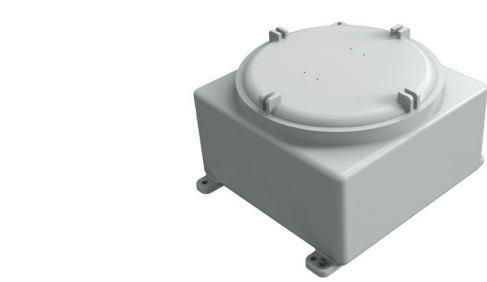



Operation manual

for configuration of equipments from  
GUB series empty enclosures

Rev. 1.0/04.2020  
Material No. 753180





 All work on this Ex-instrument must be carried out only by qualified specialist personnel following EN/IEC 60079-14. Any subsequent modification must be within the framework of this operation manual. The operating permit expires in the event of non-compliance!

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1.0 Technical data

Manufacturer:	ROSE Systemtechnik GmbH Erbeweg 13-15 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
EC 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. <b>Note- Please use enclosure within ambient temperature marked.</b>
Mechanical data:	Enclosure: Marine grade copper free aluminium alloy O Ring: Silicone Finish: RAL 7035 Degree of protection: IP66 as per IEC 60529:2013 and EN 60529:1992+A2:2013 Installation: 4 mounting holes

2.0 General

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

2.1 The max watt dissipation, dust temperature marking and T Class is as under:

Type	T Class	T6			T5					T4				
	Dust temp. marking	T85 °C			T100 °C					T135 °C				
	max. ambient temperature	+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
GUB01	max. Watt dissipation	82 W	x	38 W	x	x	82 W	x	38 W	x	x	x	82 W	38 W
GUB01W		82 W	x	38 W	x	x	82 W	x	38 W	x	x	x	x	x
GUB02		86 W	x	45 W	x	x	86 W	x	45 W	x	x	x	86 W	45 W
GUB02W		86 W	x	45 W	x	x	86 W	x	45 W	x	x	x	x	x
GUB03		114 W	x	64 W	x	x	114 W	x	64 W	x	x	x	114 W	64 W
GUB03W		114 W	x	64 W	x	x	114 W	x	64 W	x	x	x	x	x
GUB04		170 W	120 W	70 W	230 W	180 W	170 W	126 W	70 W	410 W	376 W	316 W	170 W	70 W
GUB04W		170 W	120 W	70 W	230 W	180 W	170 W	126 W	70 W	410 W	376 W	316 W	x	x
GUB05		218 W	168 W	91 W	291 W	226 W	218 W	159 W	91 W	491 W	451 W	400 W	218 W	91 W
GUB05W		218 W	168 W	91 W	291 W	226 W	218 W	159 W	91 W	491 W	451 W	400 W	x	x
GUB06		250 W	182 W	150 W	405 W	282 W	250 W	215 W	150 W	723 W	609 W	472 W	250 W	150 W
GUB06W		250 W	182 W	150 W	405 W	282 W	250 W	215 W	150 W	723 W	609 W	472 W	x	x

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	max. permissible entries from each side						
	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
GUB01 / GUB01W	09	06	05	03	02	-	-
GUB02 / GUB02W	12	08	06	04	02	-	-
GUB03 / GUB03W	18	12	08	06	03	02	02
GUB04 / GUB04W	21	14	09	08	04	03	02
GUB05 / GUB05W	24	20	12	09	06	04	02
GUB06 / GUB06W	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 GUB01W.

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.

The table related to 2.4 & 2.5 is as under:

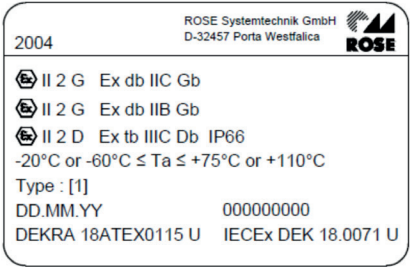
Type	Window size	Glass size	Glass size	Cemented path	Glass holder size	max. no of control accessories
		Ta (-20 °C)	Ta (-60 °C)			
GUB01	ø 135	ø 160 x 12	ø 160 x 19	12.5	M164 x 1.5 x 8L	12
GUB02	ø 185	ø 215 x 15	ø 215 x 22	15	M220 x 1.5 x 8L	16
GUB03	ø 220	ø 253 x 15	ø 253 x 22	16.5	M260 x 1.5 x 8L	20
GUB04	ø 265	ø 298 x 15	x	16.5	M308 x 2 x 10L	24
GUB05	ø 295	ø 330 x 19	x	17.5	M340 x 2 x 10L	28
GUB06	ø 340	ø 380 x 19	x	20	M390 x 2 x 10L	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.

