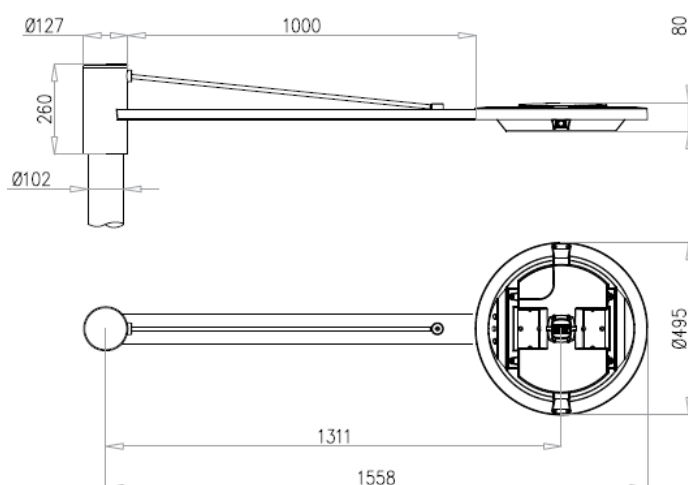
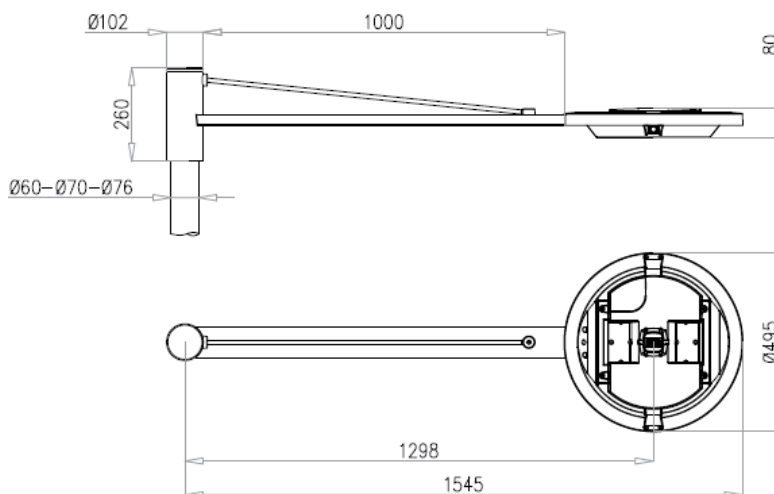
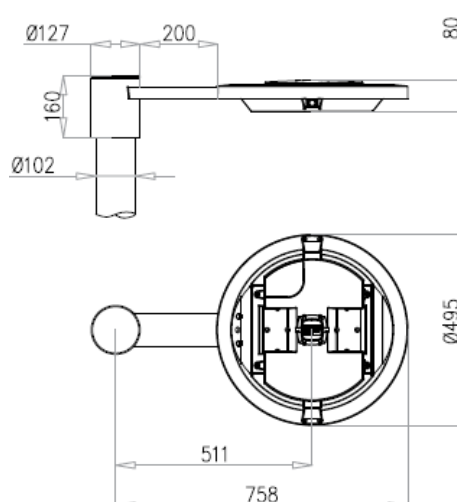
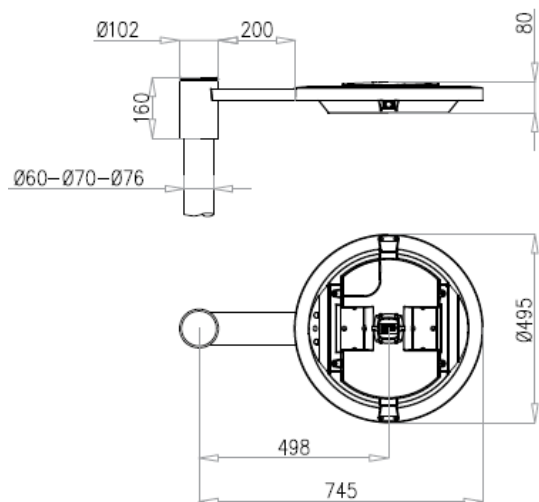


## Ecorays MBT

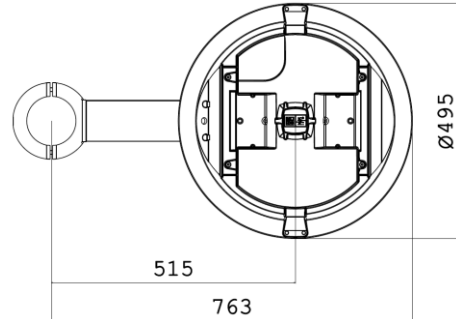
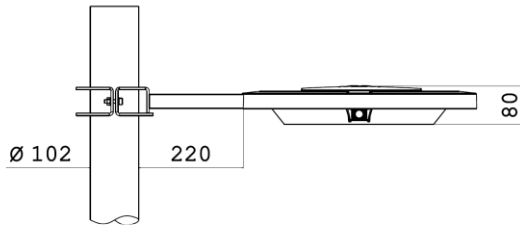


MBT 1.02

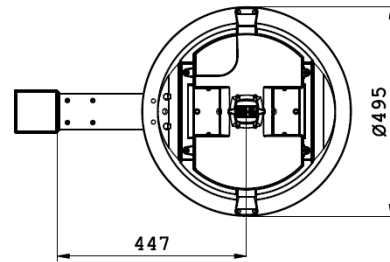
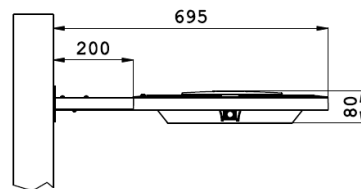
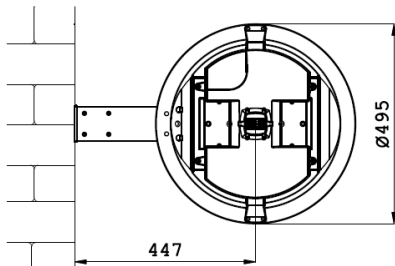
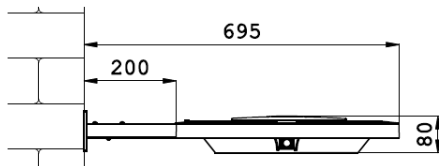
MBT 1.10

Ecorays BR

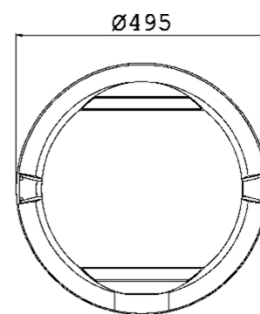
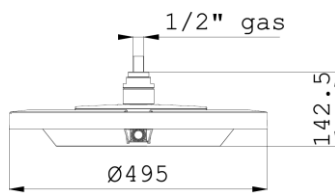
### Ecorays MBC



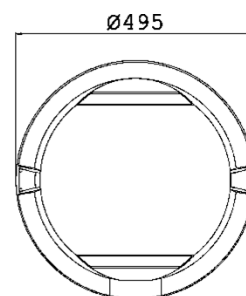
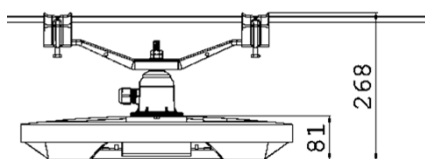
### Ecorays MBM



### Ecorays S



### Ecorays TS

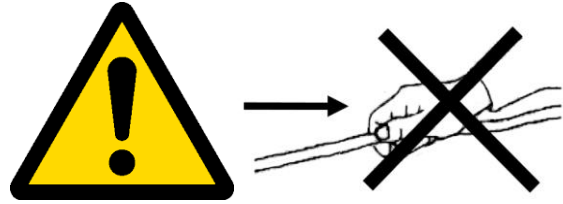


Ecorays BR

			Ecorays				
			S TS	MBT 1.02	MBT 1.10	MBC	MBM
SUPERFICIE LATERALE	SIDE AREA	WINDANGRIFFSFLÄCHE (SEITE)	0.070m <sup>2</sup>	0.077m <sup>2</sup>	0.100m <sup>2</sup>	0.077m <sup>2</sup>	0.077m <sup>2</sup>
SUPERFICIE DI BASE	BASE AREA	WINTANGRIFFSFLÄCHE (OBEN)	0.170m <sup>2</sup>	0.190m <sup>2</sup>	0.250m <sup>2</sup>	0.190m <sup>2</sup>	0.190m <sup>2</sup>
PESO (Max)	WEIGHT (Max)	GEWICHT (Max)	7.0kg	8.0kg	11.0kg	7.5kg	7.0kg
COEFFICIENTE DI FORMA	FORM FACTOR	FORM FACTOR	1.2				
ALTEZZA DI INSTALLAZIONE	HEIGHT OF INSTALLATION	MONTAGEHÖHE	≤15m				
TA USO	TA USE	TA ANWENDUNGSBEREICH	50°C Outdoor				
			Ecorays		Ecorays Basic		
IEC/EN 62471			EXEMPT GROUP				
IEC/TR 62778 - RG1-RG2 (C-Max):			RG1 unlimited ÷ 3.56m*		RG1 unlimited ÷ 2.21m*		
IEC/TR 62778 - RG1-RG2 (C-90):			RG1 unlimited ÷ 1.80m*		RG1 unlimited ÷ 1.51m*		

