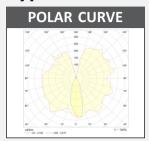




	Technical data			
Туре	NF		EF	
Application	Normal		Emergency	
Marking	⟨£x⟩    2G Ex db   C T6 G ⟨£x⟩    2D Ex tb    C T 85		(Ex)   I 2G Ex db   I C T 6 Gb (Ex)   I 2D Ex tb   I I C T 85°C Db	
<b>EU-Type Examination Certific</b>	ate ECM 19 ATEX 5851 X		ECM 19 ATE	EX 5851 X
ATEX Certificate	ECM 22 ATEX-QS 5415	<u> </u>	ECM 22 ATE	EX-QS 5415
Permissible ambient tempe	rature -20 °C to 55 °C		-20 °C to 40	) °C
Degree of protection	IP66/IP67		IP66/IP67	
Cable entries	2xM25 or 2xM20		2xM25 or 2	xM20
Dimensions	Size1 ,2		See size1 ,2	
Enclosure Color	RAL 7072		RAL 7072	
Enclosure material	Copper free aluminun	า	Copper free	e aluminum
Protective cover	Borosilicate glass		Borosilicate	
Type of mounting	Ceiling, Pendant, Pole		Ceiling, Per	ndant, Pole
Power factor	> 0.9		> 0.9	
Voltage	230 V AC		230 V AC	
Frequency	50/60 Hz		50/60 Hz	
Circuit	Electronic ballast		Electronic ballast Emergency supply	
Light source	2xT8, Fluorescent, 18,	2xT8, Fluorescent, 18/36W 2xT8, Fluorescent, 18/		escent, 18/36W
Lamp cap	G13	G13 G13		
Connecting terminals	L,N,PE:6x2.5 mm2 throu	gh wiring	L,N,PE: 6x2.5	mm2 through wiring
Protection class	I		I	
Emergency type	-	- Maintained		I
Battery	-	- 4 Ah 3.6 V		
Charging duration	-		24h	
Rated operating duration	-		3h (one lan	np)
Rated luminous flux	5000 lm/ 3000 lm		5000 lm/ 30	000 lm
Type Application	Content	Threads	s Size	Order code
ASTERIA NF Normal	2x Fluorescent lamp 36 W	2xM25		X10 NF 2360
ASTERIA NF Normal	2x Fluorescent lamp 36 W	2xM20	1	X10 NF 2361
ASTERIA NF Normal	2x Fluorescent lamp 18 W	2xM25		X10 NF 2180
ASTERIA NF Normal	2x Fluorescent lamp 18 W	2xM20	2	X10 NF 2181
Type Application	Content	Threads	s Size	Order code
ASTERIA EF Emergency	2x Fluorescent lamp 36 W	2xM25		X10 EF 2360
	2x Fluorescent lamp 36 W	2xM20		X10 EF 2361
	•	2xM25		X10 EF 2361 X10 EF 2180
	2x Fluorescent lamp 18 W			
ASTERIA EF Emergency	2x Fluorescent lamp 18 W	2xM20	2	X10 EF 2181

### **LED LUMINAIRES**

**Types: NL-LIOL** 





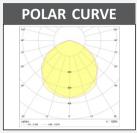
	Technical data
Туре	NL-LIOL
Application	ACWL
Marking —	(Ex)   1 2G Ex db   1 C T 6 GB (Ex)   1 2D Ex tb   1   C T 85° C Db (Ex)   1 2G Ex op is   1 C T 6 Gb (Ex)   1 2D Ex op is   1   C T 85° C Db
EU-Type Examination Certificate	ECM 19 ATEX 5851 X- Asteria ECM 22 ATEX 5150 X
ATEX Certificate	ECM 22 ATEX-QS 5415
Permissible ambient temperature	-20 °C to 50 °C
Degree of protection	IP66/IP67
Cable entries	2xM25 or 2xM20
Dimensions	Size 3
Enclosure Color	RAL 7072
Enclosure material	Copper free aluminum
Protective cover	Borosilicate glass
Type of mounting	Ceiling, Pendant, Pole, Wall
Power factor	> 0.9
Voltage	230 V AC
Frequency	50-60 Hz
Illuminant	LED <sub>S</sub>
Connecting terminals	L,N,PE: 6x2.5 mm2 through wiring
Protection class	
Luminous intensity	>32.5 cd @25°

Type	Application	Threads	Color	Size	Order code
ASTERIA NL-LIOL	ACWL	2xM25	Red	3	X10 NL 112 100 LI
ASTERIA NL-LIOL	ACWL	2xM25	White	3	X10 NL 106 200 LI
ASTERIA NL-LIOL	ACWL	2xM20	Red	3	X10 NL 112 101 LI
ASTERIA NL-LIOL	ACWL	2xM20	White	3	X10 NL 106 201 LI



