

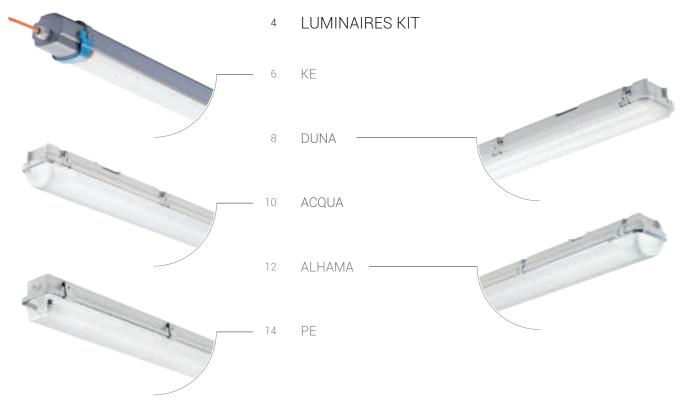
## Luminaire **COMPONENTS**

CATALOGUE



## **INDEX**

2 ZALUX



- 16 SINGLE PARTS
- 18 ACQUA / ALHAMA / DUNA
- 20 PE
- 22 Accessories
- 24 Technical information
- 25 Resistance to chemical agents
- 27 Ingress and impacts protection
- <sup>28</sup> General sale conditions





## We are the European leader for luminaires with high protection ratings

Specialised in the development and manufacturing of reliable and durable luminaires for extreme conditions such as tough temperatures, dust, humidity and chemicals

## **Bespoke solutions**



OEM development and manufacturing of customised lighting products for special needs.

### Components



Luminaire parts and accessories for your protected luminaires.

## **Protected luminaires**



Efficient and quality luminaires specific for industrial applications, with a wide range of options.

## **Ex luminaires**



Explosion proof LED luminaires certified for use in EX-Zones according to ATEX and IECEX standards.



- · Headquarters in Zaragoza, Spain
- 3 manufacturing plants in Alhama de Aragón
- · Quality Made in Spain



## ALHAMA I

- Plastic injection
- Compression press
- Extrusion



#### **ALHAMA II**

- Metal workshop
- ATEX wokshop
- Automated wiring robots
- 20 assembly lines for LED
- Electronic components assembling



### ALHAMA III

- New assembling area
- 1500m² premises
- 13 production lines



#### **LABORATORY**

- Thermal and endurance tests
- IPX5 X6 humidity tests
- Impact tests
- Product safety tests



#### WAREHOUSE

- 10,000m<sup>2</sup> storage
- For 5,800 Europallets
- With advanced computer systems

## **OUR COMMITMENT TO SUSTAINABILITY**

We contribute to the Sustainable Development Goals by focusing our sustainability strategy on the following areas:

- Research new environmentally friendly materials for our luminaires and reduce packaging.
- Incorporate smart technologies in our solutions, to contribute to the efficiency of installations.
- Design efficient production processes, with photovoltaic self-consumption systems in our plants to reduce our environmental impact.









## **LUMINAIRES KIT**















Profile	Extruded polycarbonate with UV protection Upper part dark grey RAL 7046 (available in different colours) Lengths available: from 300 mm to 2400 mm
End caps	Injected polycarbonate (available in different colours)
Lever	Injected polyamide + 30% fibreglass Blue RAL 5012 (available in different colours)
Gasket	Removable and recyclable thermoplastic elastomers
Gear tray	White lacquered steel plate
Cable entry	Cable gland M20, M25 or M32



Connection ready for 3-8 poles WAGO quick connectors (NOT included in the accessory bag; see on page 22)

## **ACCESSORY BAG**

Fixing clips	Stainless steel
Suspension triangles	Stainless steel
Caps for cable entry	Grommet <sup>1</sup> , grey (2 pcs for through wiring versions) Cable gland cap, black (2 pcs for through wiring versions)
Screws for lever, to make the luminaire unopenable (theft-protected)	Stainless steel





## **DIMENSIONS AND LOGISTICS**

Description	X (mm)	Xm (mm)	Y (mm)	Z (mm)	L x W x H (mm)	KG Item	Pcs./Box	KG Box	Groupage Pcs./pallet	FLT/container Pcs./Double pallet
KHE 1.2	1372	800	117	95	1498 x 120 x 100	2.8	1	2.9	96	60 + 60
KHE 1.2 through wiring	1498	800	117	95	1498 x 120 x 100	3.0	1	3.1	96	60 + 60
KHE 1.5	1664	1100	117	95	1790 x 120 x 100	3.5	1	3.6	96	60 + 60
KHE 1.5 through wiring	1790	1100	117	95	1790 x 120 x 100	3.7	1	3.8	96	60 + 60

For logistic estimations please contact our Sales Back Office team

# STANDARD VERSION

### THROUGH WIRING VERSION



KIT are presented in an individual box comprising:

- Profile
- Gear tray
- Gasket
- Connector holder
- · Cable gland
- End cap
- Lever
- Accessory bag



## **REFERENCES**

#### **KE** standard version

		Opal profile		Transparent profile			
	Cable entry M20	Cable entry M25	Cable entry M32	Cable entry M20	Cable entry M25	Cable entry M32	
1.2	10228134	10249133	10250010	10239977	10249135	10250012	
1.5	10228135	10249134	10250011	10239978	10249136	10250013	

### **KE** through wiring version

		Opal profile		Transparent profile			
	Cable entry M20	Cable entry M25	Cable entry M32	Cable entry M20	Cable entry M25	Cable entry M32	
1.2	10228136	10249137	10250014	10239979	10249139	10250016	
1.5	10228137	10249138	10250015	10239980	10249140	10250017	

Please consult with our Sales team for any other combination

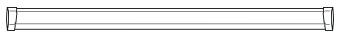
## **ADDITIONAL MODULES**



#### Profile units for continuous line connection

	Reference
KE 1.2 SKD PC 24mm CL	10276015
KE 1.5 SKD PC 24mm CL	10262680

KE profile prepared for through wiring connection, without end caps It cannot be installed stand-alone, requires at least one standard or through wiring KE luminaire



#### Add-on modules

	Reference
Presence and daylight sensor	10251322
Wireless solution	10258554

Wireless module requires connection to a DALI dimmable luminaire Additional empty modules can be developed to meet different needs



The products in this catalogue are OEM components requiring final assembly. Thus, certifications or protection degrees indicated are subject to the rest of components used to complete the luminaire in its final assembly, which must be made by a qualified OEM manufacturer, and it needs to be tested accordingly. Components are not individually certified, unless otherwise specified.



Available in different colours

See on pages 22 and 23.



Housing	Compressed fibreglass reinforced polyester (GRP) or injected polycarbonate (PC) Grey RAL 7035					
Gasket	High quality bi-component polyurethane for extreme durability					
Gear tray	White lacquered steel plate for LED modules					
Gear tray holders	Wide version, to fix the gear tray to the housing and to suspend the gear tray to facilitate connection					
Diffuser	Injected UV protected opal diffuser, with frosted finish to achieve a uniform and optimised light distribution, specific for LED  • PC: impact resistance IK08 (IK10 optional)  • PMMA: high chemical resistance IK03 and better transmittance	DUNA DIFFUSER Texturised opal 1.2 and 1.5 versions	ALHAMA DIFFUSER Prismatic opal 0.6, 1.2 and 1.5 versions			

## **ACCESSORY BAG**

Closing clips <sup>1</sup>	Plastic (polyamide) or stainless steel (INOX)
Fixing clips, suspension triangles	Stainless steel
Cable entry	Grommet <sup>2</sup>

 $<sup>^{\</sup>rm 1}\,{\rm See}$  pictures of the available closing clips on page 23







Accessory bag with removable INOX closing clips

## **DIMENSIONS AND LOGISTICS**

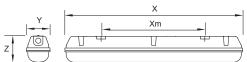
	X (mm)	Xm (mm)	Y (mm)	Z DUNA (mm)	Z ALHAMA (mm)	L x W x H (mm)	Kits/Box	KG Box	Groupage Pcs./pallet	Groupage/full truck Pcs./double pallet
1x0.6	660	390	101	84	101	675 x 105 x 80	1	1.00	294	168 +168
1x1.2	1279	800	101	84	101	1290 x 105 x 80	1	1.70	147	84 + 84
1x1.5	1573	1100	101	84	101	1590 x 105 x 80	1	2.15	147	84 + 84
2x0.6	660	390	145	84	101	675 x 150 x 80	1	1.13	210	120 + 120
2x1.2	1279	800	145	84	101	1290 x 150 x 80	1	2.38	105	60 + 60
2x1.5	1573	1100	145	84	101	1590 x 150 x 80	1	2.62	105	60 + 60

For logistic estimations please contact our Sales Back Office team

## DUNA DIFFUSER



## ALHAMA DIFFUSER



 $<sup>^{\</sup>rm 2}\,{\rm Cable}$  gland available as accessory (not included in this accessory bag)



## **REFERENCES**

## **DUNA PC**

#### PC housing + DUNA PC diffuser

	Plastic cl	osing clips	INOX clo	sing clips
	Removable	Unremovable	Removable	Unremovable
1x1.2	10210340	10174387	10181741	10243373
1x1.5	10174392	10174391	10236513	10243374

## PC housing + ALHAMA PC diffuser

	Plastic closing clips						
	Removable	Unremovable					
1x0.6	10174396	10174395					
1x1.2	10174400	10174399					
1x1.5	10174404	10174403					
2x0.6	10174408	10174407					
2x1.2	10174412	10174411					
2x1.5	10174416	10174415					

Other combinations with INOX and plastic closing clips available: please consult with our Sales team  $\,$ 

## **DUNA GRP**

## GRP housing + DUNA PMMA diffuser

	INOX closing clips						
	Removable Unremova						
1x1.2	10174390	10174389					
1x1.5	10174394	10174393					

## GRP housing + ALHAMA PMMA diffuser

	INOX closing clips						
	Removable Unremovab						
1x0.6	10174398	10174397					
1x1.2	10174402	10174401					
1x1.5	10174406	10174405					
2x0.6	10174410	10174409					
2x1.2	10174414	10174413					
2x1.5	10174418	10174417					
1x1.8	10247604	10247605					

## **ACCESSORIES**

See on pages 22 and 23.