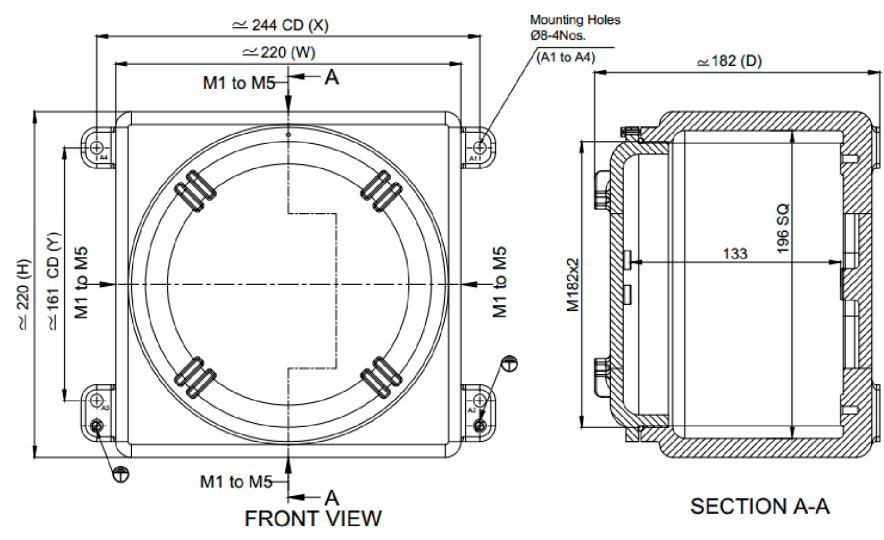
4.3 The maximum number of apertures, their maximum sizes and their positions are specified in the instruction manual point no 2.2.

4.4 Oil-filled circuit-breakers and contactors shall not be used.

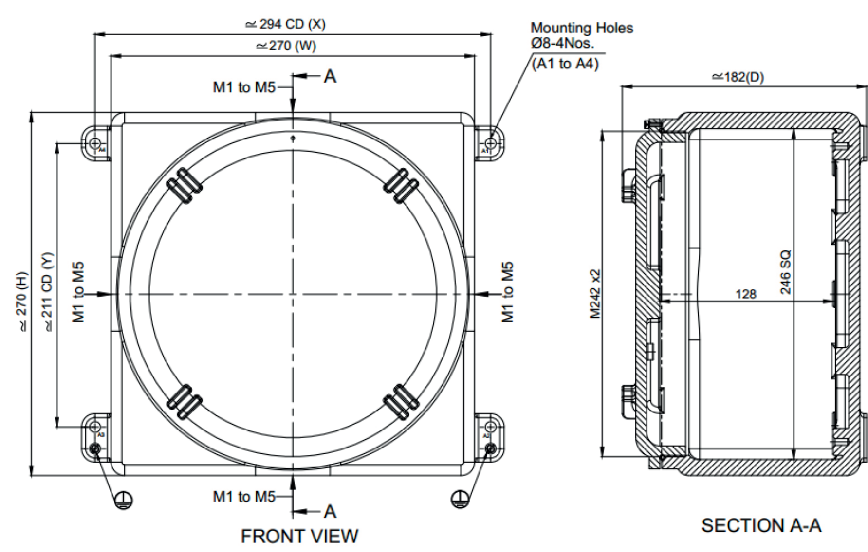
4.5The content of the GUB enclosure may be placed in any arrangement provided that an area of at least 20 % (Group IIB) or 40 % (Group IIC) of each cross-sectional area remains free. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5 mm.

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.

