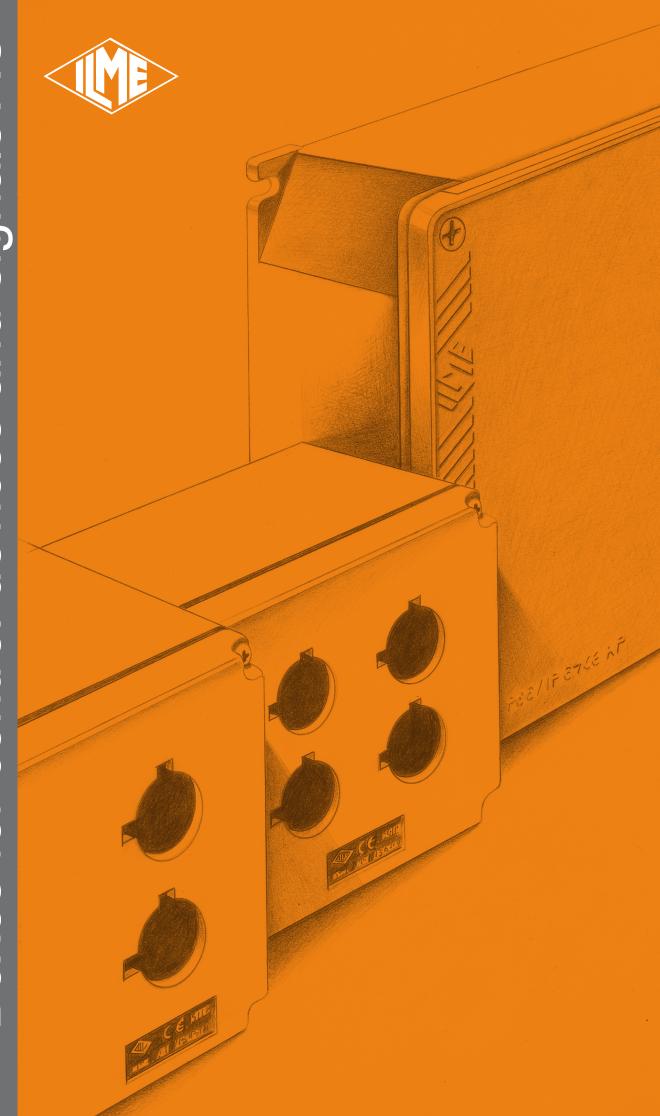
Containing boxes AP Boxes for control devices and signals AC





The Company

INDUSTRIA LOMBARDA MATERIALE ELETTRICO SpA has been operating **in Milan since 1945,** in particular in the electrotechnical sector for the manufacturing of equipment for industrial installations.

ILME reflects the traditional **entrepreneurial spirit of Lombardy**, and has enjoyed continuous expansion for over half a century.

The company has carved an important role for itself in the main world markets, also operating directly in the countries that have assumed world leadership in the field of automation, including Germany and Japan.

In the **electrical connection** sector with applications in industrial automation, characterised by **top performance** and utmost **reliability needs**, ILME is today the acknowledged partner of many leading companies worldwide.

The company's fundamental values are: **product innovation**, original solutions, excellent **price-quality ratio**, a customer-oriented **sense of service**, ethical behaviour and an environmentally-friendly approach.

To promote the continuing improvement of its **qualitative results**, ILME has always encouraged its collaborators to work with utmost **responsibility and participation**.

The company focuses on a series of benefits to the user, including research into the most suitable materials, high quality and safe cabling, a rapid turnaround and readily available services.



CE marking

As from 1st January 1997, in order to make available electrical products on the European market, the manufacturer must ensure that these bear the relevant CE marking, in line with the Low Voltage Directive 73/23/ EEC* (implemented in Italy as L. D. 18-10-1977

no. 791) and its modification 93/68/EEC* (implemented in Italy as L.D. 25-11-1996 no. 626/96, published in the supplement to the Gazzetta Ufficiale of 14-12-1996). The CE marking must be visible on the product or, if this is not possible, on the packaging, the instructions for use or on the warranty certificate. It acts as a declaration by the manufacturer that the product complies with all relevant EU directives regarding its field of application.

ILME products bear the CE marking on the actual product or its packaging.