Housing	Compressed fibreglass reinforced polyester (GRP) Grey RAL 7035
Gasket	High quality bi-component polyurethane for extreme durability
Gear tray	White lacquered steel plate for T8 <sup>1</sup>
Gear tray holders	Wide version, to fix the gear tray to the housing and to suspend the gear tray to facilitate connection
Diffuser	Injected UV protected transparent diffuser with prismatic design for an optimum light distribution • PC: impact resistance IK08 (IK10 optional) • PMMA: high chemical resistance IK03 and better transmittance

 $<sup>^{\</sup>mbox{\tiny 1}}$  Versions for T5 fluorescence tubes available under request

## **ACCESSORY BAG**

Closing clips <sup>1</sup>	Plastic (polyamide), or stainless steel (INOX)			
Fixing clips, suspension triangles	Stainless steel			
Cable entry	Grommet <sup>2</sup>			

 $<sup>^{\</sup>rm 1}\,{\rm See}$  pictures of the available closing clips on page 23



Accessory bag with plastic closing clips

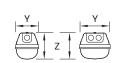


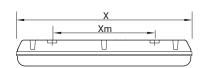
Accessory bag with INOX closing clips

## **DIMENSIONS AND LOGISTICS**

	X (mm)	Xm (mm)	Y (mm)	Z (mm)	L x W x H (mm)	Kits/Box	KG Box	Groupage Pcs./pallet	Groupage/full truck Pcs./double pallet
118	662	390	101	101	675 x 105 x 80	1	1.00	294	168 +168
136	1283	800	101	101	1290 x 105 x 80	1	1.70	147	84 + 84
158	1573	1100	101	101	1590 x 105 x 80	1	2.15	147	84 + 84
218	662	390	145	101	675 x 150 x 80	1	1.13	210	120 + 120
236	1283	800	145	101	1290 x 150 x 80	1	2.38	105	60 + 60
258	1573	1100	145	101	1590 x 150 x 80	1	2.62	105	60 + 60

For logistic estimations please contact our Sales Back Office team





<sup>&</sup>lt;sup>2</sup> Cable gland available as accessory (not included in this accessory bag)

KIT are presented in an individual box comprising:



## **REFERENCES**

## **ACQUA PC**

GRP housing + PC diffuser

	Plastic closing clips	INOX closing clips
118	10048346	10048558
136	10048347	10048559
158	10048348	10048560
218	10048349	10048561
236	10048350	10048562
258	10048351	10048563

## **ACQUA PMMA**

GRP housing + PMMA diffuser

	Plastic closing clips	INOX closing clips
118	10048352	10048564
136	10048353	10035612
158	10048354	10048565
218	10048355	10035613
236	10048356	10035611
258	10048357	10048566

## **ACCESSORIES**

See on pages 22 and 23.





Housing	Injected polycarbonate (PC) Grey RAL 7035
Gasket	High quality bi-component polyurethane for extreme durability
Gear tray	White lacquered steel plate for T8 <sup>1</sup>
Gear tray holders	Narrow version, to fix the gear tray to the housing and to suspend the gear tray to facilitate connection
	Injected UV protected transparent diffuser with prismatic design for an optimum light distribution
Diffuser	• PC: impact resistance IK08
	• PMMA: high chemical resistance IK03 and better transmittance

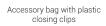
 $<sup>^{\</sup>mbox{\tiny 1}}$  Versions for T5 fluorescence tubes available under request

## **ACCESSORY BAG**

Closing clips <sup>1</sup>	Plastic (polyamide), or stainless steel (INOX)			
Fixing clips, suspension triangles	Stainless steel			
Cable entry	Grommet <sup>2</sup>			

 $<sup>^{\</sup>rm 1}\,{\rm See}$  pictures of the available closing clips on page 23





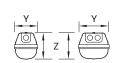


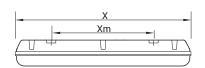
Accessory bag with INOX closing clips

## **DIMENSIONS AND LOGISTICS**

	X (mm)	Xm (mm)	Y (mm)	Z (mm)	L x W x H (mm)	Kits/Box	KG Box	Groupage Pcs./pallet	Groupage/full truck Pcs./double pallet
118	662	390	101	101	675 x 105 x 80	1	1.00	294	168 +168
136	1283	800	101	101	1290 x 105 x 80	1	1.70	147	84 + 84
158	1573	1100	101	101	1590 x 105 x 80	1	2.15	147	84 + 84
218	662	390	145	101	675 x 150 x 80	1	1.13	210	120 + 120
236	1283	800	145	101	1290 x 150 x 80	1	2.38	105	60 + 60
258	1573	1100	145	101	1590 x 150 x 80	1	2.62	105	60 + 60

