
























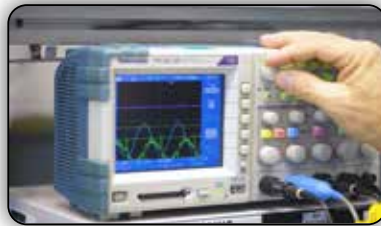
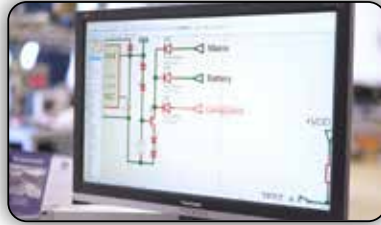
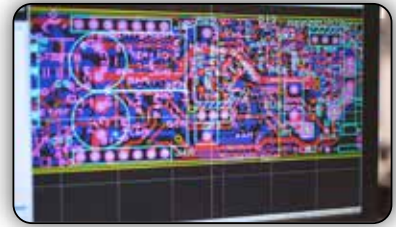


EMERGENCY LIGHTING PRODUCTS



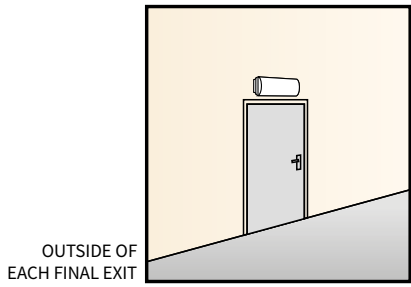
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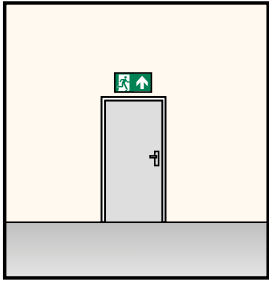


EEC Electronics

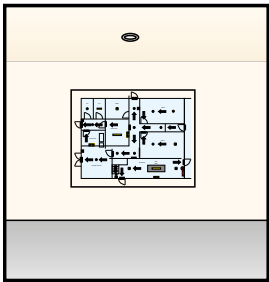




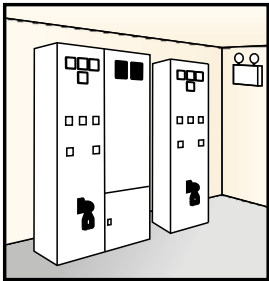
OUTSIDE OF EACH FINAL EXIT



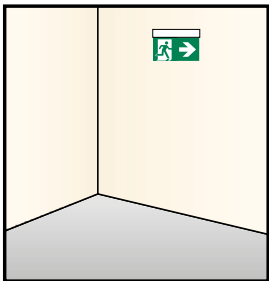
AT EACH EXIT DOOR



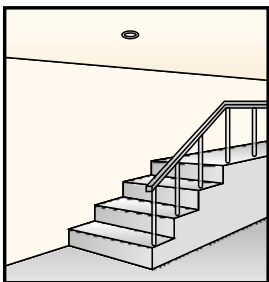
AT EMERGENCY EXIT PLANS AND SECURITY SIGNS



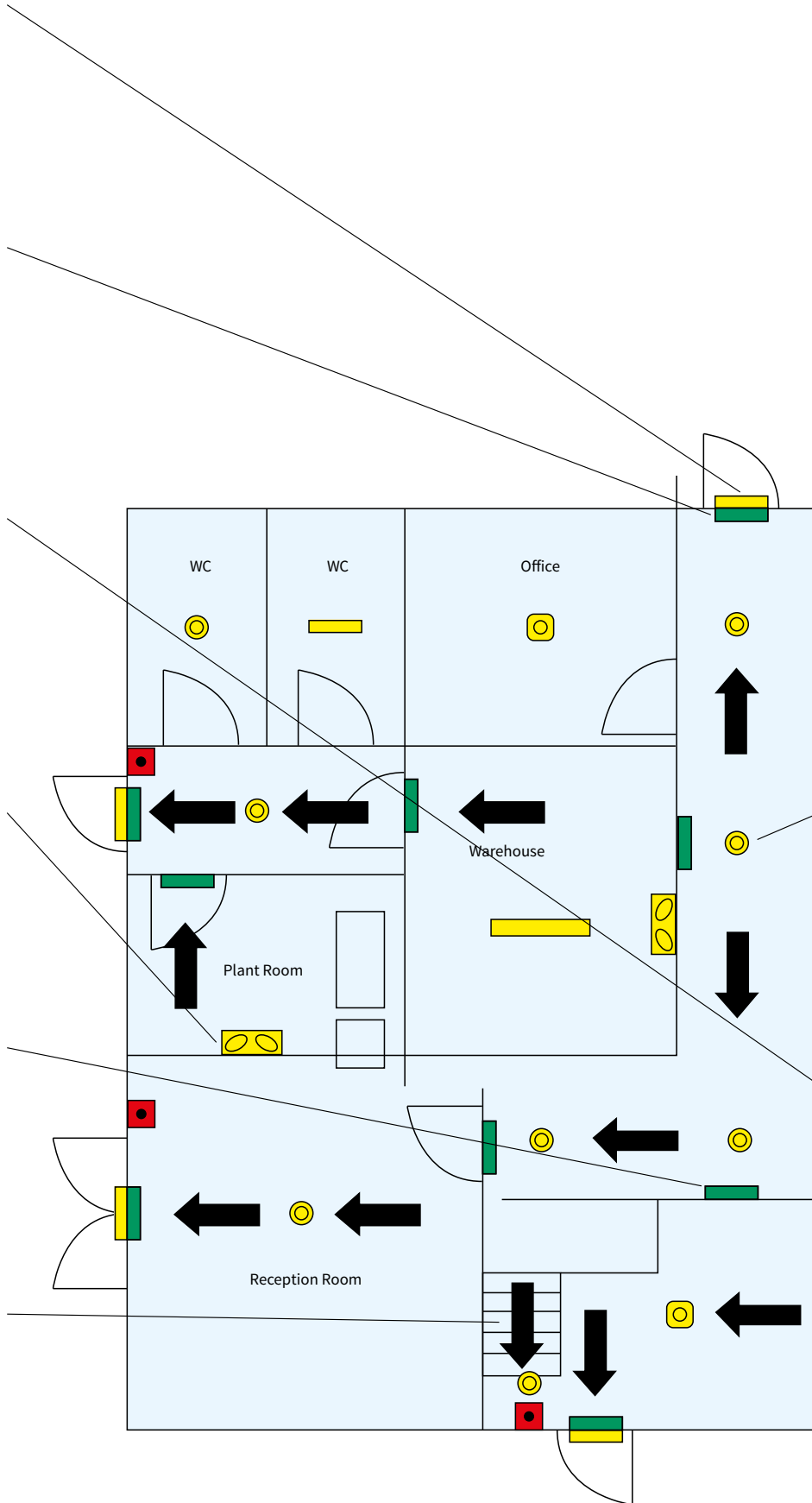
CONTROL PANELS












AT EACH CHANGE OF DIRECTION

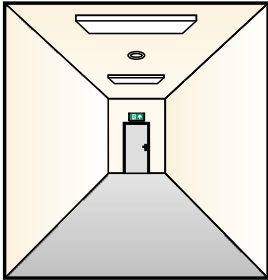
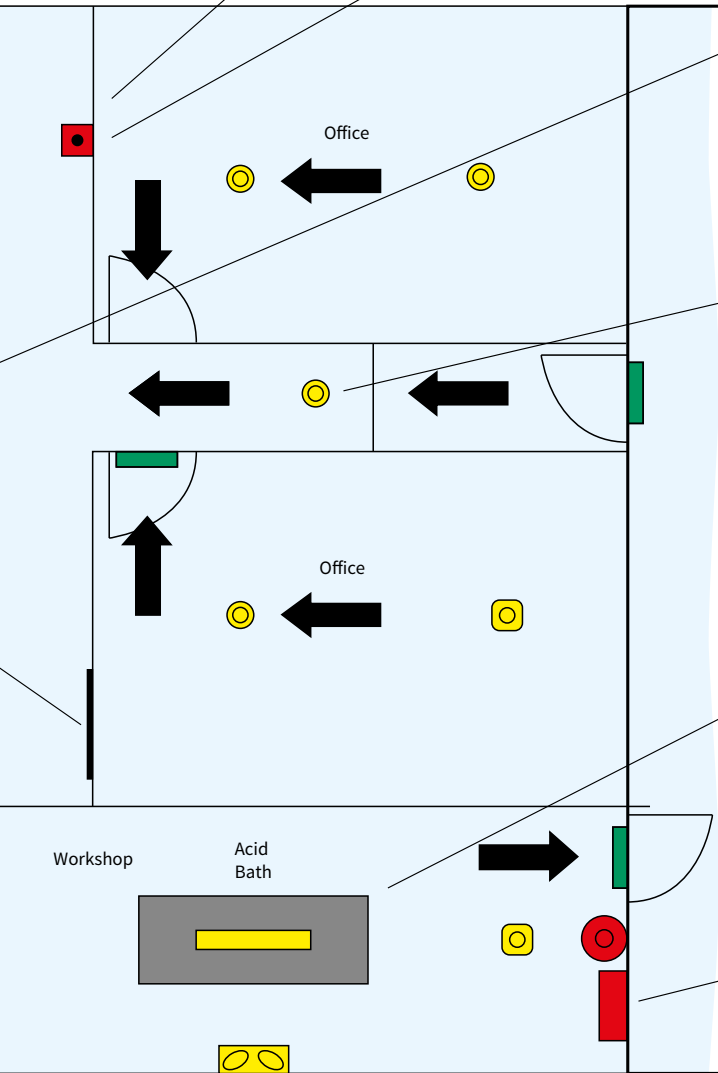


NEAR STAIRS AND ESCALATORS
(Each tread must receive direct light)

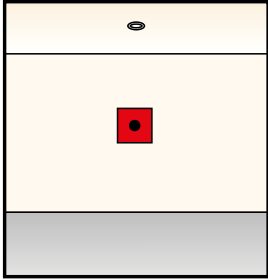


System Design Guide

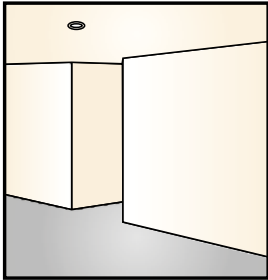
-  EMERGENCY EXIT SIGN (ELEGANCE, MULTILITE, STARLED, ULTRALITE, MICROLITE, ..)
-  EMERGENCY LUMINAIRE (ELEGANCE, STARLED, ..)
-  EMERGENCY LUMINAIRE (ERL)
-  EMERGENCY LUMINAIRE (SQL)
-  EMERGENCY LUMINAIRE (NOVALITE, LUMINAIRE WITH EMERGENCY KIT)
-  EMERGENCY TWINSPOUT (ELUED)
-  MANUAL CALL POINT
-  FIRE EXTINGUISHER
-  FIRE BOX