Almost all ILME products fall within the scope of the Low Voltage Directive. An EU declaration of conformity is required in order to be able to apply the CE marking. This declaration, to which the market is not directly entitled, must be made available to the controlling authorities (in Italy, the Ministry of Economic Development) at all times. In it, the manufacturer declares the technical safety standard(s) followed in the design and manufacture of the product. These standards must be, in decreasing order of preference:

- a European standard (EN prefix)
- a European harmonisation document (HD prefix)
- an international IEC standard
- a national standard
- in the absence of reference standards, the manufacturer's internal specifications guaranteeing compliance with the basic safety requirements of the directive

Conformity with harmonised technical standards (i.e. ratified by CENELEC) also constitutes presumption of conformity with the basic safety requirements of the directives

The CE marking of ILME products results from the declaration of conformity of the product to harmonised standards or international IEC standards.

Through the CE marking, ILME declares full compliance, not merely with the directive's basic safety requirements, but also with those international or national standards on which voluntary safety certification markings are based (e.g. IMQ and VDE). In this way, ILME intends to give the CE marking the value of self-certification in terms of safety, given the loss in legal value of voluntary certifications issued by third parties, ratified by directive 93/68/EEC*. Notwithstanding the above, practically all ILME products still bear voluntary conformity markings.

The above mentioned EU declaration of conformity becomes null and void when the assembly of products includes one or more components not manufactured by ILME and without CE marking.

* Note: The next legal reference for the Low Voltage Directive was 2006/95/EC, as consolidation of the original Directive 73/23/EEC + Directive 93/68/EEC.

On 29th March 2014, the Official Journal of the European Union published the new Low Voltage directive 2014/35/EU dd. 26th February 2014, a recast version of directive 2006/95/EC, which is in force since 20th April 2016.

All information contained in this catalogue is not binding and may be changed without notice.



Containing boxes APV / APS / APW series

Boxes for control devices and signals **AC** series









AP-AC series

Main Features

ILME has a long history of manufacturing die-cast aluminium alloy containing boxes to meet industrial environment protection requirements.





AC SERIES





AP-AC series

Main Features

The AP series of containing boxes has now been **further expanded and improved. A new system of gaskets** ensures an even higher protection rating (IP66/IP67) whilst the **new galvanized steel captive cross-headed screws** ensure easier installation.

The range consists of 7 formats supplied in the RAL 7040 textured version (APV) in the unpainted version (APS) and in the **new APW version** suitable for **environments with extreme temperatures or salt environments (black).**

The AC series of containing boxes has now been **produced with metric threaded cable entries.**

To ensure the same protection degree, when assembling the boxes, the cable glands or other accessories used must also have an equivalent or higher protection degree.

The boxes are manufactured in compliance with the following standard: IEC 60670-1.



Both boxes and covers are supplied with provision for a terminal earthing connection to protect it from indirect contacts.



Accessory kits are available for fitting inside the boxes DIN rails or zinc-plated steel mounting plates.



The cover fixing screws become captive when the special o-rings are fitted.



A cover can be fitted to the box by using a special nylon string.

AP containing boxes complete with cover



- boxes and covers in die-cast aluminium alloy
- galvanized steel screws for fixing cover
- pre-applied anti-ageing gaskets
- IP66/IP67 degree of protection (compliant with EN 60529)
- temperature range: from -40 °C to +110 °C
- oven painted with RAL 7040 grey epoxy-polyester powder
- accessories for boxes on page 7
- supplied complete with brass insert, screw, wire terminal and washer for 6 mm² earth terminals
- an earth terminal may be added to the cover (APR T kit)
- o-rings to make cover screws captive, included



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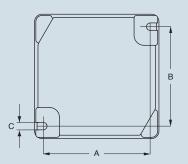
external dimensions 100 x 100 x 59

external dimensions 115 x 140 x 61 external dimensions 141 x 166 x 64 external dimensions 168 x 192 x 80

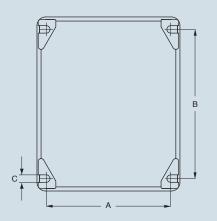
external dimensions 217 x 253 x 93

external dimensions 264 x 314 x 122 external dimensions 315 x 410 x 150

fixing centre line in mm, APV 9



fixing centre distance in mm, APV 11/12/14/19/20/21



part No.	Α	В	С
APV 9	90	80	6
APV 11	105	120	6
APV 12	125	144	6,5
APV 14	149	168	6,5
APV 19	196	226	9
APV 20	236	275	9
APV 21	283	367	9

the dimensions shown are not binding and may be changed without notice

APV painted containing boxes



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APV 9

APV 9



dimensions in mm

APV 11/12/14/19/20/21

part No.