For logistic estimations please contact our Sales Back Office team





 $<sup>^{\</sup>rm 2}\,{\rm Cable}$  gland available as accessory (not included in this accessory bag)

KIT are presented in an individual box comprising:



## **REFERENCES**

## **ALHAMA PC**

PC housing + PC diffuser

	Plastic closing clips	INOX closing clips
118	10020049	10020051
136	10019877	10019879
158	10019937	10019939
218	10020101	10020103
236	10017594	10017595
258	10019997	10019999

## **ALHAMA PMMA**

PC housing + PMMA diffuser

	Plastic closing clips	INOX closing clips
118	10020052	10020054
136	10019880	10019882
158	10019940	10019942
218	10020104	10020106
236	10017599	10017600
258	10020000	10020002

## **ACCESSORIES**

See on pages 22 and 23.





Housing	Compressed fibreglass reinforced polyester (GRP) Grey RAL 7035
Gasket	High quality bi-component polyurethane for extreme durability
Gear tray	White lacquered steel plate for T8 <sup>1</sup>
Diffuser	Injected UV protected transparent diffuser with prismatic design for an optimum light distribution  PC: impact resistance IK07  PMMA: high chemical resistance IK03 and better transmittance

<sup>&</sup>lt;sup>1</sup> Versions for T5 fluorescence tubes available under request

## **ACCESSORY BAG**

Closing clips <sup>2</sup>	Plastic (polyamide), or stainless steel (INOX)		
Washers	Rubber Flat		
Cable entry	Grommet <sup>3</sup>		

 $<sup>^{2}\,\</sup>mbox{See}$  pictures of the available closing clips on page 23



Accessory bag with plastic closing clips

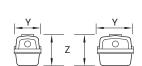


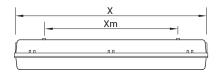
Accessory bag with INOX closing clips

## **DIMENSIONS AND LOGISTICS**

	X (mm)	Xm (mm)	Y (mm)	Z (mm)	L x W x H (mm)	Kits/Box	KG Box	Groupage Pcs./pallet	Groupage/full truck Pcs./double pallet
118	666	230	100	108	675 x 110 x 95	1	1.30	224	140 + 140
136	1275	840	100	108	1285 x 110 x 95	1	1.65	112	70 + 70
158	1575	1140	100	108	1585 x 110 x 95	1	2.49	112	70 + 70
218	666	230	170	108	675 x 175 x 95	1	1.70	128	80 + 80
236	1275	840	170	108	1285 x 175 x 95	1	2.19	64	40 + 40
258	1575	1140	170	108	1580 x 155 x 75	1	2.89	64	40 + 40

For logistic estimations please contact our Sales Back Office team





<sup>&</sup>lt;sup>3</sup> Cable gland available as accessory (not included in this accessory bag)



## **REFERENCES**

PEP

GRP housing + PC diffuser

	Plastic closing clips	INOX closing clips
118	10012175	10012177
136	10012218	10012220
158	10012274	10015449
218	10012332	10012334
236	10007411	10012379
258	10012438	10015450

PEM

GRP housing + PMMA diffuser

	Plastic closing clips	INOX closing clips
118	10012491	10015103
136	10007416	10014666
158	10012600	10015106
218	10012651	10015104
236	10007420	10015105
258	10012763	10015107

## **ACCESSORIES**

See on pages 22 and 23.





## SINGLE PARTS



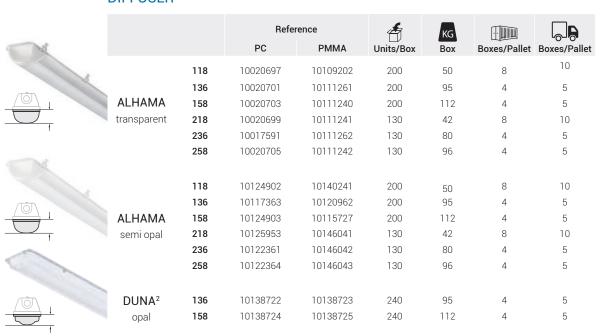
## ACQUA / ALHAMA / DUNA

#### **HOUSING**



All housings are compatible with ALHAMA diffusers

#### **DIFFUSER**



<sup>&</sup>lt;sup>2</sup>Slimmer diffuser specially designed for better performance of LED luminaires

 $\label{thm:control_supplied} Supplied in bulk packages. For logistic estimations please contact our Sales Back Office team$ 

