

4

ZAG

Die-Cast Aluminium Enclosures

SX Range

1

BPG Range

2

BPGA Range

3

ZAG Range

4

High Voltage

5

Fire Rated

6

ZP Range

7

Others

8

Technical

9

Further details on this range of enclosures can be found at;

www.ab-tech.co.uk/zag.htm



Die-cast Aluminium Enclosures

The ZAG range of enclosures comprises of 19 different sizes of enclosures and is precision die cast in AL-Si 12 grade (LM24) aluminium alloy. This is considered to be the most suitable grade of aluminium for maximum corrosion resistance especially in salt laden atmospheres.

Additional optional protection methods such as alocrome, anodising and epoxy polyester painting coupled with the fitment of captive 316 grade stainless steel lid retaining screws further enhance the anti-corrosion properties of the enclosure.



4

ZAG Range

The wall thickness is sufficient to allow tapped entry holes to be machined into the walls or the base of the enclosure.

Due to the enclosure's labyrinth seal system, similar to that of the BPG range of enclosures, whereby the seal is protected from external forces, the ZAG enclosure has excellent ingress protection qualities this means that the enclosure has been tested to and passed IP65/66/67.

The mounting holes, although contained within the profile of the enclosure, sit outside the seal and all the external fasteners and fixings are manufactured from 316 grade stainless steel to ensure the enclosures reliability. External stainless steel mounting feet are offered as an option.

The ZAG range has many features which lend itself to a whole host of applications including junction boxes, both industrial and hazardous area, and especially OEM applications, where the excellent machining qualities of aluminium come to the fore.

The ZAG range can be drilled and tapped with various thread forms and it readily accepts most paint finishes and colours.



The ZAG range is particularly suitable for the engraving of instructions and decals and this method provides excellent durability. Silk screen printing is also available.

All of this can be achieved even in relatively small batches which makes the ZAG range ideal for the small to medium size manufacturers who can achieve a custom enclosure economically.

Earthing of the enclosure can be accomplished by various means. Internal / external stainless steel earth studs which in turn can be connected to the terminal mounting rail or component plate and various rail mounted earth terminals or proprietary earth bars can be fitted inside the enclosure. Due to the fact that aluminium is an excellent conductor, earthing for cable glands is provided through contact with the enclosure wall with no further earthing required.



Die-cast Aluminium Enclosures

When fitted with a standard neoprene gasket the enclosure is suitable for ambient temperatures - 40°C to + 80°C (-40°F to +176°F).

Alternatively, when fitted with an optional silicon gasket the temperature range can be increased to - 70°C to + 130°C (-94°F to +266°F).



The ZAG enclosures are suitable for use in hazardous areas and can be supplied with a number of certificates;

ATEX EEx'e' to BS EN 50019 (zone 1 & 2) EEx 'nA' to BS EN 50021 (zone 2) and NEMA 4x (CSA, UL & FM class 1, division 2).

The ZAG range can also be supplied fitted with any component approved terminal to apparatus level or can be supplied empty as component approved for the clients own certification requirements.

Further information on enclosure certification can be found in Section 9 of this catalogue.



ZAG Range Features

- Wide Operating Temperature (- 70°C to +130°C) (-94°F to +266°F) (Industrial applications only)
- Ingress Protection up to IP67
- Painted and Unpainted versions
- Impact Resistant > 7 Nm
- Corrosion Resistant
- Can be drilled and tapped to accommodate most thread forms (NPT for example)
- Certification for use in Zone 1 and 2
- UL, CSA, ATEX, FM, InMetro and GOST Approvals
- Ideal for Petrochemical and Marine applications

SX Range

1

BPG Range

2

BPGA Range

3

ZAG Range

4

High Voltage

5

Fire Rated

6

ZP Range

7

Others

8

Technical

9

Accessories and Options

The following table is a list of the available accessories suitable for a particular size of ZAG enclosure. Care should be taken when ordering accessories for use with enclosures intended for hazardous areas to ensure that compliance with certification is retained.