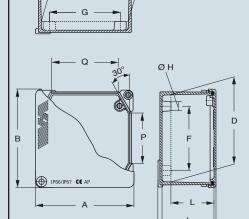
APV 11 APV 12

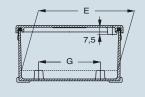
APV 14

APV 19

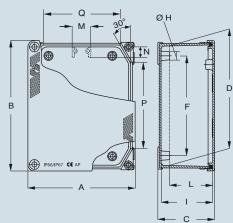
APV 20

APV 21





APV painted containing boxes



part No.	Α	В	С	D (*)	E (*)	F	G	øΗ	1	L	М	N	Р	Q
APV 9	100	100	59	88	88	66	70,5	10	53	44	-	-	48	65
APV 11	115	140	61	128	103	107	66	10	55	46	-	-	90	81
APV 12	141	166	64	153	128	121	99	12,5	58	49	-	-	104	100
APV 14	168	192	80	176	152	153	113	10	74	65	-	-	128	125
APV 19	217	253	93	236	201	188	153	12,5	85	75	38	21	169	162
APV 20	264	314	122	292	243	238	198	12,5	114	104	49	24	203	192
APV 21	315	410	150	386	291	333	248	12,5	141	126	61	31	295	240

(*) internal minimum dimensions measured on the post mounting plate risers plane

AP containing boxes complete with cover



- boxes and covers in die-cast aluminium alloy
- galvanized steel screws for fixing cover
- anti-ageing gaskets not fitted to the box to ease the application of the desired paint
- IP66/IP67 degree of protection (compliant with EN 60529)
- temperature range: from -40 °C to +110 °C
- accessories for boxes on page 7
- supplied complete with brass insert, screw, wire terminal and washer for 6 mm² earth terminals
- an earth terminal may be added to the cover (APR T kit)
- o-rings to make cover screws captive, included





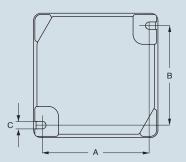
description		

external dimensions 100 x 100 x 59

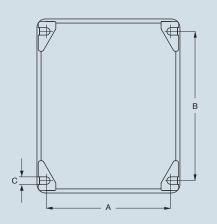
external dimensions 115 x 140 x 61 external dimensions 141 x 166 x 64 external dimensions 168 x 192 x 80 external dimensions 217 x 253 x 93

external dimensions 264 x 314 x 122 external dimensions 315 x 410 x 150

fixing centre line in mm, APS 9



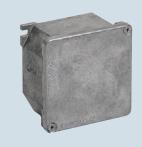
fixing centre distance in mm, APS 11/12/14/19/20/21



part No.	Α	В	С
APS 9	90	80	6
APS 11	105	120	6
APS 12	125	144	6,5
APS 14	149	168	6,5
APS 19	196	226	9
APS 20	236	275	9
APS 21	283	367	9

the dimensions shown are not binding and may be changed without notice

APS unpainted containing boxes



rt No.			

APS 9

dimensions in mm

APS 9

dimensions in mm

APS 11/12/14/19/20/21

part No.

APS 11

APS 12

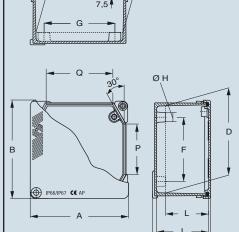
APS 14

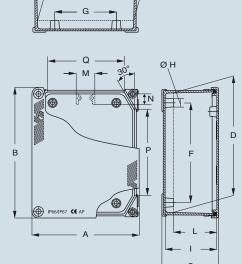
APS 19

APS 20

APS 21

APS unpainted containing boxes





part No.	Α	В	С	D (*)	E (*)	F	G	øΗ	1	L	М	N	Р	Q
APS 9	100	100	59	88	88	66	70,5	10	53	44	-	-	48	65
APS 11	115	140	61	128	103	107	66	10	55	46	-	-	90	81
APS 12	141	166	64	153	128	121	99	12,5	58	49	-	-	104	100
APS 14	168	192	80	176	152	153	113	10	74	65	-	-	128	125
APS 19	217	253	93	236	201	188	153	12,5	85	75	38	21	169	162
APS 20	264	314	122	292	243	238	198	12,5	114	104	49	24	203	192
APS 21	315	410	150	386	291	333	248	12,5	141	126	61	31	295	240

