

IP 66 Version



IP 67 Version

Alupaack  
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## General technical characteristics and applications



- Metal boxes for installation, circuit breaking, connection and control of electric and electronic equipments.
- For industries, automotive, railways, navy, tunnels, parkings, industrial buildings
- The boxes are in conformance with IEC 60670, CEI 23-48, EN 62208, EN 60529, EN 50102 stands. Besides the ATEX versions are in conformance with IEC 60079-0, IEC 60079-15, EN 50281-1-1.
- High mechanical strength and vibration resistance.
- Anti-ageing materials, water resistant, oil resistant, grease resistant and fuel resistant.
- The boxes can be mounted by using external flanges or internally through holes.
- Inside the boxes the Din rail or the metal plate, supplied as accessory, can be assembled for mounting terminal blocks, breakers, fuse holders, control devices, transformers, electronics circuits, connectors, etc.
- Three series are available:
  - 1- Standard with epoxy powder coating grey RAL 9006
  - 2- Standblasted without coating
  - 3- With epoxy powder coating RAL 7037 for ATEX version
- 8 sizes are available:
  - from 90 x 90 x 53 mm, size 1 (S1)
  - to 392 x 298 x 144 mm, size 7 (S7)
  - Size S3 with high cap (HC) Recommended for the use with rotary power switches (S3-HC)
- Degree of protection according to EN 60529: IP66 (size 1 ÷ 6) IP55 (size 7)
- ATEX versions are in conformance with European Directive 94/9/CE and to the standards:
  - IEC 60070-0: Electrical apparatus for explosive gas atmospheres. Part 0 (General requirements)
  - IEC 60070-15: Electrical apparatus for explosive gas atmospheres. Construction, test and marking
  - EN 50291-1-1: Electrical apparatus in the presence of combustible dust. Part. 1-1 (Electrical apparatus protected by enclosures - Construction and testing)
- Working temperature: -40 ÷ +125 C°
- Working temperature in accordance with ATEX: -20 ÷ +85 C°
- With ground terminal on box and on cover by using trilobate screw for better ground contacts and low electrical resistance
- Materials
 

Metal body and cover:	Die-cast aluminium alloy
Coating:	Epoxy-polyester powder coating in anti-ageing, oil resistant and fuel resistant vinyl nitrile elastomer
Gaskets:	Steel with Dacromet® treatment to prevent corrosion especially with aluminium parts
Scews:	Steel zinc plated for screws used internally
Metal plates:	Steel zinc plated

## Technical characteristics and applications of ATEX versions

Marking:

### ATEX VERSION

EX NA -  $-20^{\circ}\text{C} < \text{Ta} < +85^{\circ}\text{C}$  U / EX TD A -  $-20^{\circ}\text{C} < \text{Ta} < +85^{\circ}\text{C}$  U IP66



Junction box in accordance with European Directive 94/9/CE

### Making data classification

#### Ex

Product for use in explosive atmospheres.

#### II

Group II product - only for areas different from mines and therefore with a normal safety level.

#### 3GD

Product for areas containing gas (G) and dust (D) with normal risk of explosion.

In particular, the product can only be installed:

- in zone 2 (where it is improbable that an explosive atmosphere of air and flammable substances will form during normal working activity).
- in zone 22 (where it is improbable that an explosive atmosphere of dust will form, and if so, it will be short-lasting).

#### Ta

Permitted ambient temperature field:  $-20^{\circ}\text{C} \div +85^{\circ}\text{C}$

#### IP66 / IP65

The lighting fixture's protection level against the ingress of solids and liquids.

#### nA

The components supplied by MAXIMUS are classified as type nA by standard EN 60079-15 so they can only house components of non-sparking type.

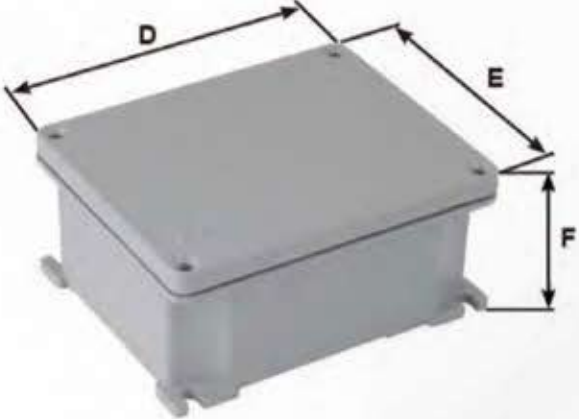
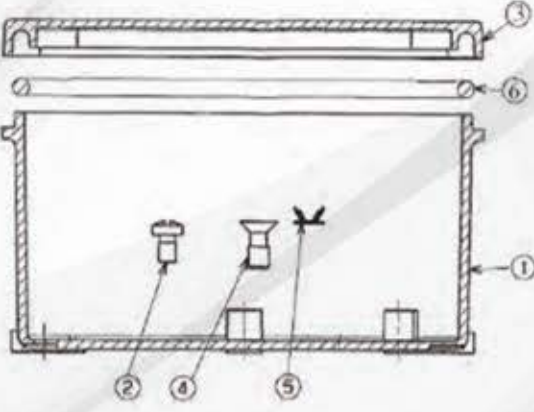
#### U

The junction boxes are components for purposes of Directive 94/9/EEC so the finished product must be certified by the end manufacturer.