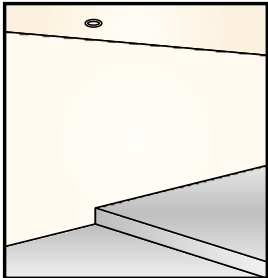
ALONG ALL CORRIDORS



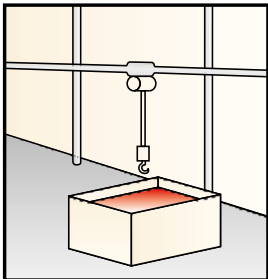
AT EACH CALL POINT



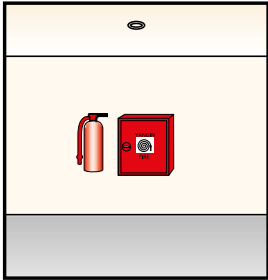
AT EACH INTERSECTION OF CORRIDORS



NEAR ANY CHANGE OF FLOOR LEVEL

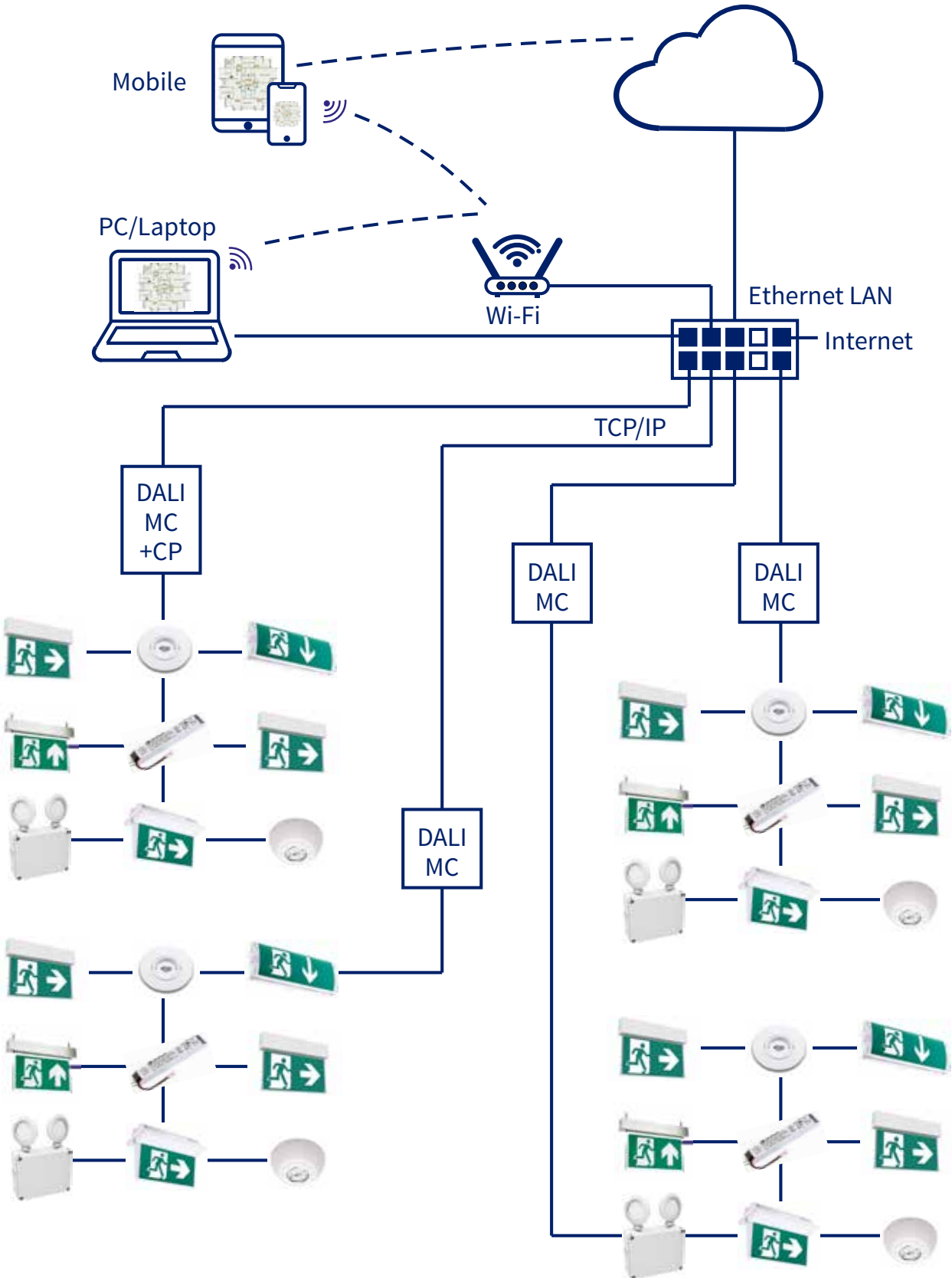


HIGH RISK TASK AREAS

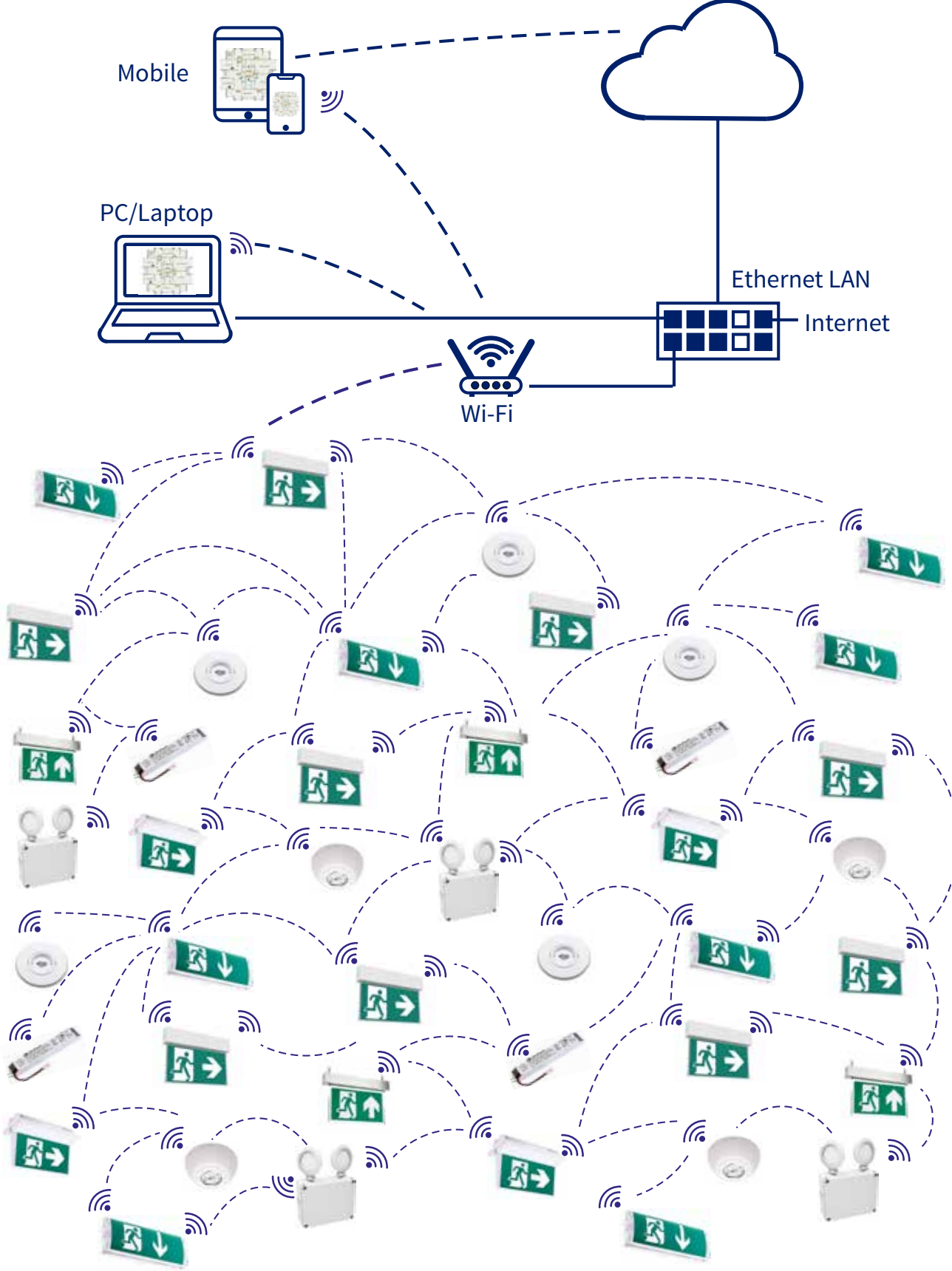


AT EACH PIECE OF FIRE FIGHTING EQUIPMENT

DALI Remote Monitoring



Luminula Remote Monitoring



Flatlite



Flatlite

Emergency Luminaires & Exit Signs
Surface & Mounted, Single & Double Sided

General Specifications

Application	Escape Sign, Anti-Panic Lighting, Escape Route Lighting, Hazardous Area Lighting
Mounting	Direct mounting to wall & ceiling. Recessed mounting is available by accessory
Type	Manual Test, Auto Test, DALI2, Wireless, Central
Operating Mode	Selectable maintained/ non-maintained
Emergency Duration	Selectable 1/3 hours and 3/8 hours
Viewing Distance	30m
Light Source	LED module, 12 mid power leds, 6500K, CRI>80
Battery	Li-FePO4
Warranty	5 years (battery 3 years)

Technical Specifications

Supply Voltage	220-240 Volt, 0/50-60 Hz, 0,03A, max 3W
Battery	3.2 Volt Li-FePO4
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp
Insulation Class	Class II
Protection Class	IP65
Impact Protection Rating	IK08
Temperature	ta 0 / +45°C
Terminals	Up to 2x2,5mm ² quick fit terminal block
Cable Entry	Breakable entry holes back, rear & top parts
Enclosure	White polycarbonate housing

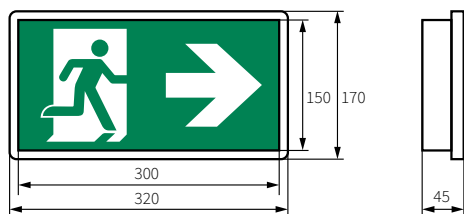
Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Standards

- EN 60598-1
- EN 60598-2-22
- EN 62031
- EN 62471
- EN 62384
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61547
- IEC 62133-2 (related to battery)
- According to EN 1838 (Application)
- According to EN 50172 (Application)
- According to EN 62034 (Auto Test)
- According to EN 62386 (DALI)

Dimensions (mm)



Standard Signs



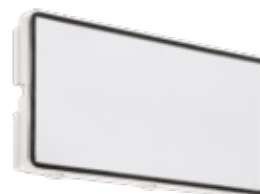
Wall Mount



Wall Mount & Ceiling Mount
Recessed Mount (via FTL-REC-SET)



Ceiling Mount
Recessed Mount (via FTL-REC-SET)



With Opal pad
(FTL -PAD-OPAL)

Ordering Details

Code	Emergency Duration & Lumen Output			Li-FePO4 Battery	Type
	1H	3H	8H		
FTL10-E	250 Lumen	85 Lumen	-	3.2V -1.0Ah	Manual Test
FTL16-E	250 Lumen	140 Lumen	-	3.2V -1.6Ah	
FTL20-E	250 Lumen	180 Lumen	-	3.2V -2.0Ah	
FTL32-E	-	250 Lumen	100 Lumen	3.2V -3.2Ah	Auto Test
FTL10-AT	250 Lumen	85 Lumen	-	3.2V -1.0Ah	
FTL16-AT	250 Lumen	140 Lumen	-	3.2V -1.6Ah	
FTL20-AT	250 Lumen	180 Lumen	-	3.2V -2.0Ah	
FTL32-AT	-	250 Lumen	100 Lume	3.2V -3.2Ah	DALI-2
FTL16-DALI	250 Lumen	140 Lumen	-	3.2V -1.6Ah	
FTL20-DALI	250 Lumen	180 Lumen	-	3.2V -2.0Ah	
FTL32-DALI	-	250 Lumen	100 Lumen	3.2V -3.2Ah	Wireless
FTL-32-LUM	-	250 Lumen	-	3.2V -3.2Ah	
FTL-CBE	250 Lumen			-	Central-Eco
FTL-CBDALI	250 Lumen			-	Central-DALI

Accessories	Explanations
FTL-PAD-LEFT	Sign pad, LEFT side
FTL-PAD-RIGHT	Sign pad, RIGHT side
FTL-PAD-UP	Sign pad, UP side
FTL-PAD-DOWN	Sign pad, DOWN side
FTL-SIGN-SET1	Sign set, LEFT, RIGHT, UP & DOWN side
FTL-PAD-OPAL	Opal pad
FTL-REC-SET	Recessed mounting set
FTL-DOUBLE-SIDE-SET	Mounting set for double-sided application

Elegance



Elegance

Emergency Luminaires & Exit Signs
Surface Mounted, Single Sided

General Specifications

Application	Escape Sign, Anti-Panic Lighting, Escape Route Lighting, Hazardous Area Lighting
Mounting	Direct mounting to wall & ceiling. Recessed mounting is available by accessory
Type	Manual Test, Auto Test, DALI2, Wireless, Central
Operating Mode	Selectable maintained/ non-maintained
Emergency Duration	Selectable 1/3 hours and 3/8 hours
Viewing Distance	26m
Light Source	LED module, 6500K, CRI>80, Li-FePO4 models 12 Led, Ni-Cd/Ni-MH models 8 Led
Battery	Li-FePO4, Ni-Cd, Ni-MH
Warranty	5 years (Li-FePO4 battery 3 years, Ni-Cd/Ni-MH battery 1 year)



Technical Specifications

Supply Voltage	Li-FePO4: 220-240 Volt, 0/50-60 Hz, 0,03A, max 3W Ni-Cd/ Ni-MH: 230 Volt, 50-60 Hz, 0,05A, max 5W
Battery	Li-FePO4: 3.2 Volt, Ni-Cd/ Ni-MH: 3.6 Volt
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp
Insulation	Class II
Protection	IP65
Impact protection	IK08
Temperature	Li-FePO4: ta 0 /+45°C, Ni-Cd/ Ni-MH: ta 5 /+40°C
Terminals	Up to 2x2,5mm² quick fit terminal
Cable Entry	Breakable entry holes back, rear and top sides
Enclosure	White polycarbonate housing

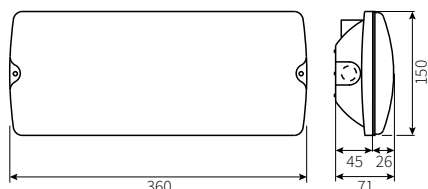
Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Standards

- EN 60598-1
- EN 60598-2-22
- EN 62031
- EN 62471
- EN 62384
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61547
- IEC 62133-2 (related to battery)
- According to EN 1838 (Application)
- According to EN 50172 (Application)
- According to EN 62034 (Auto Test)
- According to EN 62386 (DALI)

Dimensions (mm)



Standard Signs



Ordering Details

Code Li-FePO4 Models	Lumen Output			Battery	Type
	1H	3H	8H		
ELG-10E	270 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	Manual Test
ELG-16E	270 Lm	140 Lm	-	3.2V-1.6Ah Li-FePO4	
ELG-20E	270 Lm	185 Lm	-	3.2V-2.0Ah Li-FePO4	
ELG-32E	-	270 Lm	100 Lm	3.2V-3.2Ah Li-FePO4	
ELG-10AT	270 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	Auto Test
ELG-16AT	270 Lm	140 Lm	-	3.2V-1.6Ah Li-FePO4	
ELG-20AT	270 Lm	185 Lm	-	3.2V-2.0Ah Li-FePO4	
ELG-32AT	-	270 Lm	100 Lm	3.2V-3.2Ah Li-FePO4	
ELG-16DALI	-	140 Lm	-	3.2V-1.6Ah Li-FePO4	DALI2
ELG-20DALI	-	185 Lm	-	3.2V-2.0Ah Li-FePO4	
ELG-32DALI	-	270 Lm	-	3.2V-3.2Ah Li-FePO4	
ELG-16LUM	-	140 Lm	-	3.2V-1.6Ah Li-FePO4	Wireless - Luminula
ELG-CBE	-	270 Lm	-	-	Central-Eco
ELG-CBDALI	-	270 Lm	-	-	Central - DALI2

Code Ni-Cd/ Ni-MH Models	Lumen Output		Battery	Type
	1H	3H		
ELG-SM8E	185 Lm	70 Lm	3.6V-0.8Ah Ni-Cd	Manual Test
ELG-SM15E	290 Lm	135 Lm	3.6V-1.5Ah Ni-Cd	
ELG-SM8ST	185 Lm	70 Lm	3.6V-0.8Ah Ni-Cd	Auto Test
ELG-SM15ST	290 Lm	135 Lm	3.6V-1.5Ah Ni-Cd	
ELG-SM15-DALI	-	135 Lm	3.6V-1.5Ah Ni-Cd	DALI2
ELG-SM22MH-DALI	-	290 Lm	3.6V-2.2Ah Ni-MH	

Sign Pads & Accessories	
ELG-PAD-SET	Sign Pad Set (Up, Down, Right, Left & White pad)
ELG-PAD-UP	Up side sign pad
ELG-PAD-DOWN	Down side sign pad
ELG-PAD-LEFT	Left side sign pad
ELG-PAD-RIGHT	Right side sign pad
ELG-PAD-WHITE	White pad
ELG-PERSPEX-SET	Perspex sign set
ELG-ANK	Recessed mounting box
ELG-PRGRID	Protection grid

Elegance Slim



Elegance Slim

Emergency Luminaires & Exit Signs
Surface Mounted, Single Sided

General Specifications

Application	Escape Sign, Anti-Panic Lighting, Escape Route Lighting, Hazardous Area Lighting
Mounting	Direct mounting to wall & ceiling. Recessed mounting is available by accessory
Type	Manual Test, Auto Test, DALI2, Wireless, Central
Operating Mode	Selectable maintained/ non-maintained
Emergency Duration	Selectable 1/3 hours and 3/8 hours
Viewing Distance	23m
Light Source	LED module, 6500K, CRI>80, 12 Led
Battery	Li-FePO4, Ni-Cd, Ni-MH
Warranty	5 years (Li-FePO4 battery 3 years, Ni-Cd/Ni-MH battery 1 year)



