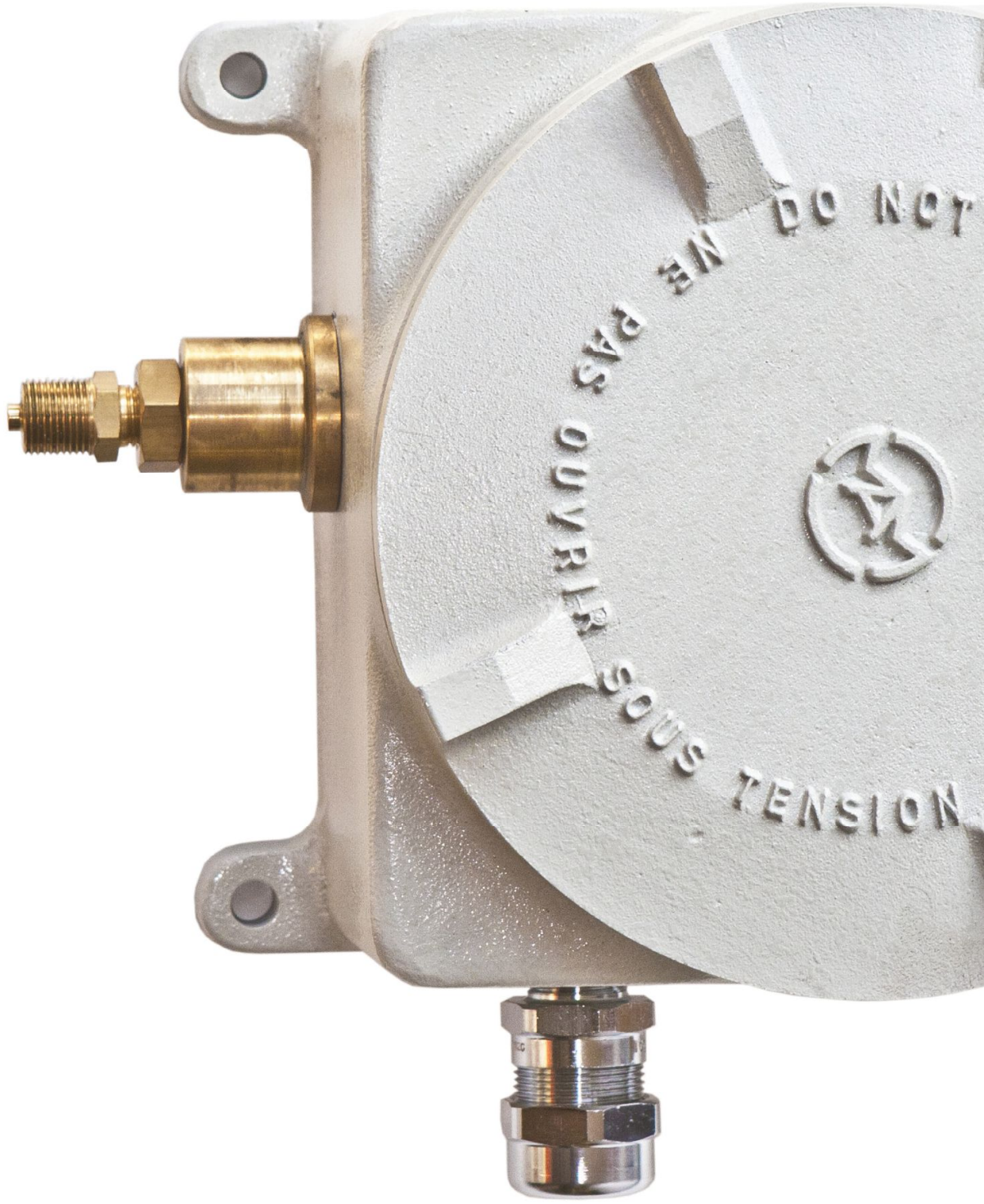




**GUB SERIES**  
FLAMEPROOF ENCLOSURES

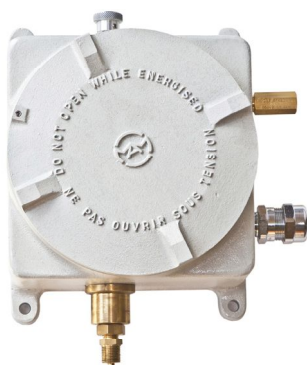
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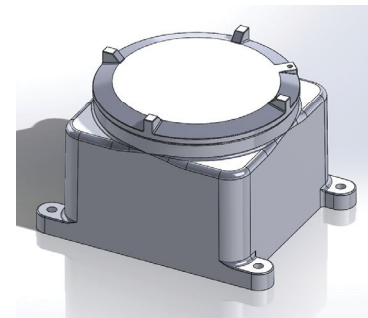




