

ATEX ENCLOSURES : SA, SAG



The enclosures of the SA, SAG series are large junction boxes, in light or reinforced version. They are made of aluminum alloy with EPOXY coating baked at 200 ° C; this treatment guarantees a good thermal stability and resistance to UV, as well as a high mechanical resistance. The enclosures of the SA, SAG range are generally installed in areas 1, 2, 21, 22 and used with connection terminals or with electrical equipment for monitoring, control, signaling. The enclosures can be drilled and tapped on both the sides and the lid in accordance with customer demand.

AMBIENT TEMPERATURE RANGES :

AMBIENT TEMPERATURE	TEMPERATURE CLASS	MAXIMUM SURFACE TEMPERATURE	MAXIMUM TERMINAL OPERATING TEMPERATURE
-40°C +40°C	T6	T75°C	+80°C
-40°C +55°C	T5	T75°C	+95°C

TEMPERATURE RANGE FOR SIGNALING (MAX 1 A FOR CIRCUITS OTHER THAN Ex i, MAX 100 mA FOR «Ex i» CIRCUITS) :

AMBIENT TEMPERATURE	TEMPERATURE CLASS	MAXIMUM SURFACE TEMPERATURE	MAXIMUM TERMINAL OPERATING TEMPERATURE
-40°C +60°C	T6	T75°C	+80°C



TEMPERATURE RANGE FOR SIGNALING (MAX 10 A FOR CIRCUITS OTHER THAN Ex i, MAX 100 mA FOR «Ex i» CIRCUITS) :

AMBIENT TEMPERATURE	TEMPERATURE CLASS	MAXIMUM SURFACE TEMPERATURE	MAXIMUM TERMINAL OPERATING TEMPERATURE
-60°C +85°C	T4	T110°C	+120°C

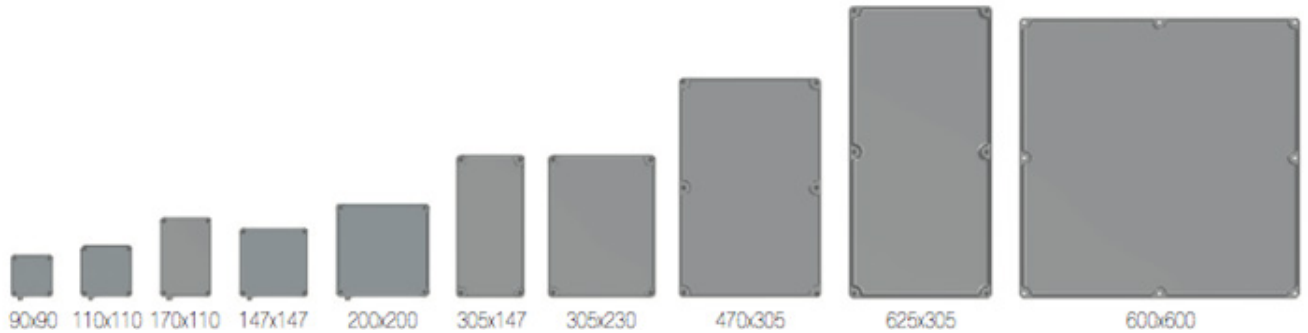
CERTIFICATION DATA FOR BOXES WITH TERMINALS :

Classification:	Group II	Category 2GD		
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)		
Marking:	CE 0722 Ex II 2GD Ex eb IIC T6/T5/T4 Gb - Ex tb IIIC T75°C/T110°C Db IP66 CE 0722 Ex II 2GD Ex e ia IIC T6/T5/T4 Gb - Ex ia IIIC T75°C/T110°C Db IP66 CE 0722 Ex II 2GD Ex eb ia IIC T6/T5/T4 Gb - Ex tb ia IIIC T75°C/T110°C Db IP66			
Certification:	ATEX CESI 03 ATEX 333			
	IEC Ex CES 13.0001	All IEC Ex, TR CU and INMETRO certification data can be downloaded from www.cortemgroup.com		
	TR CU AVAILABLE			
	INMETRO DNV 15.0119			
Standards:	CENELEC EN 60079-0: 2012+A11:2013, EN 60079-7: 2015, EN 60079-11: 2012, EN 60079-31: 2014 ed alla DIRETTIVA EUROPEA 2014/34/UE IEC 60079-0: 2011, IEC 60079-7: 2015, IEC 60079-11: 2011, IEC 60079-31: 2013			
Ambient Temp.:	See "ambient temperature range" table			
Degree of protection:	IP66			