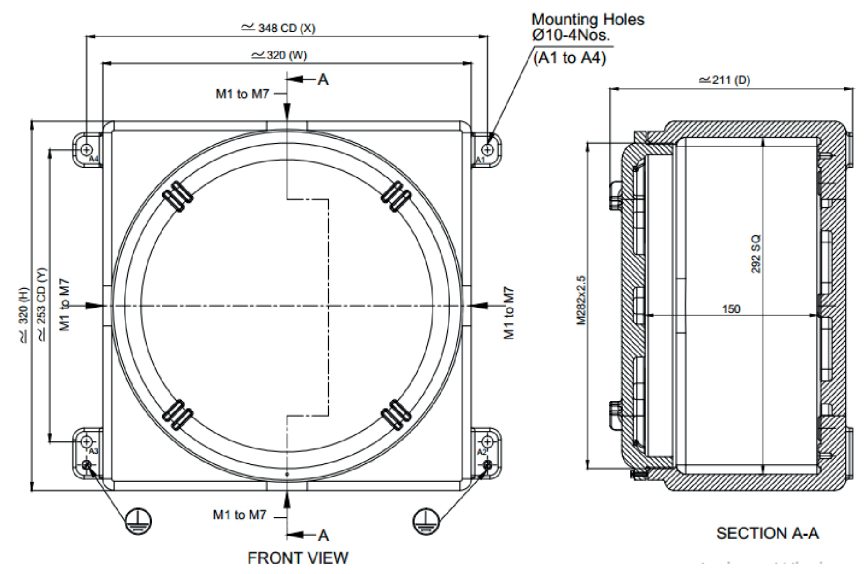
GUB 01



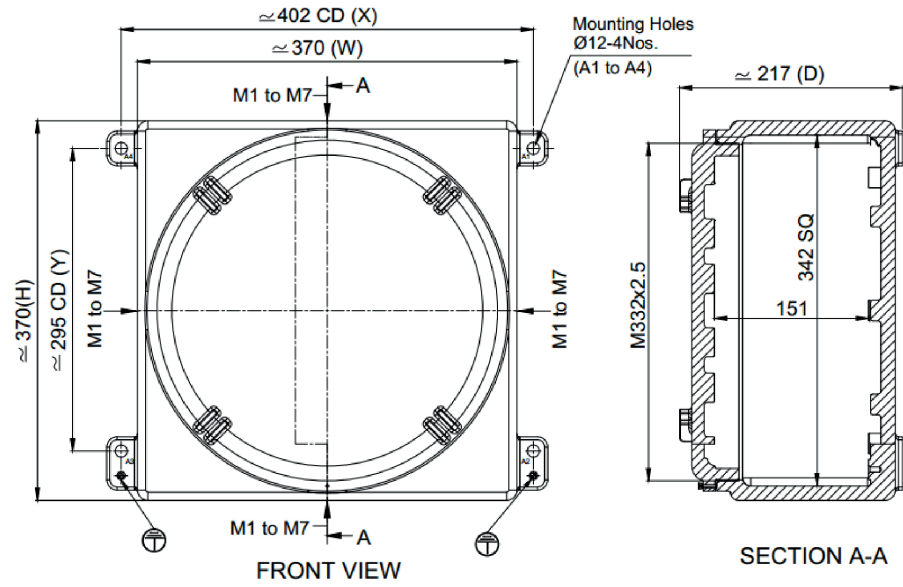
GUB 02



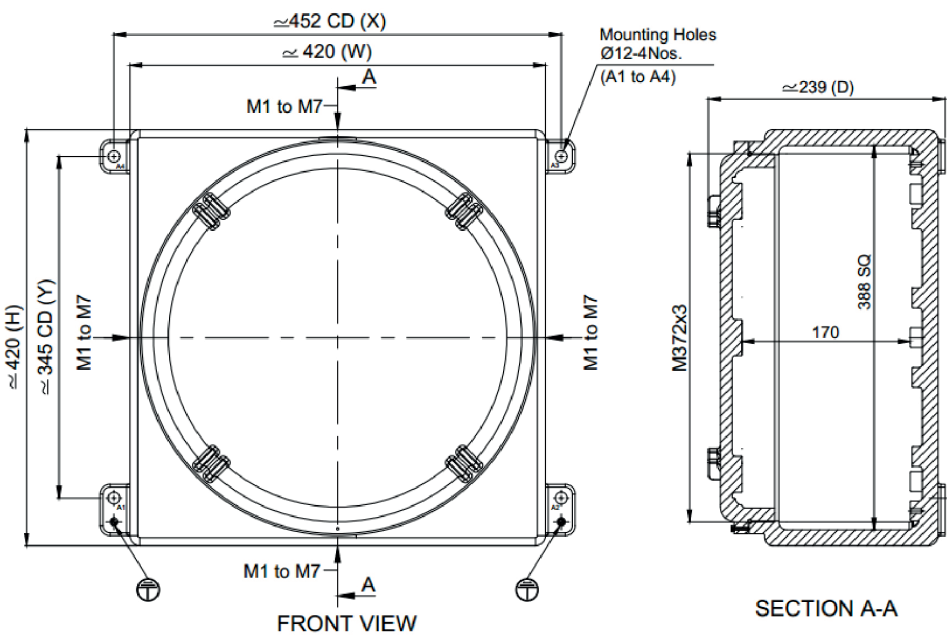
GUB 03



GUB 04



GUB 07



GUB 06