Part Number	Width (mm)	Length (mm)	Depth (mm)	UP - Unpainted	EX - Ex Certified (see note 1)	AL - Achromed	ES - Earth Stud	AS - Allen Head Fixing Screws	TP - Tamper Proof Screws	EH - External Hinges	MP - Component Mounting Plate	MF - External Mounting Feet	EB - Internal Earthing Bar	SG - Silicone Gasket (see note 2)	MR - DIN Standard Mounting Rail	RF - RFI Protection (see note 3)
ZAG1	50	45	30	✓	✗	✓	✗	✓	✓	✗	✗	✗	✗	✓	✗	✓
ZAG2	58	64	34	✓	✓	✗	✗	✓	✓	✗	✓	✗	✗	✓	✗	✓
ZAG3	98	64	34	✓	✓	✓	✓	✓	✓	✗	✓	✗	✗	✓	✗	✓
ZAG4	150	64	34	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✗	✓
ZAG5	75	80	57	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
ZAG6	125	80	57	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
ZAG7	175	80	57	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
ZAG8	250	80	56	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
ZAG9	122	120	80	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZAG9/9	122	120	90	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZAG10	220	120	80	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZAG10/9	220	120	90	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZAG11	160	160	90	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZAG12	260	160	90	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZAG13	360	160	90	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZAG14	560	160	90	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZAG15	202	230	110	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZAG16	330	230	110	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZAG21	120	360	80	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Ordering Example;

ZAG10 UP AS SG

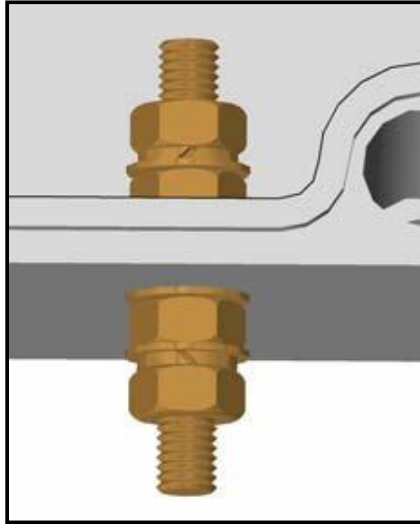
(ZAG 10 unpainted, Allen Head Fixing Screws and Silicone Lid Gasket)

1. EEx'e' certification may be component or apparatus certified - please specify your requirements.
2. Silicone gasket increases temperature rating (-70°C to +130°C) (-94°F to +266°F).
3. Radio Frequency Interference (RFI) gasket may reduce IP rating. Enclosure may also be internally coated with RFI material.