### **LED LUMINAIRES**

Types: NL, EL





Technical data				
Туре	NL	EL		
Application	Normal	Emergency		
Marking —	<ul> <li>⊞ I 2G Ex db IIC T6 GB</li> <li>⊞ I 2D Ex tb IIIC T85°C Db</li> <li>⊞ I 2G Ex op is IIC T6 Gb</li> </ul>	(a) II 2G Ex db IIC T6 GB (b) II 2D Ex tb IIIC T85°C Db (c) II 2G Ex op is IIC T6 Gb		
	<a>⊕ II 2D Ex op is IIIC T85°C Db</a>	II 2D Ex op is IIIC T85°C Db		
EU-Type Examination Certificate	ECM 19 ATEX 5851 X- Asteria ECM 22 ATEX 5150 X	ECM 19 ATEX 5851 X- Asteria ECM 22 ATEX 5150 X		
ATEX Certificate	ECM 22 ATEX-QS 5415	ECM 22 ATEX-QS 5415		
Permissible ambient temperature	-20 °C to 55 °C	-20 °C to 40 °C		
Degree of protection	IP66/IP67	IP66/IP67		
Cable entries	2xM25 or 2xM20	2xM25 or 2xM20		
Dimensions	Size 1, 2,3	Size 1, 2,3		
Enclosure Color	RAL 7072	RAL 7072		
Enclosure material	Copper free aluminum	Copper free aluminum		
Protective cover	Borosilicate glass	Borosilicate glass		
Type of mounting	Ceiling, Pendant, Pole, Wall	Ceiling, Pendant, Pole, Wall		
Power factor	> 0.9	> 0.9		
Voltage	230 V AC	230 V AC		
Frequency	50-60 Hz	50-60 Hz		
Illuminant	LEDs	LEDs		
Connecting terminals	L,N,PE:6x2.5 mm2 through wiring	L,N,PE:6x2.5 mm2 through wiring		
Protection class	1	1		
Emergency type	-	Maintained		
Battery	-	4 Ah, 4.8 V		
Charging duration	-	24h		
Rated operating duration	-	3h		
Rated Luminous Flux 15 W	1730/2330 lm	1730/2330 lm		
Rated Luminous Flux 20 W	2300/3300 lm	2300/3300 lm		
Rated Luminous Flux 40 W	4800/7000 lm	4800/7000 lm		

Type	Application	Power	Threads	Size	Order code
ASTERIA NL	Normal	40W	2xM25	1	X10 NL 1150 L (E/P)
ASTERIA NL	Normal	40W	2xM20	1	X10 NL 1151 L (E/P)
ASTERIA EL	Emergency	40W	2xM25	1	X10 EL 1150 L (E/P)
ASTERIA EL	Emergency	40W	2xM20	1	X10 EL 1151 L (E/P)
ASTERIA NL	Normal	20W	2xM25	2	X10 NL 1150 M (E/P)
ASTERIA NL	Normal	20W	2xM20	2	X10 NL 1151 M (E/P)
ASTERIA EL	Emergency	20W	2xM25	2	X10 EL 1150 M (E/P)
ASTERIA EL	Emergency	20W	2xM20	2	X10 EL 1151 M (E/P)
ASTERIA NL	Normal	15W	2xM25	3	X10 NL 1150 (E/P)
ASTERIA NL	Normal	15W	2xM20	3	X10 NL 1151 (E/P)
ASTERIA EL	Emergency / Sign	15W	2xM25	3	X10 EL 1150 (E/P)
ASTERIA EL	Emergency / Sign	15W	2xM20	3	X10 EL 1151 (E/P)

## **ACCESSORIES**

ILLUSTRATION		TYPE	MATERIAL	NOTE	CODE	
			External reflector	AISI304	Fixture Size 1	X10 R1
ONS	A		External reflector	AISI304	Fixture Size 2	X10 R2
ECT	<u> </u>		External reflector	AISI304	Fixture Size 3	X10 R3
PRO			Wire guard	AISI304	Fixture Size 1	X10 G1
NAL	NAME OF THE PARTY		Wire guard	AISI304	Fixture Size 2	X10 G2
XTER			Wire guard	AISI304	Fixture Size 3	X10 G3
ш			Round Wire Guard	AISI304	Fixture Size 1 Fixture Size 1 Fixture Size 1	X10 RG1 X10 RG2 X10 RG3

	ILLUSTRATION	TYPE	MATERIAL	NOTE	CODE
		Pole mounting	- AISI304 - Galvanized	- 2 pcs. With nuts, screws, washers - Available sizes: 1 ½", 2"	X10 PM1.5 X10 PM2
ORIES		Ceiling mounting	- AISI304 - Galvanized	2 pcs. With nuts, screws, washers	X10 CM
CCESSC		Suspended mounting	- AISI304 - Galvanized	2 pcs.	X10 SM
UNTING		Easy-maintenance	- AISI304 - Galvanized	Can be Used separately or along with other bracket types	X10 EM
MO		Wall mounting	- AISI304 - Galvanized	2 pcs. With nuts, screws, washers	X10 WM 1
		Wall mounting	- AISI304 - Galvanized	2 pcs. With nuts, screws, washers	X10 WM 2

	ILLUSTRATION	ТҮРЕ	ORDER CODE
res	EXIT	Exit	X10 Exit
inaire	↓ <u>↑</u>	Exit rout down	X10 DN
e lum	1 1/2	Exit rout up	X10 UP
L type	<b>1</b> ⁄7. →	Exit rout right	X10 RT
for El	★ →	Exit rout left	X10 LT
AMS .	1, →	Exit door right	X10 RD
OGR/	] ← X	Exit door left	X10 LD
PICT	1/√→1/	Exit stairs right	X10 RS
	x 6 1/2	Exit stairs left	X10 LS









Atria has been developed as a new LED lighting fixture with the aim of redefining the concepts of compactness, versatility and ease of installation thanks to high intensity and efficiency LED plates. The Atria consists of a lighting fixtures size and represents the LED alternative for all those areas where it was normal to use lighting fixtures with discharge lamps. The body, made of aluminum alloy, is equipped with fins that act as a heat sink allowing a fast and effective dispersion of heat generated by the normal operation of the LED.

The geometric conformation of the cooling fins was also designed with the objective of minimizing the deposit of combustible dust, allowing the self-cleaning of the lighting fixture by air or water present in the environment. Furthermore, thanks to the absence of UV emission, there is no ionization of the air particles around the lighting fixture, an intrinsic characteristic of LED technology which limits the attraction of dust and insects. The design of the lamp body, in addition to being functional to the duration of the system, gives the equipment very high light efficiency. The electrical connection is easier thanks to a 'Ex e' terminal housing which allows the entry with a 'Ex e' cable gland (no barrier). In addition, an opposed plugged hole permits the through wiring connection.