### DESCRIPTION



The GUB S series enclosures are designed for the installation in the industrial plants with potentially hazardous atmosphere classified as Zone 1 and Zone 2 for gases and Zone 21 and Zone 22 for combustible dusts. The Gub S series enclosures are presented with 12 different size options, which allow to house various types of electronic and control components. Installation of the controlling equipment and measuring and regulation of fluids in the process are the typical applications. (For dimension, see data table for GUB S). The Enclosures can be equipped with a window, where a visual inspection is needed. Voltmeters, ammeters and analog & digital measure instruments are the typical example of the applications. (For dimension, see data table for GUB W).



The Enclosures also can be equipped with an extension, where an extra height is needed. Television cameras are the typical example of the applications.

### SPECIFIC APPLICATIONS

EXPLOSION PROTECTION D - ATA	Conformity	ATEX Directive ATEX2014/34/EU
	<b>Certification</b>	ATEX - INERIS 16ATEX0024X IECEX - INE 11.0018X
	Marking	II 2 GD Ex-db IIC T6/T5/T4 Gb Ex-tb IIIC T85°C/100°C/135°C Db IP66 II 2(1) GD - II 2(2) GD Ex-db [ia IIA o IIB o IIC Ga] II C T6/T5/T4 Gb Ex-db [ib IIA o IIB o IIC Ga] II C T6/T5/T4 Gb Ex-tb [ia Da] IIIC T135°C/T100°C/T85°C Db IP66 Ex-tb [ib] IIIC T135°C/T100°C/T85°C Db IP66
Standards	IEC/EN: 60079-0, 60079-1, 60079-11, 60079-31	
TECHNICAL D - ATA	Ambient Temperature	BLIND COVER -60°C / +65°C WINDOW COVER -50°C / +65°C
	Material	Copper free Aluminum Alloy (Cu<0.1%) Stainless steel AISI 304 or AISI 316L Structural steel S Series
	Window Glass	Tempered Glass Borosilicate Glass
	IP Rating	IP66
	Entries Thread	Metric ISO-262, ANSI/ASME B1.20.1 NPT, GK EN 10226-2*, G ISO-228
	Lid / Door Gasket	O-ring made in Silicone (Standard)
	Surface Treatment	RAL 7038 Epoxy Painting (Standard)
	Nameplate Label	Aluminium plate (For Aluminum Enclosures) Stainless Steel Plate (For Stainless Steel Enclosures)
Accessories and Special Execution: (on request)	Breathing/Drain devices Internal anti-condensation coating painting RAL 2004 Off-shore special coating painting Pushbuttons, pilot lights, mechanical operators Flame Arrestor	