Technical Specifications

Supply Voltage	Li-FePO4: 220-240 Volt, 0/50-60 Hz, 0,03A, max 3W Ni-Cd/ Ni-MH: 230 Volt, 50-60 Hz, 0,05A, max 5W
Battery	Li-FePO4: 3.2 Volt, Ni-Cd/ Ni-MH: 3.6 Volt
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp
Insulation	Class II
Protection	IP65
Impact protection	IK08
Temperature	Li-FePO4: ta 0 /+45°C, Ni-Cd/ Ni-MH: ta 5 /+40°C
Terminals	Up to 2x2,5mm ² quick fit terminal
Cable Entry	Breakable entry holes back, rear and top sides
Enclosure	White polycarbonate housing

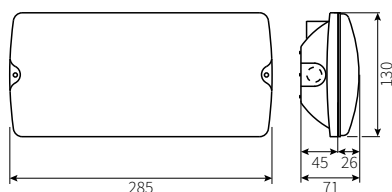
Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Standards

- EN 60598-1
- EN 60598-2-22
- EN 62031
- EN 62471
- EN 62384
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61547
- IEC 62133-2 (related to battery)
- According to EN 1838 (Application)
- According to EN 50172 (Application)
- According to EN 62034 (Auto Test)
- According to EN 62386 (DALI)

Dimensions (mm)



Standard Signs



Ordering Details

Code Li-FePO4 Models	Lumen Output			Battery	Type
	1H	3H	8H		
ELGS-10E	270 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	Manual Test
ELGS-16E	270 Lm	140 Lm	-	3.2V-1.6Ah Li-FePO4	
ELGS-20E	270 Lm	185 Lm	-	3.2V-2.0Ah Li-FePO4	
ELGS-32E	-	270 Lm	100 Lm	3.2V-3.2Ah Li-FePO4	
ELGS-10AT	270 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	Auto Test
ELGS-16AT	270 Lm	140 Lm	-	3.2V-1.6Ah Li-FePO4	
ELGS-20AT	270 Lm	185 Lm	-	3.2V-2.0Ah Li-FePO4	
ELGS-32AT	-	270 Lm	100 Lm	3.2V-3.2Ah Li-FePO4	
ELGS-16DALI	-	140 Lm	-	3.2V-1.6Ah Li-FePO4	DALI2
ELGS-20DALI	-	185 Lm	-	3.2V-2.0Ah Li-FePO4	
ELGS-32DALI	-	270 Lm	-	3.2V-3.2Ah Li-FePO4	
ELGS-16LUM	-	140 Lm	-	3.2V-1.6Ah Li-FePO4	Wireless - Luminula
ELGS-CBE	-	270 Lm	-	-	Central-Eco
ELGS-CBDALI	-	270 Lm	-	-	Central - DALI2

Code Ni-Cd/ Ni-MH Models	Lumen Output		Battery	Type
	1H	3H		
ELGS-SM8E	185 Lm	70 Lm	3.6V-0.8Ah Ni-Cd	Manual Test
ELGS-SM15E	290 Lm	135 Lm	3.6V-1.5Ah Ni-Cd	
ELGS-SM8ST	185 Lm	70 Lm	3.6V-0.8Ah Ni-Cd	Auto Test
ELGS-SM15ST	290 Lm	135 Lm	3.6V-1.5Ah Ni-Cd	
ELGS-SM15-DALI	-	135 Lm	3.6V-1.5Ah Ni-Cd	DALI2
ELGS-SM22MH-DALI	-	290 Lm	3.6V-2.2Ah Ni-MH	

Sign Pads & Accessories	
ELGS-PAD-SET	Sign Pad Set (Up, Down, Right, Left & White pad)
ELGS-PAD-UP	Up side sign pad
ELGS-PAD-DOWN	Down side sign pad
ELGS-PAD-LEFT	Left side sign pad
ELGS-PAD-RIGHT	Right side sign pad
ELGS-PAD-WHITE	White pad
ELGS-PERSPEX-SET	Perspex sign set
ELGS-ANK	Recessed mounting box
ELGS-PRGRID	Protection grid

Elegance Double



Elegance Double

Emergency Exit Signs
Surface Mounted, Double Sided

General Specifications

Application	Escape Sign
Mounting	Direct mounting to wall & ceiling. Recessed mounting is available by accessory
Type	Manual Test, Auto Test, DALI2, Wireless, Central
Operating Mode	Selectable maintained/ non-maintained
Emergency Duration	Selectable 1/3 hours and 3/8 hours
Viewing Distance	24m
Light Source	LED module, 6500K, CRI>80, 12 Led
Battery	Li-FePO4, Ni-Cd, Ni-MH
Warranty	5 years (Li-FePO4 battery 3 years, Ni-Cd/Ni-MH battery 1 year)



Technical Specifications

Supply Voltage	Li-FePO4: 220-240 Volt, 0/50-60 Hz, 0,03A, max 3W Ni-Cd/ Ni-MH: 230 Volt, 50-60 Hz, 0,05A, max 5W
Battery	Li-FePO4: 3.2 Volt , Ni-Cd/ Ni-MH: 3.6 Volt
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp
Insulation	Class II
Protection	IP65
Impact protection	IK07
Temperature	Li-FePO4: ta 0 /+45°C, Ni-Cd/ Ni-MH: ta 5 /+40°C
Terminals	Up to 2x2,5mm ² quick fit terminal
Cable Entry	Breakable entry holes back, rear and top sides
Enclosure	White polycarbonate housing

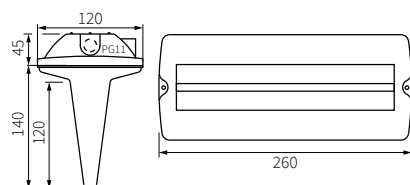
Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Standards

- | | |
|-----------------|---------------------------------------|
| • EN 60598-1 | • EN 61000-3-3 |
| • EN 60598-2-22 | • EN 61547 |
| • EN 62031 | • IEC 62133-2 (related to battery) |
| • EN 62471 | • According to EN 1838 (Application) |
| • EN 62384 | • According to EN 50172 (Application) |
| • EN 55015 | • According to EN 62034 (Auto Test) |
| • EN 61000-3-2 | • According to EN 62386 (DALI) |

Dimensions (mm)



Standard Signs



Ordering Details

Code Li-FePO4 Models	Lumen Output			Battery	Type
	1H	3H	8H		
ELGD-10E	270 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	Manual Test
ELGD-16E	270 Lm	140 Lm	-	3.2V-1.6Ah Li-FePO4	
ELGD-20E	270 Lm	185 Lm	-	3.2V-2.0Ah Li-FePO4	
ELGD-32E	-	270 Lm	100 Lm	3.2V-3.2Ah Li-FePO4	Auto Test
ELGD-10AT	270 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	
ELGD-16AT	270 Lm	140 Lm	-	3.2V-1.6Ah Li-FePO4	
ELGD-20AT	270 Lm	185 Lm	-	3.2V-2.0Ah Li-FePO4	
ELGD-32AT	-	270 Lm	100 Lm	3.2V-3.2Ah Li-FePO4	
ELGD-16DALI	-	140 Lm	-	3.2V-1.6Ah Li-FePO4	DALI2
ELGD-20DALI	-	185 Lm	-	3.2V-2.0Ah Li-FePO4	
ELGD-32DALI	-	270 Lm	-	3.2V-3.2Ah Li-FePO4	
ELGD-16LUM	-	140 Lm	-	3.2V-1.6Ah Li-FePO4	Wireless - Luminula
ELGD-CBE	-	270 Lm	-	-	Central-Eco
ELGD-CBDALI	-	270 Lm	-	-	Central - DALI2

Code Ni-Cd/ Ni-MH Models	Lumen Output		Battery	Type
	1H	3H		
ELGD-SM8E	185 Lm	70 Lm	3.6V-0.8Ah Ni-Cd	Manual Test
ELGD-SM15E	290 Lm	135 Lm	3.6V-1.5Ah Ni-Cd	
ELGD-SM8ST	185 Lm	70 Lm	3.6V-0.8Ah Ni-Cd	Auto Test
ELGD-SM15ST	290 Lm	135 Lm	3.6V-1.5Ah Ni-Cd	
ELGD-SM15-DALI	-	135 Lm	3.6V-1.5Ah Ni-Cd	DALI2
ELGD-SM22MH-DALI	-	290 Lm	3.6V-2.2Ah Ni-MH	

Sign Pads & Accessories	
ELGD-PAD-SET	Sign Pad Set (Up, Down, Right, Left & White pad)
ELGD-PAD-UP	Up side sign pad
ELGD-PAD-DOWN	Down side sign pad
ELGD-PAD-LEFT	Left side sign pad
ELGD-PAD-RIGHT	Right side sign pad
ELGD-ANK	White pad
ELGD-ANK	Recessed mounting box

StarLED



StarLED

Emergency Luminaires & Exit Signs
Surface Mounted, Single Sided

General Specifications

Application	Escape Sign, Anti-Panic Lighting, Escape Route lighting, Hazardous Area Lighting
Mounting	Direct mounting to wall & ceiling, recessed mounting is available by accessory
Type	Manual Test, Auto Test, DALI2, Wireless, Central
Operating Mode	Selectable maintained/ non-maintained
Emergency Duration	Selectable 1/3 hours and 3/8 hours
Viewing Distance	24m
Light Source	LED module, 6500K, CRI>80, Li-FePO4 models 12 Led, Ni-Cd/Ni-MH models 8 Led
Battery	Li-FePO4, Ni-Cd, Ni-MH
Warranty	5 years (Li-FePO4 battery 3 years, Ni-Cd/ Ni-MH battery 1 year)

Technical Specifications

Supply Voltage	Li-FePO4: 220-240 Volt, 0/50-60 Hz, 0,03A, max 3W Ni-Cd/ Ni-MH: 230 Volt, 50-60 Hz, 0,05A, max 5W
Battery	Li-FePO4: 3.2 Volt , Ni-Cd/ Ni-MH: 3.6 Volt
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp
Insulation	Class II
Protection	IP65
Impact protection	IK08
Temperature	Li-FePO4: ta 0 /+45°C, Ni-Cd/ Ni-MH: ta 5 /+40°C
Terminals	Up to 2x2,5mm ² quick fit terminal
Cable Entry	Breakable entry holes back, rear and top sides
Enclosure	White polycarbonate housing

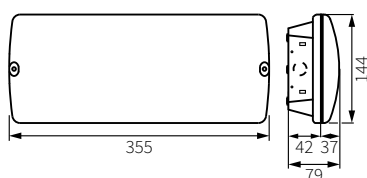
Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Standards

- EN 60598-1
- EN 60598-2-22
- EN 62031
- EN 62471
- EN 62384
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61547
- IEC 62133-2 (related to battery)
- According to EN 1838 (Application)
- According to EN 50172 (Application)
- According to EN 62034 (Auto Test)
- According to EN 62386 (DALI)

Dimensions (mm)



Ordering Details

Code Li-FePO4 Models	Lumen Output			Battery	Type
	1H	3H	8H		
STR-10E	270 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	Manual Test
STR-16E	270 Lm	140 Lm	-	3.2V-1.6Ah Li-FePO4	
STR-20E	270 Lm	185 Lm	-	3.2V-2.0Ah Li-FePO4	
STR-32E	-	270 Lm	100 Lm	3.2V-3.2Ah Li-FePO4	
STR-10ST	270 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	Auto Test
STR-16ST	270 Lm	140 Lm	-	3.2V-1.6Ah Li-FePO4	
STR-20ST	270 Lm	185 Lm	-	3.2V-2.0Ah Li-FePO4	
STR-32ST	-	270 Lm	100 Lm	3.2V-3.2Ah Li-FePO4	DALI2
STR-16DALI	-	140 Lm	-	3.2V-1.6Ah Li-FePO4	
STR-20DALI	-	185 Lm	-	3.2V-2.0Ah Li-FePO4	
STR-32DALI	-	270 Lm	-	3.2V-3.2Ah Li-FePO4	Wireless - Luminula
STR-16LUM	-	140 Lm	-	3.2V-1.6Ah Li-FePO4	
STR-CBE	-	270 Lm	-	-	Central Eco
STR-CBDALI	-	270 Lm	-	-	Central DALI2

Code Ni-Cd/Ni-MH Models	Lumen Output		Battery	Type
	1H	3H		
STR-SM8E	185 Lm	70 Lm	3.6V-0.8Ah Ni-Cd	Manual Test
STR-SM15E	290 Lm	135 Lm	3.6V-1.5Ah Ni-Cd	
STR-SM8ST	185 Lm	70 Lm	3.6V-0.8Ah Ni-Cd	Auto Test
STR-SM15ST	290 Lm	135 Lm	3.6V-1.5Ah Ni-Cd	
STR-SM15-DALI	-	135 Lm	3.6V-1.5Ah Ni-Cd	DALI
STR-SM22MH-DALI	-	290 Lm	3.6V-2.2Ah Ni-MH	

Sign Pads & Accessories	
STR-ETK-SET	Sign Pad Set (Up, Down, Right, Left & White pad)
STR-ETK-UP	Up side sign pad
STR-ETK-DOWN	Down side sign pad
STR-ETK-LEFT	Left side sign pad
STR-ETK-RIGHT	Right side sign pad
STR-ETK-WHITE	White pad
STR-PERSPEX-SET	Perspex sign set
STR-ANK	Recessed mounting box
STR-PRGRID	Protection grid

Multilite



Multilite

Emergency Exit Signs
Surface Mounted, Single & Double Sided

General Specifications

Application	Escape Sign
Mounting	Direct mounting to wall & ceiling. Recessed, suspended and flag mounting are available by accessory
Type	Manual Test, Auto Test, DALI2, Wireless, Central
Operating Mode	Selectable maintained/ non-maintained
Emergency Duration	Selectable 1/3 hours
Viewing Distance	23m & 30m
Light Source	LED module, 6500K, CRI>80, 20 Led
Battery	Li-FePO4, Ni-Cd/ Ni-MH
Warranty	5 years (Li-FePO4 battery 3 years, Ni-Cd/ Ni-MH battery 1 year)

Technical Specifications

Supply Voltage	Li-FePO4: 220-240 Volt, 0/50-60 Hz, 0,03A, max 3W Ni-Cd/ Ni-MH: 230 Volt, 50-60 Hz, 0,05A, max 5W
Battery	Li-FePO4: 3.2 Volt , Ni-Cd/ Ni-MH: 3.6 Volt
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp
Insulation	Class II
Protection	IP40
Impact protection	IK04
Temperature	Li-FePO4: ta 0 /+45°C, Ni-Cd/ Ni-MH: ta 5 /+40°C
Terminals	Up to 2x2,5mm ² quick fit terminal
Cable Entry	Breakable entry holes rear and upper sides
Enclosure	White ASA Blend housing

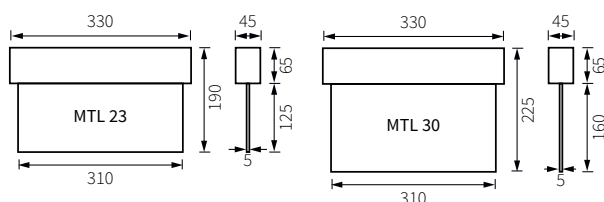
Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Standards