CERTIFICATION DATA OF ENVELOPE OF CONTROL, MONITORING AND SIGNALING UNITS :

Classification:	Group II	Category 2GD		
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)		
Marking:	CE 0722 Ex II 2GD - Ex de IIC T6/T5 Gb - Ex tb IIIC T85°C/T100°C Db - IP66 CE 0722 Ex II 2GD - Ex e IIC T6/T5 Gb - Ex tb IIIC T85°C/T100°C Db - IP66 (When on the box is installed only ammeter or voltmeter type B-0140)			
Certification:	ATEX CESI 03 ATEX 115			
	IEC Ex CES 11.0032	All IEC Ex, TR CU and INMETRO certification data can be downloaded from www.cortemgroup.com		
	TR CU AVAILABLE			
	INMETRO DNV 15.0125			
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, N 60079-31: 2009, EN 60529: 1991 and EUROPEAN DIRECTIVE 2014/34/UE IEC 60079-0: 2011-06, IEC 60079-7: 2006-07, IEC 60079-11: 2008-11, IEC 60529: 2001			
Ambient Temp.:	-40°C +40°C	With temperature class T6 and maximum surface temperature T85°C.		
	-40°C +55°C	With temperature class T5 and maximum surface temperature T100°C.		
Degree of protection:	IP66			

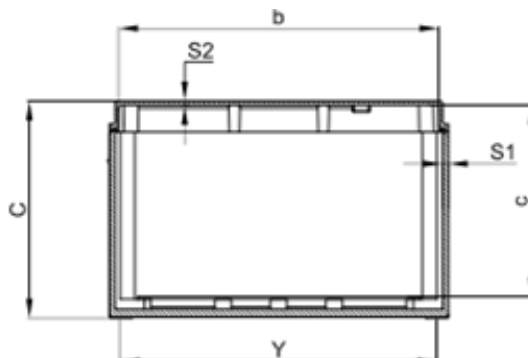
SIZE OVERVIEW :