#### NOTE

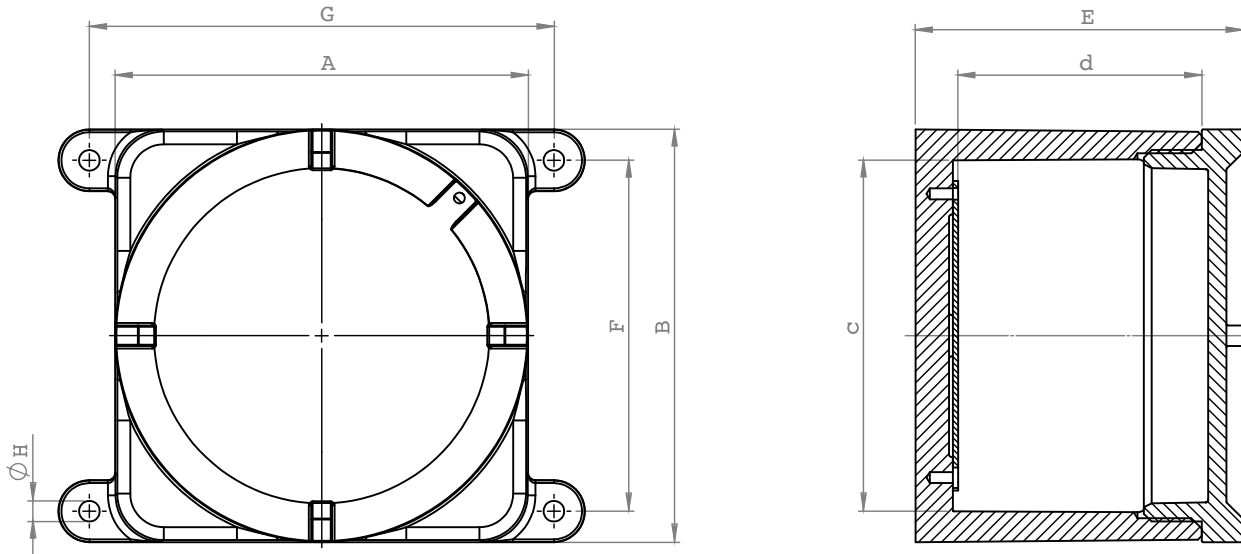
1. Standard type enclosures also include security stop for cover in AISI 304 A2, internal & external earthing screw and stainless steel internal plate.

\* Only for ATEX



# GUB S - WITH BLIND COVER

## FLAMEPROOF ENCLOSURES



**GUB S - DATA TABLE**

TYPE	DIMENSIONS [mm]								APPROX. WEIGHT (ALUMINUM) [Kg]
	A	B	c	d	E	F	G	H	
<b>GUB-1 S</b>	120	120	96x96	85	110	95	145	8	2,3
<b>GUB-1A S</b>	140	140	120x120	90	120	115	160	8	2,5
<b>GUB-2 S</b>	160	160	132x132	95	135	140	182	8	3,3
<b>GUB-3 S</b>	200	200	168x168	105	147	178	232	10	7
<b>GUB3-210 S*</b>	200	200	168x168	190	233	178	232	10	-
<b>GUB-4 S</b>	240	240	206x206	125	171	208	270	12	10
<b>GUB-5 S</b>	280	280	240x240	150	195	248	310	12	13,4
<b>GUB-5A S</b>	330	330	292x292	165	225	295	362	12	23
<b>GUB-5B S</b>	400	400	360x360	180	235	365	435	12	33
<b>GUB5B-285 S*</b>	400	400	360x360	265	315	365	435	12	-
<b>GUB-6 S</b>	465	465	428x428	195	262	430	500	12	43
<b>GUB-7 S</b>	570	570	522x522	230	305	530	614	12	75

Note: Dimensions can slightly differ due to casting tolerances.

\* Available only in stainless steel.

**GUB S - DRILLING TABLE ( MAXIMUM NUMBER OF ENTRIES FOR EACH SIDE )**

TYPE	1/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
	M12	M20	M25	M32	M40	M50	M63	M75	N/A	N/A
<b>GUB-1 S</b>	3	2	2	1	1	-	-	-	-	-
<b>GUB-1A S</b>	3	2	2	1	1	-	-	-	-	-
<b>GUB-2 S</b>	5	4	3	2	1	-	-	-	-	-
<b>GUB-3 S</b>	6	4	4	3	2	1	-	-	-	-
<b>GUB3-210 S*</b>	6	4	4	3	2	1	-	-	-	-
<b>GUB-4 S</b>	6	5	5	3	2	1	1	-	-	-
<b>GUB-5 S</b>	8	7	7	4	2	1	1	-	-	-
<b>GUB-5A S</b>	10	8	8	5	2	2	1	1	1	1
<b>GUB-5B S</b>	12	12	12	5	2	2	1	1	1	1
<b>GUB5B-285 S*</b>	12	12	12	5	2	2	1	1	1	1
<b>GUB-6 S</b>	13	12	12	6	3	3	2	1	1	1
<b>GUB-7 S</b>	14	12	12	6	3	3	2	1	1	1
Minimum interax for drilling	25	40	50	65	80	100	128	-	-	-

\* Available only in stainless steel.