## Standards

#### **ATRIA**

LED lighting fixure

Zone 1, 2, 21, 22

- Replaces traditional discharge lamps
- Saves in energy, maintenance and installation costs
- Instant, bright illumination
- Suitable for GAS category IIC
- Symmetric and asymmetric light distribution

#### Connection

Direct connection to terminal board L, N, Pe. Section 4mm<sup>2</sup> or 6mm<sup>2</sup>,

#### **STANDARDS**

CENELEC EN 60079-0: 2018, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE

. IEC 60079-0: 2017

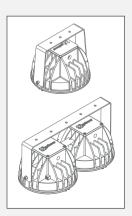
. IEC 60079-1: 2014

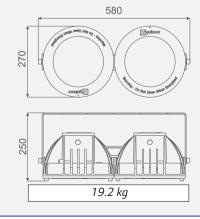
.IEC 60079-28: 2015

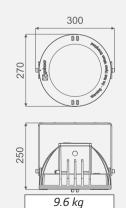
. IEC 60079-31: 2013

. IEC 60079-7: 2015

#### **FIXTURE SIZES**









## **LED** lighting fixure

Certification data	Single	Twin
Туре	35~75 - 76~100 watt	101~150 - 151~200 watt
Application	Flood, High bay, Street Lighting fixture	Flood, High bay, Street Lighting fixture
Marking	<ul><li>⊞ II 2G Ex db eb IIC T6 Gb</li><li>⊞ II 2D Ex tb IIIC T85°C Db</li></ul>	<ul><li>⊞ II 2G Ex db eb IIC T6 Gb</li><li>⊞ II 2D Ex tb IIIC T85°C Db</li></ul>
EU-Type Examination Certificate	ECM 23 ATEX 6134 X	ECM 23 ATEX 6134 X
Permissible ambient temperature	-20 °C to 55 °C	-20 °C to 55 °C
Degree of protection	IP66	IP66
Cable entries	2xM25 or 2xM20	2xM25 or 2xM20
Dimensions	Ø 220x193 mm	Ø 440x193 mm
Enclosure Color	RAL 7072	RAL 7072
Enclosure material	Copper free aluminum	Copper free aluminum
Protective cover	Borosilicate glass	Borosilicate glass
Type of mounting	Ceiling, Pendant, Pole, Wall	Ceiling, Pendant, Pole, Wall
Power factor	>0.9	>0.9
Voltage Frequency	230 V AC 50/60 Hz	230 V AC 50/60 Hz
Circuit	Electronic driver	Electronic driver

Photometric features	
LED Multichip	High power LED
Viewing angle	30-60-90°
Colour temperature	3000-4000-5000-6500
CRI	>70
L70 B10	> 70000 h

Mechanical features	
Body	Low copper content aluminium alloy fitted with cooling fins for better heat dissipation
Glass face	Shock and temperature resistant tempered glass sealed with aluminium ring
Gaskets	Acid, hydrocarbon and high temperature resistant silicone
Supporting bracket	Stainless steel AISI304/ 316L
Bolts and screws	Stainless steel
Entries	2xISO M20/M25
Coating	coating Ral 7072

Selection	Single	Twin
Туре	35~75 - 76~100 watt	101~150 - 151~200 watt
Ambient temperature	-20 °C to +55 °C	-20 °C to +55 °C
temperature class	T6 / 85 °C	T6 / 85 °C
Lumen	7500, 15000 lm	22500, 30000 lm
Efficiency	150 lm/W	150 lm/W
Weight	9.6 kg	19.2 kg
Order code	ATR00100-00	ATR00200-00

### **ACCESSORIES AVAILABLE / SPECIAL REQUESTS**

Additional cable gland for unarmoured cable

	Supporting bracket	wall or structure mounting OR	
RIES	Twin type bracket	ceiling mounting	Material: stainless steel AISI 316L/304
MOUNTING ACCESSORIES	Street Lighting bracket 1,1/2"-2"	Poles Mounted	Material: Galvanized steel
	Street Lighting bracket 1,1/2"-2"	Poles Mounted	

Note1: wiring between fixtures in twin type will be done by Golnoor Co.

Photometric diagram(polar curve)

On golnoor web site you can download .LDT lighting data files for the design and simulation of lighting levels , rendering and ray tracing.







Serie GJB Explosion-proof boxes made of copper free Aluminum varies from terminal boxes to enclosures. They are equipped with pillar or strip terminals and assembly plate to distribute electricity in hazardous areas including zone 21,2,1 and 22. In addition, big sizes can be equipped with circuit breakers but without external access as a control panel to be able to and the fault more easily.

Cables enter to GJBs via explosion protected conduits or cable glands and unused drilled holes would be closed with protected stopping plugs. They can provide optional external earth connection and high IP protection degree.



