



E9\*150R00/03\*1740\*01

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COMUNICACIÓN / COMMUNICATION:

Concerniente a / Concerning: <sup>(1)</sup>

<del>La concesión de homologación / Approval granted</del>
<del>La extensión de homologación / Approval extended</del>
<del>La denegación de homologación / Approval refused</del>
<del>La retirada de homologación / Approval withdrawn</del>
<del>El cese definitivo de producción / Production definitively discontinued</del>

~~de un tipo de dispositivo catadióptrico / of a type of retro-reflective device~~  
~~de un tipo de triángulo de preseñalización / of a type of advance warning triangle~~  
~~de un tipo de placa de identificación trasera para vehículos lentos / of a type of SMV rear marking plate~~  
~~de un tipo de placa de identificación trasera / of a type of rear marking plate~~  
~~de marcas reflectantes de vehículos largos y pesados y de sus remolques / of retro-reflective markings of heavy and long vehicles and their trailers~~  
en aplicación del Reglamento UN N° 150. / pursuant to UN Regulation No. 150.

Clase del dispositivo /	Cambio de índice /
Class of the device: IA	Change index: ---

N° de homologación / Approval No.: E9\*150R00/03\*1740\*01

Identificador Único (Si procede) / Unique Identifier (UI) (If applicable): ---

1. Marca de fábrica o comercial del dispositivo catadióptrico o material de marcaje / Trade name or mark of the retro-reflective device or marking material: FRISTOM
2. Nombre del fabricante / Manufacturer's name:
  - 2.1. para el tipo de dispositivo catadióptrico / for the retro-reflecting type of device: FT-069 LED
  - 2.2. para el triángulo de preseñalización / for the advance warning triangle: ---
  - 2.3. para el tipo de placa de identificación trasera para vehículos lentos / for the SMV rear marking plate type: ---
    - 2.3.1. Clase de placa de identificación trasera del SMV / SMV rear marking plate class: ---
  - 2.4. para el tipo de placa de identificación trasera / for the rear marking plate type: ---
    - 2.4.1. Clase de placa de marcaje trasera / Rear marking plate class: ---
  - 2.5. Clase del material de marcaje / Class of the marking material: ---

<sup>(1)</sup> Táchese lo que no proceda. / Strike out what does not apply.





MINISTERIO  
DE INDUSTRIA, COMERCIO Y  
TURISMO

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DE LA PEQUEÑA Y MEDIANA EMPRESA

DIRECCIÓN GENERAL DE INDUSTRIA Y  
DE LA PEQUEÑA Y MEDIANA EMPRESA

E9\*150R00/03\*1740\*01

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3. Nombre y dirección del fabricante / *Manufacturer's name and address:*

FRISTOM SPÓLKA Z OGRANICZONA

ODPOWIEDZIALNOSCIA SPÓLKA

KOMANDYTOWA

UL. PRZEMYSŁOWA 5, 86-014

85416 SICIENKO (POLONIA)

Nota / *Note:* Este dispositivo puede ser fabricado en cualquiera de las Plantas de Fabricación que consten declaradas en el Anexo I del Certificado Conformidad Producción en vigor emitido por la UCA. / *This device may be manufactured in any of the Manufacturing Plants declared in Annex I of the Conformity Production Certificate in force issued by the UCA.*

4. Si procede, nombre y dirección del representante del fabricante / *If applicable, name and address of manufacturer's representative:* ---
5. Fecha de presentación del material de marcado para los ensayos de homologación / *Date on which the marking material was submitted for approval tests:* 13/04/2022
6. Servicio técnico encargado de realizar el ensayo de homologación / *Technical service responsible for carrying out the approval test:* IDIADA
7. Fecha del informe de ensayo emitido por el servicio técnico / *Date of test report issued by the technical service:* 13/04/2022
8. Número del informe de ensayo emitido por el servicio técnico / *Number of test report issued by the technical service:* PC21110301, PC22040150
9. Observaciones / *Remarks:* ---
10. Se ~~concede~~/~~deniega~~/extiende/~~retira~~ la homologación <sup>(1)</sup> / *Approval ~~granted~~/~~extended~~/~~refused~~/~~withdrawn~~* <sup>(1)</sup>
11. Motivo(s) de la extensión (si procede) / *Reason(s) for extension (if applicable):* Ver informe PC22040150 / *See report PC22040150*
12. Lugar / *Place:* Madrid
13. Fecha / *Date:* Ver firma electrónica. / *See electronic signature.*

<sup>(1)</sup> Táchese lo que no proceda. / *Strike out what does not apply.*





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E9\*150R00/03\*1740\*01

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14. Firma / Signature:

Nombre / Name:

EL SUBDIRECTOR GENERAL DE CALIDAD Y SEGURIDAD INDUSTRIAL  
Resolución P.D. del DIRECTOR GENERAL DE INDUSTRIA Y DE LA PYME de 25-10-2012

15. Se adjunta una lista de los documentos que componen el expediente de homologación, depositados ante la Autoridad de homologación de Tipo que concedió la homologación; puede obtenerse una copia previa solicitud.  
/ Annexed is a list of documents making up the approval file, deposited with the Type Approval Authority which granted approval; a copy can be obtained on request.

- Informe. / Report.
- Documentación suministrada por el fabricante. / Documentation supplied by the manufacturer.

(1) Táchese lo que no proceda. / Strike out what does not apply.







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### Anexo - Información adicional sobre esta Homologación de tipo

#### Condiciones de la autorización y pie de recurso

Los vehículos, sistemas, componentes o unidades técnicas independientes fabricados en virtud de esta homologación de tipo deben estar identificados y portar las marcas correspondientes según la reglamentación aplicable.

La producción en serie de vehículos, sistemas, componentes y unidades técnicas independientes debe realizarse de acuerdo con la documentación de homologación. Todo cambio en la producción individualizada requerirá autorización expresa previa por parte de la Autoridad de Homologación Española.

Cualquier modificación en los datos incluidos en el certificado de homologación, como el nombre de la empresa, representante en la UE, dirección y las plantas de fabricación deben ser comunicados inmediatamente a la Autoridad de Homologación Española.

La homologación perderá su validez cuando la misma haya sido retirada o el tipo ya no cumpla con los requisitos legales. La retirada tendrá lugar siempre que hayan dejado de cumplirse los requisitos necesarios para la concesión y mantenimiento de la misma, cuando el fabricante no pueda demostrar a la Autoridad de Homologación el cumplimiento con los requisitos y procedimientos para garantizar la conformidad de la producción, en caso de que el titular no cumpla con sus obligaciones inherentes a la homologación o cuando se determine que el tipo homologado no cumple con los requisitos de seguridad y medio ambiente.

La Autoridad de Homologación de Tipo española podrá verificar el cumplimiento de las obligaciones del fabricante en cualquier momento. En particular, se podrá comprobar la correspondencia del producto con el tipo homologado, así como las medidas establecidas para garantizar la conformidad de la producción. A tal efecto se podrán tomar o solicitar las muestras necesarias. Se permitirá el acceso sin trabas a las instalaciones de producción y almacenamiento a los empleados o representantes de la Autoridad de Homologación Española.

La autorización objeto de esta resolución de homologación de tipo no es transferible. Los derechos de marca de terceros no se encuentran afectados por esta homologación.

Contra la presente Resolución, que no pone fin a la vía administrativa, podrá interponerse recurso de alzada<sup>1</sup> ante la Dirección General de Industria y de la Pequeña y Mediana empresa, o ante la Secretaría General de Industria y de la Pequeña y Mediana empresa, en el plazo de un mes a partir del día siguiente a su notificación, de conformidad con los artículos 121 y 122 de la Ley 39/2015, de 1 de octubre, del Procedimiento Administrativo Común de las Administraciones Públicas.