Note: 1. Inche values are intended to use for ANSI/ASME B1.20.1 NPT, G ISO-228 and GK EN 10226-2 threads.

2. This table is applicable for -60°C and indicative only. For -20°C the number of drills can be increased.

Please contact technical department for the valid quantity.

3. Drilling on cover, back side and corners is applicable, please contact technical department for the details.



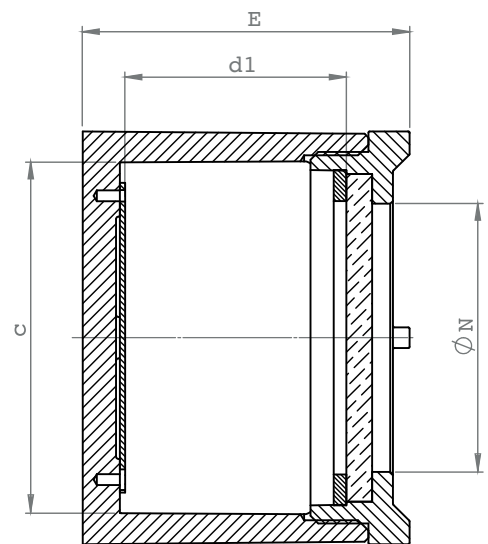
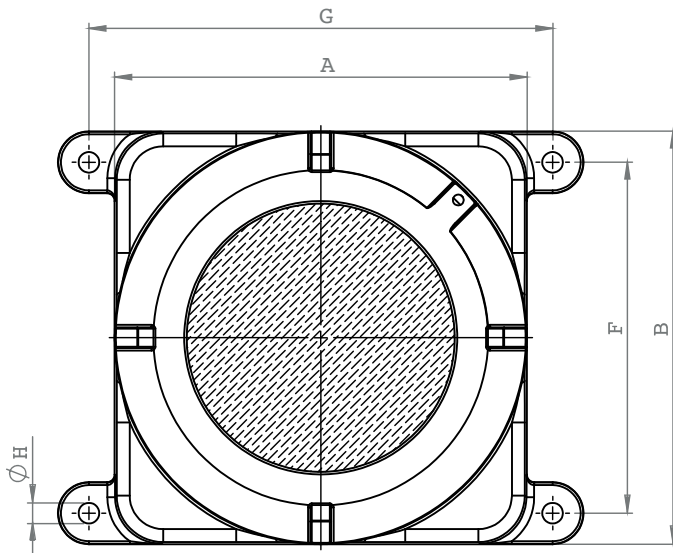
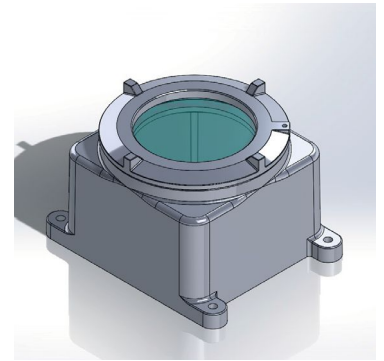
## DESCRIPTION



The GUB W series enclosures are designed for the installation in the industrial plants with potentially hazardous atmosphere classified as Zone 1 and Zone 2 for gases and Zone 21 and Zone 22 for combustible dusts.

The Gub W series enclosures are used for electrical & electronic equipments, where a visual inspection is needed.

Voltmeters, ammeters and analog & digital measure instruments are typical example of the applications. Enclosures will be drilled in accordance with customer request. For the applicable drilling quantity see Drilling Table of the GUB S series.