- EN 60598-1
- EN 60598-2-22
- EN 62031
- EN 62471
- EN 62384
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61547
- IEC 62133-2 (related to battery)
- According to EN 1838 (Application)
- According to EN 50172 (Application)
- According to EN 62034 (Auto Test)
- According to EN 62386 (DALI)

Dimensions (mm)



Standard Signs



MTL 23 Series



MTL 30 Series



Ordering Details

Multilite 23 Series (23m Viewing Distance)

Code	Battery	Type	Viewing Distance
MTL23-10E	3.2V-1.0Ah Li-FePO4	Manual Test	23m
MTL23-16E	3.2V-1.6Ah Li-FePO4		
MTL23-20E	3.2V-2.0Ah Li-FePO4		
MTL23-32E	3.2V-3.2Ah Li-FePO4		
MTL-SM23E	3.6V-0.8Ah Ni-Cd	Auto Test	
MTL23-10AT	3.2V-1.0Ah Li-FePO4		
MTL23-16AT	3.2V-1.6Ah Li-FePO4		
MTL23-20AT	3.2V-2.0Ah Li-FePO4		
MTL23-32AT	3.2V-3.2Ah Li-FePO4	DALI2	
MTL-SM23ST	3.6V-0.8Ah Ni-Cd		
MTL23-16DALI	3.2V-1.6Ah Li-FePO4		
MTL23-20DALI	3.2V-2.0Ah Li-FePO4		
MTL23-32DALI	3.2V-3.2Ah Li-FePO4	Wireless - Luminula	
MTL-SM23DALI	3.6V-2.2Ah Ni-MH		
MTL23-16LUM	3.2V-1.6Ah Li-FePO4		
MTL23-CBE	-	Central Eco	
MTL23-CBDALI	-	Central DALI2	

Multilite 30 Series (30m Viewing Distance)

Code	Battery	Type	Viewing Distance
MTL30-10E	3.2V-1.0Ah Li-FePO4	Manual Test	30m
MTL30-16E	3.2V-1.6Ah Li-FePO4		
MTL30-20E	3.2V-2.0Ah Li-FePO4		
MTL30-32E	3.2V-3.2Ah Li-FePO4		
MTL-SM30E	3.6V-0.8Ah Ni-Cd	Auto Test	
MTL30-10AT	3.2V-1.0Ah Li-FePO4		
MTL30-16AT	3.2V-1.6Ah Li-FePO4		
MTL30-20AT	3.2V-2.0Ah Li-FePO4		
MTL30-32AT	3.2V-3.2Ah Li-FePO4	DALI2	
MTL-SM30ST	3.6V-0.8Ah Ni-Cd		
MTL30-16DALI	3.2V-1.6Ah Li-FePO4		
MTL30-20DALI	3.2V-2.0Ah Li-FePO4		
MTL30-32DALI	3.2V-3.2Ah Li-FePO4	Wireless - Luminula	
MTL-SM30DALI	3.6V-2.2Ah Ni-MH		
MTL30-16LUM	3.2V-1.6Ah Li-FePO4		
MTL30-CBE	-	Central Eco	
MTL30-CBDALI	-	Central DALI2	

Sign Pads & Accessories

MTL-REC	Recessed mounting set
MTL-FLAG	Flag mounting set
MTL-SSWR-2M	Suspended type hanging set (2m)
MTL23-SET	Sign set - 23m Viewing distance
MTL23-LFT	Sign pad - 23m, left side
MTL23-RGT	Sign pad - 23m, right side
MTL23-UP	Sign pad - 23m, up side
MTL23-DWN	Sign pad - 23m, down side
MTL23-PAD	Sign pad - 23m, white pad
MTL30-SET	Sign set - 30m Viewing distance
MTL30-LFT	Sign pad - 30m, left side
MTL30-RGT	Sign pad - 30m, right side
MTL30-UP	Sign pad - 30m, up side
MTL30-DWN	Sign pad - 30m, down side
MTL30-PAD	Sign pad - 30m, white pad
MTL-CLP-SET	Mounting clips set

Ultralite



Ultralite Emergency Exit Signs

Surface or Recessed Mounted, Single/Double Sided

General Specifications

Application	Escape Sign
Mounting	Direct mounting to ceiling & wall, suspended, recessed & flag mounting is available by accessories
Type	Manual test, Auto test, DALI, Central
Mode	Maintained
Emergency Duration	3 hours
Viewing Distance	24m, 30m Single or double sided
Light Source	LED module, 10/20 (DALI) mid power leds, 6500K, CRI>80
Battery	3.6 Volt High temperature battery block, Ni-Cd/ Ni-MH (DALI)
Wiring	Flying leads
Power Supply	230 Volt, 50/60Hz
Protection	IP30
Temperature Range	0-35°C
Electrical Class	Class I
Material	Aluminium / Silver

UTLZNC



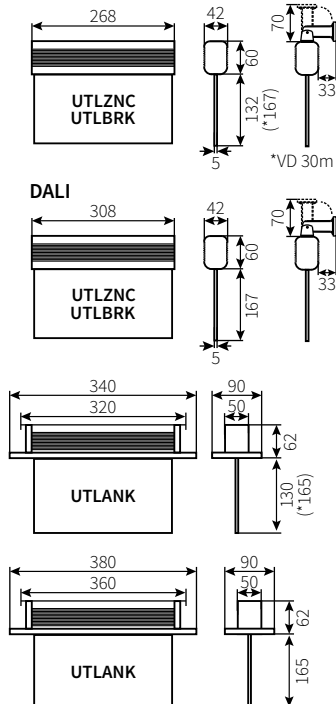
UTLBRK



UTLANK



Dimensions (mm)



Ordering Details

Product Code	Type	Battery	Mounting	LED Module & Viewing Distance
UTLZNC-M310	ECO	Ni-Cd 3.6V-0.8Ah	Chain	10 Led 24m
UTLBRK-M310			Bracket	
UTLANK-M310			Recessed	
UTLZNC-M310-ST	AUTO TEST	Ni-Cd 3.6V-0.8Ah	Chain	
UTLBRK-M310-ST			Bracket	
UTLANK-M310-ST			Recessed	
UTLZNC-M320-DALI	DALI	Ni-Cd 3.6V-0.8Ah	Chain	20 Led 24m
UTLBRK-M320-DALI			Bracket	
UTLANK-M320-DALI			Recessed	
UTLZNC-M320-D (Tridonic)	DALI	Ni-Cd 3.6V-0.8Ah	Chain	
UTLBRK-M320-D (Tridonic)			Bracket	
UTLANK-M320-D (Tridonic)			Recessed	
UTLHZNC-M310	ECO	Ni-Cd 3.6V-0.8Ah	Chain	10 Led 30m
UTLHBRK-M310			Bracket	
UTLHANK-M310			Recessed	
UTLHZNC-M310-ST	AUTO TEST	Ni-Cd 3.6V-0.8Ah	Chain	
UTLHBRK-M310-ST			Bracket	
UTLHANK-M310-ST			Recessed	
UTLHZNC-M320-DALI	DALI	Ni-Cd 3.6V-0.8Ah	Chain	20 Led 30m
UTLHBRK-M320-DALI			Bracket	
UTLHANK-M320-DALI			Recessed	
UTLHZNC-M320-D (Tridonic)	DALI	Ni-Cd 3.6V-0.8Ah	Chain	
UTLHBRK-M320-D (Tridonic)			Bracket	
UTLHANK-M320-D (Tridonic)			Recessed	
UTL-SSWR-2M	Suspended type hanging set (2m)			
UTL24-SET	Sign set - 23m Viewing distance			
UTL-24-LFT	Sign pad - 23m, left side			
UTL-24-RGT	Sign pad - 23m, right side			
UTL-24-UP	Sign pad - 23m, up side			
UTL-24-DWN	Sign pad - 23m, down side			
UTL-24-PAD	Sign pad - 23m, white pad			
UTL30-SET	Sign set - 30m Viewing distance			
UTL-30-LFT	Sign pad - 30m, left side			
UTL-30-RGT	Sign pad - 30m, right side			
UTL-30-UP	Sign pad - 30m, up side			
UTL-30-DWN	Sign pad - 30m, down side			
UTL-30-PAD	Sign pad - 30m, white pad			

Microlite



Microlite

Emergency Exit Signs
Surface Mounted, Single/Double Sided

General Specifications

Application	Escape Sign
Mounting	Direct mounting to wall & ceiling
Version	Auto Test
Mode	Selectable maintained/non-maintained
Emergency Duration	Selectable 1/3 hours
Viewing Distance	30m
Light Source	LED module, 12 mid power leds, 6500K, CRI>80
Battery	Li-FePO4
Warranty	5 years (battery 3 years)



Technical Specifications

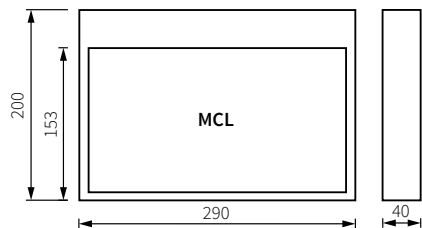
Supply Voltage	230 Volt, 50/60Hz, 0.03A, max 3W
Battery	Li-FePO4: 3.2 Volt, 1.0Ah
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp
Insulation	Class II
Protection	IP30
Temperature	ta 0 /+40°C
Terminals	Up to 2x2,5mm² quick fit terminal
Cable Entry	Two easy breakable entry holes on back & top side
Enclosure	White thermoplastic housing



Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Dimensions (mm)



Ordering Details

CODE	Single or Double Side	Mounting Detail	LED MODULE LUMEN OUTPUT			BATTERY
			MAINS	1H	3H	
MCL1-10AT	Single Sided	Wall & Ceiling	75 Lm	250 Lm	100 Lm	3.2V-1.0Ah Li-FePO4
MCL1-24			250 Lm	-	-	-
MCL1-230			250 Lm	-	-	-
MCL2-10AT	Double Sided	Ceiling	75 Lm	250 Lm	100 Lm	3.2V-1.0Ah Li-FePO4
MCL2-24			250 Lm	-	-	-
MCL2-230			250 Lm	-	-	-

SIGN PADS & ACCESSORIES	
MCL-SSWR-2M	Suspended type hanging set (2m)
MCL-SIGN-SET	Sign set (Up, Down, Left, Right, White)
MCL-LFT	Sign pad, left side
MCL-RGT	Sign pad, right side
MCL-UP	Sign pad, up side
MCL-DWN	Sign pad, down side
MCL-PAD	Sign pad, white pad

Ecosign, Midilite, Maxilite



Ecosign, Midilite, Maxilite

Emergency Exit Signs / Surface Mounted, Single/Double Sided

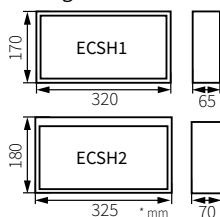
Specifications

Application	Escape Sign
Mounting	Wall, ceiling & suspended
Type	Manual, Auto Test, DALI
Mode	Maintained
Emergency Duration	1, 3 hours
Viewing Distance	Ecosign: 30m. Midilite: 36m. Maxilite: 80m.
	Single & double sided
Light Source	Led Strip, 6500K, CRI>80, Ecosign & Midilite: 216 Lumen
	Maxilite: 432 Lumen
Battery	Ni-Cd, Ni-MH
Wiring	Up to 2x2,5 mm ² quick fit terminal block
Power Supply	230 Volt, 50/60Hz
Protection	IP40, IP65 is available
Temperature Range	0-40°C
Electrical Class	Class I
Material	Powder paint coated steel sheet housing

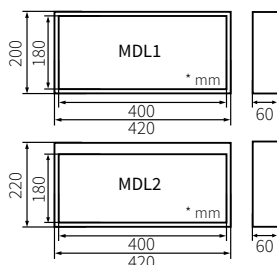


Dimensions (mm)

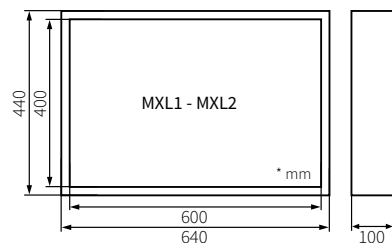
Ecosign



Midilite



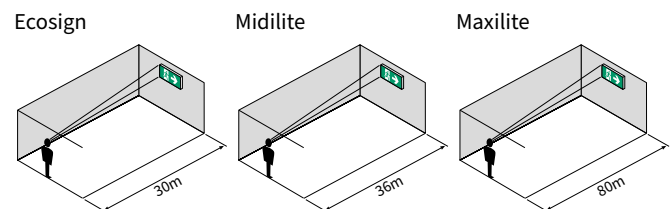
Maxilite



Ordering Details

Product Code			Type	Duration
Ecosign	Midilite	Maxilite		
ECSH1 Series Single Sided	MDL1 Series Single Sided	MXL1 Series Single Sided		
ECSH1LEDS-M218-1H	MDL1LEDS-M218-1H	MXL1LEDS-M418-1H	Standart	1 hour
ECSH1LEDS-M218-3H	MDL1LEDS-M218-3H	MXL1LEDS-M418-3H		3 hours
ECSH1LEDS-M218-1H-ST	MDL1LEDS-M218-1H-ST	MXL1LEDS-M418-1H-ST	Self-Test	1 hour
ECSH1LEDS-M218-3H-ST	MDL1LEDS-M218-3H-ST	MXL1LEDS-M418-3H-ST		3 hours
ECSH1LEDS-M218-3H-DALI	MDL1LEDS-M218-3H-DALI	MXL1LEDS-M418-3H-DALI	DALI	3 hours
ECSH2 Series Double Sided	MDL2 Series Double Sided	MXL2 Series Double Sided	Type	Duration
ECSH2LEDS-M218-1H	MDL2LEDS-M218-1H	MXL2LEDS-M418-1H	Standart	1 hour
ECSH2LEDS-M218-3H	MDL2LEDS-M218-3H	MXL2LEDS-M418-3H		3 hours
ECSH2LEDS-M218-1H-ST	MDL2LEDS-M218-1H-ST	MXL2LEDS-M418-1H-ST	Self-Test	1 hour
ECSH2LEDS-M218-3H-ST	MDL2LEDS-M218-3H-ST	MXL2LEDS-M418-3H-ST		3 hours
ECSH2LEDS-M218-3H-DALI	MDL2LEDS-M218-3H-DALI	MXL2LEDS-M418-3H-DALI	DALI	3 hours

Viewing Distance



Astralite

Emergency Luminaires
Recessed Mount

General Specifications

Application	Anti-Panic Lighting, Escape Route lighting, Hazardous Area Lighting
Mounting	Recessed mount
Type	Manual Test, Self Test, DALI2, Wireless, Central
Operating Mode	Non-maintained
Emergency Duration	Selectable 1/3 hours or 3/8 hours
Light Source	Single power led, 5000-6500K, CRI>70, max 280 Lumen
Lumen Output	Up to 240 Lumen
Battery	Li-FePO4
Warranty	5 years (battery 3 years)