<sup>1</sup> Nota: Para interponer recurso de alzada deberá acceder al siguiente enlace:

<https://sede.serviciosmin.gob.es/es-es/procedimientoselectronicos/Paginas/detalle-procedimientos.aspx?IdProcedimiento=157>





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### *Annex - Additional Information on this Type Approval*

#### *Collateral clauses and right to appeal (Courtesy translation)*

*All vehicles, systems, components or separate technical units which correspond to the approved type are to be identified and marked according to the applied regulation.*

*The serial fabrication of vehicles, systems, components or separate technical must be in exact accordance with the approval documents. Changes in the individual production are only allowed with express consent of the Spanish Type Approval Authority.*

*Changes in the data included in the approval certificate, such as the name of the company, EU representative, address and the manufacturing plant are to be immediately disclosed to the Spanish Type Approval Authority.*

*The approval expires if it is withdrawn or if the type approved no longer complies with the legal requirements. The revocation can be made if the demanded requirements for issuance and the continuance of the approval no longer exist, if the manufacturer cannot demonstrate to the Type Approval Authority that it comply with the requirements and procedures to guarantee the conformity of production, if the holder of the approval violates the duties involved in the approval or if it is determined that the approved type does not comply with the requirements of traffic safety or environmental protection.*

*The Spanish Type Approval Authority may check the proper exercise of the conferred authority taken from this approval at any time. In particular, this means the compliant production as well as the measures for conformity of production. For this purpose, samples can be taken or have taken. The employees or the representatives of the Spanish Type Approval Authority may get unhindered access to the production and storage facilities.*

*The authorization contained with issuance of this approval is not transferable. Trade mark rights of third parties are not affected with this approval.*

*This approval does not conclude the administrative channel and can be appealed<sup>2</sup> within one month after notification, according to articles 121 and 122 of Ley 39/2015, de 1 de octubre, del Procedimiento Administrativo Común de las Administraciones Públicas. The appeal is to be addressed to Dirección General de Industria y de la Pequeña y Mediana empresa, or Secretaría General de Industria y de la Pequeña y Mediana empresa.*

<sup>2</sup> Note: Appeal on the following link:

<https://sede.serviciosmin.gob.es/es-es/procedimientos/electronicos/Paginas/detalle-procedimientos.aspx?IdProcedimiento=157>







**INFORME N° / REPORT No. PC22040150**

RELATIVO A LA EXTENSIÓN DE HOMOLOGACIÓN DE DISPOSITIVOS Y SEÑALES RETRO-REFLECTANTES PARA VEHÍCULOS A MOTOR Y SUS REMOLQUES SEGÚN EL REGLAMENTO UN N° 150R00/03 / *CONCERNING THE APPROVAL EXTENDED OF RETRO-REFLECTIVE DEVICES AND MARKINGS FOR POWER-DRIVEN VEHICLES AND THEIR TRAILERS ACCORDING TO UN REGULATION No. 150R00/03*

**EXTENSION I**

Nombre y dirección del fabricante / <i>Manufacturer's name and address</i>	: FRISTOM SPÓLKA Z OGRANICZONA ODPOWIEDZIALNOSCIA SPÓLKA KOMANDYTOWA UL. PRZEMYSŁOWA 5, 86-014 85416 SICIENKO (POLONIA)
Marca comercial / <i>Trade mark</i>	: FRISTOM
Tipo / <i>Type</i>	: FT-069 LED
Lugar y fecha de emisión del informe / <i>Place and date of test report issue</i>	: L'Albornar, Santa Oliva (Tarragona) 13/04/2022

**CONCLUSIONES / CONCLUSIONS:** Las modificaciones introducidas, que se detallan en el Anexo a este informe, son objeto de extensión de homologación respecto al tipo homologado por este servicio (Informe N° PC21110301) y **CUMPLE** las prescripciones relativas a la homologación de dispositivos y señales retro-reflectantes para vehículos a motor y sus remolques en aplicación del Reglamento UN 150R00/03 e. / *Modifications introduced, as detailed in the Annex attached to this report, are extension of homologation with respect to formerly certified type performed by this technical department (Test Report No PC21110301) and FULFILLS the prescriptions with regard to the approval of retro-reflective devices and markings for power-driven vehicles and their trailers in application of Regulation 150R00/03 UN.*

Realizado por / *Performed by:*

Joan Fonts Sala  
INGENIERO DE ENSAYOS  
TEST ENGINEER

V. B°. / *Revised by:*

Ramon Santafé Guiu  
JEFE DE DEPARTAMENTO  
DEPARTMENT MANAGER



## ANEXO AL INFORME / ANNEX TO THE REPORT

Nombre y dirección del fabricante /  
Manufacturer's name and address <sup>(1)</sup> : FRISTOM SPÓLKA Z OGRANICZONA  
ODPOWIEDZIALNOSCIA SPÓLKA  
KOMANDYTOWA  
UL. PRZEMYSŁOWA 5, 86-014  
85416 SICIENKO (POLONIA)

Marca comercial / Trade mark <sup>(1)</sup> : FRISTOM

Tipo / Type <sup>(1)</sup> : FT-069 LED

Variantes / Variants <sup>(1)</sup> : FT-069 B LED, FT-069 C LED, FT-069 Z LED

Identificación de las muestras /  
Sample identification : HTC-2201/01225

Clase / Class <sup>(1)</sup> : IA

Color de la luz emitida /  
Colour of the light emitted <sup>(1)(2)</sup> : Ambar / Amber  
Rojo / Red  
Blanco / White

<sup>(1)</sup> Información proporcionada por el cliente. El laboratorio no se hace responsable de dicha información /  
Information provided by the client. The laboratory is not responsible for such information  
<sup>(2)</sup> Táchese lo que no proceda / Strike out what does not apply

**MOTIVO DE EXTENSIÓN/ REASON OF EXTENSION:**

- Cambio de la dimensión de la altura de la lámpara, cambio no crítico para el sistema óptico / *Change of the lamp height dimension, non critical change for the Optical system*
- Corrección de un error en la descripción / *Correction of a description mistake.*

Lugar / place: L'Albormar, E-43710 Santa Oliva (Tarragona)  
Fecha / date: 13/04/2022



Joan Fonts Sala  
INGENIERO DE ENSAYOS  
TEST ENGINEER

- 
- \* LOS RESULTADOS PRESENTADOS SE REFIEREN ÚNICAMENTE A LA MUESTRA ENSAYADA.  
*THE PRESENTED RESULTS REFER ONLY TO THE TESTED SAMPLE.*
  - \* QUEDA TERMINANTEMENTE PROHIBIDA LA REPRODUCCIÓN PARCIAL DE ESTE INFORME SIN PERMISO EXPRESO DE IDIADA.  
*THE PARTIAL REPRODUCTION OF THIS REPORT WITHOUT THE PERMISSION OF IDIADA IS COMPLETELY FORBIDDEN.*
  - \* EL LABORATORIO HA CALCULADO LA INCERTIDUMBRE DE MEDIDA ASOCIADA A LOS RESULTADOS.  
*MEASUREMENT UNCERTAINTY OF THE RESULTS HAS BEEN CALCULATED BY THE LABORATORY.*

DOCUMENTACIÓN TÉCNICA /  
*TECHNICAL DOCUMENTATION*



## INFORMATION FOLDER:

FIRST APPLICATION  
DATE: 6.02.2022

### 1. Specification data

Type	FT-069 LED	
Trade name or mark	Fristom	
Variants	See drawing	
Function	rear position R1 ; front position A ; side marking cat. SM1;reflex reflector catIA	
Color	Red light color , white light color , amber light color	
Rated	Voltage	12/24V
	Wattage	12V-0,4W ; 24V-0,8W
Applicable Regulation	R148;R150	
Light Source and connection	See drawing	
Location of marking	Light Source marks	See the drawing
	Trade mark	See the drawing
	Approval mark	See the drawing

### 2. Construction and material

Construction	Material	Remarks
Lenses	Defined on the technical drawing	--
Reflectors	Defined on the technical drawing	--
Bases	Defined on the technical drawing	--