Ex-d Light	Alloy Boxes
Marking acc. To 2014/34/EU	(Ex) II 2 G Ex db IIC T4/T5/T6 Gb (Ex) II 2 D Ex tb IIIC T85 C / T100 C Db
Applicable Zones	1, 2 - 21, 22
EU-Type Examination Certificate	ECM 18 ATEX 2444 X
ATEX Certificate	ECM 22 ATEX-QS 5415
Permissible ambient temperature	-20°C to +55°C
Rated Voltage	690 V
Degree of Protection acc. to EN60529	IP66/IP67
Enclosure Material	Copper-free Aluminum
Enclosure Color	GJB1,2,3,4,5 : Painted - Ral Color : 7072

Ordering Details						
Type	Po	wer Dissipatior	n (w)	Detect Comment (A)	Weight (kg)	
Туре	T6	<b>T</b> 5	T4	Rated Current (A)	vveignt (kg)	
GJB1	8	14	28	40	1	
GJB2	16	21	42	61	2	
GJB3	30	36	56	60	3.5	
GJB4	57	68	125	150	7.5	
GJB5	82	121	246	250	17.5	





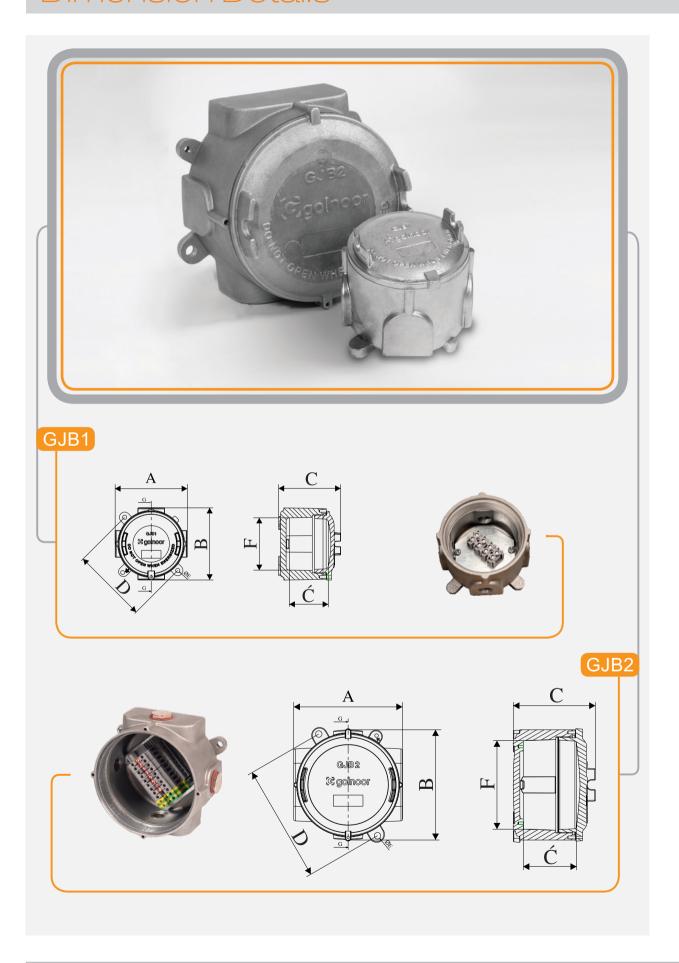
	Max. No. of Terminals									
Terminals	2.5	4	6	10	16	25	35	50	70	95
GJB1	8	7	-	-	-	-	-	-	-	-
GJB2	13	12	10	8	-	-	-	-	-	-
GJB3	15	14	12	10	8	-	-	-	-	-
GJB4	22	20	16	13	11	9	8	6	6	-
GJB5	1x42	1x38	1x30	1x25	1x20	1x18	1x15	1x12	1x10	1x6
GJBS	2x40	2x35	2x25	2x20	2x15	2x12	2x10	-	-	-

Max. Metric Entries Per Side							
Туре	M20	M25	M32	M40	M50	M63	M75
GJB1	1	1	-	-	-	-	-
GJB2	3	2	1	-	-	-	-
GJB3	4	2	2	1	1	-	-
GJB4	5	4	2	2	1	1	-
GJB5	8	6	4	3	3	2	1

	Max. NPT Entries Per Side						
Туре	<u>1</u> "	<u>3</u> "	1	1 1 "	1 <u>1</u> "	2	2 1"
GJB1	1	1	-	-	-	-	-
GJB2	3	2	1	-	-	-	-
GJB3	4	3	2	2	2	-	-
GJB4	6	5	3	2	2	1	-
GJB5	10	8	5	3	3	2	1

Due to different important parameters, please consult with the technical department to choose suitable junction boxes. These tables are just for information.

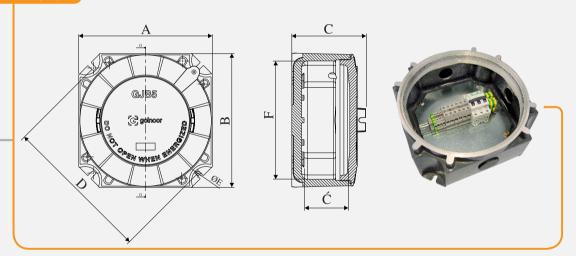
## Dimension Details







#### GJB 3,4,5



Turno		External		Inte	rnal	Mou	nting
Туре	Α	В	С	F	C'	D	E
GJB1	110	110	95	Ø84	57	115	6.5
GJB2	150	152	110	Ø122	73	162	9
GJB3	169	169	125	□137	76	235	7.5
GJB4	221	221	195	Ø174	142	248	11
GJB5	337	337	187	Ø297	110	375	11

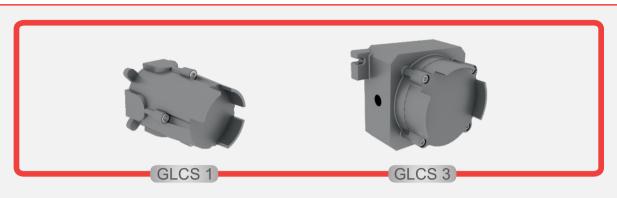


# Explosion Proof GLCS: Golnoor Local Control Station



Several series of flameproof control units are available for the operation and monitoring of circuits and machinery in harsh or hazardous environments. The GLCS series is Ex d IIC certified and can hold up to four operators. Multiple control functions are available such as push buttons, LED status indicators, and control switches. The control units are manufactured from copper-free aluminum, which provides optimal protection from most environmental hazards.