Technical Specifications

Supply Voltage	220-240 Volt, 0/50-60 Hz, 0,03A, max 3W
Battery	3.2 Volt
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp
Insulation	Class II
Protection	IP30
Temperature	ta 0 /+45°C
Terminals	Up to 2x2,5mm ² quick fit terminal
Cable Entry	Front side
Enclosure	White polycarbonate housing

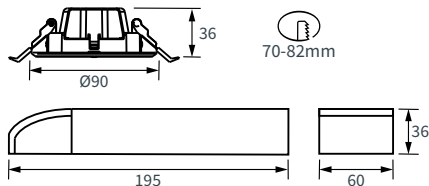
Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Standards

- EN 60598-1
- EN 60598-2-22
- EN 62031
- EN 62471
- EN 62384
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61547
- IEC 62133-2 (related to battery)
- According to EN 1838 (Application)
- According to EN 50172 (Application)
- According to EN 62034 (Auto Test)
- According to EN 62386 (DALI)

Dimensions (mm)



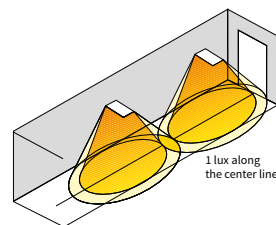
Escape Route Lighting Lens

Open Area (Antipanic) Lighting Lens

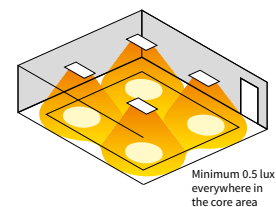
Ordering Details

Code Li-FePO4 Models	Lumen Output			Battery	Type
	1H	3H	8H		
ASL-10E-XX	210 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	Manual Test
ASL-16E-XX	210 Lm	130 Lm	-	3.2V-1.6Ah Li-FePO4	
ASL-20E-XX	210 Lm	175 Lm	-	3.2V-2.0Ah Li-FePO4	
ASL-32E-XX	-	240 Lm	90 Lm	3.2V-3.2Ah Li-FePO4	Auto Test
ASL-10AT-XX	210 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	
ASL-16AT-XX	210 Lm	130 Lm	-	3.2V-1.6Ah Li-FePO4	
ASL-20AT-XX	210 Lm	175 Lm	-	3.2V-2.0Ah Li-FePO4	
ASL-32AT-XX	-	240 Lm	90 Lm	3.2V-3.2Ah Li-FePO4	DALI2
ASL-16DALI-XX	-	130 Lm	-	3.2V-1.6Ah Li-FePO4	
ASL-20DALI-XX	-	175 Lm	-	3.2V-2.0Ah Li-FePO4	
ASL-32DALI-XX	-	240 Lm	-	3.2V-3.2Ah Li-FePO4	Wireless - Luminula
ASL-16LUM-XX	-	130 Lm	-	3.2V-1.6Ah Li-FePO4	
ASL-CBE-XX	-	240 Lm	-	-	Central-Eco
ASL-CBDALI-XX	-	240 Lm	-	-	Central - DALI2

Escape Route Lighting



Antipanic (Open Area) Lighting



ERL



ERL

Emergency Luminaires
Recessed & Surface Mount

General Specifications

Application	Anti-Panic Lighting, Escape Route lighting, Hazardous Area Lighting
Mounting	Surface mount & recessed mount
Type	Manual Test, Self Test, DALI2, Wireless, Central
Operating Mode	Non-maintained
Emergency Duration	Selectable 1/3 hours or 3/8 hours
Light Source	Single power led, 5000-6500K, CRI>70, max 280 Lumen
Lumen Output	Up to 240 Lumen
Battery	Li-FePO4, Ni-Cd, Ni-MH
Warranty	5 years (Li-FePO4 battery 3 years, Ni-Cd/ Ni-MH battery 1 year)



Technical Specifications

Supply Voltage	Li-FePO4: 220-240 Volt, 0/50-60 Hz, 0,03A, max 3W Ni-Cd/ Ni-MH: 230 Volt, 50-60 Hz, 0,03A, max 3W
Battery	Li-FePO4: 3.2 Volt , Ni-Cd/ Ni-MH: 3.6 Volt
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp (AT & DALI models)
Insulation	Class II
Protection	IP30
Temperature	Li-FePO4: ta 0 /+45°C, Ni-Cd/ Ni-MH: ta 5 /+40°C
Terminals	Up to 2x2,5mm ² quick fit terminal
Cable Entry	Top & side
Enclosure	White polycarbonate housing

Ordering Details

Code Li-FePO4 Models	Lumen Output			Battery	Type
	1H	3H	8H		
ERL-10E-XX	210 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	Manual Test
ERL-16E-XX	210 Lm	130 Lm	-	3.2V-1.6Ah Li-FePO4	
ERL-20E-XX	210 Lm	175 Lm	-	3.2V-2.0Ah Li-FePO4	
ERL-32E-XX	-	240 Lm	90 Lm	3.2V-3.8Ah Li-FePO4	
ERL-8E-XX	130 Lm	-	-	3.6V-0.8Ah Ni-Cd	
ERL-15E-XX	-	130 Lm	-	3.6V-1.5Ah Ni-MH	Auto Test
ERL-10AT-XX	210 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	
ERL-16AT-XX	210 Lm	130 Lm	-	3.2V-1.6Ah Li-FePO4	
ERL-20AT-XX	210 Lm	175 Lm	-	3.2V-2.0Ah Li-FePO4	
ERL-32AT-XX	-	240 Lm	90 Lm	3.2V-3.8Ah Li-FePO4	
ERL-8ST-XX	130 Lm	-	-	3.6V-0.8Ah Ni-Cd	DALI2
ERL-15ST-XX	-	130 Lm	-	3.6V-1.5Ah Ni-MH	
ERL-16DALI-XX	-	130 Lm	-	3.2V-1.6Ah Li-FePO4	
ERL-20DALI-XX	-	175 Lm	-	3.2V-2.0Ah Li-FePO4	
ERL-32DALI-XX	-	240 Lm	-	3.2V-3.8Ah Li-FePO4	
ERL-15DALI-XX	-	130 Lm	-	3.6V-1.5Ah Ni-MH	DALI1
ERL-16LUM-XX	-	130 Lm	-	3.2V-1.6Ah Li-FePO4	Wireless - Luminula
ERL-CBE-XX	-	240 Lm	-	-	Central-Eco
ERL-CBDALI-XX	-	240 Lm	-	-	Central - DALI2

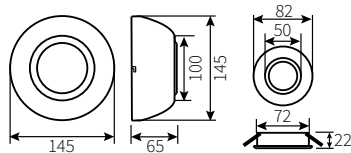
Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

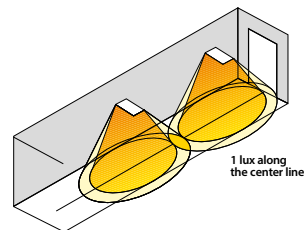
Standards

- EN 60598-1
- EN 60598-2-22
- EN 62031
- EN 62471
- EN 62384
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61547
- IEC 62133-2 (related to battery)
- According to EN 1838 (Application)
- According to EN 50172 (Application)
- According to EN 62034 (Auto Test)
- According to EN 62386 (DALI)

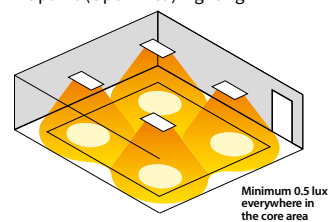
Dimensions (mm)



Escape Route Lighting



Antipanic (Open Area) Lighting



Squarelite



Squarelite

Emergency Luminaires
Surface Mount



General Specifications

Application	Anti-Panic Lighting, Escape Route Lighting, Hazardous Area Lighting
Mounting	Surface mount
Type	Manual Test, Self Test, DALI2, Wireless, Central
Operating Mode	Non-maintained
Emergency Duration	Selectable 1/3 hours or 3/8 hours
Light Source	Single power led, 5000-6500K, CRI>70, max 280 Lumen
Lumen Output	Up to 240 Lumen
Battery	Li-FePO4, Ni-Cd, Ni-MH
Warranty	5 years (Li-FePO4 battery 3 years, Ni-Cd/ Ni-MH battery 1 year)

Technical Specifications

Supply Voltage	Li-FePO4: 220-240 Volt, 0/50-60 Hz, 0,03A, max 3W Ni-Cd/ Ni-MH: 230 Volt, 50-60 Hz, 0,03A, max 3W
Battery	Li-FePO4: 3.2 Volt , Ni-Cd/ Ni-MH: 3.6 Volt
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp (AT & DALI models)
Insulation	Class II
Protection	IP40
Temperature	Li-FePO4: ta 0 /+45°C, Ni-Cd/ Ni-MH: ta 5 /+40°C
Terminals	Up to 2x2,5mm ² quick fit terminal
Cable Entry	Top & side
Enclosure	White polycarbonate housing

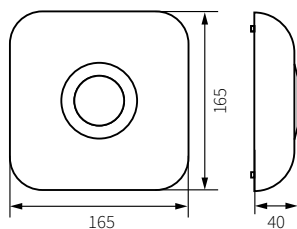
Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Standards

- EN 60598-1
- EN 60598-2-22
- EN 62031
- EN 62471
- EN 62384
- EN 55015
- EN 61000-3-2
- EN 61000-3-3
- EN 61547
- IEC 62133-2 (related to battery)
- According to EN 1838 (Application)
- According to EN 50172 (Application)
- According to EN 62034 (Auto Test)
- According to EN 62386 (DALI)

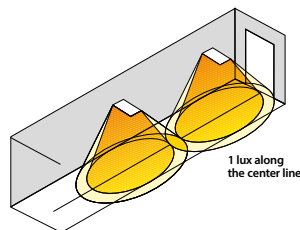
Dimensions (mm)



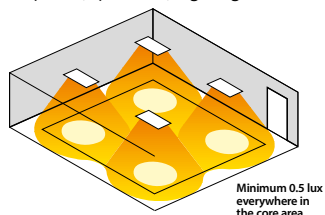
Ordering Details

Code Li-FePO4 Models	Lumen Output			Battery	Type
	1H	3H	8H		
SQL-10E-XX	210 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	Manual Test
SQL-16E-XX	210 Lm	130 Lm	-	3.2V-1.6Ah Li-FePO4	
SQL-20E-XX	210 Lm	175 Lm	-	3.2V-2.0Ah Li-FePO4	
SQL-32E-XX	-	240 Lm	90 Lm	3.2V-3.8Ah Li-FePO4	
SQL-8E-XX	130 Lm	-	-	3.6V-0.8Ah Ni-Cd	
SQL-15E-XX	-	130 Lm	-	3.6V-1.5Ah Ni-Cd	
SQL-22E-XX	-	175 Lm	-	3.6V-2.2Ah Ni-MH	
SQL-10AT-XX	210 Lm	90 Lm	-	3.2V-1.0Ah Li-FePO4	
SQL-16AT-XX	210 Lm	130 Lm	-	3.2V-1.6Ah Li-FePO4	
SQL-20AT-XX	210 Lm	175 Lm	-	3.2V-2.0Ah Li-FePO4	
SQL-32AT-XX	-	240 Lm	90 Lm	3.2V-3.8Ah Li-FePO4	
SQL-8ST-XX	130 Lm	-	-	3.6V-0.8Ah Ni-Cd	
SQL-15ST-XX	-	130 Lm	-	3.6V-1.5Ah Ni-Cd	
SQL-22ST-XX	-	175 Lm	-	3.6V-2.2Ah Ni-MH	
SQL-16DALI-XX	-	130 Lm	-	3.2V-1.6Ah Li-FePO4	DALI2
SQL-20DALI-XX	-	175 Lm	-	3.2V-2.0Ah Li-FePO4	
SQL-32DALI-XX	-	240 Lm	-	3.2V-3.8Ah Li-FePO4	DALI1
SQL-15DALI-XX	-	130 Lm	-	3.6V-1.5Ah Ni-Cd	
SQL-22DALI-XX	-	175 Lm	-	3.6V-2.2Ah Ni-MH	Wireless - Luminula
SQL-16LUM-XX	-	130 Lm	-	3.2V-1.6Ah Li-FePO4	
SQL-CBE-XX	-	240 Lm	-	-	Central Eco
SQL-CBDALI-XX	-	240 Lm	-	-	Central DALI2

Escape Route Lighting



Antipanic (Open Area) Lighting



Superlite



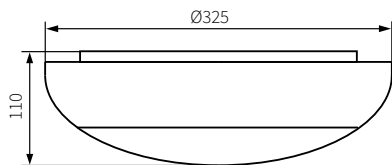
Superlite

Emergency Luminaires
Surface Mounted

General Specifications

Application	Anti-Panic Lighting, Escape Route lighting, Hazardous Area Lighting
Mounting	Direct mounting to wall & ceiling
Version	Manual Test, Self Test, DALI, Central
Mode	Selectable maintained/non-maintained
Emergency Duration	1/3 hours
Light Source	LED module, 6 or 9 mid power leds, 4000K, CRI>80
Battery	Li-FePO4
Wiring	Up to 2x2,5 mm ² quick fit terminal block
Power Supply	230 Volt, 50/60Hz
Protection	IP65
Temperature Range	5-40°C
Electrical Class	Class II (no earth wiring required)
Material	White polycarbonate housing

Dimensions (mm)



Ordering Details

Product Code	Type	Battery	Led Module	Color	Duration & Light Output			
SPL-SM216-1H-3K	SELF-TEST	Li-FePO4 6.4V-1.6Ah -	60 LED	3000K	1h Mains 900 Lumen Emergency 300Lm			
SPL-SM216-1H-4K				4000K				
SPL-SM216-1H-6K				6500K				
SPL-SM216-3H-3K	DALI			Li-FePO4 6.4V-1.6Ah -	60 LED	3000K	3h Mains 900 Lumen Emergency 180Lm	
SPL-SM216-3H-4K						4000K		
SPL-SM216-3H-6K						6500K		
SPL-SM216-3H-3K-DALI	CENTRAL	Li-FePO4 6.4V-1.6Ah -	60 LED			3000K		900 Lumen
SPL-SM216-3H-4K-DALI						4000K		
SPL-SM216-3H-6K-DALI						6500K		
SPL-230-3K	CENTRAL			Li-FePO4 6.4V-1.6Ah -	60 LED	3000K	900 Lumen	
SPL-230-4K						4000K		
SPL-230-6K						6500K		
EML-SEN-RD-LV1	Radar sensor option for SM models, Pls add -R to the product Code							