### 3. Name and address of manufacturer:

FRISTOM Spółka z ograniczoną odpowiedzialnością Spółka komandytowa  
86-014 Sicienko / Polska  
ul. Przemysłowa 5  
NIP: 5542926937, KRS: 0000529238  
Tel.: +48 52 360 90 51, Fax: +48 52 327 75 41

### 4. REASON OF THE APPROVAL EXTENSION:

- lamp height dimension has changed , non critical change for the optical system
- correction of a description mistake. – warm white LED chip is used in the amber sidemarking lamp instead of an amber LED chip

NOTE : APPROVAL MARKINGS ARE SHOWN IN THE ATTACHED DRAWING.  
THIS INFORMATION FOLDER CONSISTS OF 1 PAGES

*Dyśła Michał*

PC22040150  
iDiADA

## Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
85-014 Siciemko / Polska  
ul. Przemysłowa 5  
NIP: 5542926937, KRS: 0000529238  
Tel.: +48 52 360 60 51, Fax: +48 52 327 75 41

**Fristom**

## Type

**FT-069 C LED** - rear position lamp with retro reflex reflector EXT01

## light source

LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED red light color

## sheet description

lamp functions

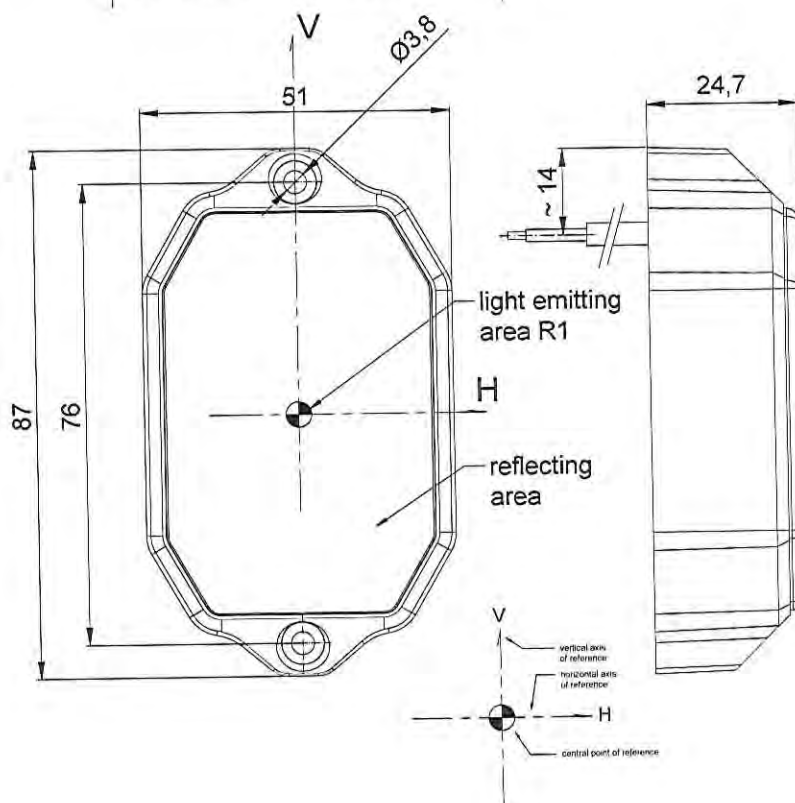
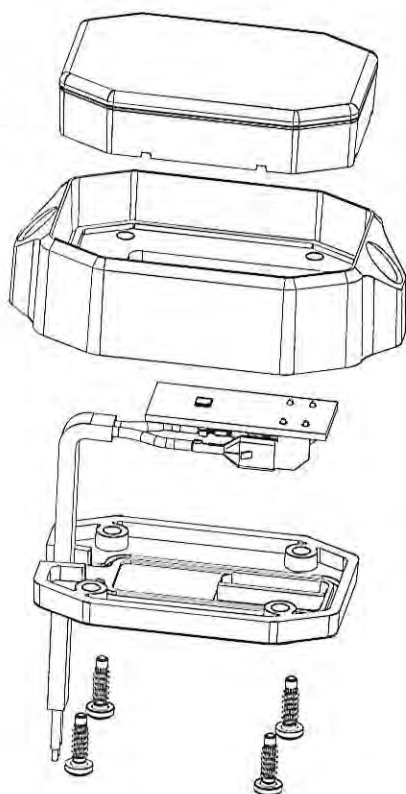
This drawing is a part of the application for approval

## Material used in manufacturing :

- lampshade PMMA transparent red
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR4
- potting compound epoxy resin

**Drawn by:** Michał Dybicz  
**Date:** 06-04-2022  
**sheet Nr.** 1/5

electrical data  
12/24V DC input  
12V - 0,4 W  
24V - 0,8 W  
1 LED



IDIADA PC22040150

**Manufacturer**

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
65-014 Sienko / Polska  
ul. Przemysłowa 5  
NIP: 5542620937, KRS: 0000526236  
Tel.: +48 52 360 80 51, Fax: +48 52 327 75 41

**Fristom**

**Drawn by:** Michał Dybicz  
**Date:** 06-04-2022  
**sheet Nr.** 2/5

**Type****FT-069 C LED - rear position lamp with retro reflex reflector EXT01****light source**

LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED red light color

**sheet description**

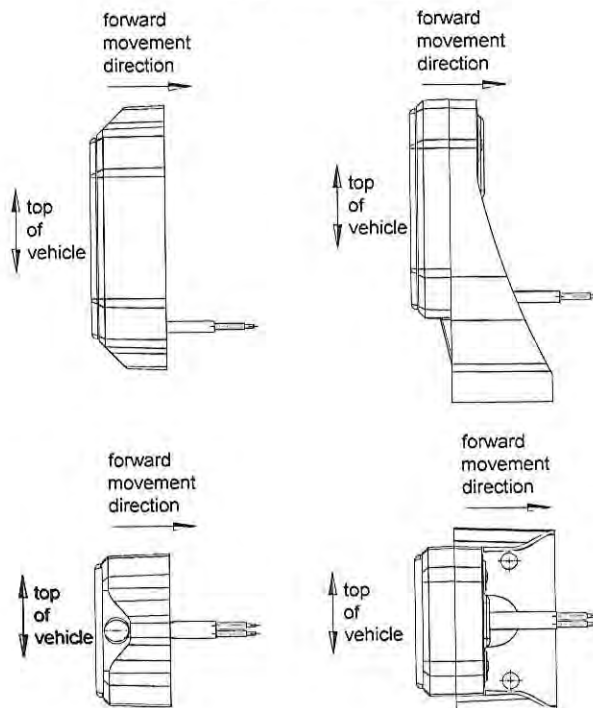
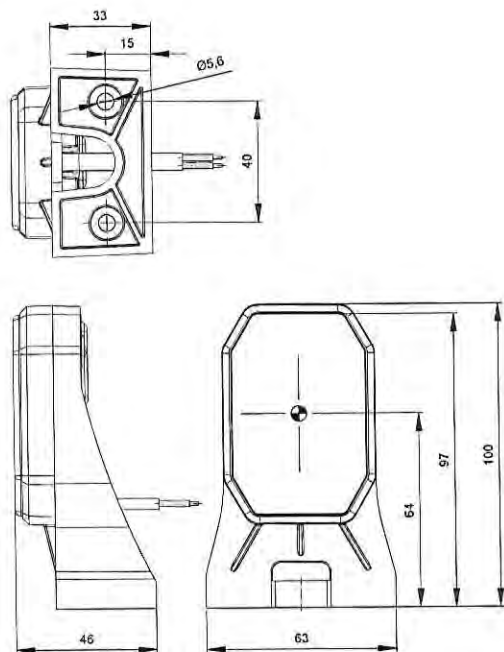
positioning on vehicle , assembly fittings

This drawing is a part of the application for approval

**Material used in manufacturing :**

- lampshade PMMA transparent red
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR4
- potting compound epoxy resin

**note:**  
horizontal and vertical assembly



IDIADA PC22040150



### Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
65-014 Sicienka / Polska  
ul. Przemysłowa 5  
NIP: 5542620837, KRŚ: 0000520238  
Tel.: +48 52 300 90 51, Fax: +48 52 327 75 41

**Fristom**

Drawn by: Date: sheet Nr.