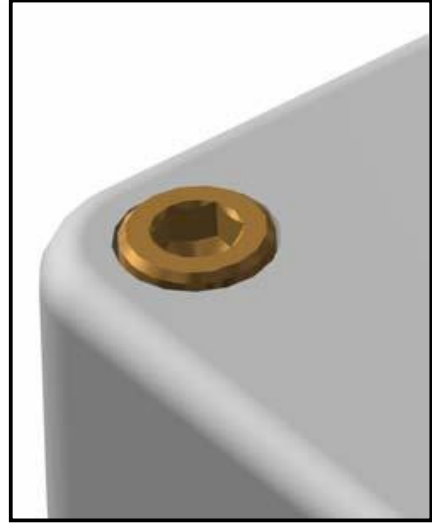
Die-cast Aluminium Enclosures



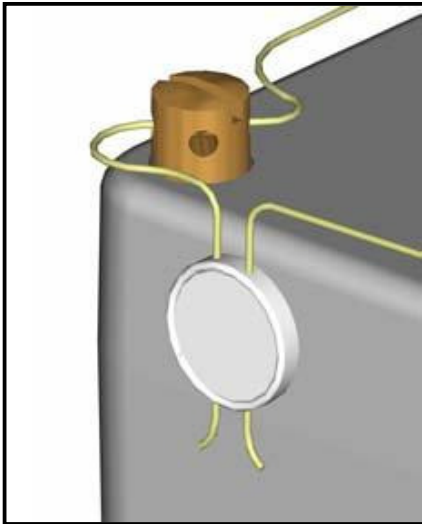
Unpainted (raw) finish



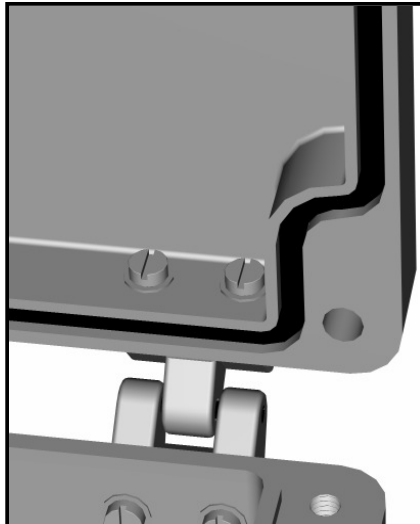
Earth Stud
(either brass or stainless steel)



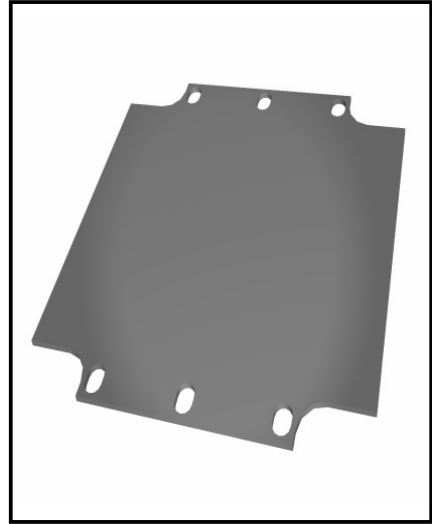
Allen Head fixing screws
(grade 316)



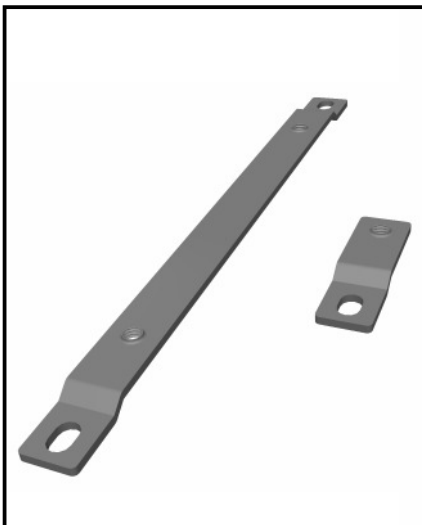
Tamper-proof screws



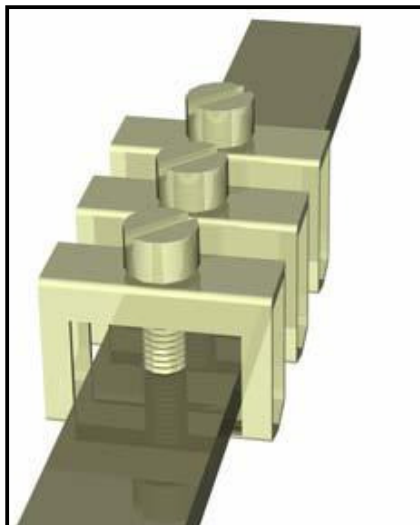
External hinges



Component mounting plate
(tufnol as standard, steel an option)



External mounting feet
(stainless steel 316)



Internal Earthing bar
(can be fitted with clamps)