Novalite



Novalite

Emergency Luminaires
Surface Mounted

General Specifications

Application	Anti-Panic Lighting, Escape Route Lighting, Hazardous Area Lighting
Mounting	Direct mounting to wall & ceiling
Version	Manual Test, Auto Test, DALI, Central
Mode	Selectable maintained/non-maintained
Emergency Duration	1/3 hours
Light Source	72, 144, 180 mid power LED module, 4000K, CRI>80
Battery	Li-FePO4
Wiring	Up to 2x2,5 mm ² quick fit terminal block
Warranty	5 years (battery 3 years)



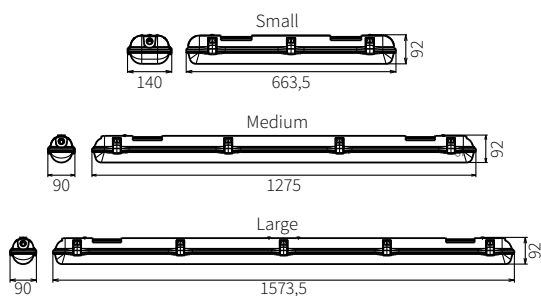
Technical Specifications

Supply Voltage	220-240 Volt, 0/50-60 Hz
Battery	Li-FePO4
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp
Insulation	Class II
Protection	IP40
Impact protection	IK07
Temperature	ta 0 /+45°C
Terminals	Up to 2x2,5mm ² quick fit terminal
Cable Entry	Side and upper sides
Enclosure	Polycarbonate

Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Dimensions (mm)



Ordering Details

Type	Size	Led Module	Mode	Duration	Mains Power	Mains Lumen	Emergency lumen (1H/3H)	Emergency lumen (1H/3H)
NVL-S	Small	72 pcs Mid Power LED	Central	-	14W	1650 Lm	-	-
NVL-S16E			Mains & Emergency	1H /3H	16W		250/ 100 Lm	3.2V-1.6Ah
NVL-S32E							500/200 Lm	3.2V-3.2Ah
NVL-S48E							750/300 Lm	3.2V-4.8Ah
NVL-SDALI							Mains & DALI Emergency	3H
NVL-M	Medium	144 pcs Mid Power LED	Central	-	28W	3400 Lm	-	-
NVL-M16E			Mains & Emergency	1H /3H	32W		250/ 100 Lm	3.2V-1.6Ah
NVL-M32E							500/200 Lm	3.2V-3.2Ah
NVL-M48E							750/300 Lm	3.2V-4.8Ah
NVL-MDALI							Mains & DALI Emergency	3H
NVL-L	Large	180 pcs Mid Power LED	Central	-	35W	4300 Lm	-	-
NVL-L16E			Mains & Emergency	1H /3H 1H /3H	40W		250/ 100 Lm	3.2V-1.6Ah
NVL-L32E							500/200 Lm	3.2V-3.2Ah
NVL-L48E							750/300 Lm	3.2V-4.8Ah
NVL-LDALI							Mains & DALI Emergency	3H

Finelite



Finelite

Emergency Luminaires
Surface Mounted

General Specifications

Application	Anti-Panic Lighting, Escape Route lighting, Hazardous Area Lighting
Mounting	Direct mounting to wall & ceiling
Version	Manual Test, Auto Test, DALI, Central
Mode	Selectable maintained/non-maintained
Emergency Duration	1/3 hours
Light Source	72, 144, 180 mid power LED module, 4000K, CRI>80
Battery	Li-FePO4
Wiring	Up to 2x2,5 mm ² quick fit terminal block
Warranty	5 years (battery 3 years)



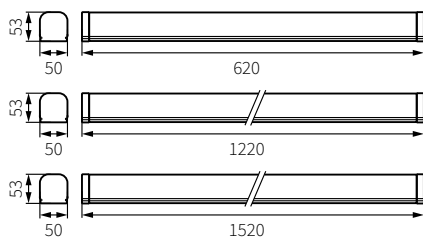
Technical Specifications

Supply Voltage	230 Volt, 50/60Hz
Battery	Li-FePO4: 3.2 Volt
Charger	Smart charger circuit
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp
Insulation	Class II
Protection	IP65
Impact protection	IK08
Temperature	ta 0 /+35°C
Terminals	Up to 2x2,5mm ² quick fit terminal
Cable Entry	Back and sides
Enclosure	Polycarbonate housing

Li-FePO4 Batteries & Management

- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- High/Low temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life

Dimensions (mm)



Ordering Details

Type	Size	Led Module	Mode	Duration	Mains Power	Mains Lumen	Emergency lumen (1H/3H)	Emergency lumen (1H/3H)
FNL-S	Small	72 pcs Mid Power LED	Central	-	14W	1300 Lm	-	-
FNL-S16E			Mains & Emergency	1H /3H	16W		200/ 80 Lm	3.2V-1.6Ah
FNL-S32E							400/160 Lm	3.2V-3.2Ah
FNL-S48E							600/240 Lm	3.2V-4.8Ah
FNL-SDALI							Mains & DALI Emergency	3H
FNL-M	Medium	144 pcs Mid Power LED	Central	-	28W	2700 Lm	-	-
FNL-M16E			Mains & Emergency	1H /3H	32W		200/ 80 Lm	3.2V-1.6Ah
FNL-M32E							400/160 Lm	3.2V-3.2Ah
FNL-M48E							600/240 Lm	3.2V-4.8Ah
FNL-MDALI							Mains & DALI Emergency	3H
FNL-L	Large	180 pcs Mid Power LED	Central	-	35W	3400 Lm	-	-
FNL-L16E			Mains & Emergency	1H /3H 1H /3H	40W		200/ 80 Lm	3.2V-1.6Ah
FNL-L32E							400/160 Lm	3.2V-3.2Ah
FNL-L48E							600/240 Lm	3.2V-4.8Ah
FNL-LDALI							Mains & DALI Emergency	3H

ELULED



ELULED

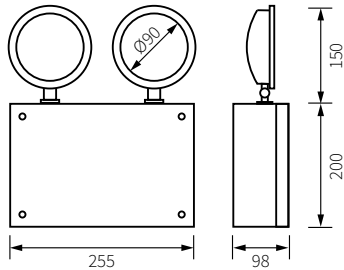
Emergency Luminaires LED Emergency Twinspot

General Specifications

Application	Anti-Panic Lighting, Escape Route lighting, Hazardous Area Lighting
Mounting	Direct mounting to wall & ceiling
Version	Manual Test, Self Test, DALI
Mode	Non-maintained
Emergency Duration	1/3/8 hours
Light Source	2x25 mid power led spot, 4000-6500K, CRI>80
Battery	Ni-Cd, Ni-MH, VRLA (Sealed Lead Acid Battery)
Wiring	Up to 2x2,5 mm ² quick fit terminal block
Power Supply	230 Volt, 50/60Hz
Protection	IP65
Temperature Range	0-45°C, VRLA 0-25°C
Electrical Class	Class II (no earth wiring required)
Material	Thermoplastic housing



Dimensions (mm)



Ordering Details

Code	Type	Duration	Light Output	Battery		
ELULED-345-1H	ECO	1 hour	2 x 515 Lumen	3.6V, 4.5Ah Ni-Cd		
ELULED-445-1H			2 x 685 Lumen	4.8V, 4.5Ah Ni-Cd		
ELULED-645-1H			2 x 765 Lumen	7.2V, 4.5Ah Ni-Cd		
ELULED-345-3H	ECO	3 hours	2 x 220 Lumen	3.6V, 4.5Ah Ni-Cd		
ELULED-445-3H			2 x 300 Lumen	4.8V, 4.5Ah Ni-Cd		
ELULED-645-3H			2 x 430 Lumen	7.2V, 4.5Ah Ni-Cd		
ELULED-1207-3H	ECO	3 hours	2 x 750 Lumen	12V, 7Ah VRLA		
ELULED-645-8H			8 hours	2 x 175 Lumen	7.2V, 4.5Ah Ni-Cd	
ELULED-1207-8H				2 x 280 Lumen	12V, 7Ah VRLA	
ELULED-340-1H-ST	SELF TEST	1 hour	2 x 450 Lumen	3.6V, 4.0Ah Ni-MH		
ELULED-345-1H-ST			2 x 515 Lumen	3.6V, 4.5Ah Ni-Cd		
ELULED-440-1H-ST			2 x 610 Lumen	4.8V, 4.0Ah Ni-MH		
ELULED-445-1H-ST			2 x 685 Lumen	4.8V, 4.5Ah Ni-Cd		
ELULED-645-1H-ST			2 x 765 Lumen	7.2V, 4.5Ah Ni-Cd		
ELULED-340-3H-ST	SELF TEST	3 hours	2 x 200 Lumen	3.6V, 4.0Ah Ni-MH		
ELULED-345-3H-ST			2 x 220 Lumen	3.6V, 4.5Ah Ni-Cd		
ELULED-440-3H-ST			2 x 255 Lumen	4.8V, 4.0Ah Ni-MH		
ELULED-445-3H-ST			2 x 300 Lumen	4.8V, 4.5Ah Ni-Cd		
ELULED-640-3H-ST			2 x 390 Lumen	7.2V, 4.0Ah Ni-MH		
ELULED-645-3H-ST			2 x 430 Lumen	7.2V, 4.5Ah Ni-Cd		
ELULED-1207-3H-ST			2 x 750 Lumen	12V, 7Ah VRLA		
ELULED-340-3H-DALI			DALI	3 hours	2 x 200 Lumen	3.6V, 4.0Ah Ni-MH
ELULED-345-3H-DALI					2 x 220 Lumen	3.6V, 4.5Ah Ni-Cd
ELULED-440-3H-DALI					2 x 255 Lumen	4.8V, 4.0Ah Ni-MH
ELULED-445-3H-DALI	2 x 300 Lumen	4.8V, 4.5Ah Ni-Cd				
ELULED-640-3H-DALI	2 x 390 Lumen	7.2V, 4.0Ah Ni-MH				
ELULED-645-3H-DALI	2 x 430 Lumen	7.2V, 4.5Ah Ni-Cd				
ELULED-1207-3H-DALI	2 x 750 Lumen	12V, 7Ah VRLA				

ECU60 & ECU240



ECU60 & ECU240 Series

Emergency Conversion Kits

General Specifications

- Self contained emergency lighting LED driver for luminaire installation.
- Supplied with Li-FePO4 batteries.
- Slim design 21x30mm cross section.
- Selectable 1/ 3 hours emergency duration.
- Manufactured to comply with EN61347 Series.
- Non-maintained operating mode.
- ECU60 models are suitable for LED modules with the forward voltage of 10-55 Volt.
- ECU240 models are suitable for LED modules with the forward voltage of 50-240 Volt.
- Easy installation.
- 5 years guarantee. (battery 3 years)



Technical Specifications

Rated Supply Voltage	220-240 Volt AC, 50/60 Hz
AC Voltage range	195-265 Volt AC, 50/60 Hz
Power Consumption	max 3W
Output Voltage	ECU60xxx 10-55 Volt DC, ECU240xxx 50-240 Volt DC
Max Output Voltage (U-OUT)	ECU60xxx 60 Volt, ECU240xxx 250 Volt
Output Power	See table
Output Power tolerance	± 10 %
Mains / emergency threshold	According to EN 60598-2-22
Charge / Fault Indicator	Green LED lamp (with 300mm cable) Red LED lamp (battery disconnection)
Emergency Duration	Selectable 1/ 3 hours
Operating Mode	Non-maintained
Insulation Class	Class II (no earth wiring required)
Protection Class	IP20
Ambient Temperature	ta -10 / + 50°C, tc 70°C
Terminals	0.5 to 0.75mm quick fit terminal block
Enclosure	White polycarbonate housing

Ordering Details

Code	Output	Battery	Power Output @1H	Power Output @3H
ECU60-10E	5-55 Volt	3.2V - 1.0Ah	Up to 1.6W	Up to 0.6W
ECU60-16E		3.2V - 1.6Ah	Up to 2.6W	Up to 1.0W
ECU60-32E		3.2V - 3.2Ah	Up to 4.3W	Up to 1.8W
ECU60-38E		3.2V - 3.8Ah	Up to 4.4W	Up to 2.2W
ECU60-48E		3.2V - 4.8Ah	Up to 4.4W	Up to 2.8W
ECU60-64E		3.2V - 6.4Ah	Up to 4.4W	Up to 3.6W
ECU60-76E		3.2V - 7.6Ah	-	Up to 4.4W
ECU240-10E	50-240 Volt	3.2V - 1.0Ah	Up to 1.5W	Up to 0.5W
ECU240-16E		3.2V - 1.6Ah	Up to 2.6W	Up to 1.0W
ECU240-32E		3.2V - 3.2Ah	Up to 4.6W	Up to 1.9W
ECU240-38E		3.2V - 3.8Ah	Up to 4.8W	Up to 2.3W
ECU240-48E		3.2V - 4.8Ah	Up to 4.8W	Up to 3.0W
ECU240-64E		3.2V - 6.4Ah	Up to 4.8W	Up to 3.8W
ECU240-76E		3.2V - 7.6Ah	-	Up to 4.8W

LiFePO4 (Lithium Iron Phosphate) Batteries & Battery Management

- Multi level smart charge system ensures long life.
- Integrated short circuit protection.
- Integrated low temperature protection.
- Integrated high temperature protection.
- Integrated overcharge protection.
- Integrated overdischarge protection.
- Integrated deep discharge protection.
- Polarity reversal protection for battery provided by 3-pole connector.
- Up to 8 year design life.