(*) internal minimum dimensions measured on the post mounting plate risers plane

APS enclosures as unpainted, are not protected against corrosion. Paj particular attention when stocked in wet locations; it is recommended to promptly remove the plastic packaging envolope.

AP containing boxes complete with cover



- boxes and covers in die-cast aluminium alloy
- galvanized steel screws for fixing cover
- pre-applied silicone rubber gaskets

- IP66/IP67 degree of protection (compliant with EN 60529)
 temperature range: -50 °C ÷ +180 °C
 oven painted with RAL 9005 black epoxy-polyester powder
- surface chromate treatment
- accessories for boxes on page 7
- supplied complete with brass insert, screw, wire terminal and washer for 6 mm² earth terminals
- an earth terminal may be added to the cover (APR T kit)
- silicone rubber rings to make cover screws captive, included





part No.

APW containing boxes

for extreme environments

APW 9

APW containing boxes for extreme environments



part No.

APW 11 APW 12

APW 14 APW 19 APW 20

APW 21

dimensions in mm

APW 11/12/14/19/20/21

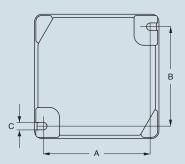
description

external dimensions 100 x 100 x 59

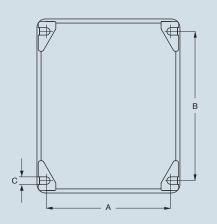
external dimensions 115 x 140 x 61 external dimensions 141 x 166 x 64 external dimensions 168 x 192 x 80 external dimensions 217 x 253 x 93

external dimensions 264 x 314 x 122 external dimensions 315 x 410 x 150

fixing centre line in mm, APW 9



fixing centre distance in mm, APW 11/12/14/19/20/21

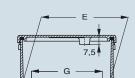


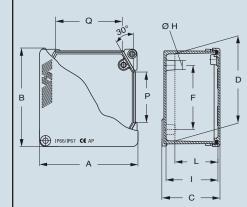
part No.	Α	В	С
APW 9	90	80	6
APW 11	105	120	6
APW 12	125	144	6,5
APW 14	149	168	6,5
APW 19	196	226	9
APW 20	236	275	9
APW 21	283	367	9

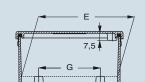
the dimensions shown are not binding and may be changed without notice

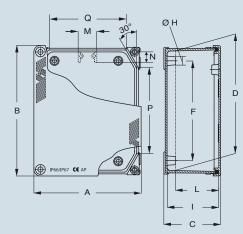
dimensions in mm

APW 9









part No.	Α	В	С	D (*)	E (*)	F	G	øΗ	1	L	М	N	Р	Q
APW 9	100	100	59	88	88	66	70,5	10	53	44	-	-	48	65
APW 11	115	140	61	128	103	107	66	10	55	46	-	-	90	81
APW 12	141	166	64	153	128	121	99	12.5	58	49	-	-	104	100
APW 14	168	192	80	176	152	153	113	10	74	65	-	-	128	125
APW 19	217	253	93	236	201	188	153	12,5	85	75	38	21	169	162
APW 20	264	314	122	292	243	238	198	12,5	114	104	49	24	203	192
APW 21	315	410	150	386	291	333	248	12,5	141	126	61	31	295	240

(*) internal minimum dimensions measured on the post mounting plate risers plane

AP accessories for containing boxes



mounting plates in zinc-plated



sized DIN rail M4x8 brass insert additional earth terminal cover to box fastening wire



description

mounting plates complete with two earth terminals, inserts and fixing screws on the bottom of the box