<sup>&</sup>lt;sup>1</sup>Also compatible with DUNA diffuser

### **GEAR TRAY**



		Reference <sup>3</sup>		£	_	П	
		LED 24 mm ZHAGA	LED 32 + 40 mm ZHAGA	Units/Box	KG Box	Boxes/Pallet	Boxes/Pallet
	118	10165083 4	10140240 4	460	130	2	2
	136	10145649 4	10136502 4	460	261	1	1
LED	158	10145650 4	10136503 4	460	325	1	1
	2-118	10155603 ⁵	10145646 4	270	101	2	2
	2-136	10145651 5	10145647 4	270	195	1	1
	2-158	10145652 5	10145648 4	270	260	1	1

<sup>&</sup>lt;sup>3</sup> LED 20mm ZHAGA and other customized gear trays available under request. <sup>4</sup> It requires wide gear tray holder. <sup>5</sup> It requires narrow gear tray holder.



			Reference T8	Reference T5 or T8 <sup>6</sup>	Reference T5	Units/Box	KG Box	Boxes/Pallet	Boxes/Pallet
		118	10020719	10075943	10020717	460	130	2	2
		136	10020723	10075944	10020721	460	261	1	1
	T5 I T8	158	10020727	10075945	10020725	460	325	1	1
		218	10020731	10075946	10020729	270	101	2	2
		236	10017590	10075967	10075971	270	195	1	1
		258	10020735	10075968	10020733	270	260	1	1

<sup>&</sup>lt;sup>6</sup> Universal

### **GEAR TRAY HOLDER**<sup>7</sup>

#### For ACQUA housing (GRP)

FUI AU	QUA Housing (GRF)	
		Reference
LED	Wide gear tray holder for GRP housing (LED module)	10119008
T5-T8	Narrow gear tray holder for GRP housing (T8-T5-LED tube)	10025876
		4
	Wide	Narrow

<sup>&</sup>lt;sup>7</sup> Each luminaire requires 2 pieces.

### For ALHAMA housing (PC)

FUI AL	HAMA Housing (FC)	
		Reference
LED	Wide gear tray holder set for PC housing (LED module)	Set: 10120146 + 10016244
T5-T8	Narrow gear tray holder for PC housing (T8-T5-LED tube)	Set: 10027074 + 10016244
		<b>*</b>
	Wide set	Narrow set

## ACCESSORY BAG

#### For ACQUA housing (GRP)

Closing clips	Lun	Single		
Closing clips	0.6	1.2	1.5	clip
Plastic, removable	10025986	10025987	10025988	10259185
Plastic, unremovable	10214731	10210363	10214732	102591858
INOX, removable	10026906	10026907	10026908	10101499
INOX, unremovable	10186082	10186083	10186084	10174599

<sup>&</sup>lt;sup>8</sup> It requires one Ø3x6 screw



Accessory bag with removable plastic closing clips



Accessory bag with removable INOX closing clips

## For ALHAMA housing (PC)

Closing clips	Lun	ninaire length	Single		
Closing clips	0.6	1.2	1.5	clip	
Plastic, removable	10020763	10016237	10020765	10124248	
Plastic, unremovable	10125240	10125241	10125242	10259187	
INOX, removable	10020764	10016238	10020766	10124249	
INOX, unremovable	10241674	10222634	10222635	10259188	



Accessory bag with removable plastic closing clips



Accessory bag with removable INOX closing clips

Supplied in bulk packages. For logistic estimations please contact our Sales Back Office team

### **HOUSING**



	Reference With plastic clips With INOX clips		Units/Box	KG Box	Boxes/Pallet	Boxes/Pallet
118	10012916	10012919	72	51	8	8
136	10012920	10012925	72	78	4	4
158	10012926	10012930	72	98	4	4
218	10012932	10012935	40	39	8	8
236	10012936	10012940	40	59	4	4
258	10012941	10012944	40	77	4	4

## **GEAR TRAY**



	Reference T8	Units/Box	KG Box	Boxes/Pallet	Boxes/Pallet
118	10013279	500	130	2	2
136	10013281	500	261	1	1
158	10013283	500	325	1	1
218	10013285	250	101	2	2
236	10013286	250	195	1	1
258	10013288	250	260	1	1

### **DIFFUSER**



	Reference PMMA		Units/Box	KG Box	Boxes/Pallet	Boxes/Pallet
118	10012909	10013000	125	30	8	8
136	10012910	10013002	125	59	4	4
158	10012911	10013004	125	70	4	4
218	10012912	10013005	70	25	8	8
236	10012913	10013007	70	42	4	4
258	10012914	10013009	70	54	4	4

### **ACCESSORY BAG**

Clasing alina	Lui	Single		
Closing clips	0.6	1.2	1.5	Single clip
Plastic	10022536	10022535	10022534	17172
INOX	429411	50027015	50027016	30004739



Accessory bag with plastic closing clips



Accessory bag with INOX closing clips

 $\label{thm:control_supplied} Supplied in bulk packages. For logistic estimations please contact our Sales Back Office team$ 