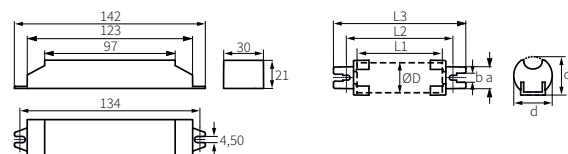
Standards

- EN 61347-1
- EN 61347-2-7
- EN 61347-2-13
- EN 62384
- EN 55015
- EN 61000-3-2
- EN 61547
- According to EN 60598-2-22
- According to EN 1838
- According to EN 50172

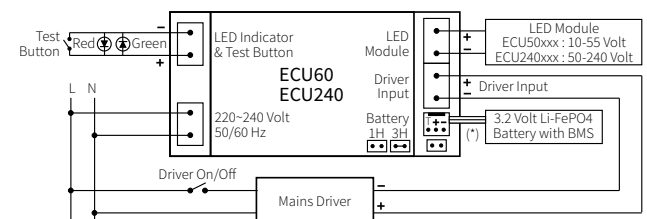
Code	Voltage	Capacity	Configuration	ØD	L1	L2	L3	a	b	c	d
BAT-HT32-1000LFL	3.2 Volt	1.0 Ah	1x18500	19	50	62 ~ 65	80	15	3~4	23	22
BAT-HT32-1600LFL	3.2 Volt	1.6 Ah	1x18650	19	66	78 ~ 81	96	15	3~4	23	22
BAT-HT32-3200LFL	3.2 Volt	3.2 Ah	Parallel 2x18650	19	132	144 ~ 147	162	15	3~4	23	22
BAT-HT32-3800LFL	3.2 Volt	3.8 Ah	1x26650	27	72	86 ~ 89	105	19	4	32	31
BAT-HT32-4800LFL	3.2 Volt	4.8 Ah	Parallel 3x18650	19	198	210 ~ 213	228	15	3~4	23	22
BAT-HT32-6400LFL	3.2 Volt	6.4 Ah	Parallel 4x18650	19	264	276 ~ 279	294	15	3~4	23	22
BAT-HT32-7600LFL	3.2 Volt	7.6 Ah	Parallel 2x26650	27	144	158 ~ 161	177	19	4	32	31

(*) Supplied with 200mm cable connector set

Dimensions (mm)



Wiring



ECU212S



ECU212S Series

Emergency Conversion Kits

General Specifications

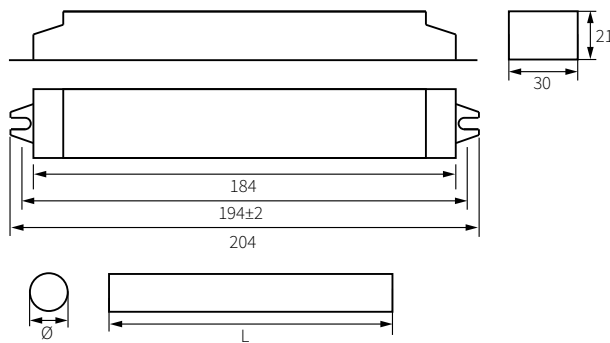
- Emergency Lighting LED driver
- Slim design 21x30mm cross section
- Eco & DALI models
- ECU212S-60 models are suitable for LED modules with the forward voltage of 5-55 Volt
- ECU212S-240 models are suitable for LED modules with the forward voltage of 50-230 Volt
- High temperature Ni-Cd, Ni-MH & Li-FePO4 batteries
- 1 or 3 hours emergency duration
- Non-maintained operating mode
- Class II, no earth wiring required
- Easy installation
- Very long life
- Manufactured to comply with EN61347 Series



Specifications

Supply Voltage	220-240Volt AC, 50/60 Hz
Power Consumption	max 3W
Battery	High Temp Ni-Cd, Ni-MH & Li-FePO4 battery
Charge Circuit	Multi level smart charger
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp (DALI)
Emergency Duration	1 or 3 hours
Output Voltage	5-55 Volt DC & 50-230 Volt DC
Max Output Voltage	U-OUT 60 Volt & 240 Volt
Operating Mode	Non-maintained
Insulation Class	Class II, basic insulation
Protection Class	IP20
Ambient Temperature	ta 0-50°C, ta 0-45°C (DALI models)
Terminals	0.5 to 0.75mm ² quick fit terminal block
Enclosure	White polycarbonate housing

Dimensions (mm)



3.6V-1.5Ah Ni-MH	Ø15x150mm
3.6V-1.5/1.7Ah Ni-Cd	Ø23x130mm
3.6V-4.0Ah Ni-MH	Ø18x210mm
3.6V-4.5Ah Ni-Cd	Ø33x180mm
6.4V-1.6Ah Li-FePO4	Ø18x132mm
6.4V-3.8Ah Li-FePO4	Ø26x132mm

Ordering Details

ECU212S Eco Series

Code	Output	Battery		Duration	Ouptut Power	
		Type	Volt-Ah			
ECU212S-60-216	5-55V	Li-FePO4	6.4V-1.6Ah	3H	1,65W	
ECU212S-60-216-1H				1H	4,10W	
ECU212S-60-416			2 x 6.4V-1.6Ah	3H	3,25W	
ECU212S-60-416-1H				1H	4,50W	
ECU212S-60-238			6.4V-3.8Ah	3H	3,85W	
ECU212S-60-238-1H				1H	4,50W	
ECU212S-60-315		Ni-Cd	3.6V-1.7Ah	3H	1,00W	
ECU212S-60-315-1H				1H	2,40W	
ECU212S-60-340		Ni-MH	3.6-4.0Ah	3H	2,25W	
ECU212S-60-340-1H				1H	4,50W	
ECU212S-240-216		50-240V	Li-FePO4	6.4V-1.6Ah	3H	1,65W
ECU212S-240-216-1H					1H	4,10W
ECU212S-240-416	2 x 6.4V-1.6Ah			3H	3,25W	
ECU212S-240-416-1H				1H	4,50W	
ECU212S-240-238	6.4V-3.8Ah			3H	3,85W	
ECU212S-240-238-1H				1H	4,50W	
ECU212S-240-315	Ni-Cd		3.6V-1.7Ah	3H	1,00W	
ECU212S-240-315-1H				1H	2,40W	
ECU212S-240-340	Ni-MH		3.6-4.0Ah	3H	2,25W	
ECU212S-240-340-1H				1H	4,50W	

ECU212S DALI 3H Series

Code	Output	Battery		Ouptut Power	
		Type	Volt-Ah		
ECU212S-60-216-DALI	5-55V	Li-FePO4	6.4V-1.6Ah	1,65W	
ECU212S-60-416-DALI			2 x 6.4V-1.6Ah	3,25W	
ECU212S-60-238-DALI			6.4V-3.8Ah	3,85W	
ECU212S-60-315-DALI		Ni-Cd	3.6V-1.7Ah	1,00W	
ECU212S-60-340-DALI			Ni-MH	3.6V-4.0Ah	2,25W
ECU212S-240-216-DALI				50-240V	Li-FePO4
ECU212S-240-416-DALI	2 x 6.4V-1.6Ah	3,25W			
ECU212S-240-238-DALI	6.4V-3.8Ah	3,85W			
ECU212S-240-315-DALI	Ni-Cd	3.6V-1.7Ah	1,00W		
ECU212S-240-340-DALI		Ni-MH	3.6V-4.0Ah		2,25W

DALI Test Feature

- Automatic Function Test: Weekly, 60 seconds
- Automatic Duration Test: Yearly, 3 hours
- If required press TEST button min 1 second to start the Functional Test manually.
- Normal condition, test mode, battery & lamp faults also can be monitored from local bi-color LED indicator.
- If DALI wiring is not connected the kit will automatically switch to "Auto-Test" mode.

ECULED212



ECULED212 For LED Luminaires/ LED Modules

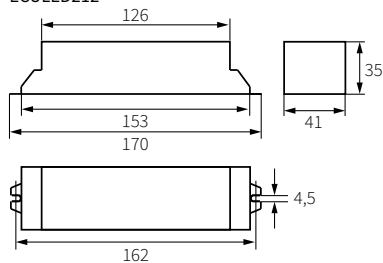
Specifications

Input	230 Volt AC, 50/60 Hz, max 0,025A
Power Consumption	max 5VA
Operating Mode	Non-maintained
Function	Standard & Self Test (XX-ST models)
Luminaire	LED light source
Battery	High Temp Ni-Cd batteries
Emergency Duration	1 or 3 hours
Charge Indicator	Green LED lamp
Fault Indicator	Red LED lamp (Self Test models)
Output Voltage	Refer to table below
Insulation Class	Class II (no earth wiring required)
Protection Class	IP20
Temperature	ta 0-45°C
Terminals	0.2 to 1.5mm ² quick fit terminal block
Enclosure	White thermoplastic housing

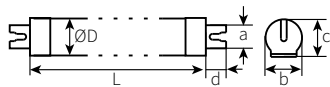
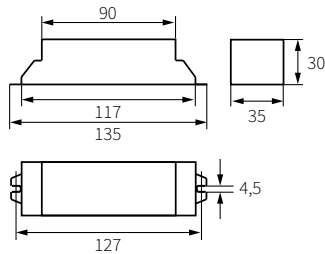


Dimensions (mm)

ECULED212



ECULED212F



Battery	ØDxL	a	b	c	d
3.6V - 0.8Ah	15x150	12	18	16	6
3.6V - 1.7Ah	23x130	17	27	27	14
3.6V - 3.0Ah	26x150	19	30	30	8
3.6V - 3.5Ah	26x180	19	30	30	8
3.6V - 4.5Ah	33x190	25	37	37	16
4.8V - 1.7Ah	23x170	17	27	27	14
4.8V - 4.5Ah	33x240	25	37	37	16
6.0V - 1.7Ah	23x220	17	27	27	14
6.0V - 4.5Ah	33x290	25	37	37	16

(*) Special type & configurations are available

Ordering Details

ECU212F Series

Code	Output	Type	Battery		Duration	Ouput Power
			Type	Volt-Ah		
ECULED212-65F-1H	5-55V	ECO	Ni-Cd	3.6V-0.8Ah	1H	1,00W
ECULED212-65F-3H				3.6V-1.7Ah	3H	1,00W
ECULED212-65HF-1H				3.6V-1.7Ah	1H	2,40W
ECULED212-65HF-3H				3.6V-4.5Ah	3H	2,50W
ECULED212-65UF-1H				4.8V-1.7Ah	1H	3,25W
ECULED212-65UF-3H				4.8V-4.5Ah	3H	3,40W
ECULED212-120F-1H	60-120V	ECO	Ni-Cd	4.8V-0.8Ah	1H	1,50W
ECULED212-120F-3H				4.8V-1.7Ah	3H	3,25W
ECULED212-120HF-1H				4.8V-1.7Ah	1H	1,30W
ECULED212-120HF-3H				4.8V-4.5Ah	3H	3,40W

ECU212 Series

Code	Output	Type	Battery		Duration	Ouput Power
			Type	Volt-Ah		
ECULED212-65E-1H	5-55V	ECO	Ni-Cd	3.6V-0.8Ah	1H	1,00W
ECULED212-65E-3H				3.6V-1.7Ah	3H	1,00W
ECULED212-65-1H				3.6V-1.7Ah	1H	2,40W
ECULED212-65-3H				3.6V-3.0Ah	3H	1,70W
ECULED212-65-ST-1H			SELF TEST	Ni-Cd Ni-MH	4.8V-1.7Ah	1H
ECULED212-65-ST-3H	4.8V-3.0Ah	3H			2,25W	

ECULED12

ECULED24



ECULED12 & ECULED24

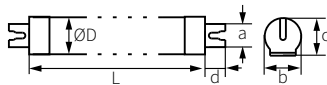
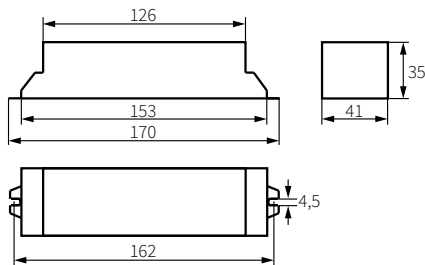
For Voltage Driven LED Luminaires/LED Modules

Specifications

Input	230 Volt AC, 50/60 Hz, max 0,025A
Power Consumption	max 5VA
Operating Mode	Non-maintained
Luminaire	LED light source
Battery	High Temp Ni-Cd, Ni-MH & VRLA batteries
Emergency Duration	1 or 3 hours
Charge Indicator	Green LED lamp
Output Power	Refer to table below
Insulation Class	Class II (no earth wiring required)
Protection Class	IP20
Temperature	ta 0-45°C
Terminals	0.2 to 1.5mm ² quick fit terminal block
Enclosure	White thermoplastic housing



Dimensions (mm)



Battery	ØDxL	a	b	c	d	VRLA Battery	Size
6.0V - 1.7Ah	23x200	17	27	27	14	12V - 4Ah	70 x 90 x 100
6.0V - 4.5Ah	33x290	25	37	37	16	12V - 7Ah	150 x 100 x 70

(*) Special type & configurations are available

Ordering Details

Code	Lamp	Max Power & Duration	Battery
ECULED12-17VR	12 Volt	33W 1 hour, 14W 3 hours	VRLA / 1x12V-7Ah
ECULED12-27VR		67W 1 hour, 28W 3 hours	VRLA / 2x12V-7Ah; Parallel
ECULED12-17NC		12W 1 hour, 5W 3 hours	Ni-Cd / 2x6V-1.7Ah; Serial
ECULED12-45NC		32W 1 hour, 13W 3 hours	Ni-Cd / 2x6V-4.5Ah; Serial
ECULED24-27VR	24 Volt	67W 1 hour, 28W 3 hours	VRLA / 2x12V-7Ah; Serial
ECULED24-17NC		25W 1 hour, 10W 3 hours	Ni-Cd / 4x6V-1.7Ah; Serial
ECULED24-45NC		65W 1 hour, 27W 3 hours	Ni-Cd / 4x6V-4.5Ah; Serial

(*) Special requests are available

ECULEDAC



ECULEDAC

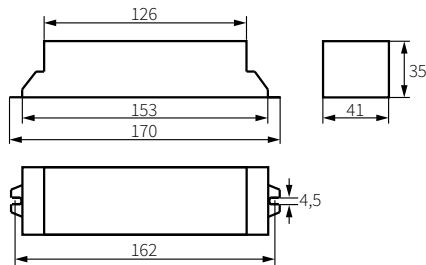
For Retrofit Lamps (T5, T8 LED Tube & GU10, E27 type lamps)

General Specifications

System Mode	Non-maintained), maintained or switchable maintained
Input Voltage	230 Volt AC, 50/60Hz
Emergency Duration	1 or 3 hours
LED Output	Current & Voltage controlled, min 80% efficiency,
LED Lamp	Refer to the table below
Battery	Refer to the table below
Charging Unit	Current & Voltage controlled charger
Battery Protection	Overcharge and deep discharge protection
Charge Duration	24/48 hours
Charge Indicator	Green LED lamp
Isolation Class	Class II (No earth wiring required)
Temperature	0 - 40°C
Humidity	% 20 - 90 RH (RH)
Enclosure	White thermoplastic housing
Color	White



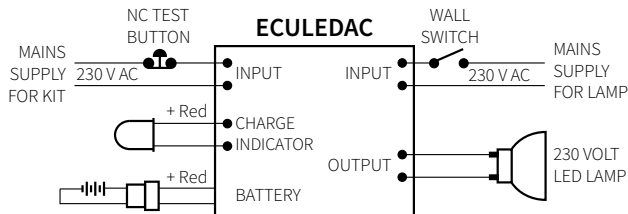
Dimensions (mm)