Michał Dybicz 06-04-2022 3/5

### Type

FT-069 C LED - rear position lamp with retro reflex reflector EXT01

### light source

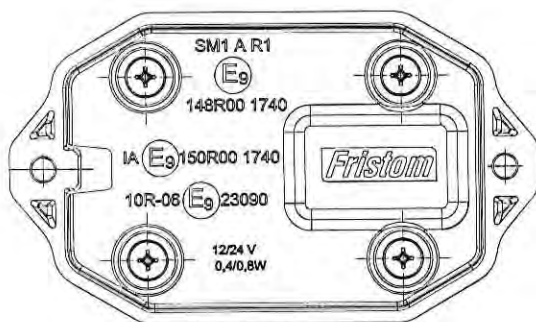
LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED red light color

### sheet description

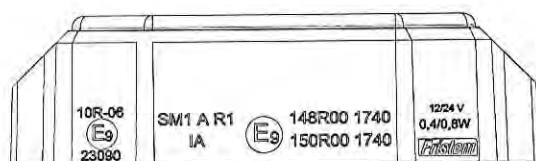
approval , trademark and electrical parameters marking  
This drawing is a part of the application for approval

### Material used in manufacturing :

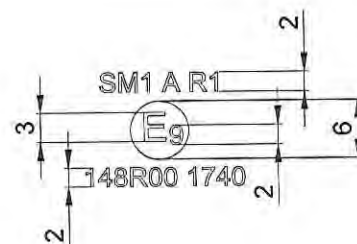
- lampshade PMMA transparent red
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR4
- potting compound epoxy resin



approval , trademark and electrical parameters marking  
ON BACK COVER AND FLAT ASSEMBLY BRACKET always visible after assembly



approval marking dimensions



IDIADA PC22040150

**Manufacturer**

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
65-014 Sienicko / Polska  
ul. Przemysłowa 5  
NIP: 5542926937, KRS: 0000529238  
Tel.: +48 52 309 90 51, Fax: +48 52 327 75 41

**Fristom**

**Drawn by:** Michał Dybicz  
**Date:** 06-04-2022  
**sheet Nr.** 4/5

**Type****FT-069 C LED** - rear position lamp with retro reflex reflector EXT01**light source**

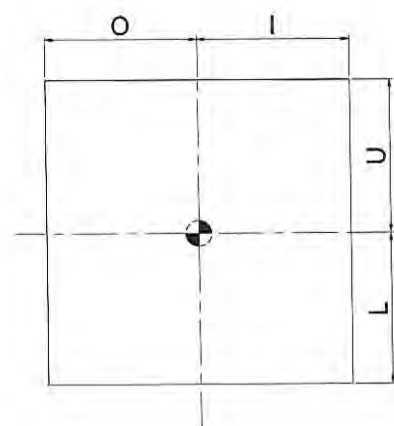
LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED red light color

**sheet description**

lighting surface  
This drawing is a part of the application for approval

**Material used in manufacturing :**

- lampshade PMMA transparent red
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR4
- potting compound epoxy resin



lighting surface				
function	U <sub>(upper limit)</sub> [mm]	L <sub>(lower limit)</sub> [mm]	O <sub>(outer limit)</sub> [mm]	I <sub>(inner limit)</sub> [mm]
rear position light R1	5	5	5	5

Determining the lower , upper and lateral limits of the illumination surface of the lamp device.  
According to European Directive 91/663/EEC , Annex I "Instalation of lighting and light-signalling devices" clause 1.9.2.  
According to ECE regulation 48/06 "Instalation of light and light-signalling devices" clause 2.10.3.2.

Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
86-014 Giermków Polska  
ul. Przemysłowa 5  
NIP: 5542620937, KRS: 0000529236  
Tel.: +48 52 300 90 51, Fax: +48 52 327 75 41



Drawn by:	Date:	sheet Nr.
Michał Dybicz	06-04-2022	5/5

Type

FT-069 C LED - rear position lamp with retro reflex reflector EXT01

light source

LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED emitting cold light color

sheet description

variant tradenames  
This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PMMA transparent red
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR4
- potting compound epoxy resin

Variants

FT-069 C LED	FT-069 C LED Red LED clearance lamp with a reflector and a cable.
FT-069 C LED Mxx	FT-069 C LED Red LED clearance lamp with a reflector and a cable Mxx.
FT-069 C LED Q5075	FT-069 C LED Q5075 Red LED clearance lamp with a reflector, a cable and a Q5075 connector.
FT-069 C LED Q5075 Mxx	FT-069 C LED Q5075 Red LED clearance lamp with a reflector, a cable Mxx and a Q5075 connector.
FT-069 C LED Q5150	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, a cable and a Q5150 connector.
FT-069 C LED Q5150 Mxx	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, a cable Mxx and a Q5150 connector.
FT-069 C LED	FT-069 C LED Red LED clearance lamp with a reflector, an angle holder and a cable.
FT-069 C LED Mxx	FT-069 C LED Red LED clearance lamp with a reflector, an angle holder and a cable Mxx.
FT-069 C LED Q5075	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, an angle holder, a cable and a Q5075 connector.
FT-069 C LED Q5075 Mxx	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, an angle holder, a cable Mxx and a Q5075 connector.
FT-069 C LED Q5150	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, an angle holder, a cable and a Q5150 connector.
FT-069 C LED Q5150 Mxx	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, an angle holder, a cable Mxx and a Q5150 connector.
FT-069 C LED	FT-069 C LED Red LED clearance lamp with a reflector, a flat holder and a cable.
FT-069 C LED Mxx	FT-069 C LED Red LED clearance lamp with a reflector, a flat holder and a cable Mxx.
FT-069 C LED Q5075	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, a flat holder, a cable and a Q5075 connector.
FT-069 C LED Q5075 Mxx	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, a flat holder, a cable Mxx and a Q5075 connector.
FT-069 C LED Q5150	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, a flat holder, a cable and a Q5150 connector.
FT-069 C LED Q5150 Mxx	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, a flat holder, a cable Mxx and a Q5150 connector.
FT-069 C LED	FT-069 C LED Red LED clearance lamp with a reflector, short holder and a cable.
FT-069 C LED Mxx	FT-069 C LED Red LED clearance lamp with a reflector, short holder and a cable Mxx.
FT-069 C LED Q5075	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, a short holder, a cable and a Q5075 connector.
FT-069 C LED Q5075 Mxx	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, a short holder, a cable Mxx and a Q5075 connector.
FT-069 C LED Q5150	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, a short holder, a cable and a Q5150 connector.
FT-069 C LED Q5150 Mxx	FT-069 C LED Q5150 Red LED clearance lamp with a reflector, a short holder, a cable Mxx and a Q5150 connector.
FT-069 CIV LED	FT-069 CIV LED Red clearance LED lamp with a reflector, a flat with an long holder and a 2x0.75 mm2 cable.
FT-069 CIV LED Mxx	FT-069 CIV LED Red clearance LED lamp with a reflector, a flat cable Mxx with an long holder and a 2x0.75 mm2 cable.
FT-069 CIV LED Q5075	FT-069 CIV LED Q5075 White LED clearance lamp with a reflector, an long holder, a cable and a Q5075 connector.
FT-069 CIV LED Q5075 Mxx	FT-069 CIV LED Q5075 White LED clearance lamp with a reflector, an long holder, a cable Mxx and a Q5075 connector.
FT-069 CIV LED Q5150	FT-069 CIV LED Q5075 White LED clearance lamp with a reflector, an long holder, a cable and a Q5150 connector.
FT-069 CIV LED Q5150 Mxx	FT-069 CIV LED Q5075 White LED clearance lamp with a reflector, an long holder, a cable Mxx and a Q5150 connector.

where x is a digit between 0-9



## Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
86-014 Sicienko / Polska  
ul. Przemysłowa 5  
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**Fristom**

Drawn by: Date:

Michał Dybicz

06-04-2022

sheet Nr.