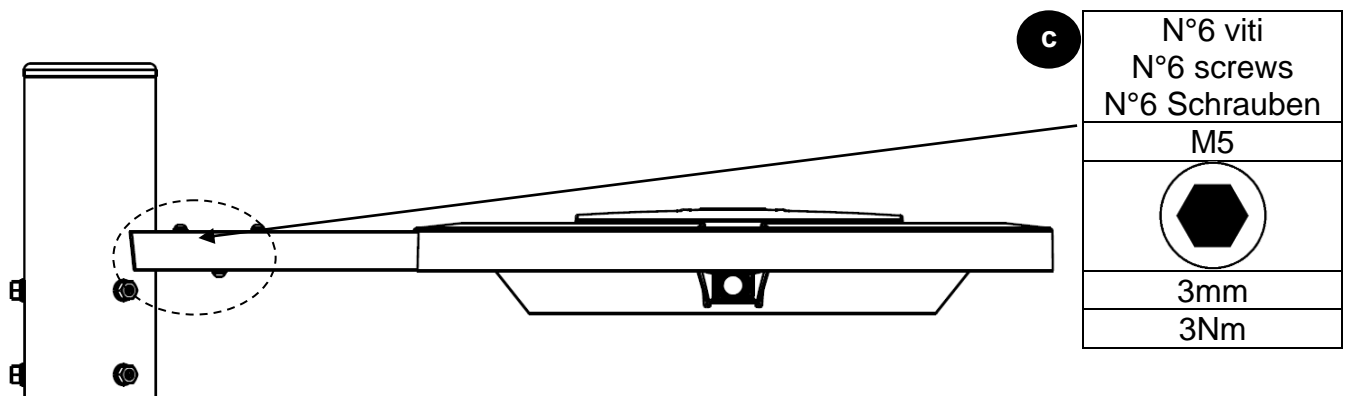
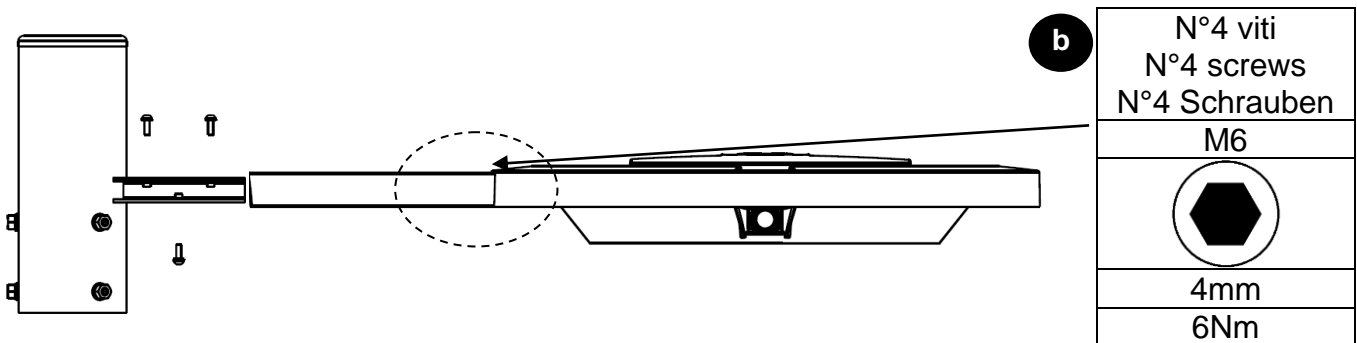
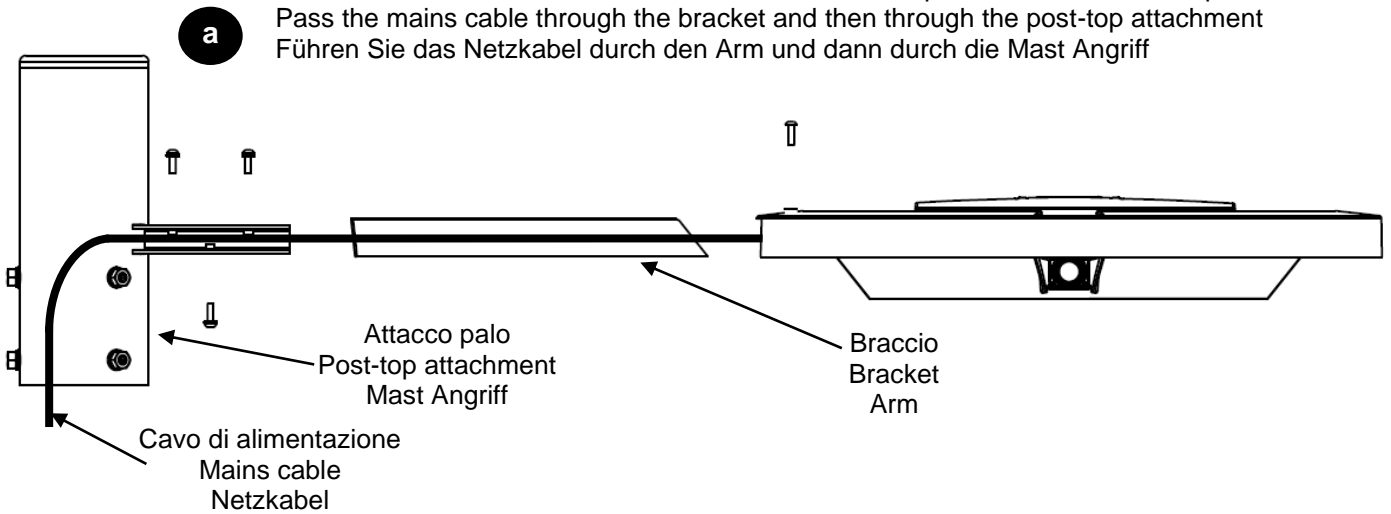
- \* In funzione della potenza e dal tipo di apparecchio
- \* According to the wattage and the type of the luminaire
- \* In Abhängigkeit zur Systemleistung und Variante


Non stratonare i cavi elettrici  
 Don't pull the electrical wire  
 ACHTUNG - Nicht am Kabel ziehen!

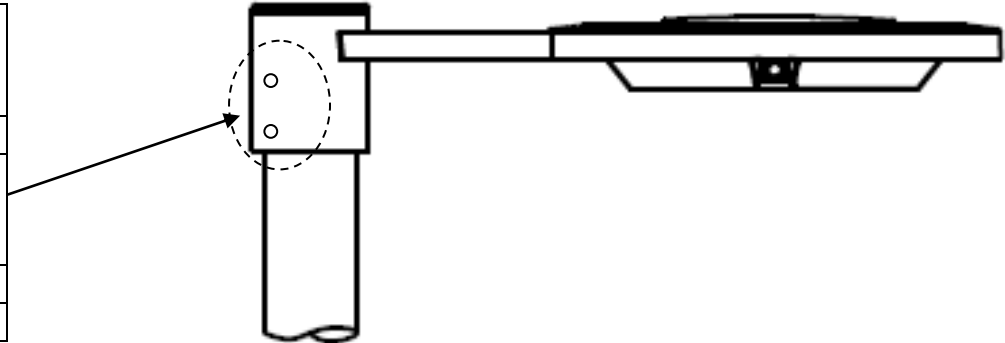



**1** Ecorays MB


Passare il cavo di alimentazione attraverso il braccio e poi attraverso l' attacco palo  
 Pass the mains cable through the bracket and then through the post-top attachment  
 Führen Sie das Netzkabel durch den Arm und dann durch die Mast Angriff

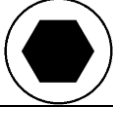


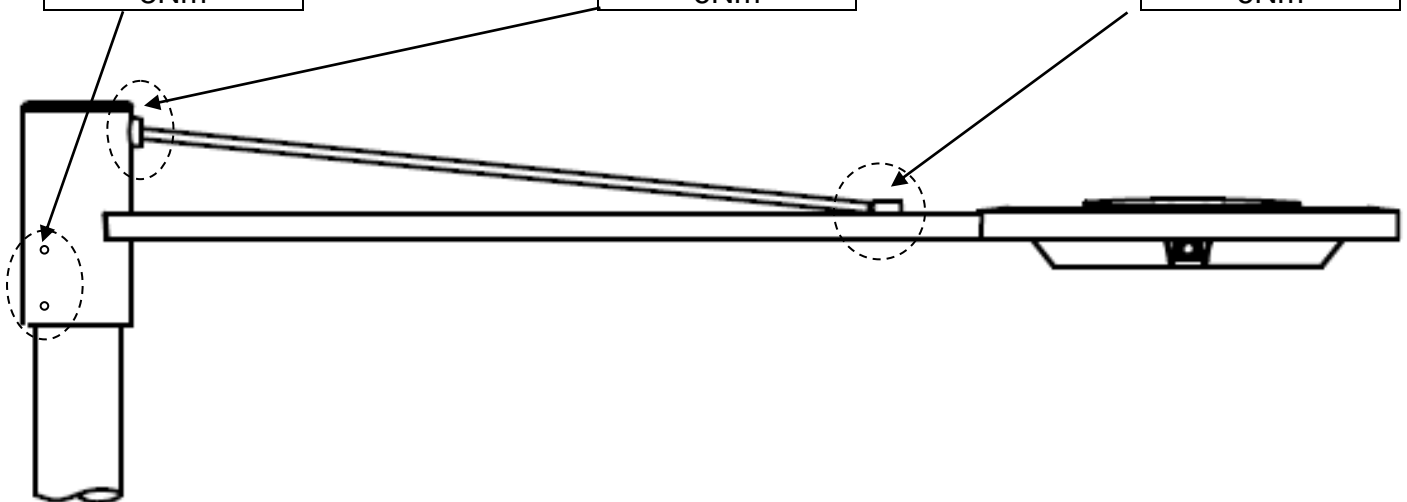
N°6 grani N°6 grub screw N°6 Schrauben
M8