## Accessories

## MOUNTING ACCESSORIES

	Description	Reference	Compatibility
	Suspension kit	414551	PE
0.	Suspension wire 2 m with snap hook and express fastener	10103049	KE DUNA ACQUA ALHAMA
$\supset$	Suspension triangle	60622	KE DUNA ACQUA ALHAMA
>>	Bag with 2 suspension triangles	10237125	KE DUNA ACQUA ALHAMA
	Fixing clip in stainless steel	64582	KE DUNA ACQUA ALHAMA
	Bag with 2 fixing clips in stainless steel	10142619	KE DUNA ACQUA ALHAMA
1	Fixing clip in stainless steel 316L	10249338	KE DUNA ACQUA ALHAMA
50	Bag with 2 fixing clips in stainless steel 316L	10256809	KE DUNA ACQUA ALHAMA

	Description	Reference	Compatibility
4.71.7	Theft protection, set for 1 luminaire Required for wall mounting	10149442	KE DUNA
	ZBWM wall mounting accessory, 2 pieces set Allows luminaire rotation	10207593	KE DUNA
	Metalic nut M-5	10010863	PE
$\odot$	Elastic tight washer	30005948	PE
	Metalic washer M-5	56032	PE
	Fixing strip Suspension strap	10089857	DUNA ACQUA ALHAMA PE
8	Turnbuckle	10013056	PE
F	Cable holder	10014993	Through wiring versions

## **CONNECTION ACCESSORIES**

Description	Reference	Compatibility
<b>Grommet</b> Grey RAL 7035	10013258	KE DUNA ACQUA ALHAMA PE
Cable gland	10052840	KE DUNA ACQUA ALHAMA PE
Connectors bag WAGO 3P	10239981	KE

Description	Reference	Compatibility
Connectors bag WAGO 5P	10239982	KE
Connectors bag WAGO 8P	10239983	KE

## **CLOSING CLIPS**

OLOGINO O	LII O						
	Description	Reference	Compatibility		Description	Reference	Compatibility
0.0	Stainless steel closing clip ACQUA	10101499	GRP housing (DUNA and ACQUA)	5	Plastic closing clip ALHAMA	10124248	PC housing (DUNA and ALHAMA)
E THE	Stainless steel unremovable closing clip ACQUA	10174599	GRP housing (DUNA and ACQUA)				
1	To make the clip <b>unrem</b> e SP81Z screw.	<b>ovable</b> it is ne	ecessary to use a 3x6		Plastic unremovable closing clip ALHAMA	10259187	PC housing (DUNA and ALHAMA)
2.	Plastic closing clip ACQUA	10259185	GRP housing (DUNA and ACQUA)				
	To make the clip <b>unrem</b> e SP81Z screw.	ovable it is ne	ecessary to use a 3x6	1	Stainless steel closing clip PE	30004739	GRP housing (PE)
11	Stainless steel closing clip ALHAMA	10124249	PC housing (DUNA and ALHAMA)	1	Plastic closing clip PE	17172	GRP housing (PE)
//	Stainless steel unremovable closing clip ALHAMA	10259188	PC housing (DUNA and ALHAMA)				

## **KE OPTICS**

Description	Reference			Description	Reference
Kit P-VW – Extensive photometrics 1.2	10252622			Kit P-VW – Extensive photometrics 1.5	10252623
Kit P-XW – Very extensive photometrics 1.2	10252624	Mrs Mills	1	Kit P-XW – Very extensive photometrics 1.5	10252625
Kit P-N – Intensive photometrics 1.2	10252626	2626		Kit P-N – Intensive photometrics 1.5	10252627
VW - extensive	100 100 100 100 100 100 100 100 100 100	V - very extensive	N - intensive	1807 1907 1907 1907 1907 1907 1907	

Supplied in bulk packages. For logistic estimations please contact our Sales Back Office team