1/5

## Type

FT-069 Z LED - side marking lamp with retro reflex reflector EXT01

## light source

LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED white light color

## sheet description

lamp functions

This drawing is a part of the application for approval

## Material used in manufacturing :

- lampshade PMMA transparent amber
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR4
- potting compound epoxy resin
- flat connector steel zinc plated

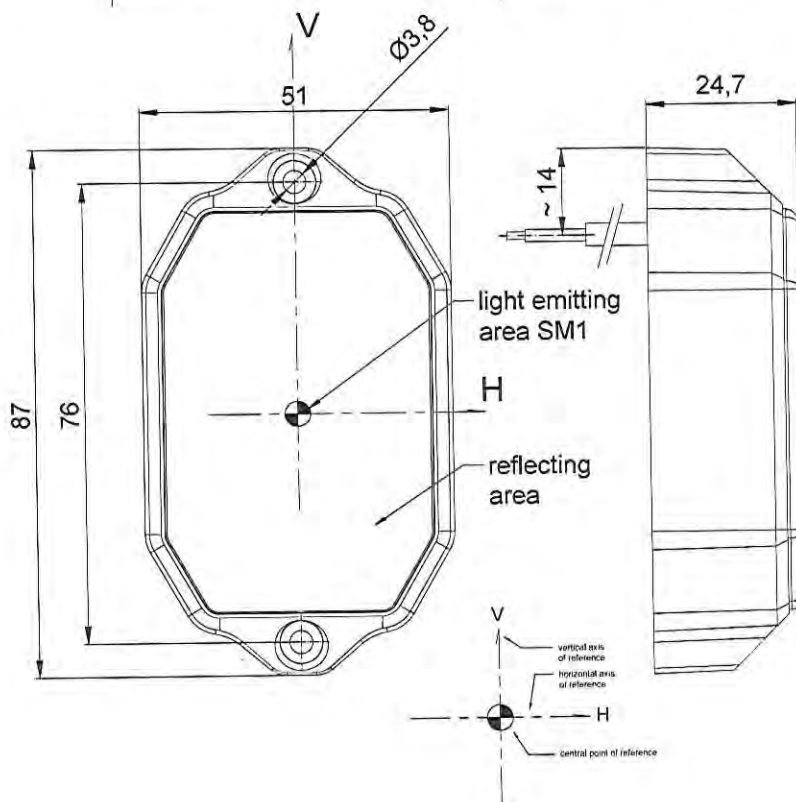
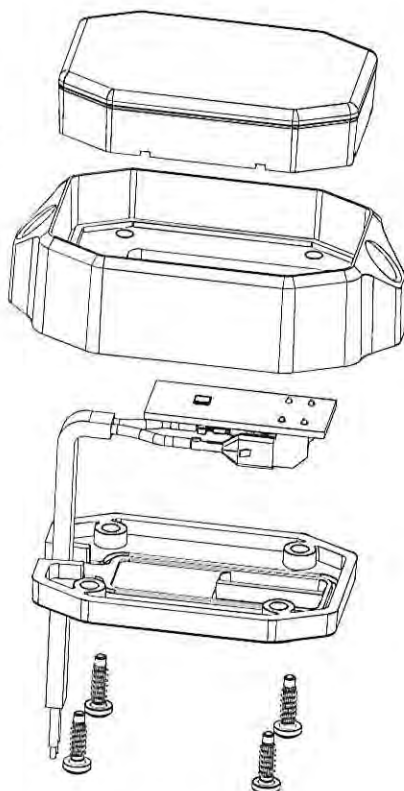
## electrical data

12/24V DC input

12V - 0,4 W

24V - 0,8 W

1 LED



IDIADA PC22040150

**Manufacturer**

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
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**Fristom**

Drawn by: **Date:** **sheet Nr.**  
Michał Dybicz: 06-04-2022 2/5

**Type****FT-069 Z LED - side marking lamp with retro reflex reflector EXT01****light source**

LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED white light color

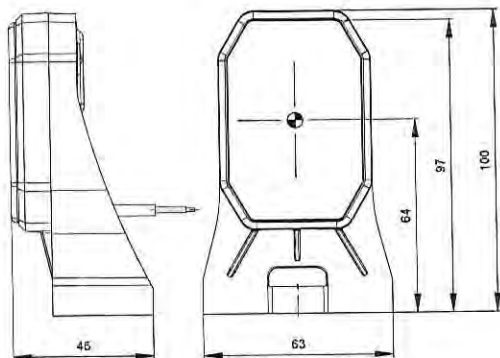
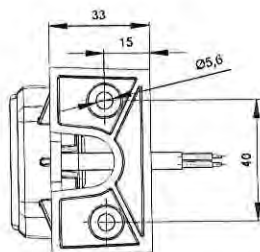
**sheet description**

positioning on vehicle , assembly fittings

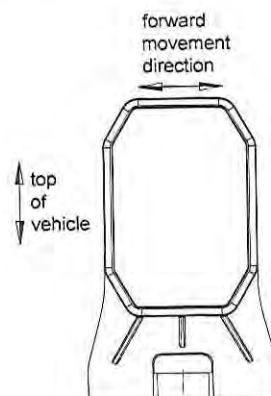
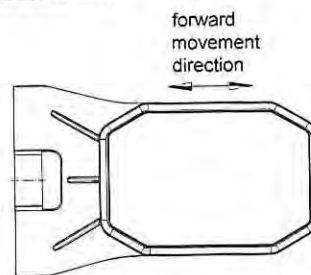
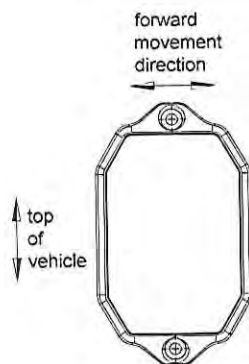
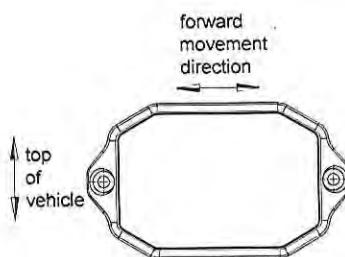
This drawing is a part of the application for approval

**Material used in manufacturing :**

- lampshade PMMA transparent amber
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR-4
- potting compound epoxy resin
- flat connector steel zinc plated



note:  
horizontal and vertical assembly



IDIADA PC22040150

**Manufacturer**

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**Fristom**

**Drawn by:** Michał Dyblec **Date:** 06-04-2022 **sheet Nr.** 3/5

**Type**

**FT-069 Z LED** - side marking lamp with retro reflex reflector EXT01

**light source**

LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED white light color

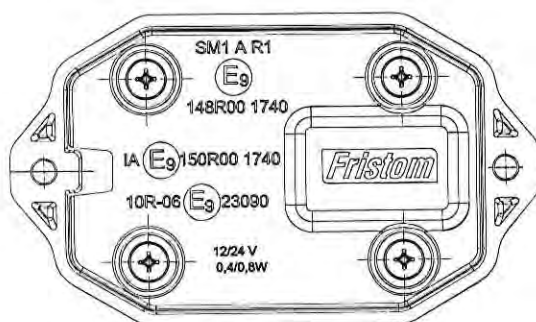
**sheet description**

approval , trademark and electrical parameters marking

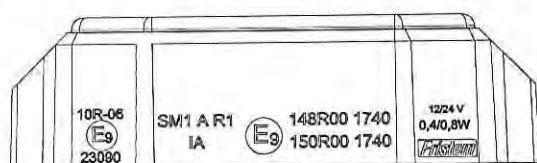
This drawing is a part of the application for approval