Ex-d Light Alloy Boxes	
Marking acc. To 2014/34/EU	⟨Ex⟩ II 2G Ex db IIC T6 Gb ⟨Ex⟩ II 2D Ex tb IIIC T85°C Db
Applicable Zones	1, 2 - 21, 22
EU-Type Examination Certificate	ECM 23 ATEX 0603 X
Permissible ambient temperature	-20°C to +55°C
Rated Voltage	600 V
Degree of Protection acc. to EN60529	IP66/IP67
Enclosure Material	Copper-free Aluminum
Enclosure Color	Painted- Ral color: 7072

Ordering Details						
Type	Rate Current (A)	Max.Dissipated Power (W)	Max.Weight (kg)	Max.No. Actuators		
GLCS1	40	10	2.2	1		
GLCS3	60	30	6	3-4*		

Max. No. Metric Entries per side					
Type	M20	M25	M32		
GLCS1	1	1	-		
GLCS3	4	2	2		

	Actuators	
Pushbutton (Start/stop)	Mushroom head emergency button (Push/Pull)	Selector switch

<sup>\* 4</sup> actuators may only be used in special circumstances (power dissipation, operation terms, etc)

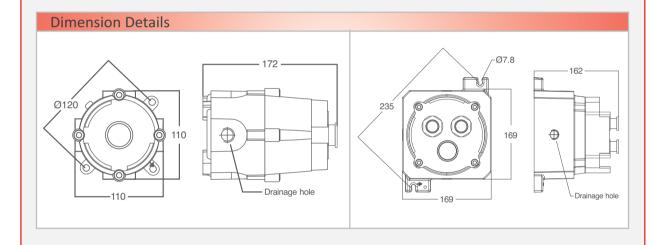
Pushbutton (Start/Stop)	
Bushing	Nickel-plated brass
Internal shaft	Stainless steel
Gasket	Compressed asbestos fiber
Internal O-ring	EPDM
Device mounting	Screws into the lid (M30x2)
Sticker	Colored PMMA (green, red,)
Contact	Schneider ZB2 (NO/NC)
Rated voltage	600V based on Schneider's catalog
Rated current	10A based on Schneider's catalog
AC15 Ue/le	240V/3A based on Schneider's catalog
DC13 Ue/le	250V/0.27A based on Schneider's catalog
Rated thermal current	Ith= 10A
Contact operation	Slow break, spring return

Mushroom head emergency button	
Bushing	Nickel-plated brass
Internal shaft	Stainless steel
Gasket	Compressed asbestos fiber
Internal O-ring	EPDM
Device mounting	Screws into the lid (M30x2)
Sticker	Colored PMMA (green, red,)
Contact	Schneider ZB2 (NO/NC)
Rated voltage	600V based on Schneider's catalog
Rated current	10A based on Schneider's catalog
AC15 Ue/le	240V/3A based on Schneider's catalog
DC13 Ue/le	250V/0.27A based on Schneider's catalog
Rated thermal current	Ith= 10A
Contact operation	Slow break, spring return
Actuator operation	Push/pull (pull to release)

## Dimension Details



Selector switch	
Bushing	Nickel-plated brass
Internal shaft	Stainless steel
Gasket	Compressed asbestos fiber
Internal O-ring	EPDM
Component mounting	Screws into the lid (M30x2)
Handle	ABS
Selector	TRS (GL model) - 1/2/3 phase
Rated voltage	690V



tem	Illustration	Switching Diagram	Description	Color
1		11,  23     12  24	mushroom button Latching, Pull to Release 1*NO/1*NC 250V 3 A	Red
2		3 1 7 5	12/16 A	Black/Ni Plated
3		<u>11,</u>  23	Start+Stop Push Button 1*NO/1*NC	Red
		12 24	250V 3 A	Green
4		11 	Stop Push Button 1*NC + Start Push Button 1*NO 250V 3 A	Red + Green
5		[	Start+Stop Push Button 1*NO/1*NC 250V 3 A mushroom button Latching, Pull to Release 1*NO/1*NC 250V 3 A	Green + Red
6		11	Start+Stop Push Button  1*NO/1*NC  250V 3 A  +  Start+Stop Push Button  1*NO/1*NC  250V 3 A  +  mushroom button  Latching, Pull to Release  1*NO/1*NC  250V 3 A	Red + Green + Red
7	(23) (3) (3)	Tailor-made solution	On request	On request
8	23	Tailor-made solution	On request	On request



# Explosion Proof (Ex)

GJBF: Golnoor Junction Box Flange Type





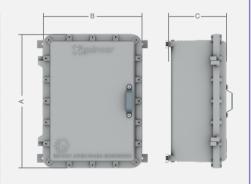
GJBF series of Ex d IIB+H<sub>2</sub> certified enclosures forms the optimal basis for the application-specific configuration of terminal boxes, control stations, and control and distribution panels. A wide range of components and control functions can be integrated into one of many Ex d and Ex tb certified flameproof enclosures. They come in many sizes and designs and are manufactured from copper-free aluminum with increased corrosion resistance. The durable, versatile enclosures meet the requirements of many industries, including offshore and marine applications. A choice of windows allows viewing of integrated monitoring functions. Electrical components can be integrated as per customer specification.