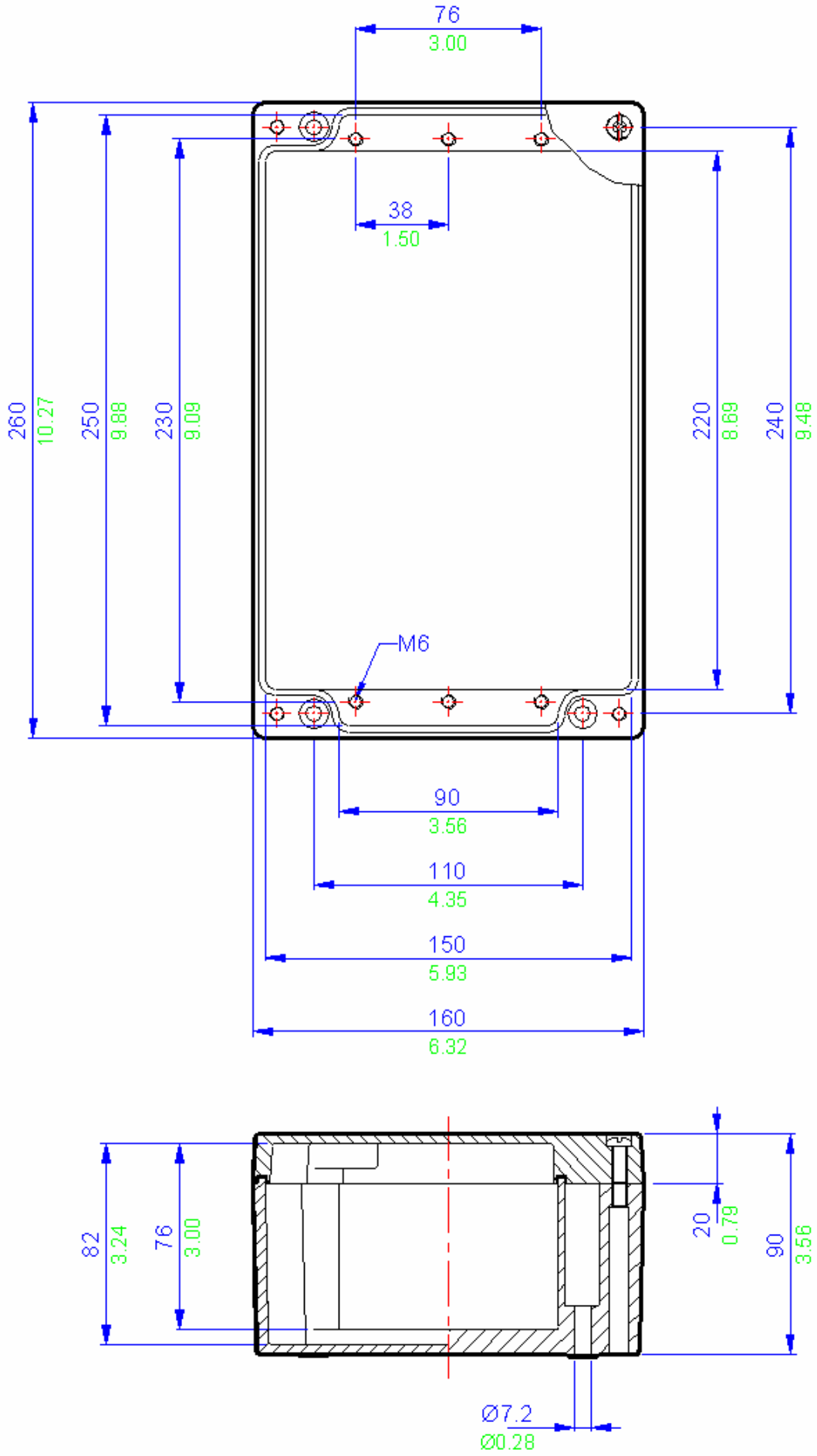


DIN standard mounting rail
(TS15, TS32 or TS35)

SX Range	1
BPG Range	2
BPGA Range	3
ZAG Range	4
High Voltage	5
Fire Rated	6
ZP Range	7
Others	8
Technical	9

We can also supply cable glands, stopping plugs, breather drains and continuity plates. Please contact for further details.