### GENERAL INSTRUCTIONS

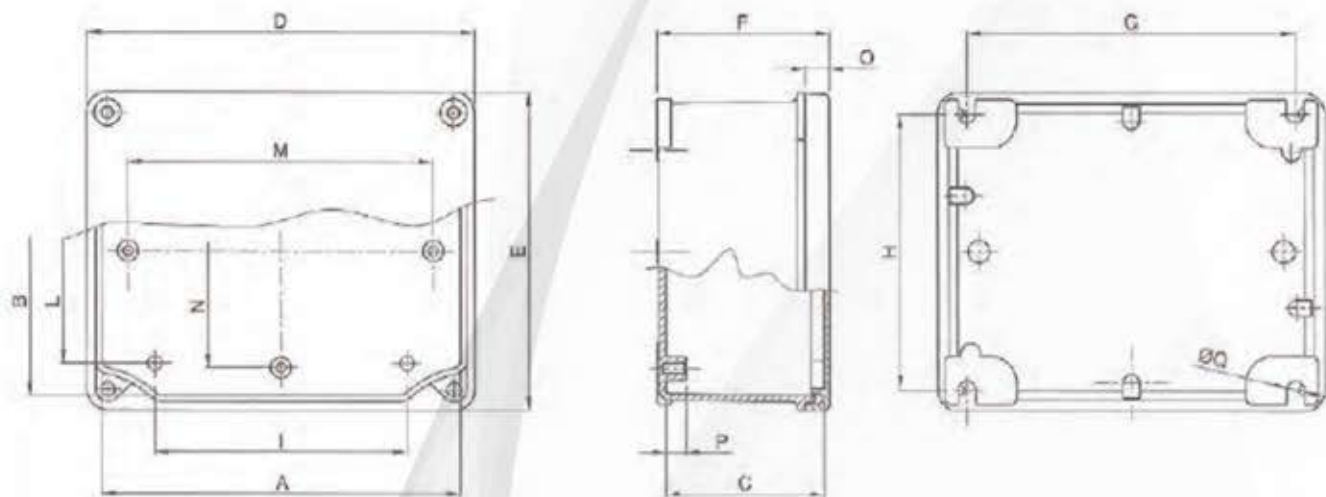
- The plant engineer/client is responsible for classifying areas where hazardous atmospheres can form in order to choose the right product.
- The component supplied by MAXIMUS is only suitable in zone 2 (GAS) and 22 (DUST)
- The components must be installed in a thoroughly workmanlike way following the manufacturer's instructions.
- Make the internal and supplementary external earth connections in accordance with the earth symbol.
- The components supplied by MAXIMUS are classified as type nA as per standard EN 60079-15, so they can only contain non-sparking components.
- The junction boxes are components within the meaning of directive 94/9/EEC so finished products must be certified by the end manufacturer.
- Use only ATEX certified cable clamps with appropriate level of protection and suitable for being installed in zones classified as 2 (GAS) and 22 (DUST).
- The number and the size of the hole are limited by the ATEX standard.