GUB W - DATA TABLE

TYPE	DIMENSIONS [mm]								
	A	B	c	d1	E	F	G	H	N
<b>GUB-1 W</b>	120	120	96x96	80	110	95	145	8	70
<b>GUB-1A W</b>	140	140	120x120	85	120	115	160	8	90
<b>GUB-2 W</b>	160	160	132x132	90	135	140	182	8	104
<b>GUB-3 W</b>	200	200	168x168	100	147	178	232	10	136
<b>GUB3-210 W*</b>	200	200	168x168	185	233	178	232	10	136
<b>GUB-4 W</b>	240	240	206x206	120	171	208	270	12	160
<b>GUB-5 W</b>	280	280	240x240	145	195	248	310	12	185
<b>GUB-5A W</b>	330	330	292x292	160	225	295	362	12	185
<b>GUB-5B W</b>	400	400	360x360	175	235	365	435	12	205
<b>GUB5B-285 W*</b>	400	400	360x360	260	315	365	435	12	205
<b>GUB-6 W</b>	465	465	428x428	190	262	430	500	12	110 / 160
<b>GUB-7 W</b>	570	570	522x522	225	305	530	614	12	110 / 160

Note: Dimensions can slightly differ due to casting tolerances.

\* Available only in stainless steel.



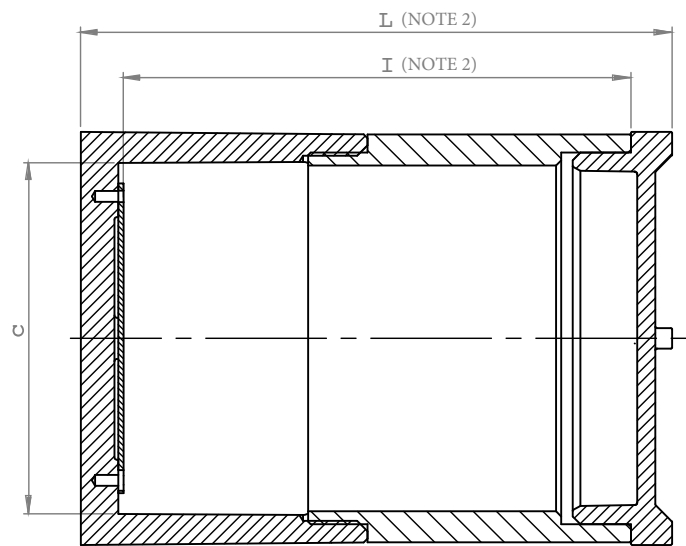
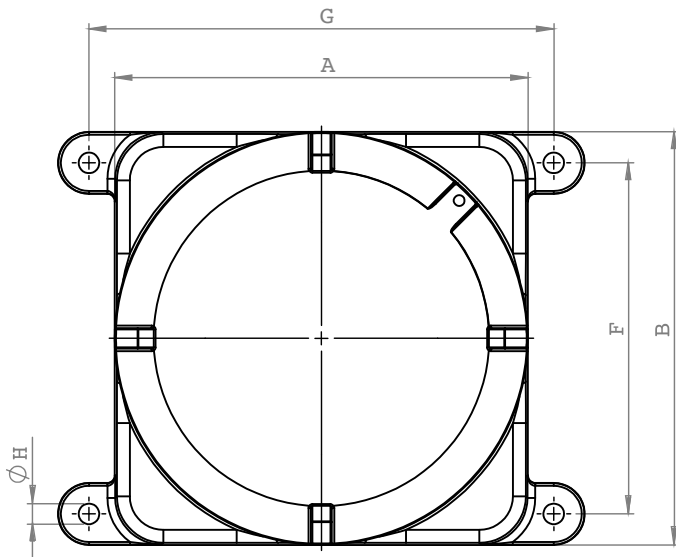
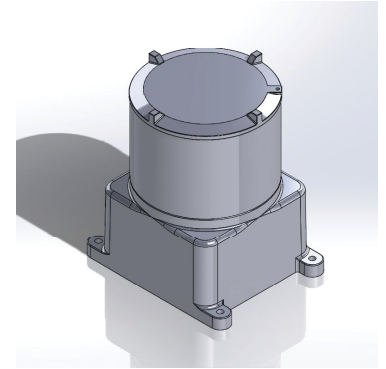
**DESCRIPTION**



The GUB S/W series enclosures can be equipped with an extension in order to increase the available height. This enclosure can be installed in the industrial plants with potentially hazardous atmosphere classified as Zone 1 and Zone 2 for gases and Zone 21 and Zone 22 for combustible dusts.

Television cameras are the typical example of the applications.

Enclosures will be drilled in accordance with customer request. For the applicable drilling quantity see Drilling Table of the GUB S series.

