

INSTRUCTION MANUAL FOR CONFIGURATION OF EQUIPMENT FROM GUB SERIES EMPTY ENCLOSURES



1.0 Technical Data

Manufacturer:

ROSE Systemtechnik GmbH
Erbeweg 13-15, D-32457 Porta Westfalica, GERMANY

Explosion Protection:

IECEX Gas: Ex db IIB Gb or Ex db IIC Gb
Dust: Ex tb IIIC Db

ATEX Gas:  II 2 G Ex db IIB Gb or Ex db IIC Gb
Dust:  II 2 G Ex tb IIIC Db

IECEX Certificate of Conformity No: IECEX DEK 18.0071U

EU Type examination Certificate No: DEKRA18ATEX0115U

Ambient Temperature

Enclosure without glass window: “-60°C*/-20°C ≤ Ta ≤ +40°C.....+110°C”

* Only GUB 01, GUB 02 and GUB 03 are suitable for “-60°C and -20°C”, other types are suitable for “-20°C” only.

Enclosure with glass window: “-60°C*/-20°C ≤ Ta ≤ +40°C.....+75°C”

* Only GUB 01W, GUB 02W and GUB 03W are suitable for “-60°C and -20°C”, other types are suitable for “-20°C” only.

Note- Please use enclosure within ambient temperature marked.

Mechanical data

Enclosure: Marine grade copper free aluminium alloy

O Ring: Silicone

Finish: RAL 7035

Degree of protection: IP66 as per IEC 60529:2013 & EN 60529:1992+A2:2013

Installation: 4 mounting holes

2.0 The enclosures shall be configured as under to be covered under separate equipment certificate.

2.1 The Max watt dissipation, dust temp marking & T class is as under:

TYPE	T Class	T6			T5					T4					Min Ambient Temp
	Dust Temp Marking	T85°C			T100°C					T135°C					
	Max ambient	+40°C	+50°C	+60°C	+40°C	+50°C	+55°C	+60°C	+75°C	+40°C	+50°C	+60°C	+90°C	+110°C	
GUB 01	Max Watt Dissipation	82W	X	38W	X	X	82W	X	38W	X	X	X	82W	38W	-20°C or -60°C
GUB 01W													X	X	
GUB 02		86W	X	45W	X	X	86W	X	45W	X	X	X	86W	45W	
GUB 02W													X	X	
GUB 03		114W	X	64W	X	X	114W	X	64W	X	X	X	114W	64W	
GUB 03W													X	X	
GUB 04		170W	120W	70W	230W	180W	170W	126W	70W	410W	376W	316W	170W	70W	
GUB 04W													X	X	
GUB 05		218W	168W	91W	291W	226W	218W	159W	91W	491W	451W	400W	218W	91W	
GUB 05W													X	X	
GUB 06	250W	182W	150W	405W	282W	250W	215W	150W	723W	609W	472W	250W	150W		
GUB 06W												X	X		
															-20°C