Please see the table on Page 119

Description and dimensions						Type	IP protection	Size	Part No.																																																									
						STD	IP66	S1	MG.6261.0																																																									
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						STD	IP66	S4	MG.6264.0																																																									
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						STD	IP66	S3 - HC	MG.6268.0																																																									
<table border="1"> <thead> <tr> <th rowspan="2">Size</th> <th rowspan="2">Internal dimensions</th> <th colspan="3">Outside dimensions</th> <th rowspan="2">Packing</th> </tr> <tr> <th>D</th> <th>E</th> <th>E</th> </tr> </thead> <tbody> <tr> <td>S1</td> <td>91 x 91 x 53</td> <td>101</td> <td>101</td> <td>58</td> <td>1/40</td> </tr> <tr> <td>S2</td> <td>128 x 103 x 55</td> <td>138.5</td> <td>113.5</td> <td>61.5</td> <td>1/32</td> </tr> <tr> <td>S3</td> <td>154 x 129 x 58</td> <td>165.5</td> <td>104.5</td> <td>63.5</td> <td>1/24</td> </tr> <tr> <td>S3 - HC</td> <td>154 x 130 x 130.8</td> <td>165.5</td> <td>140.5</td> <td>136.8</td> <td>1/10</td> </tr> <tr> <td>S4</td> <td>178 x 155 x 74</td> <td>189</td> <td>167</td> <td>80</td> <td>1/16</td> </tr> <tr> <td>S5</td> <td>239 x 202 x 85</td> <td>252</td> <td>215</td> <td>91</td> <td>1/8</td> </tr> <tr> <td>S6</td> <td>294 x 244 x 114</td> <td>307</td> <td>257</td> <td>120.5</td> <td>1/4</td> </tr> <tr> <td>S7</td> <td>392 x 289 x 144</td> <td>406.5</td> <td>312.5</td> <td>151</td> <td>1</td> </tr> </tbody> </table>						Size	Internal dimensions	Outside dimensions			Packing	D	E	E	S1	91 x 91 x 53	101	101	58	1/40	S2	128 x 103 x 55	138.5	113.5	61.5	1/32	S3	154 x 129 x 58	165.5	104.5	63.5	1/24	S3 - HC	154 x 130 x 130.8	165.5	140.5	136.8	1/10	S4	178 x 155 x 74	189	167	80	1/16	S5	239 x 202 x 85	252	215	91	1/8	S6	294 x 244 x 114	307	257	120.5	1/4	S7	392 x 289 x 144	406.5	312.5	151	1	Sandblasted	IP66	S1	MG.6281.0
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For ATEX: Supplementary ground screw + terminal

### DIMENSIONS

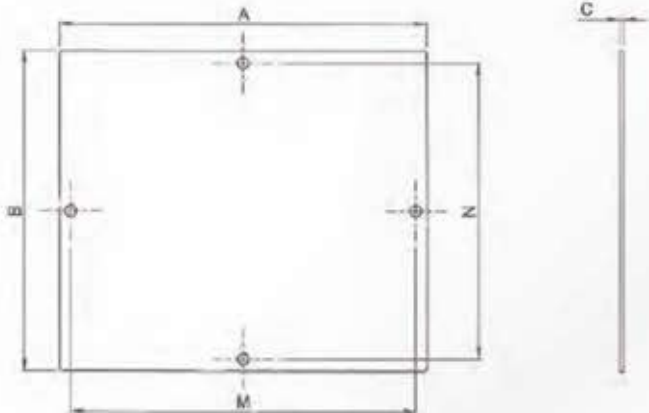


Size	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q
S1	91	91	54	101	101	58	86	86	52.5	42.5			8.3	7.5	6.1
S2	128	103	57	138.5	113.5	61.5	117.5	101	60	50	109		8.5	7.3	6.1
S3	155	130	58	165.5	140.5	63.5	144	125	104.5	102	135	110	8.6	7.2	6.1
S4	178	156	75	189	167	80	168	150	117	129.5	140	120	8.7	7.1	6.1
S5	239	202	85	252	215	91	221	196	178	164	208	168	9	8.7	8.7
S6	294	244	114	307	257	120.5	275	236	208	193.5	258	210	9.2	8.5	8.7
S7	392	298	144	406.5	312.5	151	367	283	290	237	320	230	9.6	8.5	8.7
S3-HL	155	130	58	165.5	140.5	136.8	144	125	104.5	102	135	110	81.9	7.2	6.1

### Drilling in conformity with ATEX requirements

Boxes	Size	Long side				Short side				Max no. of drilling per box
		Dia	M Metric	Pg	No. of drilling	Dia	M Metric	Pg	No. of drilling	
MG.6291.0	S1	16	16		1	16	16		1	4
		23		16		23		16		
MG.6292.0	S2	25	25		1	25	25		1	4
		29		21		29		21		
MG.6293.0	S3	25	25		2	25	25		1	6
		29		21		29		21		
MG.6294.0	S4	32	32		2	32	32		2	8
		37		29		37		29		
MG.6295.0	S5	40	40		2	40	40		2	8
		48		36		48		36		
MG.6296.0	S6	50	50		2	50	50		2	8
		54		42		54		42		
MG.6297.0	S7	50	50		3	50	50		2	10
		54		42		54		42		

Important note: We can supply the enclosures drilled with or without cable glands and fittings in accordance with customer requirements

Metal plates for metal boxes	Packing	For box size	Part No.																																										
	1/10	S2	MG.6272.0																																										
	1/10	S3	MG.6273.0																																										
	1/10	S4	MG.6274.0																																										
	1/5	S5	MG.6275.0																																										
	1/5	S6	MG.6276.0																																										
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Threelobated screws M5X8 spare parts for ground terminals, metal plates and DIN rail assembly	100		MG.6300.0																																										



Size: S5