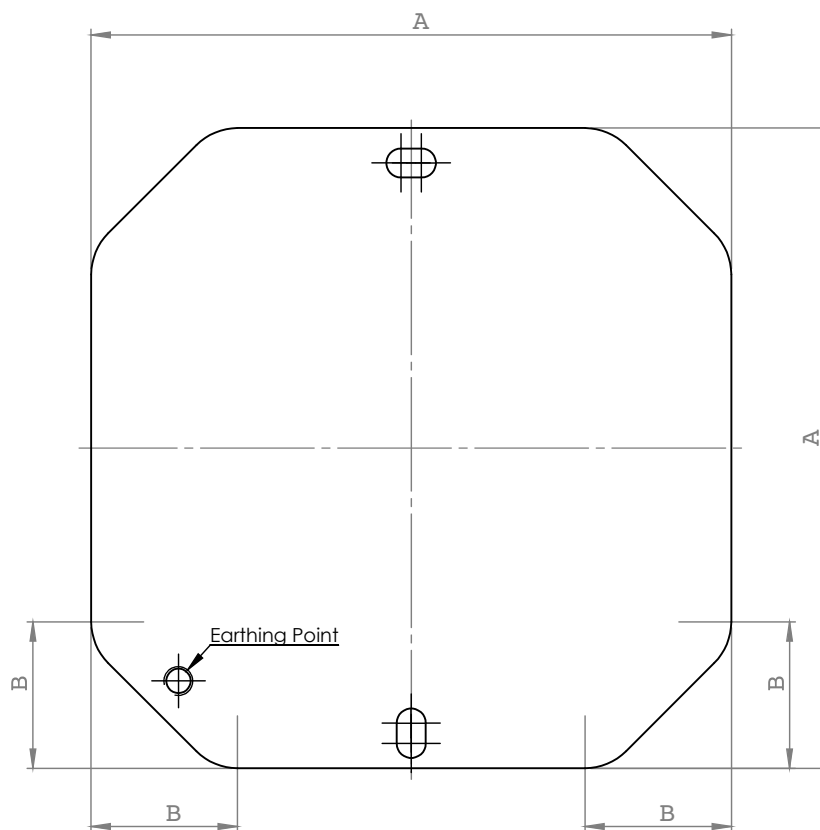


**GUB WITH EXTENSION - DATA TABLE**

TYPE	DIMENSIONS [mm]							
	A	B	c	F	G	H	I	L
<b>GUB-1 S/W</b>	120	120	96x96	95	145	8	180	210
<b>GUB-1A S/W</b>	140	140	120x120	115	160	8	230	260
<b>GUB-2 S/W</b>	160	160	132x132	140	182	8	250	290
<b>GUB-3 S/W</b>	200	200	168x168	178	232	10	290	330
<b>GUB-4 S/W</b>	240	240	206x206	208	270	12	385	430
<b>GUB-5 S/W</b>	280	280	240x240	248	310	12	405	430
<b>GUB-5A S/W</b>	330	330	292x292	295	362	12	420	445
<b>GUB-5B S/W</b>	400	400	360x360	365	435	12	410	452

Note: 1. Dimensions can slightly differ due to casting tolerances.

2. I and L indicate the maximum values. These values can be decreased according to client's request.



**Materials** - Stainless steel  
 - Stainless steel AISI 304/316L (on request)

**GUB INTERNAL MOUNTING PLATE - DATA TABLE**

TYPE	DIMENSIONS [mm]	
	A	B
<b>GUB-1 S/W</b>	85	25
<b>GUB-1A S/W</b>	110	20
<b>GUB-2 S/W</b>	120	35
<b>GUB-3 S/W</b>	165	48
<b>GUB-4 S/W</b>	193	58
<b>GUB-5 S/W</b>	239	72
<b>GUB-5A S/W</b>	260	72
<b>GUB-5B S/W</b>	320	90
<b>GUB-6 S/W</b>	380	115
<b>GUB-7 S/W</b>	460	130

*Note:* 1. This mounting plate can be used with all GUB series.  
 2. Thickness of the plate is 2 mm.  
 3. Earthing point can be changed according to client's request.