4mm
8Nm



N°6 grani N°6 grub screw N°6 Schrauben
M8

4mm
8Nm

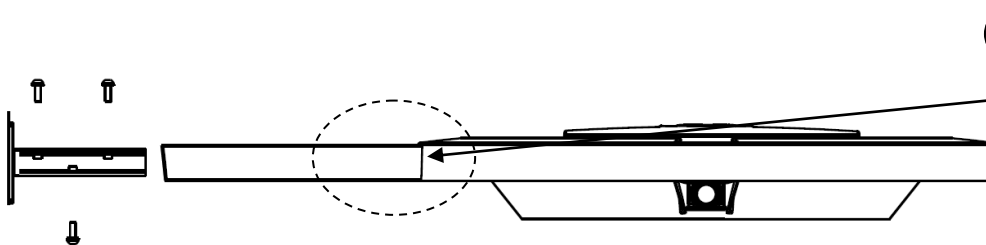
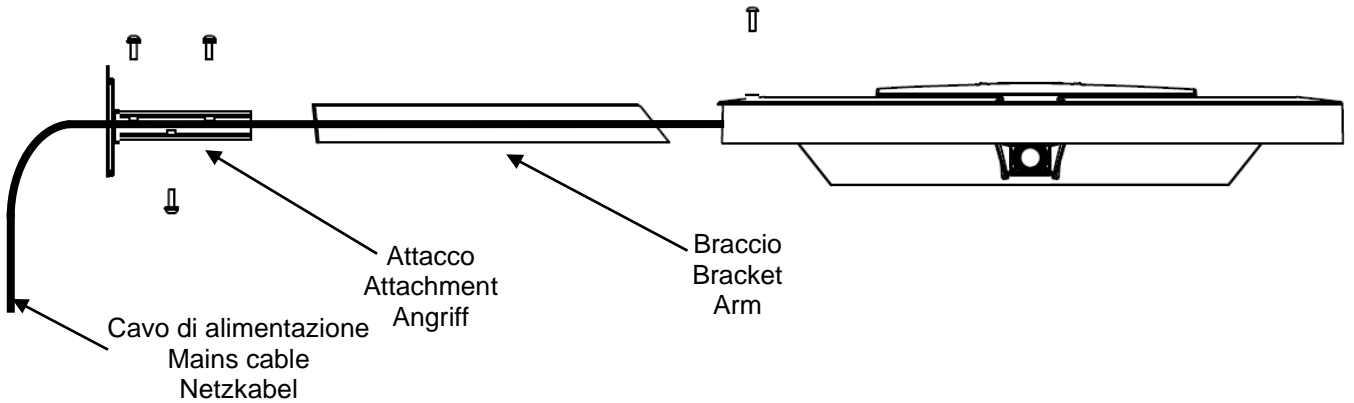
N°1 vite N°1 screw N°1 Schrauben
M6

4mm
6Nm

N°1 vite N°1 screw N°1 Schrauben
M6

4mm
6Nm




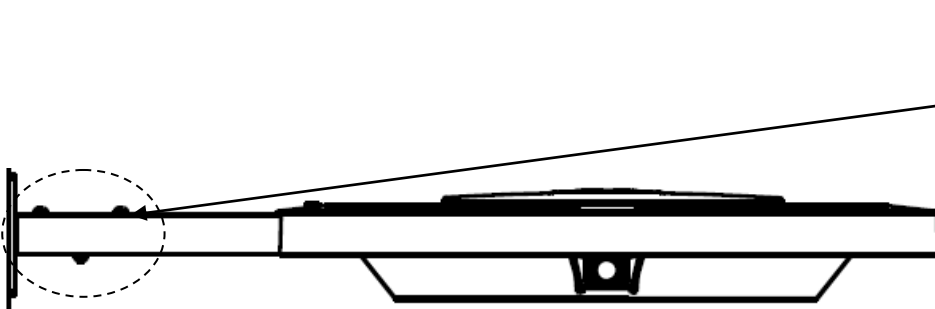
**2** Ecorays MBC  
 Ecorays MBM

- a** Passare il cavo di alimentazione attraverso il braccio e poi attraverso l' attacco  
 Pass the mains cable through the bracket and then through the attachment  
 Führen Sie das Netzkabel durch den Arm und dann durch die Angriff




**b**

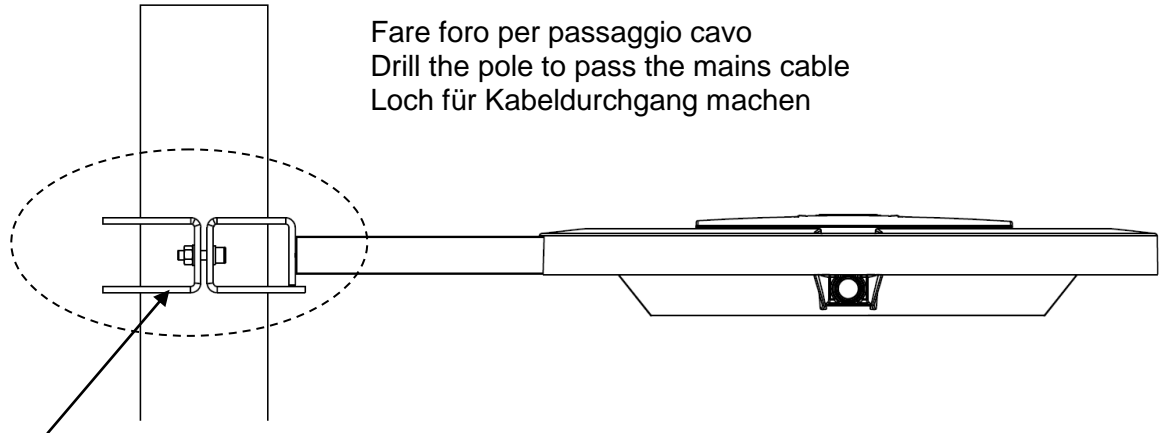
N°4 viti N°4 screws N°4 Schrauben
M6

4mm
6Nm





**c**

N°6 viti N°6 screws N°6 Schrauben
M5

3mm
3Nm

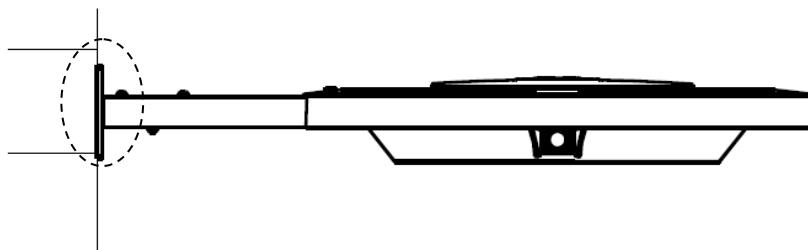
## Ecorays MBC



Fare foro per passaggio cavo  
 Drill the pole to pass the mains cable  
 Loch für Kabeldurchgang machen

N°2 viti N°2 screws N°2 Schrauben	N°2 dadi N°2 nut N°2 Muttern
M8	M8
	
6mm	13mm
12Nm	12Nm

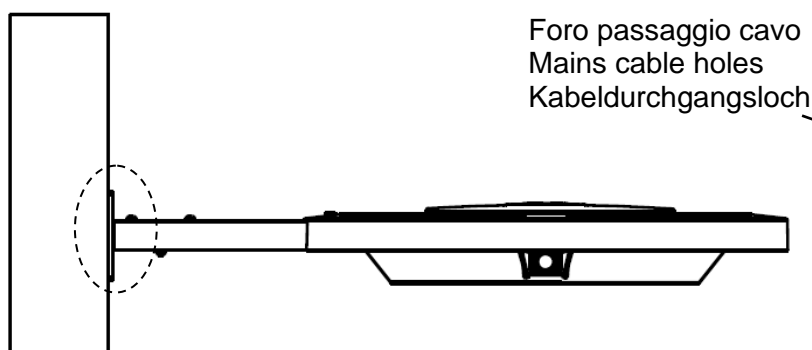
## Ecorays MBM



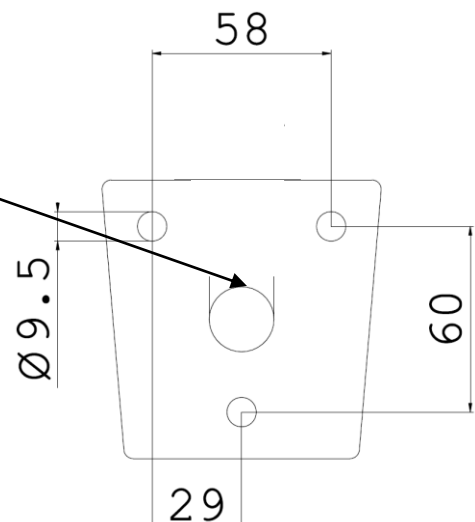
Piastra di fissaggio  
 Minimo n°3 punti di fissaggio M8