### **GJBF**

- 14 different sizes
- copper-free aluminum junction boxes
- Gasket resistant to acids and high temperatures
- IK10 mechanical strength
- IP66/67
- Earth bolt

Selection	
Marking of product	<ul> <li>II 2G Ex db IIB+H2 T6, T5, T4 Gb</li> <li>II 2D Ex tb IIIC T85°C, T100°C, T135°C Db</li> </ul>
EU-Type Examination Certificate	Under Test and certified
Application	Terminal box or Local control panel
Material	copper-free aluminum
Finish	coated or painted to suit customer application
Ingress protection	IP 66/67 to IEC 60529
Ambient temperature	-30°C to +55°C
Lid fixing	Metric socket head stainless steel screws
Earthing	Metric Internal / External screws
Enclosure mounting	2 fixing brackets
Drain plug	customer application
Entries	through walls
Bolts and screws	Stainless steel captive variety
Mounting	AISI 304 Stainless steel feet with Stainless steel screws
Rail	Reed mounting rail (All steel versions are electroplated and additionally coated with a white chromate)
Rated voltage	1000 Vac/dc
Rated current	1000 A
Rated frequency	50/60 Hz

Junction box and Local control panel										
Product	Dime		nd Tolerance :5)	Max. Power Dissipation at +40°C, for T4						
type	Α	В	C(C'=optional)	Without Indicator Light (W)						
GJBF1	290	220	180(200)	130(135)						
GJBF2	390	290	240(270)	235(240)						
GJBF3	470	350	240(280)	345(360)						
GJBF4	580	430	250(290)	480(540)						
GJBF5	680	510	350(380)	730(745)						
GJBF6	750	560	350(400)	840(880)						
GJBF7	870	650	420(480)	1550(1740)						





D Thread diameter	1	2	3	4	5	6	7	8
ISO 261/965	20x1.5	25x1.5	32x1.5	40x1.51	50x1.51	63x1.5	75x1.52	90x1.5
ISO 7-1/ 228	1/2 "	3/4 "	1"	1/4 "	1/2 "	2 "	1/2 "	3 "

	Hole drilling in body															
Side	Side	Α							Side	В						
Thread diameter	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Product type	Maximum () liantity Per Hole Tyne							е	Maximum Quantity Per Hole Type							
GJBF1	8	7	5	3	2	2	2	1	6	4	2	2	2	1	1	-
GJBF2	21	14	10	8	7	3	3	2	12	11	6	6	3	2	2	1
GJBF3	24	20	12	10	9	4	3	2	18	14	8	7	5	3	2	1
GJBF4	30	18	16	14	11	5	5	3	21	17	11	10	8	5	3	2
GJBF5	40	36	24	21	14	12	10	4	35	24	18	15	11	8	6	2
GJBF6	44	42	30	23	15	12	11	4	36	30	21	17	10	8	7	3
GJBF7	81	65	44	40	27	21	17	6	55	50	32	28	18	15	14	5

The number of entries indicated above is for reference only, and may vary depend on application requirement e.g.: type of cable entries, number of terminals, ...



	MAX. No. of Terminals										
Product type	2.5	4	6	10	16	25	35	50	70	95	150
GJBF1	1x22	1x20	1x17	1x14	1x11	1x10	1x8	1x7	1x3	-	-
GJBF2	2x36	2x33	2x27	2x22	2x17	2x16	1x13	1x11	1x6	1x6	1x4
GJBF3	3x50	3x46	3x38	3x30	3x24	3x22	2x18	1x15	1x13	1x8	1x6
GJBF4	3x70	3x64	3x52	3x42	3x33	3x30	2x25	1x21	1x19	1x10	1x10
GJBF5	3x78	3x72	3x58	3x47	3x37	3x34	2x28	1x23	1x21	1x12	1x10
GJBF6	4x87	4x80	4x65	4x52	4x42	4x38	3x32	2x26	1x25	1x19	1x12
GJBF7	4x105	4x96	4x78	4x63	4x50	4x46	3x38	2x31	1x30	1x20	1x15

The maximum number of standard terminals refers to <u>RAAD</u> terminals. The number of terminals indicated above is for reference only, and may change depend on application requirement and heat dissipation.

Thread Chart									
ISO 261/965	M16	M20	M25	M30	M32	M35	M40	M42	
ISO 7-1/ 228	3/8 "	1/2 "	3/4 "	1"	-	-	-	-	

Window Dimension							
Window type	Thread						
Window1	M90x2						
Window2	M133x2						
Window3	M196x2						

	Max Hole Drilling QTY in Door								
Product type	with more Thickness	with Stiffener							
GJBF1	6	6							
GJBF2	12	8							
GJBF3	15	8							
GJBF4	24	9							
GJBF5	35	12							
GJBF6	48	16							
GJBF7	63	20							







# Explosion Proof (Ex)

GSB: Golnoor Junction Box Stainless steel Type



Variety of terminals and cable glands. The enclosures are manufactured from electropolished AISI 304 stainless steel to provide excellent tarnish and corrosion resistance. This surface finish is designed to meet hygienic requirements valid in pharmaceutical and food processing plants. All GSB enclosures feature a sealing method which prevents accumulated dirt, dust, and moisture from entering the enclosure when the hinged lid is opened.

Durable materials allow the terminal box to be used in ambient temperatures between -30°C and 55°C / -20°C and 40°C. For terminal and cable gland configuration options.