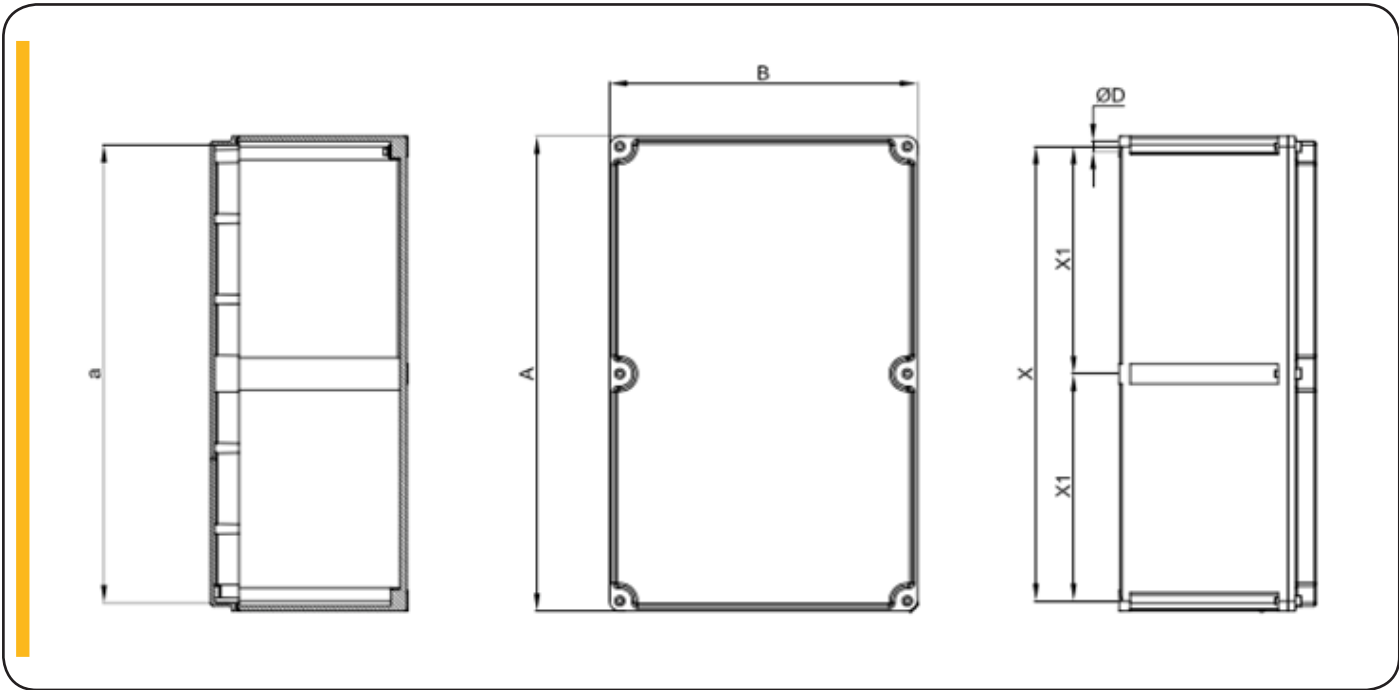


SELECTION OF THE HOUSING :

Code	External dimensions			Inner dimensions					Fixing				Weight Kg
	A	B	C	a	b	c	S1	S2	X	Y	X1	ØD	
SA090907	90	90	73	84	84	54	3	2.5	74	74	-	6.5	0.40
SA111108	110	110	83	104	104	64	3	2.5	94	94	-	6.5	0.50
SAG111108	110	110	83	96	96	64	7	2.5	94	94	-	6.5	0.75
SA171108	170	110	83	164	104	65	3	2.5	154	94	-	6.5	0.80
SAG171108	170	110	83	156	96	65	7	2.5	154	94	-	6.5	1.55
SA141410	147	147	100	141	141	80	3	2.5	131	131	-	6.5	0.80
SAG141410	147	147	100	133	133	80	7	2.5	131	131	-	6.5	1.40
SA202012	200	200	120	192	192	98	4	3	180	180	-	6.5	1.70
SA301410	305	147	110	296	138	90	4.5	3	285	127	-	6.5	2.00
SAG301410	305	147	96	291	133	75	7	4	285	127	-	6.5	2.70
SA302310	305	230	110	296	221	90	4.5	3	285	210	-	6.5	2.80
SAG302310	305	230	100	291	216	75	7	4	285	210	-	6.5	3.40
SA302318	305	230	190	296	221	165	4.5	3	285	210	-	6.5	3.50
SAG302318	305	230	180	291	216	155	7	4	285	210	-	6.5	5.30
SA473018	475	305	195	465	295	174	5	4	450	285	225	6.5	6.50
SAG473018	475	305	195	461	294	174	7	4	450	285	225	6.5	8.90
SAG623018	625	305	195	613	293	174	6	5	605	285	302.5	6.5	11.3
SAG606018	600	600	205	584	584	177	10-13	5	580	580	290	8	27.0

DIMENSIONS IN MM :





THREAD COMPARISON CHART :

D	01	1	2	3	4	5	6	7	8
Thread diameter	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Through hole	Ø17	Ø22	Ø27.5	Ø34	Ø43	Ø48.5	Ø60.5	Ø76	Ø89

D	01	1	2	3	4	5	6	7	8
Thread diameter	16x1,5	20x1,5	25x1,5	32x1,5	40x1,5	50x1,5	63x1,5	75x1,5	90x1,5
Through hole	Ø17	Ø20.5	Ø25.5	Ø32.5	Ø40.5	Ø50.5	Ø63.5	Ø75.5	Ø85.5

D	01	1	2	3	4	5	6	7	8
Thread diameter	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Through hole	Ø17.5	Ø22	Ø27.5	Ø34	Ø43	Ø48.5	Ø60.5	Ø76	Ø89



In accordance with the current standard, trousers can be treated by Cortem or by partners with a production notice in accordance with the ATEX directive.