ZAG 12 Drawing



All blue dimensions in mm, all green dimensions in decimal inches (drawing not to scale)

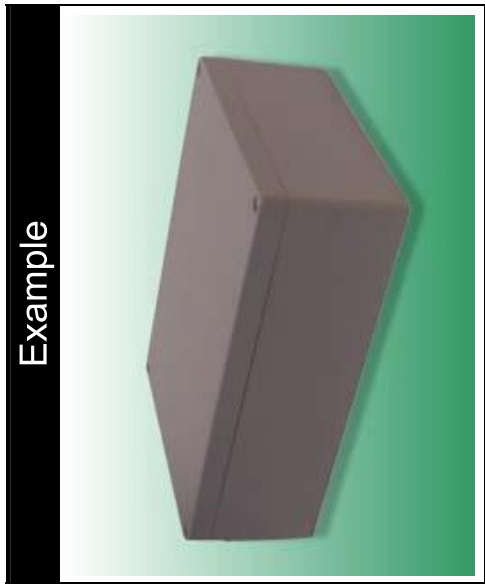
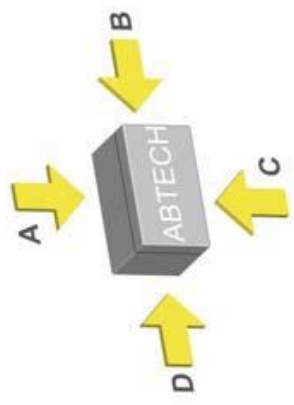
ZAG 12 Specifications	
Width	260mm
Length	160mm
Depth	90mm
Material	Precision Cast AISi12 (LM24) aluminium alloy - unpainted
	Precision Cast AISi12 (LM24) aluminium alloy – painted epoxy polyester RAL7001 grey
Weight	1960g
IP Rating	67
Temperature	-40° to 80° C (-40°F to +176°F) (standard neoprene gasket)
	-70° to 130° C (-94°F to +266°F) (silicone gasket)
Certification	ATEX EEx'e' BS EN 50019 (Zone 1 & 2)
	ATEX EEx'nA' BS EN 50021 (Zone 2)
Power Rating	NEMA 4X (CSA, UL & FM (class 1 division 2))
	8.000W

Terminal Populations				
Maximum Number of Rows		1		
Weidmuller		Wago		
	BK4 (4 way)	6	280-992	40
BK6 (6 way)	4		280-999	40
BK12 (12 way)	2		281-691	34
MK6/3	5		281-992	34
MK6/4	4		281-993	34
MK6/6	3		282-691	27
SAK2.5	36		284-691 *	21
SAK4	34		283-691 *	18
SAK6N	27		285-691	0
SAK10 *	22		280-998	40
SAK16 *	18		281-998	34
SAK35 *	14		264-120	36
Entelec			264-220	21
MA2.5/5	43		264-132 (2)	7
M4/6	36		264-134 (4)	5
M6/8	27		262-132 (2)	7
M10/10 *	22		262-134 (4)	5
M16/12 *	18			
M35/16 *	14			

* Care must be taken to ensure that the size of this enclosure can accommodate the cable bending radius.

Cable Gland Entry Matrix		
Entry Size	Side A-C	Side B-D
M16	12	2
M20	6	2
M25	4	1
M32	3	0
M40	0	0

Drilling Envelope Size	
Side A-C	210 x 65mm
Side B-D	80 x 56mm



Example

Technical	9
Others	∞
ZP Range	7
Fire Rated	6
High Voltage	5
ZAG Range	4
BPGA Range	3
BPG Range	2
SX Range	1