Ordering Details

Product Code	NI-CD Battery Group		Max. Lamp Power with Emergency Duration		
	Voltage ve Capacity	Dimensions (mm)	1 Hour	2 Hours	3 Hours
ECULEDAC-4817	4.8 Volt, 1.7Ah Ni-Cd	Ø 23 X 170	4W		
ECULEDAC-4845	4.8 Volt, 4.5Ah Ni-Cd	Ø 33 X 240	11W	6W	4W
ECULEDAC-6017	6.0 Volt, 1.7Ah Ni-Cd	Ø 23 X 220	5W		
ECULEDAC-6045	6.0 Volt, 4.5Ah Ni-Cd	Ø 33 X 300	14W	7W	5W
ECULEDAC-7217	7.2 Volt, 1.7Ah Ni-Cd	2 pcs Ø 23 X 130	6W		
ECULEDAC-7235	7.2 Volt, 3.5Ah Ni-Cd	2 pcs Ø 26 X 180	13W	7W	5W
ECULEDAC-7245	7.2 Volt, 4.5Ah Ni-Cd	2 pcs Ø 33 X 180	16W	9W	7W
ECULEDAC-9617	9.6 Volt, 1.7Ah Ni-Cd	2 pcs Ø 23 X 170	8W		
ECULEDAC-9645	9.6 Volt, 4.5Ah Ni-Cd	2 pcs Ø 33 X 240	22W	12W	9W
ECULEDAC-12017	12 Volt, 1.7Ah Ni-Cd	2 pcs Ø 23 X 220	10W		
ECULEDAC-12045	12 Volt, 4.5Ah Ni-Cd	2 pcs Ø 33 X 300	28W	15W	11W
ECULEDAC-14445	14.4 Volt, 4.5Ah Ni-Cd	2 pcs Ø 33 X 360	33W	18W	14W

Wiring



ELD



ELD Emergency LED Drivers For LED Luminaires

General Specifications

- Self contained emergency lighting LED Drivers
- For luminaire installation
- For single power Led or parallel configured LED modules
- Eco, Auto-Test, DALI and closed protocol remote monitoring models
- Selectable non-maintained and maintained operation
- Switched live for switching the LED output
- Selectable emergency duration
- Nominal lifetime up to 100.000 h @ 40°C
- 5 years guarantee

Technical Specifications

Rated Supply Voltage: 220-240 Volt, 0/50-60 Hz

Charge Circuit: Smart charger circuit for Li-FePO4 battery

Charge Indicator: Green LED lamp

Fault Indicator: Red LED lamp

Emergency Duration: 1 or 3 hours

Operating Mode: Selectable Maintained / Non-maintained

Forward Voltage: 2.7 - 3.6 Volt

Max open circuit voltage: U-OUT 10 Volt (SELV)

Insulation Class: Class II

Protection Class: IP20

Temperature: ta -10/+45°C, tc 65°C

Terminals: 0.5 to 0,75mm² quick fit terminal block

Enclosure: White polycarbonate housing

Batteries & Management

- LiFePO4 batteries
- Smart charge circuit
- Overcharge/ overdischarge protection
- Short/ open circuit protection
- Deep discharge protection
- Temperature protection
- Polarity reversal protection by connector
- Up to 10 year design life
- 3 years guarantee

Standards

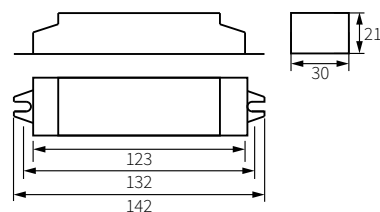
- EN 61347-1 (LVD)
- EN 61347-2-7 (LVD)
- EN 61347-2-13 (LVD)
- EN 62384 (Performance)
- EN 55015 (EMC)
- EN 61000-3-2 (EMC)
- EN 61000-3-3 (EMC)
- EN 61547 (EMC)
- According to EN 1838 (Emergency Lighting Application)
- According to EN 50172 (Emergency Lighting Application)
- According to EN 60598-2-22 (Luminaire)
- According to EN 62034 (Automatic Test)
- According to EN 62386 (DALI-2)



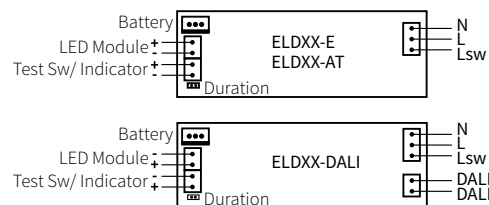
Ordering Details

Code	Type	Li-FePO4 Battery	Emergency Duration & Output Currents		
			1H	3H	8H
ELD10-E	Eco	3.2V - 1.0Ah	650mA	220 mA	-
ELD16-E		3.2V - 1.6Ah	650 mA	350mA	-
ELD20-E		3.2V - 2.0Ah	650 mA	450 mA	-
ELD32-E		3.2V - 3.2Ah	-	650 mA	250 mA
ELD10-AT	Auto-Test	3.2V - 1.0Ah	650mA	220 mA	-
ELD16-AT		3.2V - 1.6Ah	650 mA	350mA	-
ELD20-AT		3.2V - 2.0Ah	650 mA	450 mA	-
ELD32-AT		3.2V - 3.2Ah	-	650 mA	250 mA
ELD10-DALI	DALI-2	3.2V - 1.0Ah	650mA	220 mA	-
ELD16-DALI		3.2V - 1.6Ah	650 mA	350mA	-
ELD20-DALI		3.2V - 2.0Ah	650 mA	450 mA	-
ELD32-DALI		3.2V - 3.2Ah	-	650 mA	250 mA
ELD10-RM	Remote Monitoring	3.2V - 1.0Ah	650mA	220 mA	-
ELD16-RM		3.2V - 1.6Ah	650 mA	350mA	-
ELD20-RM		3.2V - 2.0Ah	650 mA	450 mA	-
ELD32-RM		3.2V - 3.2Ah	-	650 mA	250 mA

Dimensions (mm)



Wiring



Ni-Cd, Ni-MH & LiFePO4



Ni-Cd, Ni-MH & LiFePO4

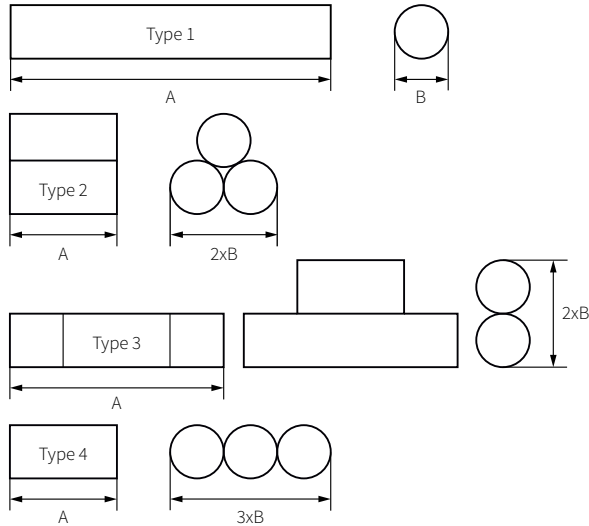
Batteries for Emergency Lighting

General Specifications

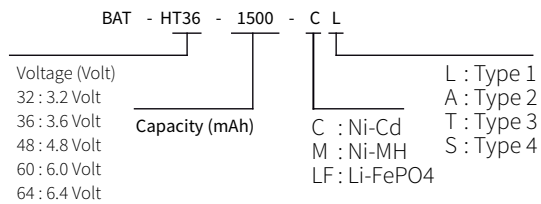
- High temperature sealed type battery packs
- Ni-Cd, Ni-MH and Li-FePO4 models
- Integrated male/female connector set
- High temperature operation
- Color : White



Type & Dimensions (mm)



Code Description



Ordering Details

Code	Technology	Voltage	Capacity	Type	A (mm)	B (mm)
BAT-HT32-1000LFL	Li-FePO4	3.2 Volt	1,000 mAh	1	50	19
BAT-HT32-1600LFL	Li-FePO4	3.2 Volt	1,600 mAh	1	66	19
BAT-HT32-2000LFL	Li-FePO4	3.2 Volt	2,000 mAh	1	66	19
BAT-HT32-3200LFL	Li-FePO4	3.2 Volt	3,200 mAh	1	132	19
BAT-HT32-3800LFL	Li-FePO4	3.2 Volt	3,800 mAh	1	72	27
BAT-HT32-4800LFL	Li-FePO4	3.2 Volt	4,800 mAh	1	198	19
BAT-HT32-6400LFL	Li-FePO4	3.2 Volt	6,400 mAh	1	264	19
BAT-HT32-7600LFL	Li-FePO4	3.2 Volt	7,600 mAh	1	144	27
BAT-HT64-1600LFL	Li-FePO4	6.4 Volt	1,600 mAh	1	135	19
BAT-HT64-3800LFL	Li-FePO4	6.4 Volt	3,800 mAh	1	150	27
BAT-HT36-300ML	Ni-MH	3.6 Volt	300 mAh	1	90	15
BAT-HT36-650ML	Ni-MH	3.6 Volt	650 mAh	1	90	17
BAT-HT36-1500ML	Ni-MH	3.6 Volt	1,500 mAh	1	90	15
BAT-HT36-1500MA	Ni-MH	3.6 Volt	1,500 mAh	1	150	15
BAT-HT36-1500MT	Ni-MH	3.6 Volt	1,500 mAh	2	102	15
BAT-HT36-2200ML	Ni-MH	3.6 Volt	2,200 mAh	3	130	23
BAT-HT36-2200MS	Ni-MH	3.6 Volt	2,200 mAh	4	70	44
BAT-HT36-4000ML	Ni-MH	3.6 Volt	4,000 mAh	1	215	19
BAT-HT36-800CL	Ni-Cd	3.6 Volt	800 mAh	1	150	15
BAT-HT36-800CS	Ni-Cd	3.6 Volt	800 mAh	4	50	15
BAT-HT36-1200CL	Ni-Cd	3.6 Volt	1,200 mAh	1	130	17
BAT-HT36-1500CL	Ni-Cd	3.6 Volt	1,500 mAh	1	130	23
BAT-HT36-1500CT	Ni-Cd	3.6 Volt	1,500 mAh	3	50	23
BAT-HT36-1700CL	Ni-Cd?	3.6 Volt	1,700 mAh	1	130	23
BAT-HT36-2500CL	Ni-Cd	3.6 Volt	2,500 mAh	1	147	26
BAT-HT36-3000CL	Ni-Cd	3.6 Volt	3,000 mAh	1	147	26
BAT-HT36-3500CL	Ni-Cd	3.6 Volt	3,500 mAh	1	210	18
BAT-HT36-4500CL	Ni-Cd	3.6 Volt	4,500 mAh	1	180	33
BAT-HT48-1700CL	Ni-Cd	4.8 Volt	1,700 mAh	1	170	23
BAT-HT48-4500CL	Ni-Cd	4.8 Volt	4,500 mAh	1	240	33
BAT-HT60-1700CL	Ni-Cd	6.0 Volt	1,700 mAh	1	220	23

References

ISTANBUL AIRPORT



ISTANBUL ATATURK AIRPORT



SABIHA GOKCEN AIRPORT



ACIBADEM ALTUNIZADE HOSPITALS, ISTANBUL



KING FAISAL HOSPITAL, RIYADH



ABUJA HILTON HOTELS, NIGERIA



THE MARMARA HOTEL, ISTANBUL



HYATT REGENCY ISTANBUL ATAKOY



VOYAGE HOTEL, BELEK



CONRAD HOTEL, ISTANBUL



WHITE CITY HOTEL, BAKU



BOULEVARD HOTEL, BAKU



SHERATON BATUMI HOTEL



FOUR SEASONS HOTELS BAKU



RAFFLES HOTEL, ISTANBUL



MASLAK 42 TOWER, ISTANBUL



References

SKYLAND, ISTANBUL



FLAME TOWERS, BAKU



TRUMP TOWERS, ISTANBUL



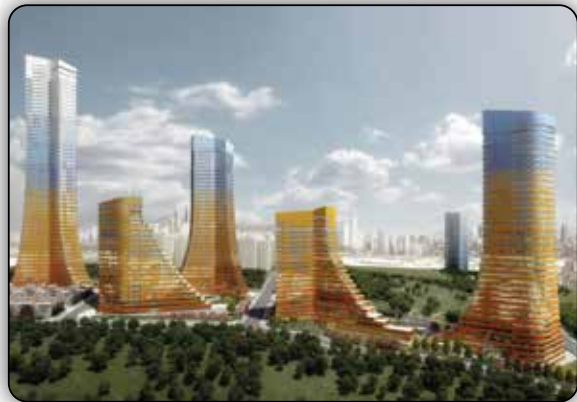
PORT BAKU TOWERS



TALAN TOWERS, ASTANA



VARYAP MERIDIAN RESIDENCES, ISTANBUL



HAYDAR ALIYEV CULTUREL CENTER, BAKU



FINANSBANK TOWERS, ISTANBUL



NIDA TOWERS, ISTANBUL



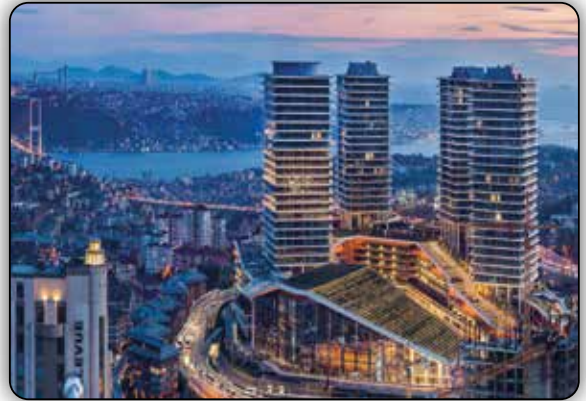
TEKFEN TOWER, ISTANBUL



MALL OF ISTANBUL



ZORLU CENTER, ISTANBUL



LEVENT 199 TOWER, ISTANBUL



NUROL LIFE TOWER, ISTANBUL



QUASAR RESIDENCES, ISTANBUL



AVENUE MALL, BAHRAIN



References

ISTINYE SHOPPING MALL, ISTANBUL



TEPE NAUTILIUS SHOPPING MALL, ISTANBUL



OPTIMUM SHOPPING MALLS, ISTANBUL



MARMARA PARK SHOPPING MALL, ISTANBUL



LIDL MARKETS



TOYOTA MOTOR MANUFACTURING TURKEY



VESTEL CITY, MANISA



MERCEDES BUS FACTORY, ISTANBUL



KUEHNE + NAGEL, GEBZE



BESIKTAS VODAFONE PARK, ISTANBUL



NATIONAL GYMNASIUM ARENA, BAKU



MARMARAY STATIONS, ISTANBUL



HIGH SPEED RAIL TERMINAL, ANKARA



ROAD TUNNELS



CAMLICA MOSQUE, ISTANBUL



GRAND MOSQUE, ALGERIA



References

PARK INN BY RADISSIN AMSTERDAM CITY WEST



VOYAGES HOTEL BODRUM



HILLTOWN SHOPPING MALL IZMIR



RADISSON BLU GUDAURI



LE MERIDIEN HOTEL BATUMI



HILTON MASLAK



HILTON BATUMI



DOUBLETREE BY HILTON HOTEL ISTANBUL - PİYALEPAŞA



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