APPLICATION SECTORS :



Oil refineries



Chemical and petrochemical plants



Onshore plants



Offshore plants



Low temperatures



Fuel depots



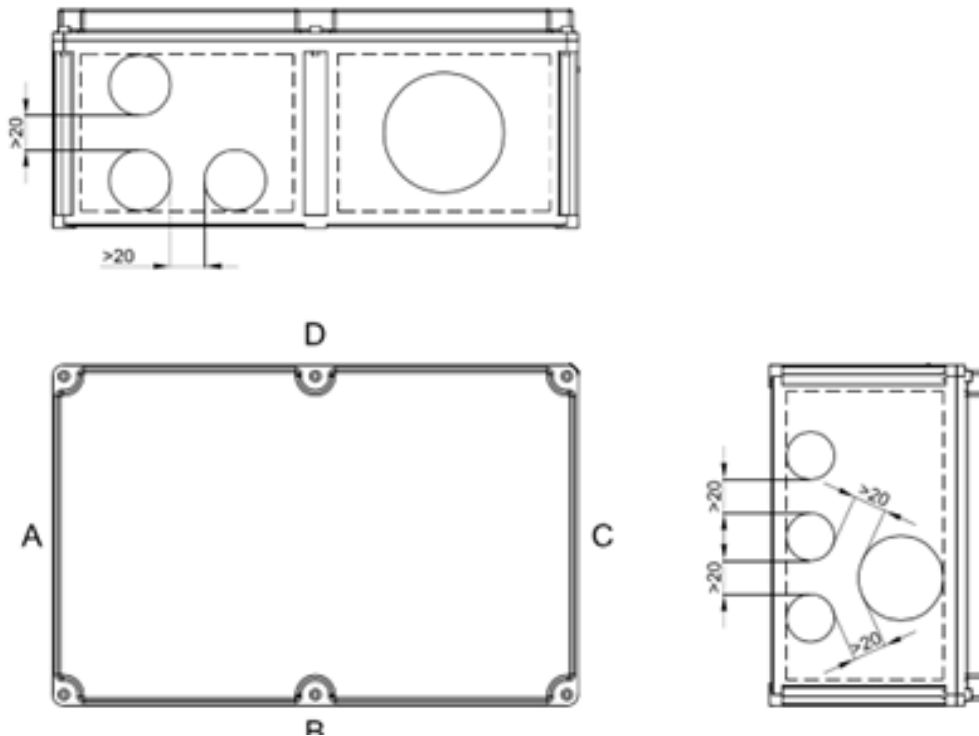
Ships and shipbuilding



100% Cortem product

DRILLING HOLES IN THE BODY :

TYPE OF ENCLOSURE	HOLE DRILLING IN BODY																		
	Sides A and C									Sides B and D									
	Drilling area mm	MAXIMUM QUANTITY PER HOLE TYPE								Drilling area mm	MAXIMUM QUANTITY PER HOLE TYPE								
01		1	2	3	4	5	6	7	8		01	1	2	3	4	5	6	7	8
SA090907	48x45	1	1	1	-	-	-	-	-	48x45	Square box								
SA/SAG111108	58x55	3	2	1	1	-	-	-	-	58x55	Square box								
SA/SAG171108	68x55	3	2	1	1	-	-	-	-	128x55	5	5	3	2	2	2	-	-	-
SA/SAG141410	100x65	6	6	3	2	1	-	-	-	100x65	Square box								
SA202012	145x75	8	7	6	3	2	1	-	-	145x75	Square box								
SA/SAG301410	90x65	6	4	3	1	1	1	-	-	250x65	14	12	9	5	4	3	-	-	-
SA/SAG302310	180x65	10	10	7	3	3	2	-	-	255x65	14	12	9	5	4	3	-	-	-
SA/SAG302318	180x140	18	18	12	9	6	4	2	1	258x140	24	24	18	14	8	6	3	2	2
SA/SAG473018	258x140	24	24	18	14	8	6	3	2	380x140	36	36	24	18	12	12	4	4	2
SAG623018	250x140	24	24	18	14	8	6	3	3	525x140	48	48	36	28	16	12	6	4	4
SAG606018	420x130	40	40	30	25	12	12	4	4	420x130	35	35	26	16	10	10	4	4	4