## **RESISTANCE TO CHEMICAL AGENTS**

Chemical agents	Polyester	Polycarbonate	Aluminium	PMMA	Stainless steel
Acetic acid 10%	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Acetone	Ø	Х	$\checkmark$	Χ	✓
Alcoholic beverages	✓	$\checkmark$	$\checkmark$	Ø	$\checkmark$
Aluminium sulphate	✓	✓	$\checkmark$	$\checkmark$	Ø
Ammonia 5%	Ø	Χ	$\checkmark$	$\checkmark$	$\checkmark$
Aniline	Ø	Х	$\checkmark$	Χ	✓
Arsenic acid 20%	Ø	✓	$\checkmark$	$\checkmark$	✓
Benzene	Х	Χ	$\checkmark$	Χ	Ø
Bencylic alcohol	Х	Х	Ø	Х	Ø
Bromine	Χ	Χ	Χ	Χ	Х
Calcium Chloride	✓	✓	$\checkmark$	$\checkmark$	Ø
Calcium nitrate	✓	✓	✓	✓	Ø
Carbon tetrachloride	х	Х	✓	Χ	Ø
Carbonic acid	✓	Х	✓	Χ	✓
Caustic potash 5%	Х	Х	Х	✓	Ø
Cement	✓	✓	✓	✓	Ø
Hydrochloric acid 1-5%	Ø	✓	Х	✓	X
Chlorine liquids (vapours)	X	Х	X	Х	Ø
Chloroform	X	X	~ ✓	X	✓ ×
Chromic acid	Х	ø	Х	ø	Ø
Citric acid 20%	~ ~	✓ ×	<b>~</b>	✓	Ø
Copper sulphate	· ✓	✓	X	<i>✓</i>	Ø
Diesel-naphta oil	<b>√</b>	Ø	<b>~</b>	· ✓	✓ ×
Ethyl alcohol 30%	· /	✓ ×	✓	ø	<i>✓</i>
Ethyl chloride	X	X	Ø	X	· /
Ethyl ether	<b>^</b>	X	<b>√</b>	X	Ø
Food oils and fats	· /	X	<b>√</b>	^ ✓	<b>∅</b>
Formic acid 10%	ø	× √		<b>√</b>	•
Glycerine	Ø ✓	<b>√</b>	X ✓	<b>∨</b> ✓	Ø ✓
Hexane		<b>√</b>	<b>∨</b> ✓	<b>∨</b> ✓	<b>∨</b> ✓
lodine	ø		Ø	<b>∨</b> ✓	
	<b>√</b>	X	Ø ✓		X
Isopropylic alcohol	<b>∨</b>	ø ✓	<b>∨</b> ✓	ø ✓	Ø ✓
Lubricating oil	•	<b>∨</b>	<b>∨</b> ✓	<b>∨</b> ✓	<b>∨</b> ✓
Magnesium sulphate	✓				
Methanol	<b>√</b>	X	<b>√</b>	Ø	<b>√</b>
Mineral oils	✓	<b>√</b>	✓	<b>√</b>	<b>√</b>
Nitric acid 20%	X	Ø	X	<b>√</b>	<b>√</b>
Oxygen	✓	<b>√</b>	✓	<b>√</b>	<b>√</b>
Ozone	✓	<b>√</b>	✓	<b>√</b>	Ø
Perchloric acid 10%	X	✓	X	<b>√</b>	X
Petrol	✓	Х	<b>√</b>	✓	✓
Phenol	Ø	X	$\checkmark$	X	Ø
Pothassium bromide	✓	<b>√</b>	Ø	<b>√</b>	Ø
Pothassium nitrate	✓	✓	✓	✓	Ø
Pothassium permanganate	✓	✓	✓	✓	Ø
Sea climate	✓	✓	Ø	$\checkmark$	Ø
Silicon oils	<b>√</b>	✓	✓	Ø	✓
Soda bleach 15%	✓	X	Ø	✓	Ø
Sodium chloride	<b>√</b>	✓	Ø	<b>√</b>	Ø
Sodium hydroxide 5%	<b>√</b>	X	X	✓	Ø
Sodium sulphate	✓	✓	<b>√</b>	✓	Ø
Sugar	✓	✓	✓	$\checkmark$	$\checkmark$
Sulphur	✓	✓	✓	✓	Ø
Sulphuric acid 30%	X	$\checkmark$	Х	$\checkmark$	Х
Toluene	X	Х	✓	Χ	$\checkmark$
Trichloroethylene	Х	Х	✓	Χ	Ø
Zinc sulphate	✓	✓	Ø	✓	Ø

✓ ResistantØ Relatively resistantX Non-resistant

This is a recommendation about the compatibility of equivalent or similar chemical agents included in the composition of the cleaning products with the polymers present in the luminaires. It is based on information from material suppliers, available documentation, tests and our experience in different applications.

Materials resistance can be also affected by concentration, temperature, presence of various chemicals, solvent evaporation and other factors, so this table must be considered as a general reference. Product compliance must be determined by the customer for each specific use.



## **INGRESS PROTECTION: IP**

The protection of luminaires against the penetration of dust, solid matter and dampness is in accordance with UNE-EN 60529:2018 standard<sup>1</sup>.



## Protection against the penetration of solid matter and dust.

0	Unprotected
1	Protected against solid matter greater than 50 mm
2	Protected against solid matter greater than 12 mm
3	Protected against solid matter greater than 2.5 mm
4	Protected against solid matter greater than 1 mm (e.g. small tools, small cables, etc.)
5	Protected against dust (without damaging sediment)
6	Protected against dust

## **IMPACT PROTECTION: IK**



00	Unprotected			
01	Impact Energy 0.15 Joules			
02	Impact Energy 0.20 Joules			
03	Impact Energy 0.35 Joules			
04	Impact Energy 0.50 Joules			
05	Impact Energy 0.70 Joules			
06	Impact Energy 1 Joule			
07	Impact Energy 2 Joules			
08	Impact Energy 5 Joules			
09	Impact Energy 10 Joules			
10	Impact Energy 20 Joules			



## Protection against the penetration of liquids.

0	Unprotected
1	Protected against vertical water splashes (condensation)
2	Protected against water splashes of up to 15° of the vertical
3	Protected against water splashes of up to 60° of the vertical
4	Protected against water projections in all directions
5	Protected against water assault in all directions
6	Protected against water assault similar to heavy seas
7	Protected against immersion
8	Protected against prolonged effects of underwater immersion
9K <sup>2</sup>	Protected against high-pressure / steam-jet cleaning'.