Fixing plate  
 At least n°3 fixing point M8

Befestigungsplatte  
 Mindestbefestigungspunkte Nr. 3 M8



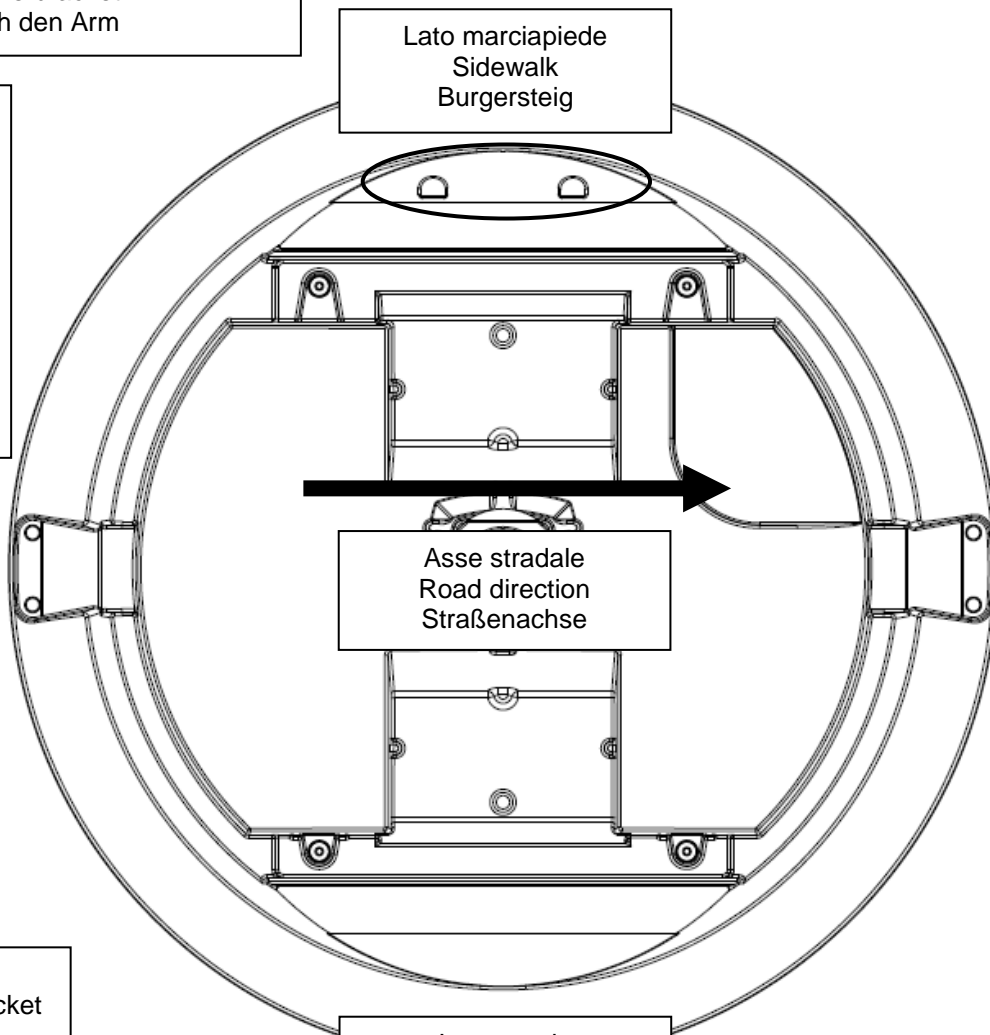
Foro passaggio cavo  
 Mains cable holes  
 Kabeldurchgangsloch




### 3 Ecorays S

**a** Passare il cavo di alimentazione attraverso il braccio  
 Pass the mains cable through the bracket  
 Führen Sie das Netzkabel durch den Arm

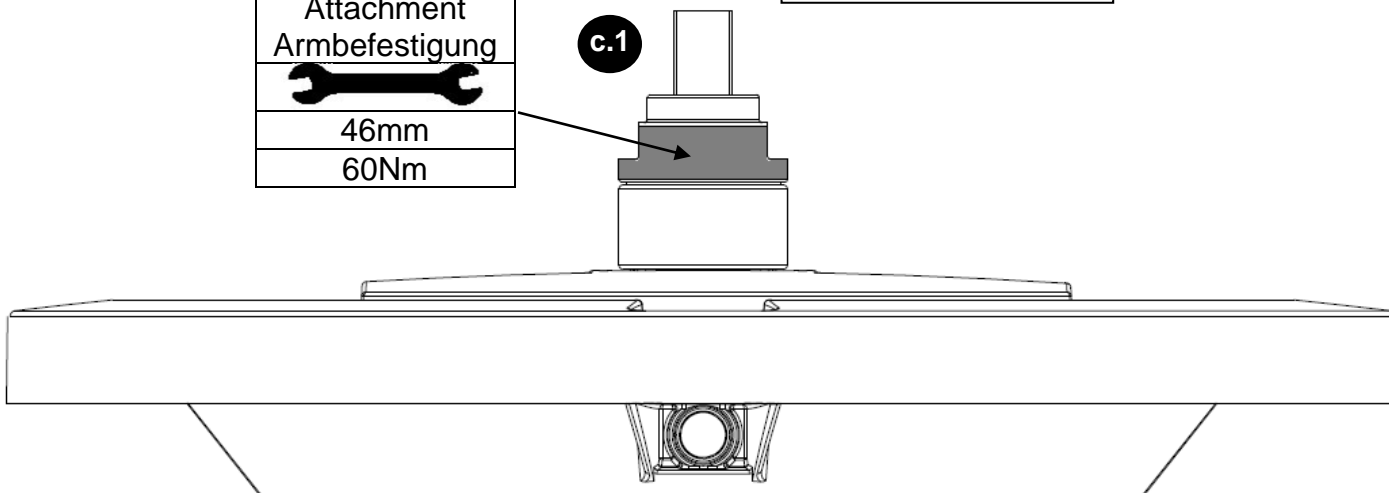
**b** Avvitare l'apparecchio fino a battuta, e poi orientarlo come indicato al punto **b.1**.  
 Screw the luminaire up to the complete mounting and then orientate the luminaire as indicated in **b.1**.  
 Schrauben Sie das Gerät bis zum Anschlag auf und richten Sie es wie in Punkt **b.1** gezeigt aus.