**Material used in manufacturing :**

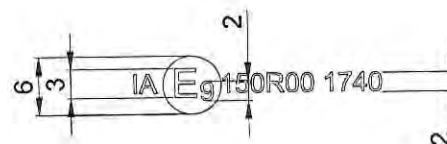
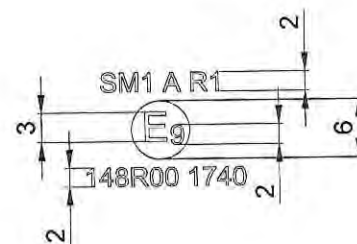
- lampshade PMMA transparent amber
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR4
- potting compound epoxy resin
- flat connector steel zinc plated



approval , trademark and electrical parameters marking  
ON BACK COVER AND FLAT ASSEMBLY BRACKET always visible after assembly



approval marking dimensions



PC22040150



**Manufacturer**

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
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**Fristom**

**Drawn by:** Michał Dybicz  
**Date:** 06-04-2022  
**sheet Nr.** 4/5

**Type**

**FT-069 Z LED** - side marking lamp with retro reflex reflector EXT01

**light source**

LIGHT SOURCE : LED CHIP SMD chip mounted  
• 1 LED white light color

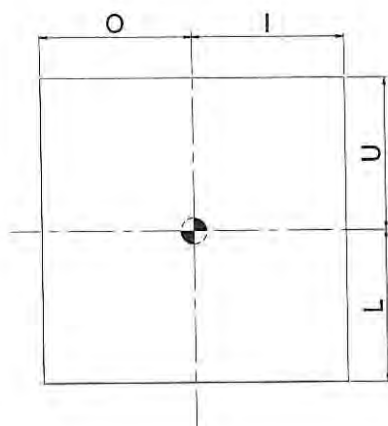
**sheet description**

lighting surface

This drawing is a part of the application for approval

**Material used in manufacturing :**

- lampshade PMMA transparent amber
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR4
- potting compound epoxy resin
- flat connector steel zinc plated



lighting surface				
function	U <sub>(upper limit)</sub> [mm]	L <sub>(lower limit)</sub> [mm]	O <sub>(outer limit)</sub> [mm]	I <sub>(inner limit)</sub> [mm]
sidemarking light SM1	5	5	5	5

Determining the lower , upper and lateral limits of the illumination surface of the lamp device.  
According to European Directive 91/663/EEC , Annex I "Instalation of lighting and light-signalling devices" clause 1.9.2.  
According to ECE regulation 48/06 "Instalation of light and light-signalling devices" clause 2.10.3.2.

**Manufacturer**

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
86-014 Sierosław / Polska  
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NIP: 5542020537, KRS: 0000620236  
Tel.: +48 52 360 00 51, Fax: +48 52 327 75 41



**Drawn by:** Michał Dybicz  
**Date:** 06-04-2022  
**sheet Nr.** 5/5

**Type**

**FT-069 Z LED** - side marking lamp with retro reflex reflector EXT01

**light source**

LIGHT SOURCE : LED CHIP SMD chip mounted  
~ 1 LED white light color

**sheet description**

variant tradenames

This drawing is a part of the application for approval

**Material used in manufacturing :**

- lampshade PMMA transparent amber
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR-4
- potting compound epoxy resin
- flat connector steel zinc plated

**Variants**

FT-069 Z LED	FT-069 Z LED Yellow LED clearance lamp with a reflector and a cable.
FT-069 Z LED Mxx	FT-069 Z LED Yellow LED clearance lamp with a reflector and a cable Mxx.
FT-069 Z LED Q5075	FT-069 Z LED M05 KT Yellow LED clearance lamp with a reflector and a cable and a Q5075 connector.
FT-069 Z LED Q5075 Mxx	FT-069 Z LED M05 KT Yellow LED clearance lamp with a reflector and a cable Mxx and a Q5075 connector.
FT-069 Z LED Q5150	FT-069 Z LED Q5075 Yellow LED clearance lamp with a reflector, a cable and a Q5075 connector.
FT-069 Z LED Q5150 Mxx	FT-069 Z LED Q5075 Yellow LED clearance lamp with a reflector, a cable Mxx and a Q5075 connector.
FT-069 ZI LED	FT-069 ZI LED Q5150 Yellow LED clearance lamp with a reflector, a cable and a Q5150 connector.
FT-069 ZI LED Mxx	FT-069 ZI LED Q5150 Yellow LED clearance lamp with a reflector, a cable Mxx and a Q5150 connector.
FT-069 ZI LED Q5075	FT-069 ZI LED Yellow LED clearance lamp with a reflector, an angle holder and a cable.
FT-069 ZI LED Q5075 Mxx	FT-069 ZI LED Yellow LED clearance lamp with a reflector, an angle holder and a cable Mxx.
FT-069 ZI LED Q5150	FT-069 ZI LED Q5150 Yellow LED clearance lamp with a reflector, an angle holder, a cable and a Q5150 connector.
FT-069 ZI LED Q5150 Mxx	FT-069 ZI LED Q5150 Yellow LED clearance lamp with a reflector, an angle holder, a cable Mxx and a Q5150 connector.
FT-069 ZII LED	FT-069 ZII LED Clearance Lamp LED 12-30V, yellow with reflector, straight rubber holder with a loom.
FT-069 ZII LED Mxx	FT-069 ZII LED Clearance Lamp LED 12-30V, yellow with reflector, straight rubber holder with a loom Mxx.
FT-069 ZII LED Q5075	FT-069 ZII LED Q5075 Yellow LED clearance lamp with a reflector, a flat holder, a cable and a Q5075 connector.
FT-069 ZII LED Q5075 Mxx	FT-069 ZII LED Q5075 Yellow LED clearance lamp with a reflector, a flat holder, a cable Mxx and a Q5075 connector.
FT-069 ZII LED Q5150	FT-069 ZII LED Q5150 Clearance Lamp LED 12-30V, yellow with reflector, straight rubber holder with a loom with connector Q5150.
FT-069 ZII LED Q5150 Mxx	FT-069 ZII LED Q5150 Clearance Lamp LED 12-30V, yellow with reflector, straight rubber holder with a loom Mxx with connector Q5150.
FT-069 ZIII LED	FT-069 ZIII LED Yellow LED clearance lamp with a reflector, short holder and a cable.
FT-069 ZIII LED Mxx	FT-069 ZIII LED Yellow LED clearance lamp with a reflector, short holder and a cable Mxx.
FT-069 ZIII LED Q5075	FT-069 ZIII LED Clearance Lamp LED 12-30V, yellow with reflector, set straight holder with a loom ended with connector Q5075.
FT-069 ZIII LED Q5075 Mxx	FT-069 ZIII LED Clearance Lamp LED 12-30V, yellow with reflector, set straight holder with a loom Mxx ended with connector Q5075.
FT-069 ZIII LED Q5150	FT-069 ZIII LED Q5150 Yellow LED clearance lamp with a reflector, a short holder, a cable and a Q5150 connector.
FT-069 ZIII LED Q5150 Mxx	FT-069 ZIII LED Q5150 Yellow LED clearance lamp with a reflector, a short holder, a cable Mxx and a Q5150 connector.
FT-069 ZIV LED	FT-069 ZIV LED Yellow clearance LED lamp with a reflector, a flat with an long holder and a 2x0.75 mm <sup>2</sup> cable.
FT-069 ZIV LED Mxx	FT-069 ZIV LED Yellow clearance LED lamp with a reflector, a flat with an long holder and a 2x0.75 mm <sup>2</sup> cable Mxx.
FT-069 ZIV LED Q5075	FT-069 ZIV LED Q5075 Yellow LED clearance lamp with a reflector, an long holder, a cable and a Q5075 connector.
FT-069 ZIV LED Q5075 Mxx	FT-069 ZIV LED Q5075 Yellow LED clearance lamp with a reflector, an long holder, a cable Mxx and a Q5075 connector.
FT-069 ZIV LED Q5150	FT-069 ZIV LED Q5075 Yellow LED clearance lamp with a reflector, an long holder, a cable and a Q5150 connector.
FT-069 ZIV LED Q5150 Mxx	FT-069 ZIV LED Q5075 Yellow LED clearance lamp with a reflector, an long holder, a cable Mxx and a Q5150 connector.