#### **GSB**

- 7 different sizes
- 304/316 L stainless steel junction boxes
- Gasket resistant to acids and high temperatures
- IK10 mechanical strength
- IP66
- Earth bolt

Ex-e Stainless Steel boxes	
Marking of product	(ξx)II 2G Ex eb IIC T6/T5/T4 Gb (ξx)II 2D Ex tb IIIC T80 C°, T120 C° Db
Applicable Zones	1,2 - 21, 22
<b>EU-Type Examination Certificate</b>	ECM 23 ATEX 2861 X
Application	Terminal box or marshaling box
Material	Stainless steel 304/316
Finish	Stainless steel may coated or painted to suit customer application
Ingress protection	IP 66 to IEC 60529
Ambient temperature	-30°C to 55°C
Lid fixing	4 or more M6 stainless steel screws
Earting	M5 Internal /M8 External stainless steel screws
Enclosure mounting	2 or 4 slotted fixing brackets for M8/M10 screws
Drain plug	customer application
Entries	through walls
Bolts and screws	Stainless steel captive variety
Mounting	Welded AISI 304 Stainless steel feet
Rail	Reed mounting rail (All steel versions are electroplated and additionally coated with a white chromate)
Rated voltage	1000 Vac/dc
Rated current	312 A
Rated frequency	50/60 Hz

			Body Dril	ling Data				
D Thread diameter	1	2	3	4	5	6	7	8
ISO 261/965	20x1.5	25x1.5	32x1.5	40x1.5	50x1.5	63x1.5	75x1.5	90x1.5
Through hole	Ø20.2	Ø25.2	Ø32.2	Ø40.2	Ø50.2	Ø63.2	Ø75.2	Ø90.2

			Hole	drilling	; in body	/				
	Side	A				Side B				
	20	25	32	40	50	20	25	32	40	50
GSB1	4	2	1	-	-	4	2	1	-	-
GSB2	5	2	1	-	-	3	2	1	-	-
GSB3	14	12	5	4	3	14	12	5	4	3
GSB4	16	12	5	5	4	14	12	5	4	3
GSB5	18	14	6	5	5	12	10	4	3	3
GSB6	18	14	6	5	5	18	14	6	5	5
GSB7	20	16	7	6	5	16	12	5	5	4

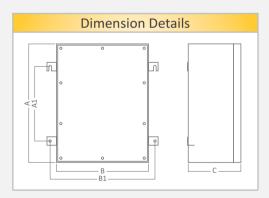
The number of entries indicated above is for reference only, and may vary depend on application requirement e.g.: type of cable entries, number of terminals,...

## Dimension Details



			Max. No	o. of Tern	ninals				
Terminals	2.5	4	6	10	16	25	35	50	70
GSB1	9	-	-	-	-	-	-	-	-
GSB2	16	13	10	-	-	-	-	-	-
GSB3	2x27	2x25	2x20	2x16	2x12	2x11	-	-	-
GSB4	2x31	2x29	2x22	2x17	2x13	2x12	2x8	7	-
GSB5	2x45	2x36	2x29	2x22	2x18	14	13	11	-
GSB6	3x39	3x34	3x27	3x21	3x16	3x14	3x12	3x8	-
GSB7	3x37	3x34	3x27	3x22	3x16	3x15	3x12	3x9	3x8

	Dimension Deta	ails	
Code	Outside dimensions	Inside dimensions	mounting
	A x B x C (C'=optional)		A1 B1
GSB1	170x170x100	165x165x85	70 204
GSB2	220x150x100 (130)	215x145x85	120 182
GSB3	300x300x150 (215 or 315)	295x295x135	200 332
GSB4	350x300x200 (215 or 315)	345x295x185	250 332
GSB5	400x280x200 (215 or 315)	395x275x185	300 312
GSB6	400x400x200 (215 or 315)	385x395x185	300 432
GSB7	450x350x200 (215 or 315)	445x345x185	350 382









# Explosion Proof (Explosion Proof Cable Gland)



Golnoor introduces a solution for every cable type used in industrial and hazardous areas- onshore and offshore, above ground. Golnoor cable glands, thread conversions, and installation accessories are designed to adhere to global specifications of IEC wiring standards and meet international certification requirements constituting IEC and ATEX certifications for gas and dust applications. Our manufacturing facilities are the most productive and safest solution to fulfill your need in the closest way to your demand. Furthermore, our technical teams are ready to be on your side in training, commissioning and installation stage.

## Specifications



#### Material

Metallic- Nickel plated brass

Nickel-plated brass provides superb protection against corrosion and contamination under severe conditions in extreme environments and in this regard, it is the most appropriate material for oil and gas and petrochemical industries and refineries.

All internal and external components emerge electroplating process by the thickness of 5 to 10 microns and uniform coating is assured under the quality control procedure.

#### Seal-Silicone

Silicone is opted as seal material to provide a wide range of thermal performance in extreme conditions.

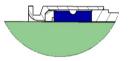
Operating temperature range

Silicone seals operates in temperature conditions varied from -30 to +140° C.

#### Clamping

Outer sheath cable sealing

The outer seal is designed in the respect of ensuring cable sealing and ingress protection. (Fig 1)



Inner sheath cable sealing

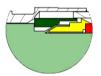
The inner seal is figured to work same tasks as outer seal in addition to satisfy flame-path protection commitments. (Fig 2)



Armored cable clamping

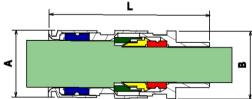
The designation complies clamping of all types of armored cables include

- Steel wire armored/ single wire armored (SWA) cable
- Steel tape armored (STA) cable
- Braided marine shipboard cable
- Lead sheath armored cable
- Type P cable (Fig 3).



#### Ingress protection- IP

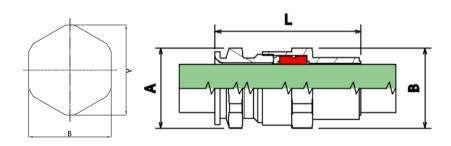
Exploiting thread to thread engagement prepare IP66. For more protection up to IP68, additional sealing or gasket could be used.