**c** Stringere l'attacco al braccio  
 Tight the attachment to the bracket  
 Armbefestigung festziehen

Attacco Attachment Armbefestigung

46mm
60Nm

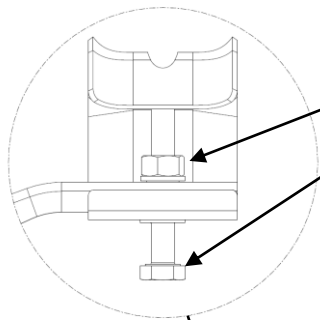
**c.1**




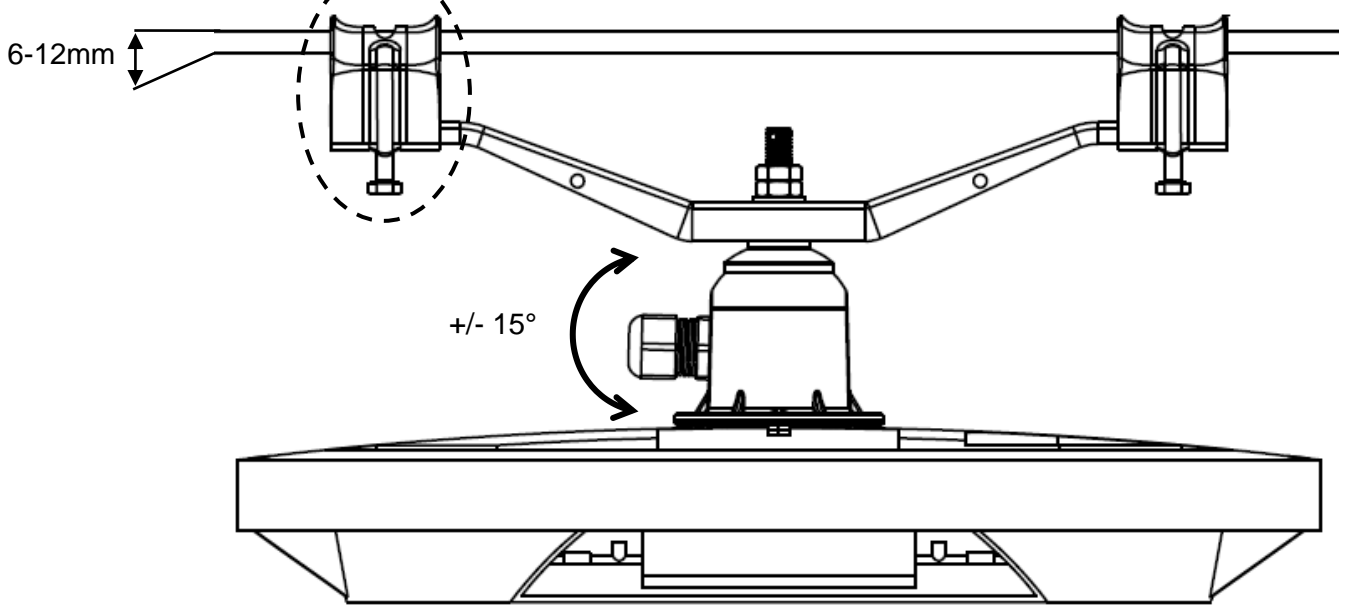


**4** Ecorays TS

**a**



N°2 viti + N°2 dadi N°2 screws + N°2 nut N°2 Schrauben + N°2 Muttern
M8

13mm
3.5Nm



**b.1 Orientamento apparecchio**

L'ottica per applicazione a sospensione necessita di orientamento lungo l'asse longitudinale della strada. Per ottenere un corretto orientamento è sufficiente ruotare l'apparecchio come indicato nel punto **b.2**.

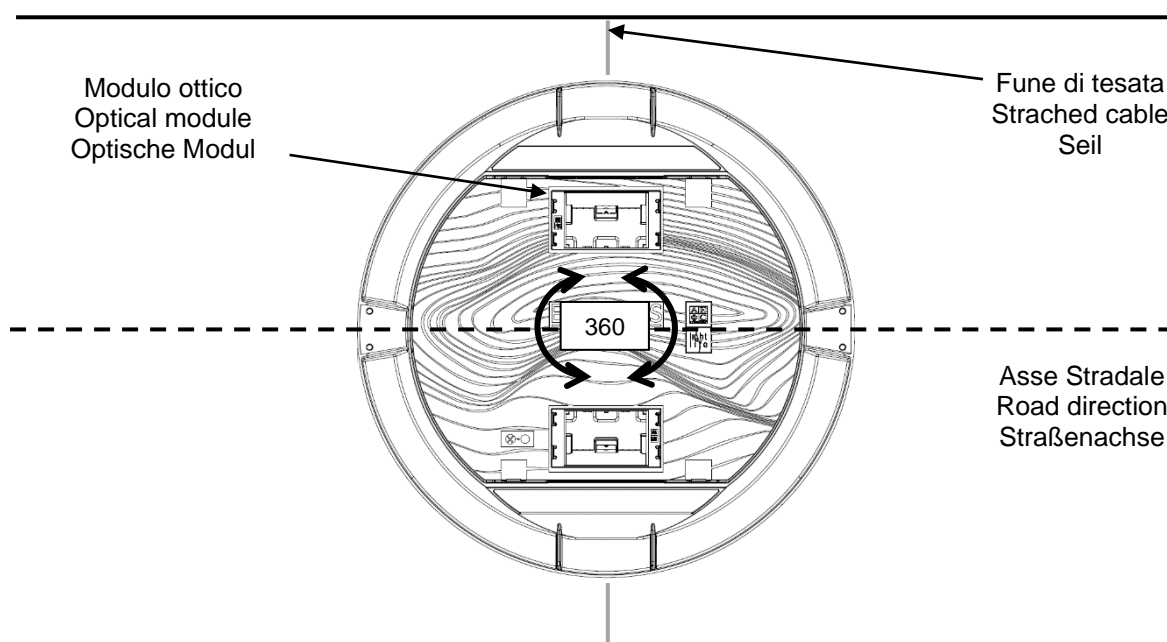
**Luminaire orientation**

The optic for stretched cable application, requires the orientation along the road direction. To obtain the correct orientation is necessary to align the luminaire as indicated in point **b.2**.

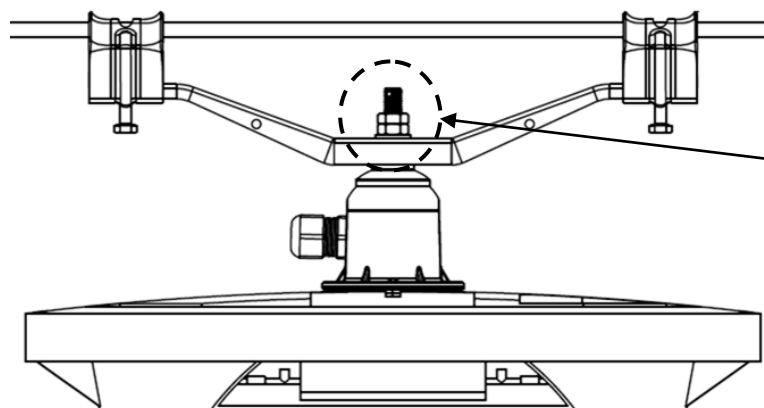
**Geräteausrichtung**

Die Optik für die Aufhängung erfordert eine Orientierung entlang der Längsachse der Straße. Um die richtige Ausrichtung zu erhalten, drehen Sie das Gerät einfach wie in Punkt **b.2** angeben

**b.2**



**c**



N°2 dadi
N°2 nut
N°2 Muttern
M12

19mm
20Nm

Ecorays MB e S - Connessione elettrica

**5** Ecorays MB and S - Electrical line connection

Ecorays MB und S - Elektrischer Anschluss

**a** Connettore da collegare all'apparecchio. Connect this connector to the luminaire. Anschluss, der mit dem Gerät verbunden werden soll.

**a** Connettore da collegare al cavo di alimentazione. Connect this connector to the mains cable. Anschluss zum Anschließen an das Netzkabel

**b**

**c**

**d**

**e**

**f**

A	6 ÷ 7 mm
B	< 25mm
C	9 ÷ 12mm
D	1 ÷ 2.5mmq

FG7OR, H07RN-F o equivalente  
FG7OR, H07RN-F or equivalent  
FG7OR, H07RN-F oder gleichwertiges Kabel