- for APV / APS / APW 11 boxes
- for APV / APS / APW 12 boxes
- for APV / APS / APW 14 boxes for APV / APS / APW 19 boxes
- for APV / APS / APW 20 boxes
- for APV / APS / APW 21 boxes

sized DIN rail complete with fixing screws and inserts

- for APV / APS / APW 9 boxes
- for APV / APS / APW 11 boxes
- for APV / APS / APW 12 boxes
- for APV / APS / APW 14 boxes for APV / APS / APW 19 boxes
- for APV / APS / APW 20 boxes
- for APV / APS / APW 21 boxes
- M4x8 thread brass insert to ensure an easier fitting of equipment and PCBs to the bottom of the box
- additional earth terminal kit consisting of a brass insert, M4 screw and washer, 6 mm2 wire terminal for cover earthing connection
- cover fastening wire enables the cover to be anchored to the box (temperature range: from -40 $^{\circ}\text{C}$ to +110 $^{\circ}\text{C}$)

part No.

APF 11 APF 12

APF 14

APF 19

APF 20 **APF 21**

> APD 9 **APD 11 APD 12**

part No.

APD 14 APD 19 APD 20

APD 21 APR 04

APR T

APR F



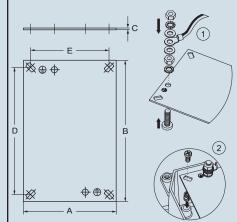






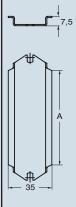
the dimensions shown are not binding and may be changed without notice

dimensions in mm



part No.	Α	В	С	D	E
APF 11	78	119	1,5	107	66
APF 12	111	133	1,5	121	99
APF 14	125	165	1,5	153	113
APF 19	165	200	1,5	188	153
APF 20	210	250	1,5	238	198
APF 21	260	345	1,5	333	248

dimensions in mm



part No.	Α
APD 9	74
APD 11	103
APD 12	134
APD 14	168
APD 19	220
APD 20	287
APD 21	393



- boxes and covers in die-cast aluminium alloy
- oven painted with RAL 7040 grey epoxy-polyester powder
- removable cover, fixed with zinc plated steel screws
- NBR special rubber gasket fixed to the cover
- IP65 degree of protection (compliant with EN 60529) temperature range: -20 °C ÷ +80 °C

complete boxes with cable entry A2M

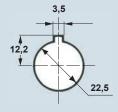


complete boxes without cable entry

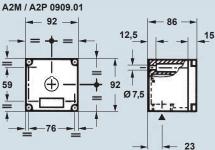


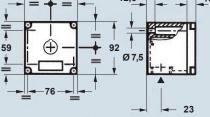
description	part No.	cable entry	part No.
with pierced covers for unit Ø 22 mm			
external dimensions 92 x 92 x 86 - No. of holes for cover: 1	A2M 0909.01	M 25	A2P 0909.01
external dimensions 92 x 152 x 86 - No. of holes for cover: 2	A2M 0915.02	M 25	A2P 0915.02
external dimensions 92 x 205 x 86 - No. of holes for cover: 3	A2M 0920.03	M 25	A2P 0920.03
external dimensions 92 x 152 x 86 - No. of holes for cover: 4	A2M 0915.04	M 25	A2P 0915.04
external dimensions 92 x 257 x 86 - No. of holes for cover: 4	A2M 0925.04	M 25	A2P 0925.04
external dimensions 92 x 205 x 86 - No. of holes for cover : 6	A2M 0920.06	M 25	A2P 0920.06

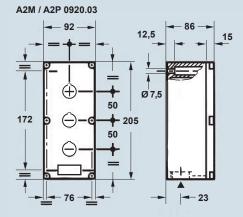
piercing unit Ø 22 mm

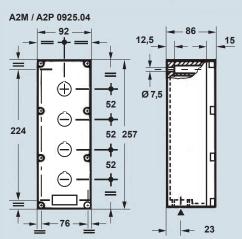


dimensions in mm

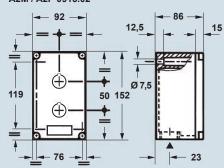


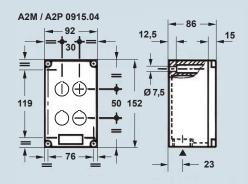


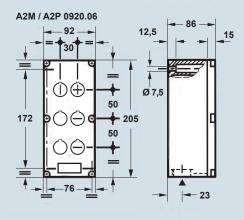




A2M / A2P 0915.02









- boxes and covers in die-cast aluminium alloy
- oven painted with RAL 7040 grey epoxy-polyester powder
- removable cover, fixed with zinc plated steel screws
- NBR special rubber gasket fixed to the cover IP65 degree of protection (compliant with EN 60529) temperature range: -20 °C ÷ +80 °C