All enclosures can be equipped with accessories of your choice and mounted on special rails attached to the internal mounting frames of the housing. The terminal blocks can be arranged in different ways, according to the customer's specifications and always within the limits allowed by the certificate. The options are vertical, horizontal, on a number of rows or on different levels using appropriate spacers.

ELECTRICAL SPECIFICATIONS :

	Standard applications	Signal circuits applications	
		T6/T75°C max. Tamb +60°C	T4/T100°C max. Tamb +85°C
Rated voltage:	1000 Vac/dc	-	-
Rated current:	312 A	1 A for exec. Ex eb 100 mA for exec. Ex ia	10 A for exec. Ex eb 100 mA for exec. Ex ia
Rated frequency:	50/60 Hz	-	-
Terminal section:	1.5 ÷ 300 mm ²	-	-

Marking	Terminal type	Description
Ex II 2GD Ex eb IIC T... Gb - Ex tb IIIC T... Db IP66	Ex e terminals only	Enclosures containing an increase in security terminals to EN 60079-7
Ex II 2GD Ex ia IIC T... Gb - Ex ia IIIC T... Db IP66	Ex e and Ex i terminals	Enclosures containing an increase in security and intrinsically safe terminals
Ex II 2GD Ex eb ia IIC T... Gb - Ex tb ia IIIC T... Db IP66	Ex i terminals only	Intrinsically safe enclosures. Terminals according to EN 60079-11. The speakers are still category 2

MAXIMUM NUMBER OF LOGIS TERMINALS :

TYPE OF ENCLOSURE	MAXIMUM NUMBER OF TERMINALS HOUSED															
	TERMINAL CROSS-SECTIONAL AREA															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
SA090907	11	7	6	5	-	-	-	-	-	-	-	-	-	-	-	-
SA/SAG111108	16	11	9	7	5	-	-	-	-	-	-	-	-	-	-	-
SA/SAG171108	32	22	19	14	11	9	-	-	-	-	-	-	-	-	-	-
SA/SAG141410	26	18	15	11	9	7	5	-	-	-	-	-	-	-	-	-
SA202012	2x40	2x28	2x23	17	13	11	8	-	-	-	-	-	-	-	-	-
SA/SAG301410	69	48	40	30	24	20	14	-	-	-	-	-	-	-	-	-
SA/SAG302310	2x70	2x48	2x40	2x30	2x24	2x20	15	-	-	-	-	-	-	-	-	-
SA/SAG302318	2x70	2x48	2x40	2x30	2x24	2x20	15	15	13	11	-	-	-	-	-	-
SA/SAG473018	2x116	2x81	2x68	2x51	2x40	2x33	2x25	2x25	2x22	2x19	14	12	12	11	11	-
SAG623018	2x159	2x111	2x93	2x69	2x55	2x46	2x34	2x34	2x30	2x27	20	17	17	15	15	-
SAG606018	5x142	5x99	5x83	5x62	5x49	5x41	4x31	4x31	3x27	3x24	18	15	15	13	13	-

Nominal X-sect. area (mm ²)	Current (A)	Quantity	Capacity
2,5	8	16 (di 46)	34,8%
4	11	12 (di 36)	33,3%
10	26	4 (di 13)	30,8%
		Total	98,9% <100%