**g**

**h**

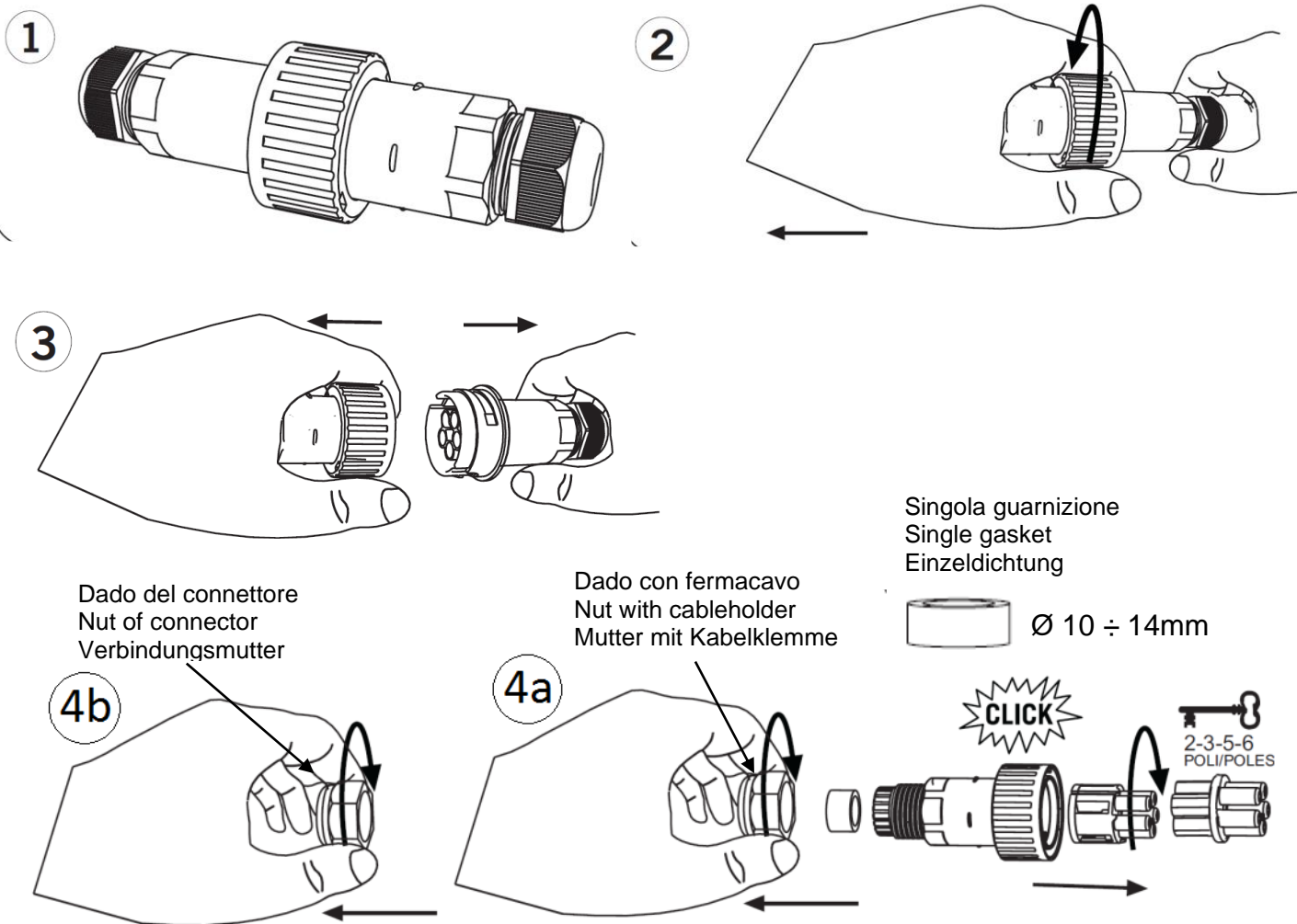
**i**

27mm
5.3Nm

**j**

**k**

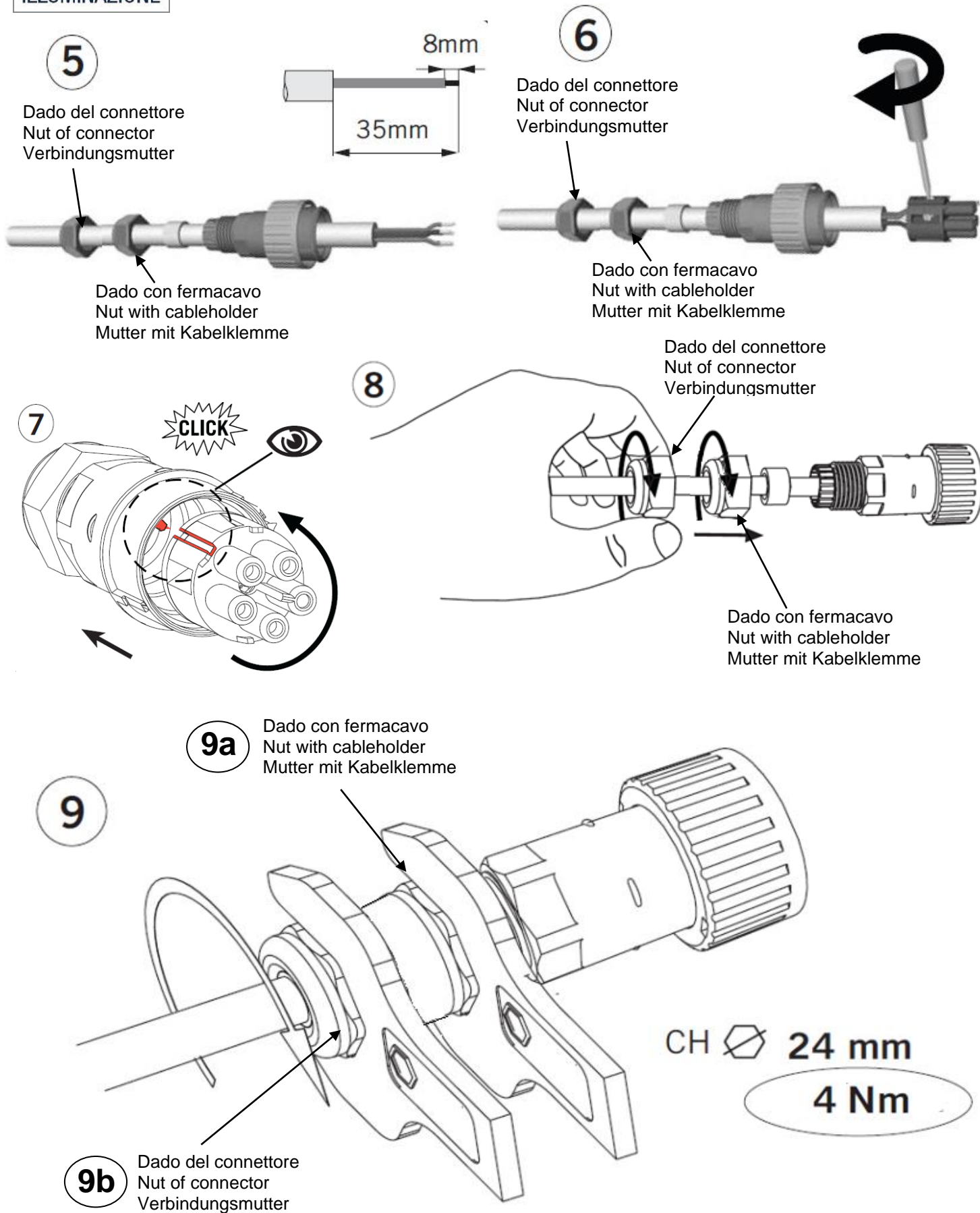
**6** Ecorays TS - Connessione elettrica  
 Ecorays TS - Electrical line connection  
 Ecorays TS - Elektrischer Anschluss



Morsetti Terminal	F-DA-DAC	DALI	DB
L	Linea – Phase		
N	Neutro – Neutral		
	Terra di protezione – Protection earth - Erdung		
1	-	DALI	Lst
2	-	DALI	-
Sezione cavo: Cable section: Kabel Abschnitt:	1 ÷ 2.5mm <sup>2</sup>		

Utilizzare cavi FG7OR o H07RN-F  
 Use FG7OR or H07RN-F cables  
 benutze ein Kabel FG7OR oder H07RN-F





**7** Connessione elettrica - Apparecchio con cavo uscente  
Electrical line connection - Luminaire with outgoing cable  
Elektrischer Anschluss - Gerät mit Ausgehenden Kabel

ECORAYS è un apparecchio dove non è inclusa la morsettieria, quindi l'installazione può richiedere l'intervento di personale qualificato.

ECORAYS is a luminaire without terminal block, so the installation may require advice from a qualified person.

Der Anschluss der Leuchte am Stromnetz bedarf den Einsatz von Fachpersonal!

**Caratteristiche del connettore o della scatola di derivazione**

**Connector or junction box characteristics**

**Eigenschaften des Steckverbinders oder der Anschlussdose**

Il collegamento elettrico dentro la scatola di derivazione deve mantenere lo stesso grado di protezione alla scossa elettrica dell'apparecchio.

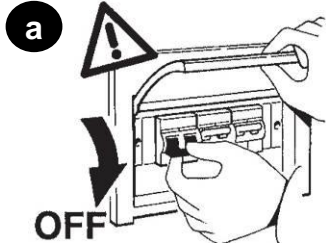
The electrical connections internal to the junction box have to maintain the same insulation class of the luminaire.

Die elektrische Verbindung innerhalb der Anschlussdose muss den gleichen Schutzgrad gegen den elektrischen Schlag des Geräts gewährleisten

<b>Grado di protezione</b> <b>Protection degree</b> <b>Schutzgrad</b>	≥ IP66			
<b>Morsettieria di alimentazione</b> <b>Mains terminal</b> <b>Stromanschlussleiste</b>	Conforme alla IEC/EN 60998-2-1 o IEC/EN 60998-2-2 Complies to IEC/EN 60998-2-1 o IEC/EN 60998-2-2 Entspricht dem IEC/EN 60998-2-1 o IEC/EN 60998-2-2			
<b>N° di poli</b> <b>N° of poles</b> <b>Anzahl der Pole</b>	2 (cl.2)	3 (cl.1) (cl.2 - DB)	4 (cl.1 - DB/Lst) (cl.2 - DALI)	5 (cl.1 - DALI)
<b>Tensione e corrente nominale</b> <b>Nominal voltage and current</b> <b>Spannung und Nennstrom</b>	400/450 Vac - 6A			
<b>Sezione morsetti</b> <b>Terminals section</b> <b>Terminalabschnitt</b>	0.75 ÷ 2.5 mm <sup>2</sup>			



## 8 Manutenzione interna - Internal maintenance - Interne Wartung



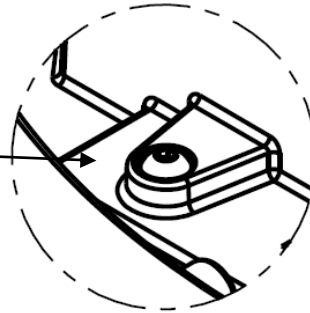
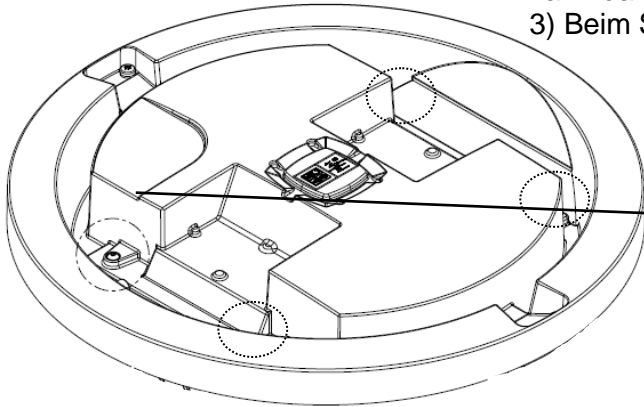
- b** **Chiusura vetro**  
1) Stringere a battuta le 4 viti;  
2) Applicare il giusto momento torcente