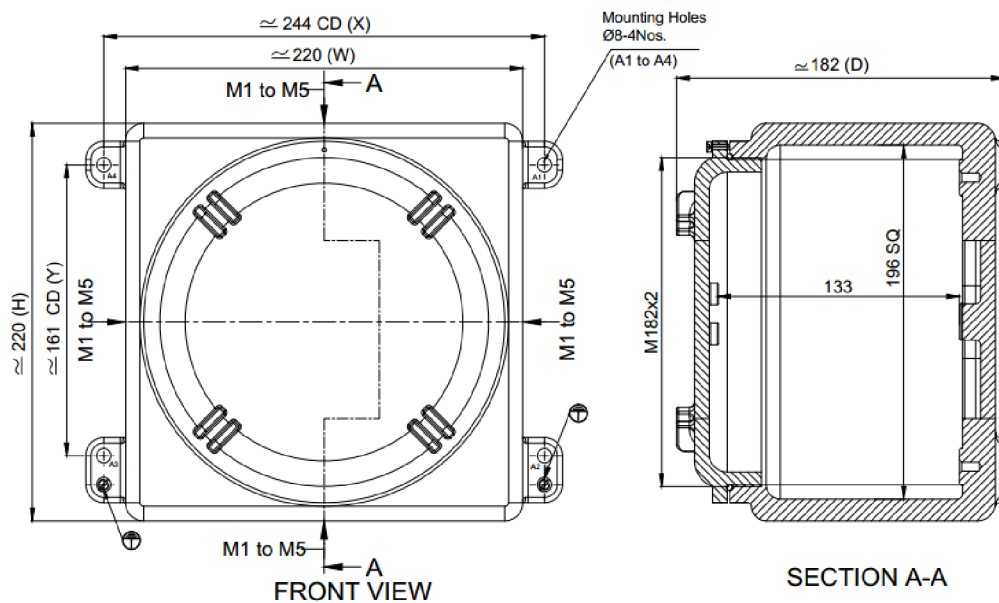
Note: GUB enclosures with glass window are not suitable for T4 Class.

2.2 Number, size & location of entries shall be in combination as required within max permissible limits in Metric as per ISO 965 or NPT as per ANSI/ASME B1.20.1 specified as under.

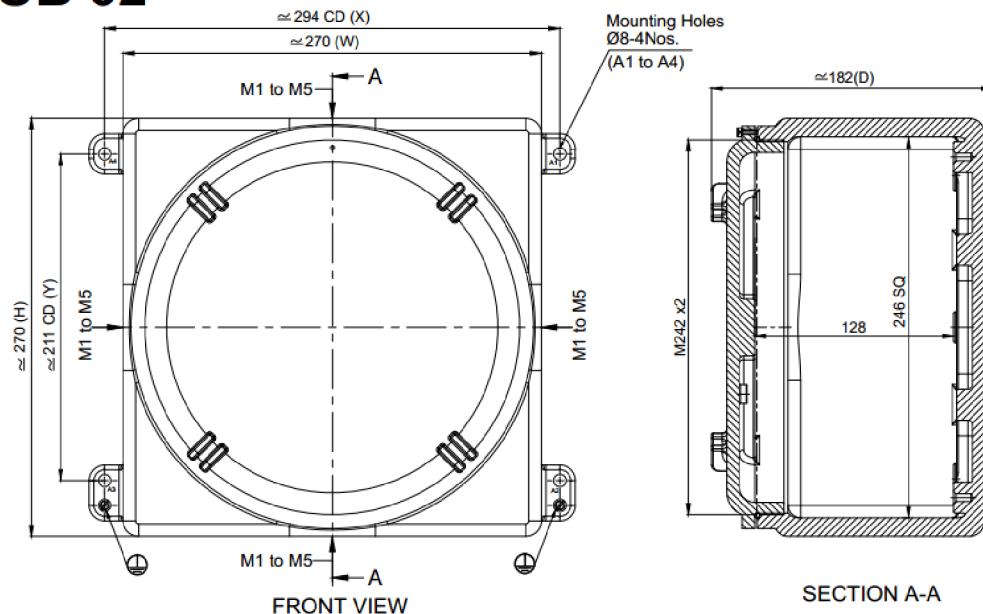
TYPE	M20 or 1/2"NPT	M25 or 3/4"NPT	M32 or 1"NPT	M40 or 1.1/4"NPT	M50 or 1.1/2"NPT or 2"NPT	M63 or 2.1/2"NPT	M75 or 3"NPT
GUB 01/ GUB 01W	09	06	05	03	02	X	X
GUB 02/ GUB 02W	12	08	06	04	02	X	X
GUB 03/ GUB 03W	18	12	08	06	03	02	02
GUB 04/ GUB 04W	21	14	09	08	04	03	02
GUB 05/ GUB 05W	24	20	12	09	06	04	02
GUB 06/ GUB 06W	27	23	14	11	06	05	03

Note: Base of GUB series enclosure with or without window for particular type number is common e.g. GUB01 and GUB 01W.