complete boxes with cable entry A2M

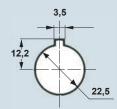


complete boxes without cable entry



description	part No.	cable entry	part No.
external dimensions 152 x 152 x 86 - No. of holes for cover : 8 external dimensions 152 x 205 x 102 - No. of holes for cover : 12 external dimensions 230 x 205 x 102 - No. of holes for cover : 16	A2M 1520.12	M 32	A2P 1515.08 A2P 1520.12 A2P 2320.16

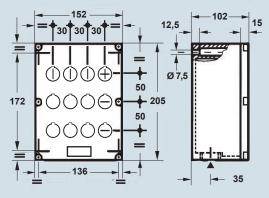
piercing unit Ø 22 mm



dimensions in mm

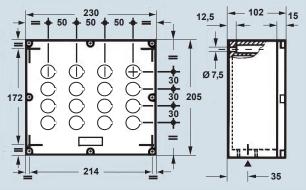
A2M / A2P 1515.08 152 30,30,30 15 50 152

A2M / A2P 1520.12



* on request this box can be supplied with cable entry on the short side (205 mm)

A2M / A2P 2320.16





- boxes and covers in die-cast aluminium alloy
- oven painted with RAL 7040 grey epoxy-polyester
- removable cover, fixed with zinc plated steel screws
- NBR special rubber gasket fixed to the cover
 IP65 degree of protection (compliant with EN 60529)
 temperature range: -20 °C ÷ +80 °C

complete boxes with cable entry A3M



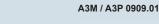
metric threaded entry

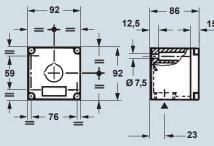
complete boxes without cable entry



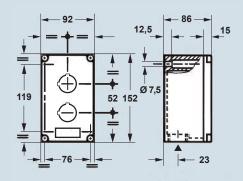
description	part No.	cable entry	part No.
with pierced covers for unit Ø 30 mm external dimensions 92 x 92 x 86 - No. of holes for cover: 1 external dimensions 92 x 152 x 86 - No. of holes for cover: 2 external dimensions 92 x 205 x 86 - No. of holes for cover: 3 external dimensions 92 x 257 x 86 - No. of holes for cover: 4	A3M 0915.02 A3M 0920.03	M 25 M 25	A3P 0909.01 A3P 0915.02 A3P 0920.03 A3P 0925.04

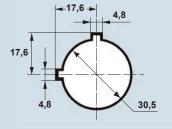
piercing unit Ø 30 mm





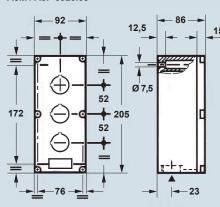
A3M / A3P 0915.02



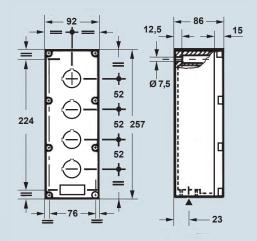


A3M / A3P 0920.03

dimensions in mm



A3M / A3P 0925.04





- boxes and covers in die-cast aluminium alloy
- oven painted with RAL 7040 grey epoxy-polyester
- removable cover, fixed with zinc plated steel screws
- NBR special rubber gasket fixed to the cover
 IP65 degree of protection (compliant with EN 60529)
 temperature range: -20 °C ÷ +80 °C

complete boxes with cable entry A3M



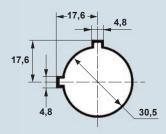
metric threaded entry

complete boxes without cable entry A3P



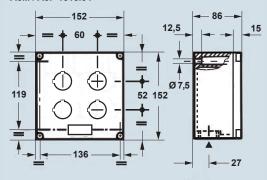
description	part No.	cable entry	part No.
with pierced covers for unit Ø 30 mm external dimensions 152 x 152 x 86 - No. of holes for cover: 4 external dimensions 152 x 205 x 102 - No. of holes for cover: 6 external dimensions 230 x 205 x 102 - No. of holes for cover: 9	A3M 1520.06	M 32	A3P 1515.04 A3P 1520.06 A3P 2320.09