 $^2\text{The third figure K}$  is in accordance with ISO 20653:2013 standard, related to the protection of electrical equipment against foreign objects, water and access.

<sup>&</sup>lt;sup>1</sup> IP degree is subject to the rest of the components used to complete the luminaire, and needs to be tested accordingly.

## General sale conditions

Our acceptance of an order entails, in any event, that the buyer accepts the following general conditions of sale and supply:

#### 1. Source of supply

ZALUX luminaires can be obtained through our established network of distributors in the different countries.

#### 2. Offers

The written, oral and telephone offers are without compromise. The delivery of offers does not oblige us to accept the order. All orders and compromises are only valid if we have expressly ratified them in writing.

#### 3. Prices

The prices of the Price List in force are understood to be for materials in stock. We reserve the right to modify the prices; if it is possible, said variation will be communicated in the best possible time.

#### 4. Delivery time

Delivery time will be confirmed individually once the order is accepted. Delivery time set by ZALUX, S.A., will be respected and only modified due to production or force majeure. Delay will be communicated to the customer in advance, for his approval. Delivery delays will not allow the buyer to neither cancel the order nor to apply any penalty nor indemnifications for it, except for the case that it has been specifically agreed in advance.

#### 5. Orders

ZALUX, S.A., can unilaterally annul current orders, if the circumstances of a main force that impede their completion should occur. Understood as circumstances of a main force: industrial disputes, labour disruptions, shortage of raw materials, etc. The buyer cannot annul orders for specially made materials without our written agreement. In case of acceptance on our part the expenses incurred up to the moment of cancellation will be charged to the buyer.

#### 6. Packaging

The products are sold in their original cardboard package. Under certain circumstances or the buyer indicates to us to use another package, it will be charged to the buyer at its cost price.

#### 7. Transport

With the delivery of the merchandise to the transport agency the delivery is considered to have been correctly made. The risks of transport of the consignment of our products are on the buyers' account. They can only reclaim from the transport agency for the damages incurred during transport. We will with the utmost pleasure collaborate and support their reclamation with details, etc.

#### 8. Measurements

The measurements are given in millimetres in the descriptions of the models. We reserve the right to introduce small deviations in the measurements as well as modifications due to improvements to the models. The price would be susceptible to variation in this case.

#### 9. Reclamations

ZALUX acknowledges any warranty claim. The acceptance decision is based on the analysis of the cause of the faulty devices. The warranty covers material, design and/or manufacturing defects and applies to the entire product.

Defects caused by insufficient maintenance and/or normal wear and tear according to the nominal service life stated in the technical documentation of the product are excluded from the warranty.

Reclamations regarding numerous faults and defects will only be valid if the proper reclamation if the corresponding complaint is submitted within seven days as from the reception of the goods. If the reclamation is founded and the goods are in its original state, a corresponding acceptance will be sent.

For more information about our warranty conditions, please visit www.zalux.com/downloads/

#### 10. Return of material

Return of material will not be accepted for reasons of mistaken instructions, shapes, quantities or material to be repaired, if we have not previously given our written authorisation. Those returns must be sent DDP ZALUX and 30% demerit of the original value will be applied. We do not accept the return of specially made products.

For more information about our return policy, please visit www. zalux.com/downloads/

#### 11. Property rights

In all cases and even against a third party, ZALUX, S.A., conserves full ownership of all the supplied materials, in the case that the agreed payment has not been settled.

#### 12. Patent rights

All the models in this catalogue are protected by law. Legal action with right to redemption will be taken against anyone making imitations.

#### 13. Reprints

Total or partial reproduction of this catalogue is forbidden without the corresponding written authorisation of ZALUX, S.A.

#### 14. Payment

The form of payment will be established at the time of making a firm order for the merchandise, in accordance with the usual standards in ZALUX, S.A.

#### 15. Jurisdiction

For any question that could arise in the completion or interpretation of these general rules, the contracting parties, with expressly renouncing any local law code that could correspond to them, will be submitted expressly to the Magistrate Law Courts of Zaragoza.

#### 16. Modifications

ZALUX, S.A. in its continuous improvement process, reserves the right to modify its technical specifications without any previous notice.

The buyer is responsible that the product purchased in components, once fully wired, meets the requirements of the respective country.

## The partner you can trust