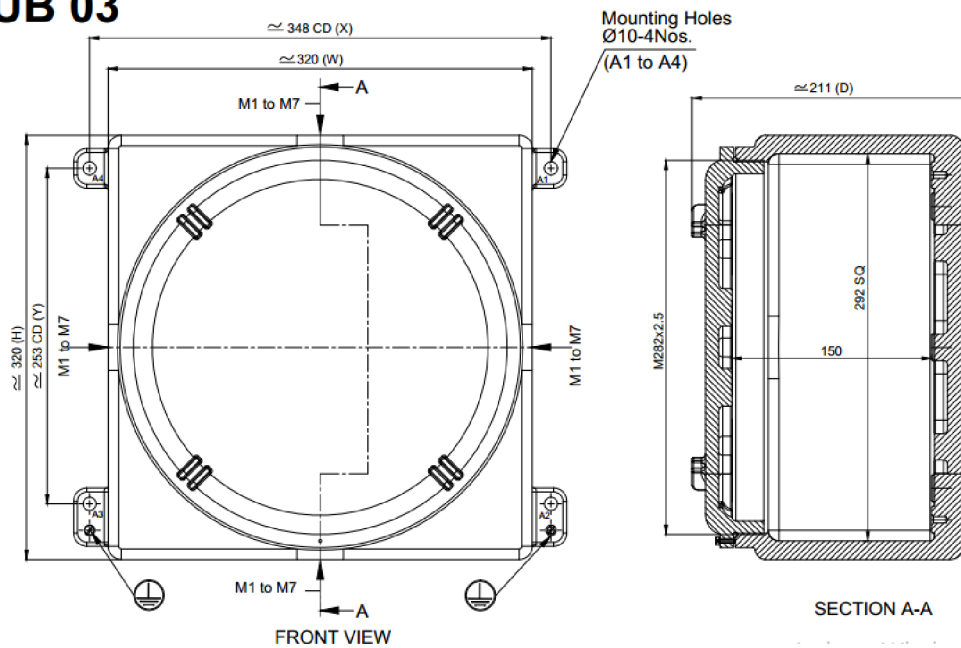
GUB 01



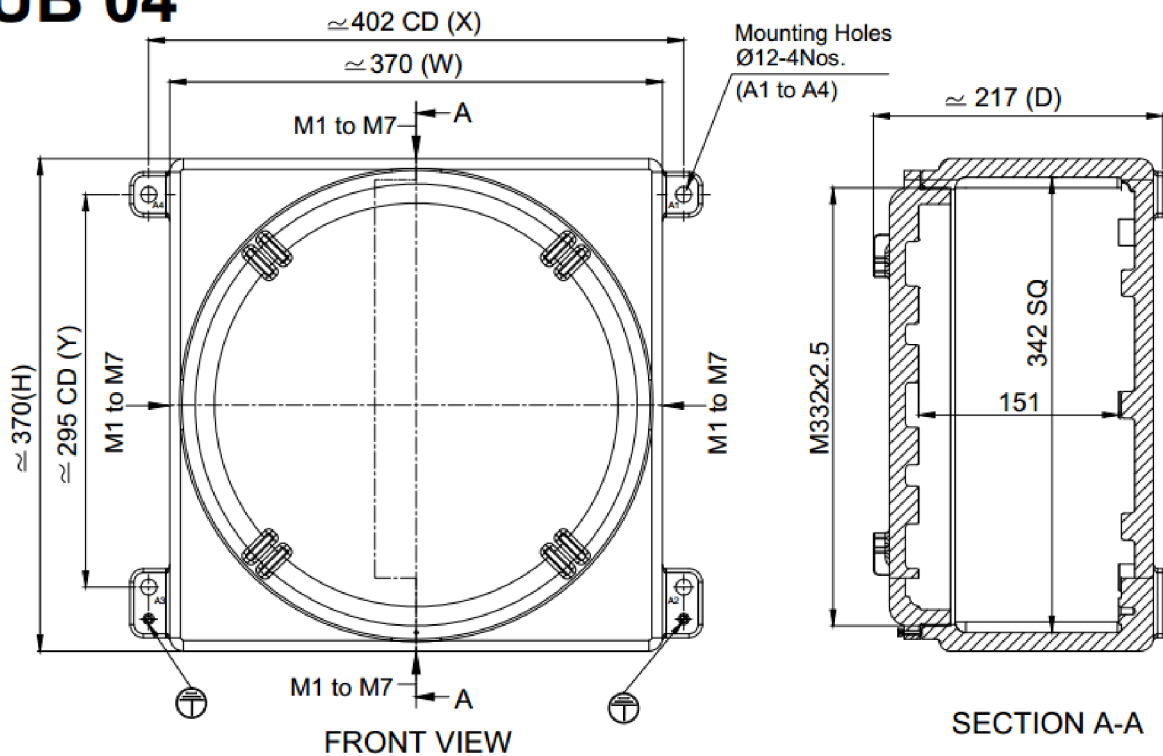
GUB 02



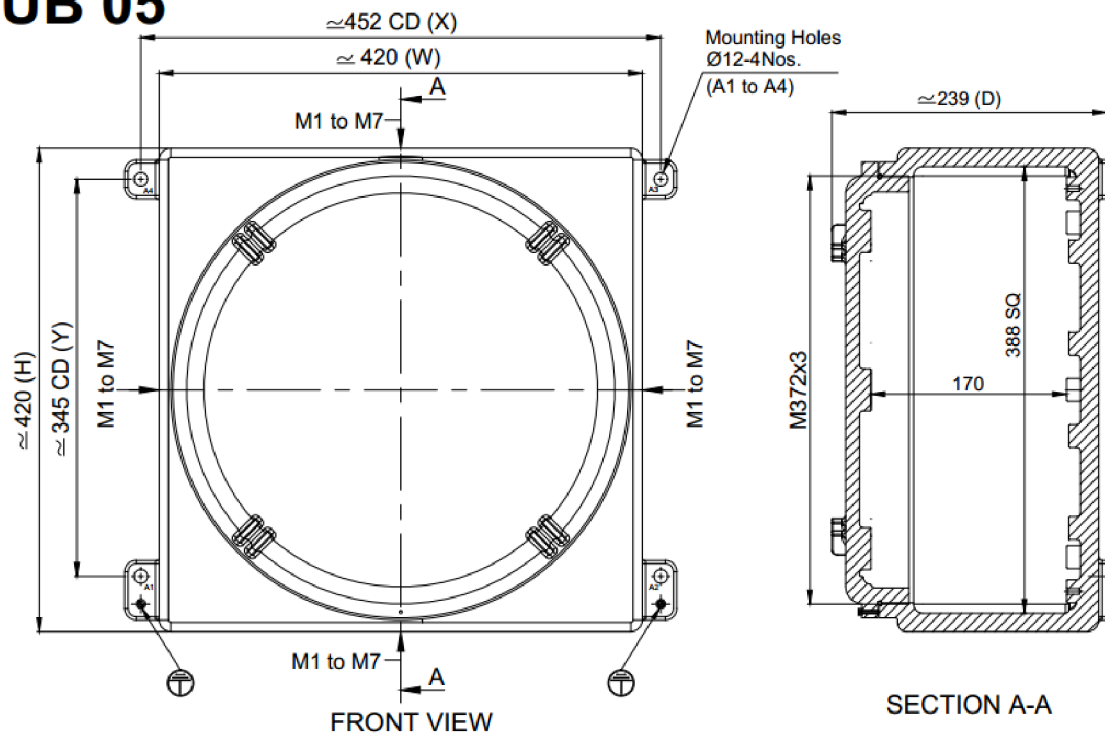
GUB 03



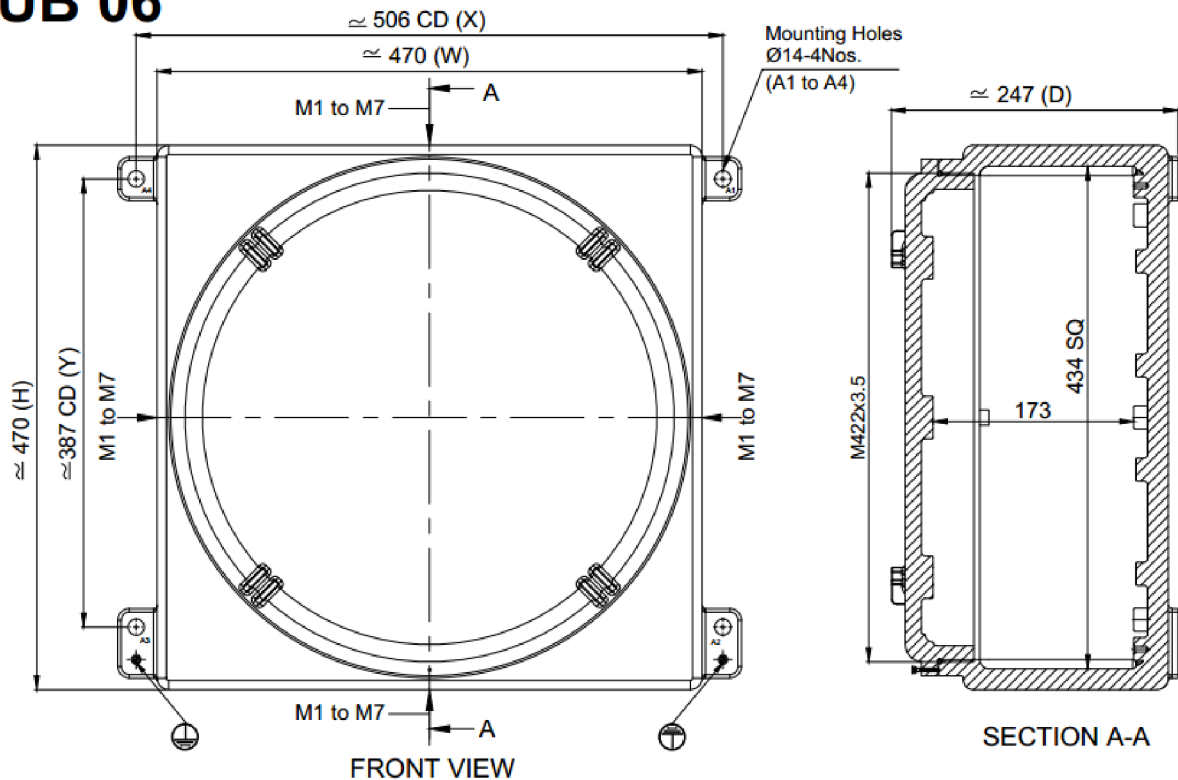
GUB 04



GUB 05



GUB 06



2.3 Enclosures may be used as control panel, terminal box for control, instrumentation, power and heat trace etc. or as component enclosures for housing electrical/ electronic power components (e.g. Contactor, transformer, relays, transducers, isolators, barriers, power supply, PCB etc.) of upto 1.1KV AC/DC or as required subject to watt loss and clearances within permissible limits. However, declared voltage rating is nominal and items having higher rating as required may be populated inside enclosure subject to required creepage and clearance and within permitted watt loss. When enclosures are populated with Intrinsically Safe (IS) Devices necessary clearance between IS & NON IS devices, wiring and terminals shall be maintained.

2.4 Enclosure may be populated with separately certified control components (various type of PB actuators, rotary actuator for Switch, MCB, MCCB, MPCB etc. and LED Indicating lamp) in required numbers & combination within permissible limits as under.