piercing unit Ø 30 mm

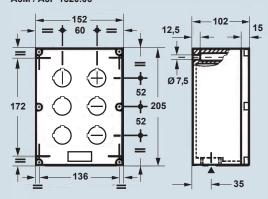


dimensions in mm

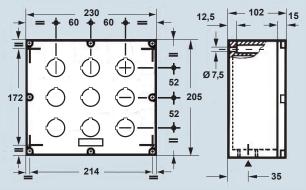
A3M / A3P 1515.04



A3M / A3P 1520.06



A3M / A3P 2320.09



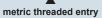
AC complete boxes



- boxes and covers in die-cast aluminium alloy
- oven painted with RAL 7040 grey epoxy-polyester powder
- removable cover, fixed with zinc plated steel screws
- NBR special rubber gasket fixed to the cover IP65 degree of protection (compliant with EN 60529) temperature range: -20 °C ÷ +80 °C

complete boxes with cable entry





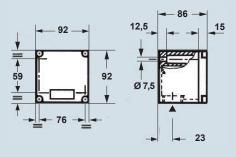
complete boxes without cable entry AP



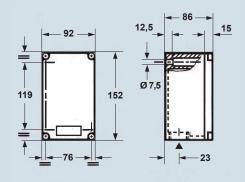
description	part No.	cable entry	part No.
covers without holes external dimensions 92 x 92 x 86 external dimensions 92 x 152 x 86 external dimensions 92 x 205 x 86 external dimensions 92 x 257 x 86	AM 0909 AM 0915 AM 0920 AM 0925		AP 0909 AP 0915 AP 0920 AP 0925

dimensions in mm

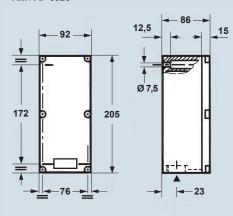
AM / AP 0909



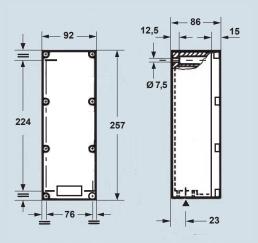
AM / AP 0915



AM / AP 0920



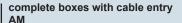
AM / AP 0925



AC complete boxes



- boxes and covers in die-cast aluminium alloy oven painted with RAL 7040 grey epoxy-polyester powder
- removable cover, fixed with zinc plated steel screws
- NBR special rubber gasket fixed to the cover IP65 degree of protection (compliant with EN 60529) temperature range: -20 °C ÷ +80 °C







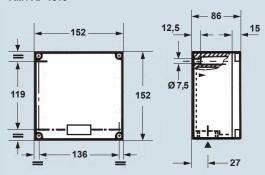
comp	lete	boxes	without	cabl	e entry
AP					



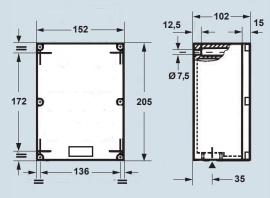
description	part No.	cable entry	part No.
covers without holes external dimensions 152 x 152 x 86 external dimensions 152 x 205 x 102 external dimensions 230 x 205 x 102	AM 1515 AM 1520 AM 2320	M 32	AP 1515 AP 1520 AP 2320

dimensions in mm

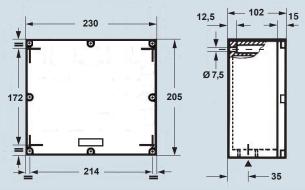
AM / AP 1515



AM / AP 1520



AM / AP 2320





- boxes and covers in die-cast aluminium alloy oven painted with RAL 7040 grey epoxy-polyester powder
 - equipped with zinc-plated steel screws
 - NBR special rubber gasket fixed to the cover