where x is a digit between 0-9

### Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
80-014 Świecko / Polska  
ul. Przemysłowa 5  
NIP: 5542920537, KRS: 0000529238  
Tel.: +48 52 350 90 51, Fax: +48 52 327 75 41

**Fristom**

Drawn by: Michał Dybicz Date: 05-04-2022 sheet Nr. 1/5

### Type

FT-069 B LED - front position lamp with retro reflex reflector EXT01

### light source

LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED white light color

### sheet description

lamp functions

This drawing is a part of the application for approval

### Material used in manufacturing :

- lampshade PMMA transparent clear
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR-4
- potting compound epoxy resin

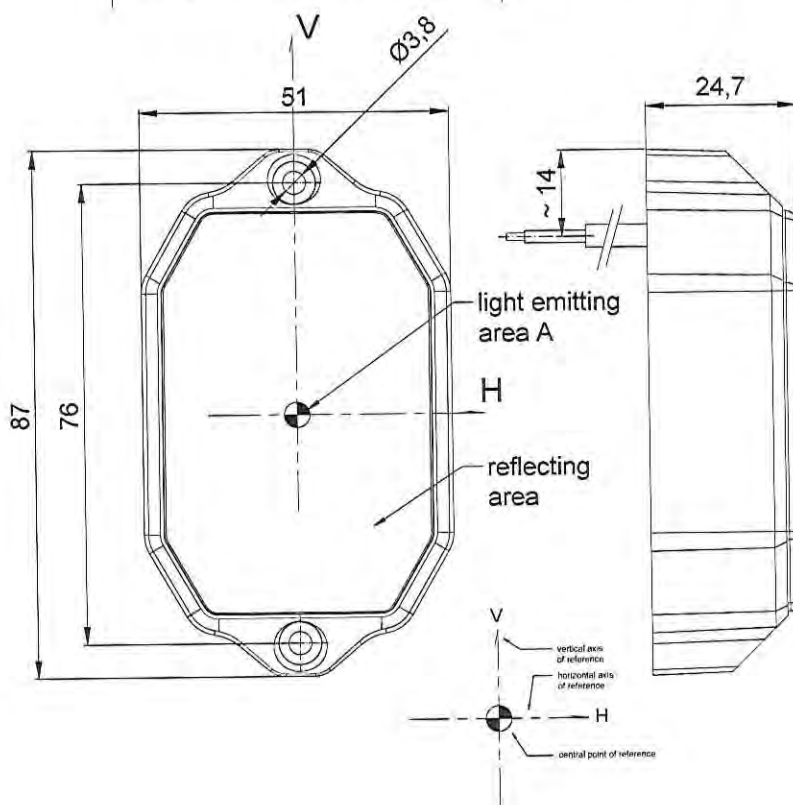
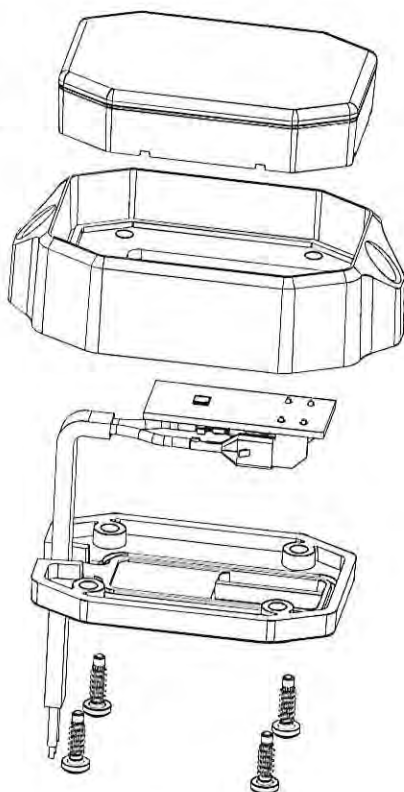
### electrical data

12/24V DC input

12V - 0,4 W

24V - 0,8 W

1 LED



IDIADA PC22040150



# Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
00-014 Śliczenko / Polska  
ul. Przemysłowa 5  
NIP: 5542026937, KRS: 0000526238  
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**Fristom**

Drawn by: Michał Dybiez Date: 06-04-2022 sheet Nr. 2/5

# Type

FT-069 B LED - front position lamp with retro reflex reflector EXT01

# light source

LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED white light color

# sheet description

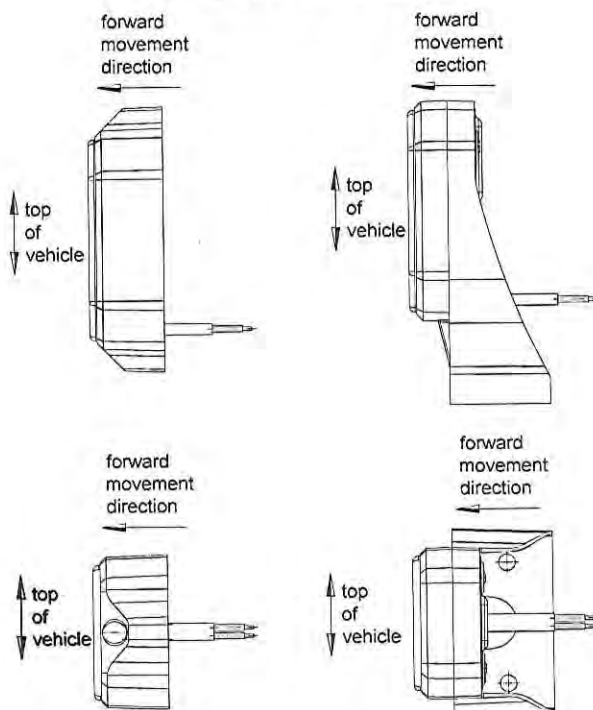
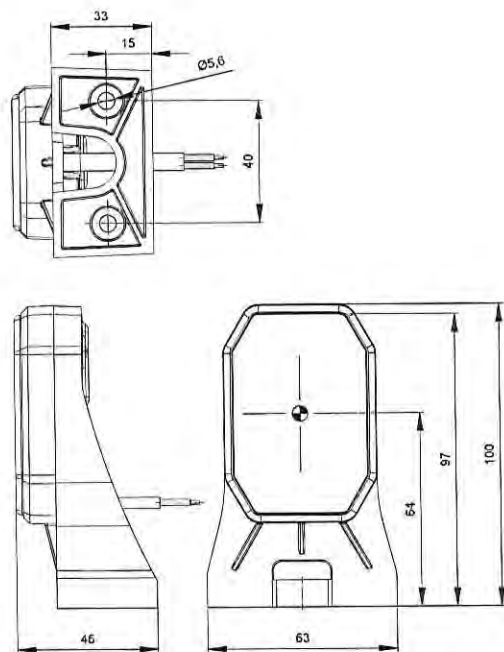
positioning on vehicle , assembly fittings

This drawing is a part of the application for approval

# Material used in manufacturing :

- lampshade PMMA transparent clear
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR-4
- potting compound epoxy resin

note:  
horizontal and vertical assembly



PC22040150

#### Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
80-014 Gdansk / Polska  
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**Fristom**

Drawn by: Michał Dybiec Date: 06-04-2022 sheet Nr. 3/5

#### Type

FT-069 B LED - front position lamp with retro reflex reflector EXT01

#### light source

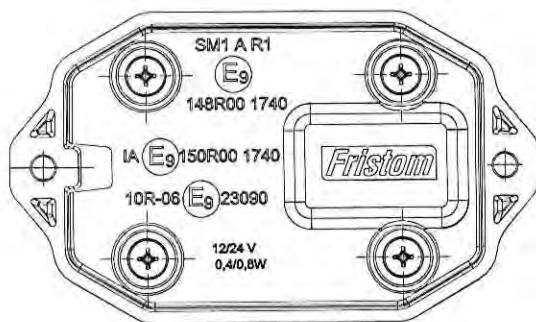
LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED white light color