2.5 Lid may be populated with display window as under for Indicating or control instruments with display. Smaller size display window can be provided e.g. 125 Ø instead of 135 Ø without altering the thickness of glass.

Table related to 2.4 & 2.5 is as under:

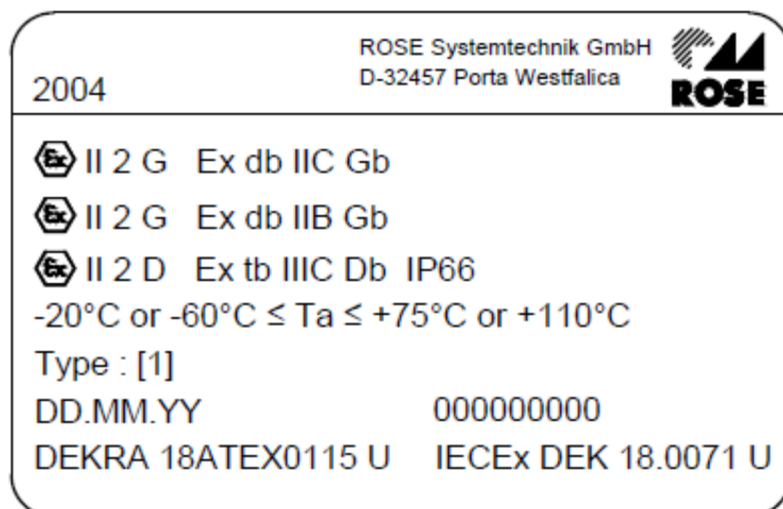
Type	Window size	Glass Size	Glass Size	Cemented path	Glass holder size	Max no of control accessories
		Ta (-20°C)	Ta (-60°C)			
GUB 01	Φ 135	Φ 160x12	Φ 160x19	12.5	M164x1.5x8L	12
GUB 02	Φ 185	Φ 215x15	Φ 215x22	15	M220x1.5x8L	16
GUB 03	Φ 220	Φ 253x15	Φ 253x22	16.5	M260x1.5x8L	20
GUB 04	Φ 265	Φ 298x15	X	16.5	M308x2x10L	24
GUB 05	Φ 295	Φ 330x19	X	17.5	M340x2x10L	28
GUB 06	Φ 340	Φ 380x19	X	20	M390x2x10L	32

2.6 Moulded terminals as per IEC, special terminals or bus-bar of suitable size & number in required combination can be located within enclosure subject to watt loss and clearances within permissible limit.

2.7 Enclosures shall be used within permissible watt dissipation as shown in 1.1 and they are within guideline of Annexure D of IEC EN 60079-1:2014 i.e. required clearance shall be maintained in X, Y & Z planes.

3.0 Marking:

3.1 Enclosure is provided with Ex label for empty enclosure.



3.2 Thread type i.e. Metric or NPT and size of threaded entry is marked on supplied enclosure by affixing a suitable sticker near each entry.

4.0 SCHEDULE OF LIMITATIONS:

- 4.1 The ambient temperature range depends on the model (with or without glass window), the pressure applied during the routine overpressure test and on the glass thickness. See instruction manual point no 2.1 and 2.5.
- 4.2 For enclosures provided with a powder coating or liquid painting and intended for use in Group III applications, the user shall minimize the risk from electrostatic discharge by suitable selection and installation.
- 4.3 The maximum number of apertures, their maximum sizes and their positions are specified in the instruction manual point no 2.2
- 4.4 Oil-filled circuit-breakers and contactors shall not be used.
- 4.5 The content of the GUB enclosure may be placed in any arrangement provided that an area of at least 20 % (Group IIB) or 40 % (Group IIC) of each cross-sectional area remains free. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5 mm.
- 4.6 The threaded flame path of the cover is more than required by IEC 60079-1. Contact the manufacturer for information on the dimensions of the flameproof joints.