covers A2T and A3T



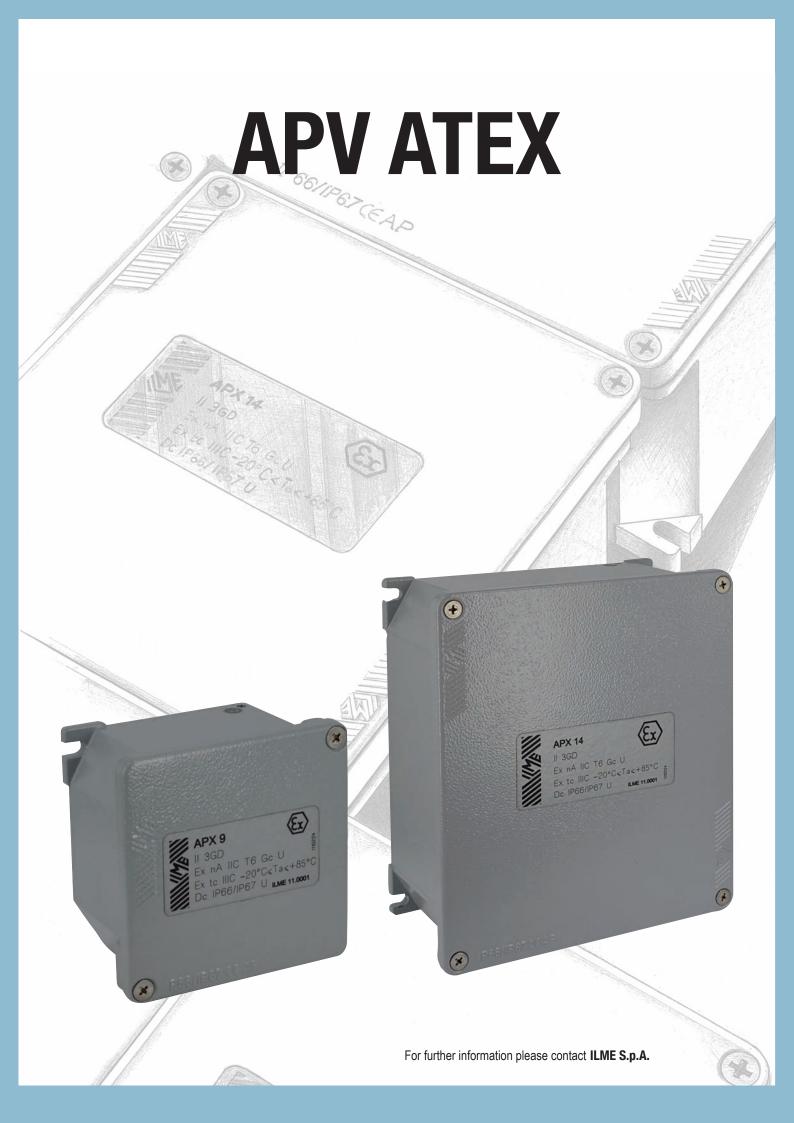


covers AC



description	part No.	No. of holes	part No.
pierced for unit Ø 22 mm external dimensions 92 x 92 x 15 external dimensions 92 x 152 x 15 external dimensions 92 x 205 x 15 external dimensions 92 x 152 x 15 external dimensions 92 x 257 x 15 external dimensions 92 x 205 x 15 external dimensions 92 x 205 x 15 external dimensions 152 x 152 x 15 external dimensions 152 x 205 x 15 external dimensions 230 x 205 x 15 pierced for unit Ø 30 mm external dimensions 92 x 92 x 15	A2T 0909.01 A2T 0915.02 A2T 0920.03 A2T 0915.04 A2T 0925.04 A2T 0920.06 A2T 1515.08 A2T 1520.12 A2T 2320.16	1 2 3 4 4 6 8 12 16	
external dimensions 92 x 152 x 15 external dimensions 92 x 205 x 15 external dimensions 92 x 257 x 15 external dimensions 152 x 152 x 15 external dimensions 152 x 205 x 15 external dimensions 230 x 205 x 15	A3T 0915.02 A3T 0920.03 A3T 0925.04 A3T 1515.04 A3T 1520.06 A3T 2320.09	2 3 4 4 6 9	
without holes external dimensions 92 x 92 x 15 external dimensions 92 x 205 x 15 external dimensions 92 x 205 x 15 external dimensions 92 x 257 x 15 external dimensions 152 x 152 x 15 external dimensions 152 x 205 x 15 external dimensions 230 x 205 x 15			AC 0909 AC 0915 AC 0920 AC 0925 AC 1515 AC 1520 AC 2320

Take your notes here		





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