#### sheet description

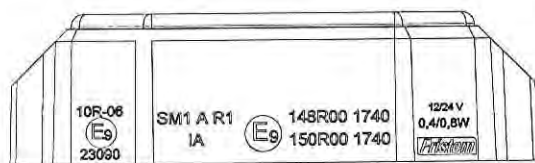
approval, trademark and electrical parameters marking  
This drawing is a part of the application for approval

#### Material used in manufacturing :

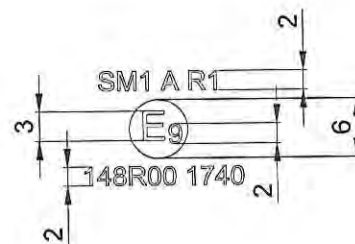
- lampshade PMMA transparent clear
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR4
- potting compound epoxy resin



approval, trademark and electrical parameters marking  
ON BACK COVER AND FLAT ASSEMBLY BRACKET always visible after assembly



approval marking dimensions



PC22040150

**Manufacturer**

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
65-014 Sierosze / Polska  
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**Fristom**

**Drawn by:** Michał Dybicz  
**Date:** 06-04-2022  
**sheet Nr.** 4/5

**Type**

**FT-069 B LED** - front position lamp with retro reflex reflector EXT01

**light source**

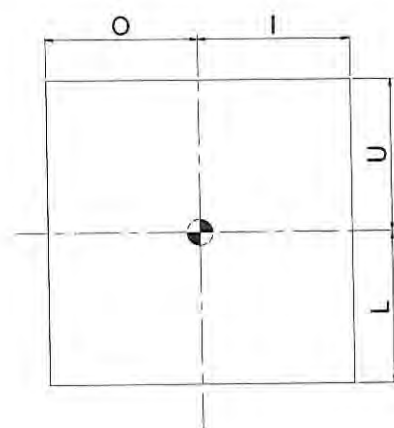
LIGHT SOURCE : LED CHIP SMD chip mounted  
• 1 LED white light color

**sheet description**

lighting surface  
This drawing is a part of the application for approval

**Material used in manufacturing :**

- lampshade PMMA transparent clear
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR4
- potting compound epoxy resin



lighting surface				
function	U <sub>(upper limit)</sub> [mm]	L <sub>(lower limit)</sub> [mm]	O <sub>(outer limit)</sub> [mm]	I <sub>(inner limit)</sub> [mm]
front position light A	5	5	5	5

Determining the lower , upper and lateral limits of the ilumination surface of the lamp device.

According to European Directive 91/663/EEC , Annex I "Instalation of lighting and light-signalling devices" clause 1.9.2.

According to ECE regulation 48/06 "Instalation of light and light-signalling devices" clause 2.10.3.2.



**Manufacturer**

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
66-014 Sienko / Polska  
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Tel.: +48 52 360 90 51, Fax: +48 52 327 75 41

**Drawn by:****Date:****sheet Nr.**

Michał Dybicz

06-04-2022

5/5

**Type****FT-069 B LED - front position lamp with retro reflex reflector EXT01****light source**

LIGHT SOURCE : LED CHIP SMD chip mounted  
- 1 LED ~~white~~ **highlighted** light color

**sheet description**

variant tradenames

This drawing is a part of the application for approval

**Material used in manufacturing :**

- lampshade PMMA transparent clear
- housing - PC transparent
- fixing bracket - polyethylene or polypropylene black
- PCB FR-4
- potting compound epoxy resin

**Variants**

FT-069 B LED	FT-069 B LED White LED clearance lamp with a reflector and a cable.
FT-069 B LED Mxx	FT-069 B LED White LED clearance lamp with a reflector and a cable Mxx.
FT-069 B LED Q5075	FT-069 B LED Q5075 White LED clearance lamp with a reflector, a cable and a Q5075 connector.
FT-069 B LED Q5075 Mxx	FT-069 B LED Q5075 White LED clearance lamp with a reflector, a cable Mxx and a Q5075 connector.
FT-069 B LED Q5150	FT-069 B LED Q5150 White LED clearance lamp with a reflector, a cable and a Q5150 connector.
FT-069 B LED Q5150 Mxx	FT-069 B LED Q5150 White LED clearance lamp with a reflector, a cable Mxx and a Q5150 connector.
FT-069 BI LED	FT-069 BI LED White LED clearance lamp with a reflector, an angle holder and a cable.
FT-069 BI LED Mxx	FT-069 BI LED White LED clearance lamp with a reflector, an angle holder and a cable Mxx.
FT-069 BI LED Q5075	FT-069 BI LED Q5075 White LED clearance lamp with a reflector, an angle holder, a cable and a Q5075 connector.
FT-069 BI LED Q5075 Mxx	FT-069 BI LED Q5075 White LED clearance lamp with a reflector, an angle holder, a cable Mxx and a Q5075 connector.
FT-069 BI LED Q5150	FT-069 BI LED Q5150 White LED clearance lamp with a reflector, an angle holder, a cable and a Q5150 connector.
FT-069 BI LED Q5150 Mxx	FT-069 BI LED Q5150 White LED clearance lamp with a reflector, an angle holder, a cable Mxx and a Q5150 connector.
FT-069 BII LED	FT-069 BII LED White LED clearance lamp with a reflector, a flat holder and a cable.
FT-069 BII LED Mxx	FT-069 BII LED White LED clearance lamp with a reflector, a flat holder and a cable Mxx.
FT-069 BII LED Q5075	FT-069 BII LED Q5075 White LED clearance lamp with a reflector, a flat holder, a cable and a Q5075 connector.
FT-069 BII LED Q5075 Mxx	FT-069 BII LED Q5075 White LED clearance lamp with a reflector, a flat holder, a cable Mxx and a Q5075 connector.
FT-069 BII LED Q5150	FT-069 BII LED Q5150 White LED clearance lamp with a reflector, a flat holder, a cable and a Q5150 connector.
FT-069 BII LED Q5150 Mxx	FT-069 BII LED Q5150 White LED clearance lamp with a reflector, a flat holder, a cable Mxx and a Q5150 connector.
FT-069 BIII LED	FT-069 BIII LED White LED clearance lamp with a reflector, short holder and a cable.
FT-069 BIII LED Mxx	FT-069 BIII LED White LED clearance lamp with a reflector, short holder and a cable Mxx.
FT-069 BIII LED Q5075	FT-069 BIII LED Q5075 White LED clearance lamp with a reflector, a short holder, a cable and a Q5075 connector.
FT-069 BIII LED Q5075 Mxx	FT-069 BIII LED Q5075 White LED clearance lamp with a reflector, a short holder, a cable Mxx and a Q5075 connector.
FT-069 BIII LED Q5150	FT-069 BIII LED Q5150 White LED clearance lamp with a reflector, a short holder, a cable and a Q5150 connector.
FT-069 BIII LED Q5150 Mxx	FT-069 BIII LED Q5150 White LED clearance lamp with a reflector, a short holder, a cable Mxx and a Q5150 connector.
FT-069 BIV LED	FT-069 BIV LED White clearance LED lamp with a reflector, a flat with an angle holder and a 2x0.75 mm2 cable.
FT-069 BIV LED Mxx	FT-069 BIV LED White clearance LED lamp with a reflector, a flat with an angle holder and a 2x0.75 mm2 cable Mxx.
FT-069 BIV LED Q5075	FT-069 BIV LED Q5075 White clearance LED lamp with a reflector, a flat with an angle holder, Q5075 connector.
FT-069 BIV LED Q5075 Mxx	FT-069 BIV LED Q5075 White clearance LED lamp with a reflector, a flat cable Mxx with an angle holder, Q5075 connector.
FT-069 BIV LED Q5150	FT-069 BIV LED Q5150 White clearance LED lamp with a reflector, a flat with an angle holder, Q5150 connector.
FT-069 BIV LED Q5150 Mxx	FT-069 BIV LED Q5150 White clearance LED lamp with a reflector, a flat cable Mxx with an angle holder, Q5150 connector.

where x is a digit between 0-9