### Closing of the glass

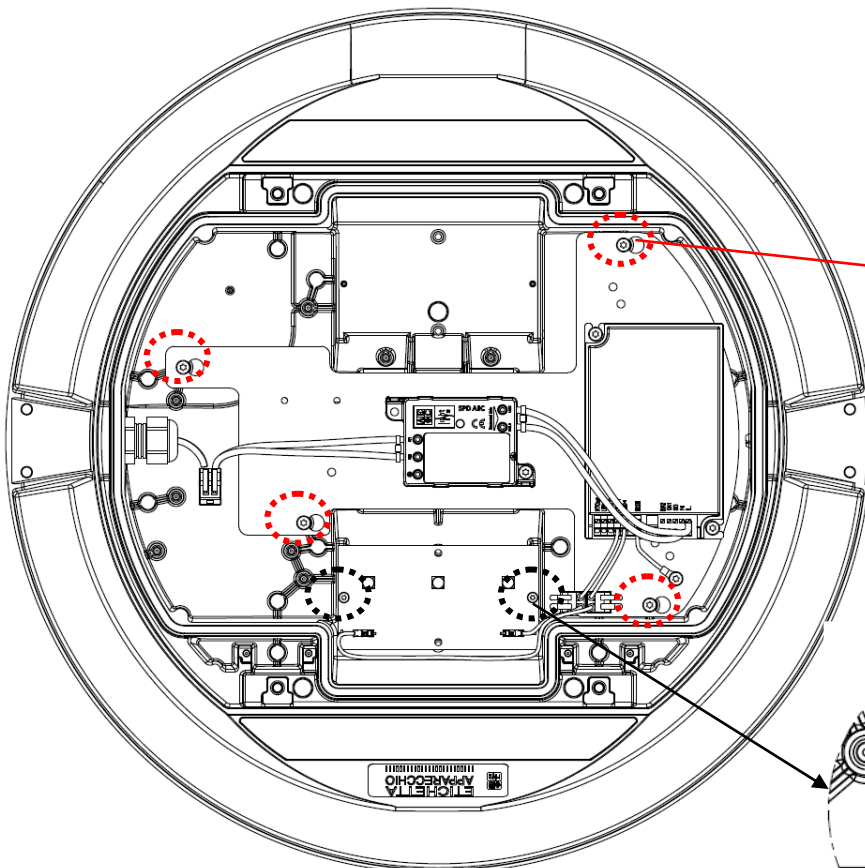
- 1) Tight the n°4 screws;  
2) Apply the correct twisting moment

### Abschlussglas lösen/schließen


- 1) 4 Halteschrauben lösen bzw. anziehen.  
2) Das Abschlussglas fährt beim Öffnen automatisch nach unten und kann dann aufgeklappt werden.  
3) Beim Schließen das richtigen Drehmoment beachten (1.5 Nm).



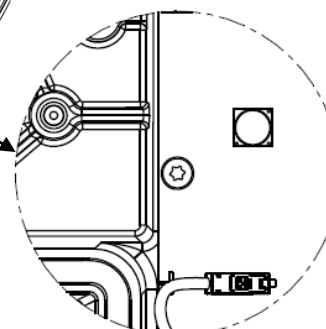
N°4 viti N°4 screws N°4 Schrauben
M5

3mm
1.5Nm




- c** Viti di fissaggio piastra cablaggio  
Screws to fix the gear tray  
Befestigung des Geräteträgers

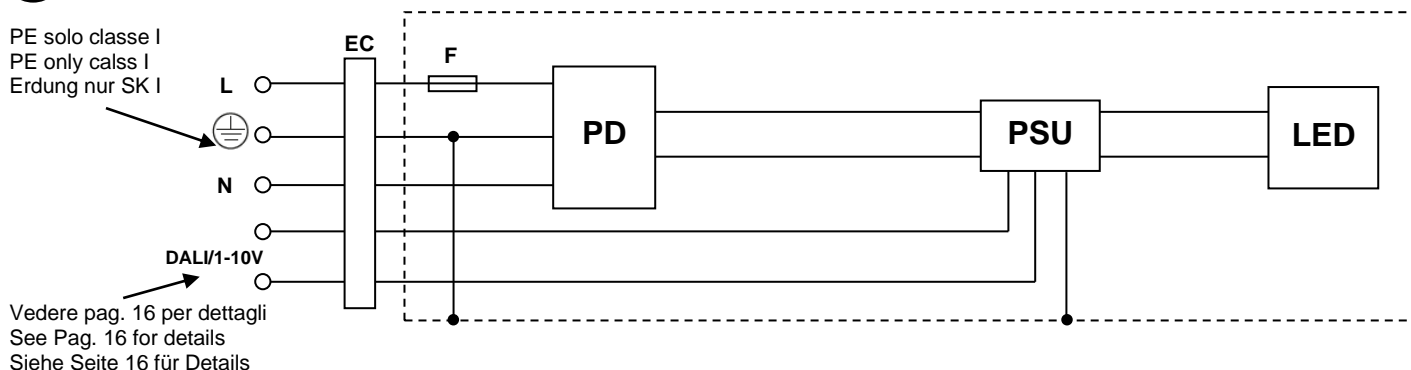
N°4 viti N°4 screws N°4 Schrauben
M4

TX20
1.2Nm

- d** Viti di fissaggio PCB  
Screws to fix the PCB  
Befestigung LED-Platine

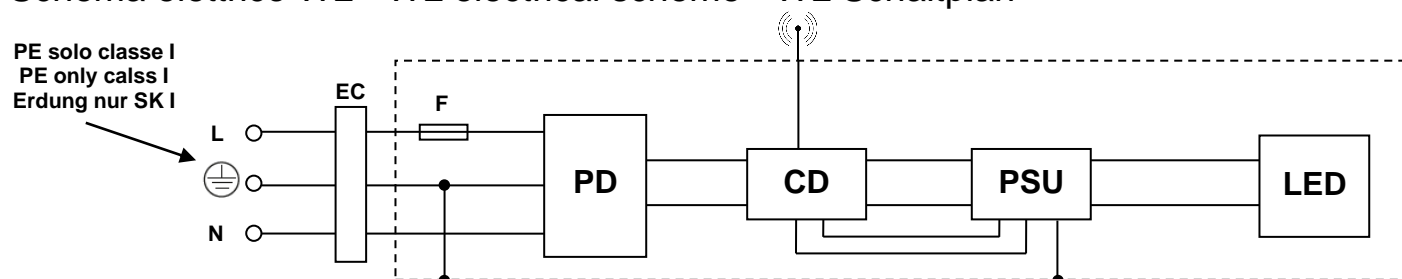


N°2 viti N°2 screws N°2 Schrauben
M3

TX10
1.0Nm

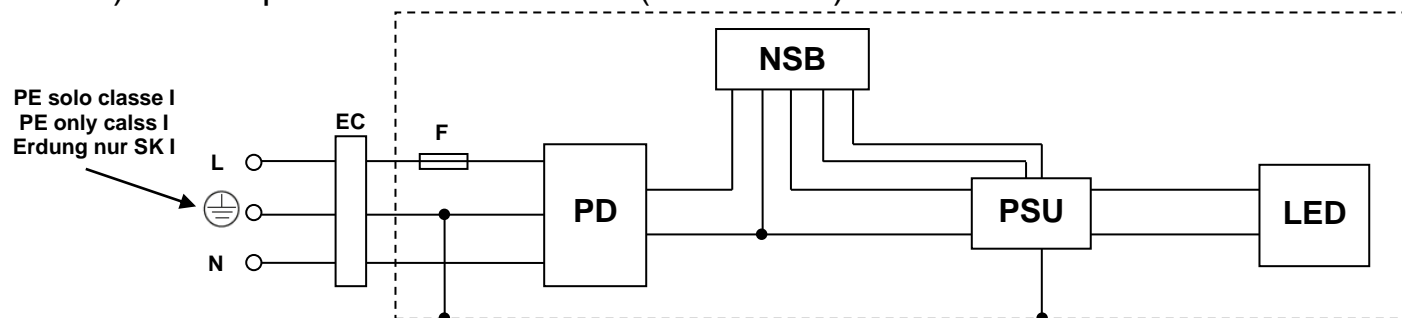
## 9 Schema elettrico - Electrical scheme - Schaltplan



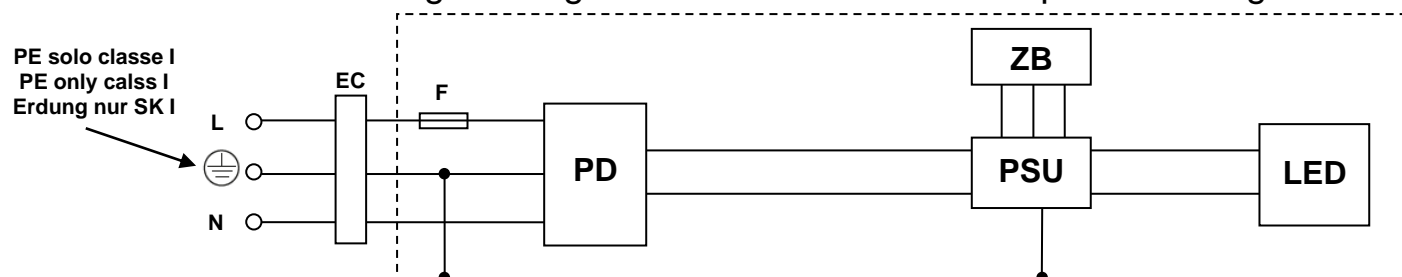
## Schema elettrico WL - WL electrical scheme - WL Schaltplan