## XCGNA- for non-armored cable 🕏

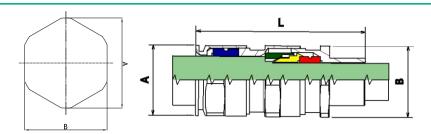


Non-armored/ marine shipboard/ Type P/ Tray cables
Group IIA, IIB, IIC, zones 1, 2, 21, 22
🕲 II 2G Ex db IIC Gb/ II 2G Ex eb IIC Gb/ II 3G Ex nR IIC Gc
II 2D Ex tb IIIC Db
ECM 19 ATEX 5727 X
ECM 19 ATEX-QS 6210
-30°C to +140°C
IP66- IP68 with gasket
Nickel-Plated Brass
Silicone
Locknut to secure gland body
Earth tag to provide earth continuity
Shroud to protect aland body



Series	ISO thread size	Outer sheath Min-Max	A <sub>APX</sub>	B <sub>APX</sub>	L <sub>APX</sub>	Catalog number
XCGNA	M20S x1.5	7.0 -12.0	24	22	43.7	XCGNAM20S
XCGNA	M20L x1.5	10.0 -15.5	26	24	46.8	XCGNAM20L
XCGNA	M25 x1.5	13.5 -20.5	33	30	51.6	XCGNAM25
XCGNA	M32 x1.5	18.0 -27.0	45	41	61.0	XCGNAM32
XCGNA	M40 x1.5	23.0 -34.0	53	48	64.4	XCGNAM40
XCGNA	M50 x1.5	35.0 -47.5	69	64	72.8	XCGNAM50
XCGNA	M63 x1.5	42.0-56.0	82	75	76.3	XCGNAM63
XCGNA	M75 x1.5	50.0-64.5	93	85	86	XCGNAM75





## XCGA- for armored cable E

Technical Specification	
Suited for cables	SWA/ SWB/ STA/ Braided marine shipboard/ Type P/ Lead sheathed cables
Permissible zones	Group IIA, IIB, IIC, zones 1, 2, 21, 22
Marking acc. To 2014/34/EU	
EU-Type Examination Certificate	ECM 19 ATEX 5727 X
ATEX Certificate	ECM 19 ATEX-QS 6210
Permissible ambient temperature	-30°C to +140°C
Degree of Protection acc. to EN60529	IP66- IP68 with gasket
Material	Nickel-Plated Brass
Seal	Silicone
Accessories (Kit)	Locknut to secure gland body Earth tag to provide earth continuity Shroud to protect gland body

Series	ISO thread size	Inner sheath Min-Max	Outer sheath Min-Max	Armor Min-Max	$A_{APX}$	B <sub>APX</sub>	L <sub>APX</sub>	Catalog number
XCGA	M20S x1.5	7.0 -12.0	10.0 -15.5	0.2 -1.3	26.5	24	65.7	XCGAM20S
XCGA	M20L x1.5	10.0 -15.5	13.5 -20.5	0.2 -1.3	33	30	73.7	XCGAM20L
XCGA	M25 x1.5	13.5 -20.5	18.0 -27.0	0.2 -1.6	45	41	85.7	XCGAM25
XCGA	M32 x1.5	18.0 -27.0	23.0 -34.0	0.2 -1.6	53	48	93.5	XCGAM32
XCGA	M40 x1.5	23.0 -34.0	29.0 -40.5	0.2 -2.0	60.5	55	99.8	XCGAM40
XCGA	M50 x1.5	29.0 -40.5	35.0 -47.5	0.2 -2.5	69	64	108.5	XCGAM50
XCGA	M63 x1.5	35.0-47.5	42.0-56.0	0.2 -2.5	82	75	111.5	XCGAM63
XCGA	M75 x1.5	42.0-56.0	50.0-64.5	0.2 -2.5	92	85	123.6	XCGAM75



## Specifications

## XSP- stopping plug 🐼

Technical Specification	
Permissible zones	Group IIA, IIB, IIC, zones 1, 2, 21, 22
Marking acc. To 2014/34/EU	
Marking acc. 10 2014/34/EU	⊕II 2D Ex tb IIIC Db
EU-Type Examination Certificate	ECM 19 ATEX 5779 U
ATEX Certificate	ECM 19 ATEX-QS 6210
Degree of Protection acc. to EN60529	IP66- IP68 with gasket
Material	Nickel-Plated Brass

Series	ISO thread size	Thread height	Catalog number
XSP	M20	15.0	XSPM20
XSP	M25	17.0	XSPM25
XSP	M32	15.0	XSPM32
XSP	M40	15.0	XSPM40
XSP	M50	15.0	XSPM50
XSP	M63	15.0	XSPM63
XSP	M75	15.0	XSPM75

All dimensions are in millimeters with tolerance.



## XAR- adaptor-reducer 🕸

Technical Specification	
Permissible zones	Group Group IIA, IIB, IIC, zones 1, 2, 21, 22
Madian Ta 2014/24/EU	⑤ II 2G Ex db IIC Gb/ II 2G Ex eb IIC Gb
Marking acc. To 2014/34/EU	⑤II 2D Ex tb IIIC Db
EU-Type Examination Certificate	ECM 19 ATEX 5779 U
ATEX Certificate	ECM 19 ATEX-QS 6210
Degree of Protection acc. to EN60529	IP66- IP68 with gasket
Material	Nickel-Plated Brass

	Female Female						
Male	M20	M25	M32	M40	M50	M63	M75
M20		XARM20-M25	XARM20-M32				
M25	XARM25-M20		XARM25-M32	XARM25-M40			
M32	XARM32-M20	XARM32-M25		XARM32-M40	XARM32-M50		
M40		XARM40-M25	XARM40-M32		XARM40-M50		
M50			XARM50-M32	XARM50-M40		XARM50-63	
M63					XARM63-50		XARM63-M75
M75						XARM75-63	



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