## DESCRIPTION

The Ex-protection series operators are suitable for the use with Ex-d enclosures which can be installed in the industrial plants with potentially hazardous atmosphere classied as Zone 1 and Zone 2 for gases and Zone 21 and Zone 22 for combustible dusts.

All operators have two different lengths regarding to enclosure wall thickness. Supply fully with contact block. Possibility of having special contact configurations.



## SPECIFICATIONS

EXPLOSION PROTECTION DATA

### Conformity Certification

ATEX Directive ATEX2014/34/EU

ATEX - INERIS 14ATEX9013U

IECEX - INE 14.0032U

### Marking

I M2

Ex-db I Mb

II 2 GD

Ex-db IIC Gb

Ex-tb IIIC Db IP66

### Standards

IEC/EN: 60079-0, 60079-1, 60079-11, 60079-31

### Ambient Temperature

ATEX -60°C / +60°C

IECEX -60°C / +60°C

### IP Rating

IP66

### Connection

Screw clamp terminals

- Installation should be carried out by approved and qualified staff only.

## NOTE



**PUSHBUTTON**



**SELECTOR SWITCHES**



**PILOT LIGHT**



**ILLUMINATED PUSH BUTTON**



**EMERGENCY STOPS**



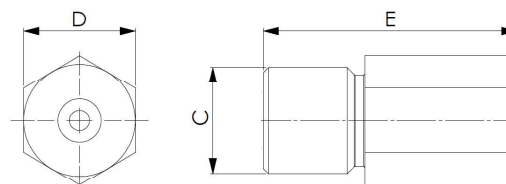
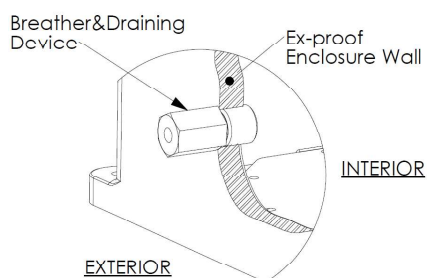


## DESCRIPTION

Breathing&draining devices which permits an exchange between the atmosphere within an enclosure and the surrounding atmosphere or permits liquids to flow out from an enclosure and which maintains the integrity of the type of protection.

It is suitable for the installation in the industrial plants with potentially hazardous atmosphere classified as Zone 1 and Zone 2 for gases and Zone 21 and Zone 22 for combustible dusts.

## INSTALLATION SCHEME



## SPECIFICATIONS

EXPLOSION PROTECTION	<b>Conformity</b>	ATEX Directive ATEX2014/34/UE
	<b>Certification</b>	ATEX - INERIS 12ATEX9013U IECEX - INE 12.0002U
	<b>Marking</b>	II 2 GD Ex-db IIC T6/T5/T4 Gb Ex-eb IIC Gb Ex-tb IIIC T85°C/100°C/135°C Db IP66
TECHNICAL DATA	<b>Ambient Temperature</b>	ATEX -60°C / +65°C IECEX -60°C / +65°C
	<b>Material</b>	Stainless steel AISI 304 or AISI 316L Brass CW614N-MS Hastelloy Inconel
	<b>IP Rating</b>	IP66
	<b>Sealing:</b>	O-Ring made in Silicone (Optional)

CATALOG NO.	C	D	E
<b>VS-61090-1</b>	1/4" NPT	17	50
<b>VS-61090-4</b>	1/2" NPT	22	50
<b>VS-61090-5</b>	1/2" ISO	22	50
<b>VS-61090-9</b>	1/2" NPT	22	50
<b>VS-61090-10</b>	1/2" ISO	22	50
<b>VS-61090-11</b>	1/8" NPT	17	50
<b>VS-61090-14</b>	M25	27	62
<b>VS-61090-15</b>	3/4" NPT	27	62
<b>VS-61090-17</b>	M20	22	50

ORDER EXAMPLE:  
VS-61090-17 B (material brass)

Material Table	CODE	MATERIAL
	A	AISI Series 316L Steel
	C	AISI Series 304 Steel
	B	Brass
	H	Hastelloy
	I	Inconel

### APPLICATION NOTE

1. Permissible maximum enclosure volume is 68 lt for IIC and 150 lt for IIB+H2.



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