## Schema elettrico nema socket (versione CP) - Nema socket electrical scheme (CP version) - Schaltplan mit Nema Socket (CP version)



## Schema elettrico con Zhaga - Zhaga electrical scheme - Schaltplan mit Zhaga



EC	Connettore esterno	External connector	Anschlussklemme
F optional	Fusibile 250Vac 10A (taglia consigliata)	Fuse 250Vac 10A(suggested size)	Sicherung 250Vac 10A (otional)
CD	Dispositivo di telecontrollo	Control device	Steuermodul
PD optional	Circuito di protezione	Protection device	Überspannungsschutz
NSB	Base Nema socket	Nema socket base	Nema Steckdose
ZB	Base Zhaga	Zhaga base	Zhaga Steckdose
PSU	Alimentatore LED	LED power supply	Led-Treiber



**10**

**MANUTENZIONE SPD (optional)**

Il dispositivo di protezione installato nell'apparecchio è dotato di un sistema di interruzione del circuito a fine vita che esclude l'alimentazione dell'apparecchio.

In caso di spegnimento dell'apparecchio ad impianto alimentato, controllare l'attività del dispositivo tramite il LED di segnalazione.

**SPD MAINTENANCE (optional)**

The protection device is equipped with system that excludes power supply at the end of life of the luminaire. If the luminaires switches-off when the system is still fed, the activity of the protection device should be checked looking at signaling LED.

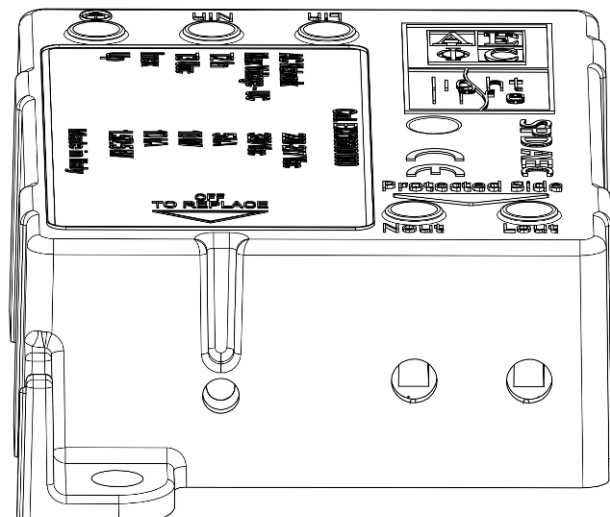
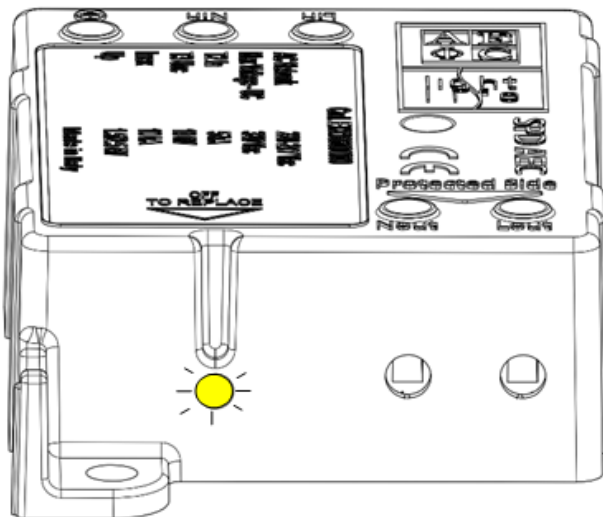
**SPD ÜBERSPANNUNGSSCHUTZMODUL (optional)**

Der Überspannungsschutz hat ein System das die Stromversorgung am Ende der Lebensdauer der Leuchte abschaltet.

Wenn die Leuchte bei anliegender Netzspannung abschaltet, sollte der Überspannungsschutz überprüft werden (Signal-LED).

**LED ACCESO: Scaricatore funzionante**  
**LED ON: Right functioning of SPD**  
**LED leuchtet: SPD-Modul funktioniert**

**LED SPENTO: Scaricatore a fine vita da sostituire**  
**LED OFF: Replace the SPD**  
**LED aus: SPD-Modul muss ausgetauscht werden**





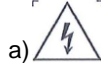
### INFORMAZIONI AGLI UTENTI

**Smaltimento di vecchie apparecchiature elettriche ed elettroniche (Applicabile nell'Unione Europea e negli altri paesi europei con sistema di raccolta differenziata).**

L'applicazione di questo simbolo sui prodotti o sui loro imballaggi indica che questo prodotto non deve essere trattato come un rifiuto domestico. Per ridurre l'impatto ambientale delle apparecchiature elettriche ed elettroniche di rifiuto (WEEE (Waste Electrical and Electronic Equipment)) e per minimizzare il volume dei WEEE che entra nelle discariche, si prega di procedere al riutilizzo e al riciclaggio.

Per ulteriori informazioni, mettersi in contatto con il proprio rivenditore locale o con i distributori.

### ATTENZIONE



a)



b)



c)

- La sorgente luminosa contenuta in questo apparecchio deve essere sostituita solo dal costruttore o dal suo servizio di assistenza o da personale altrettanto qualificato.
- Sostituire gli schermi di protezione danneggiati.
- Non fissare la sorgente luminosa durante la manutenzione.
- L'apparecchio in classe II deve essere installato in modo che le parti metalliche esposte non siano in contatto elettrico con parti dell'installazione elettrica collegata ad un conduttore di protezione.
- Utilizzare solamente dispositivi che hanno un isolamento supplementare tra i morsetti 1-10V/DALI e i morsetti di alimentazione.
- L'apparecchio è stato progettato e viene costruito nel rispetto delle normative in vigore; è necessario che l'installazione sia eseguita correttamente secondo le istruzioni.
- È altresì necessario conservare queste istruzioni e metterle a disposizione di tutti gli operatori che si occuperanno della normale manutenzione. L'inadempienza di quanto sopra comporta l'automatica decadenza della nostra responsabilità.



### INFORMATION TO THE CUSTOMERS

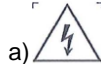
**Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection system)**

This symbol on the product or in its packaging is based on WEEE Directive (Directive on Waste Electrical and Electronic Equipment), which is a regulation in EU member countries, and this symbol indicates that this product shall not be treated as household waste.

To reduce the environmental impact and minimize the volume of landfills, please cooperate in reuse and recycle.

For how to dispose of the product, please contact your dealer or the nearest AEC Illuminazione sales office.

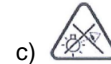
### ATTENTION



a)



b)



c)

- The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.
- Replace any cracked protective shield.
- During maintenance, do not stare at the operating light source.
- Class II luminaires must be installed in such a way that it is impossible for any exposed metal part to come in contact with electrical components.
- Use only devices with supplementary insulation between 1-10V/DALI terminals and mains terminals.
- The device has developed in compliance with the current standards; it is necessary that the installation is done properly, according with the instructions supplied.
- The present instruction paper has to be kept for any future maintenance operation on the luminaire. Non-compliance with the above will automatically release AEC Illuminazione Srl from any responsibility.



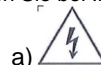
### INFORMATIONEN FÜR DIE KUNDEN!

**Entsorgen alter elektrischer & elektronischer Geräte (Gültig in der Europäischen Union und in anderen europäischen Ländern mit separaten Sammelsystemen)**

Dieses Symbol auf dem Produkt oder auf seiner Verpackung weist darauf hin, dass dieses Produkt nicht als Hausmüll behandelt werden soll. Zur Reduzierung der Umgebungseinflüsse durch WEEE (zu entsorgende elektrische und elektronische Geräte) und zum Minimieren der WEEE-Menge, die auf Deponien kommt, bitte wieder verwenden und recyceln.

Weitere Informationen erhalten Sie bei Ihrem Händler vor Ort.

### HINWEISE



a)



b)



c)

- Die Installation der Leuchte darf nur durch Fachpersonal erfolgen. Das Anschlusskabel darf nur durch Fachpersonal ausgetauscht werden.
- beschädigte Schutzschirme ersetzen
- Schauen Sie während der Wartung nicht auf die Lichtquelle
- Leuchten der Schutzklasse II sind so zu installieren, dass kein ungeschütztes Metallteil mit elektrischen Bauteilen Berührung hat.
- Die Verdrahtung zwischen der 1-10V/DALI-Schnittstelle und der Anschlussklemme ist zusätzliche Isolierung.
- Die Installation ist sorgfältig und unter Beachtung der Montageanleitung durchzuführen.
- Bewahren Sie diese Montageanleitung für künftige Wartungsarbeiten an der Leuchte auf.
- Die Nichteinhaltung dieser Anleitung entbindet AEC Illuminazione GmbH von jeglicher Haftung.