



E9*91R00/17*23523*00

Página / Page 1/3



COMUNICACIÓN / COMMUNICATION:

Concerniente a ⁽¹⁾: LA CONCESIÓN DE HOMOLOGACIÓN
LA EXTENSIÓN DE HOMOLOGACIÓN
LA DENEGACIÓN DE HOMOLOGACIÓN
LA RETIRADA DE HOMOLOGACIÓN
EL CESE DEFINITIVO DE PRODUCCIÓN

Concerning ⁽¹⁾: APPROVAL GRANTED
APPROVAL EXTENDED
APPROVAL REFUSED
APPROVAL WITHDRAWN
PRODUCTION DEFINITELY DISCONTINUED

de un tipo de luz de posición lateral marcada SM1 / SM2 ⁽¹⁾ en aplicación del Reglamento N°91.
of a type of side-marker lamp marked SM1 / SM2 ⁽¹⁾, pursuant to Regulation No91.

N° de homologación / Approval No.: E9*91R00/17*23523*00

Extensión N° / Extension No.: ---

1. Marca de fábrica o comercial de la luz de posición lateral / Trade name or mark of the side-marker lamp:
FRISTOM
2. Designación del tipo de luz de posición lateral dado por el fabricante / Manufacturer's name for the type of side-marker lamp:
FT-072 LED
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
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. En su caso, nombre y dirección del representante del fabricante / If applicable, name and address of manufacturer's representative: ---
5. Dispositivo presentado a homologación el / Submitted for approval on: 06/03/2020
6. Servicio técnico encargado de los ensayos de homologación / Technical service responsible for conducting approval test: IDIADA
7. Fecha del informe emitido por dicho servicio / Date of report issued by that service: 22/04/2020
8. Número del informe emitido por dicho servicio / Number of report issued by that service: PC20020201

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





E9*91R00/17*23523*00

Página / Page 2/3



9. Breve descripción / Concise description:

- Color de la luz emitida: ambar / ~~rojo~~ ⁽¹⁾ / Colour of the light emitted: amber / ~~red~~ ⁽¹⁾
- Número y categoría(s) de la(s) fuente(s) luminosa(s) / Number and category(ies) of light source(s):
18 LED'S
- Módulo de fuente de luz / Light source module: ~~si~~ yes - no / no ⁽¹⁾
- Código de identificación específico del módulo de fuente de luz / Light source module specific identification code: ---
- Solamente para instalación limitada en altura igual o inferior a 750 mm por encima del suelo / Only for limited mounting height of equal to or less than 750 mm above the ground: ~~si~~ yes - no / no ⁽¹⁾
- Condiciones geométricas de instalación y variaciones relacionadas, en su caso / Geometrical conditions of installation and relating variations, if any: ---
- Aplicación de una guía de control electrónica/control de intensidad variable de la fuente luminosa / Application of an electronic light source control gear/variable intensity control: ---
 - a) formando parte de la luz / being part of the lamp: sí / yes - no / no - no aplicable / not applicable ⁽¹⁾
 - b) no formando parte de la luz / being not part of the lamp: sí / yes - no / no - no aplicable / not applicable ⁽¹⁾
- Tensión(es) de entrada suministrada(s) por la guía de control electrónica/control de intensidad variable de la(s) fuente(s) luminosa(s) / Input voltage(s) supplied by an electronic light source control gear/variable intensity control: ---
- Fabricante de la guía de control electrónica/control de intensidad variable de la(s) fuente(s) luminosa(s) y número de identificación (cuando la guía de control de la fuente luminosa forma parte de la luz pero no está incluida en el cuerpo de la luz) / Electronic light source control gear/variable intensity control manufacturer and identification number (when the light source control gear is part of the lamp but is not included into the lamp body): ---
- La luz es sólo para uso en un vehículo equipado con un testigo que indique el fallo / The lamp is only for use on a vehicle fitted with a tell-tale indicating failure: ~~si~~ yes - no / no ⁽¹⁾

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





E9*91R00/17*23523*00

Página / Page 3/3



10. Posición de la marca de homologación / *Position of the approval mark*: Ver documentación suministrada por el fabricante / *See documentation supplied by the manufacturer*.
11. Motivos de la extensión (en su caso) / *Reason(s) of extension (if applicable)*: ---
12. Se concede/~~deniega~~/~~extiende~~/~~retira~~ la homologación ⁽¹⁾ / *Approval granted/refused/extended/withdrawn* ⁽¹⁾
13. Lugar / *Place*: Madrid
14. Fecha / *Date*: Ver firma electrónica / *See electronic signature*
15. Firma / *Signature*:

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

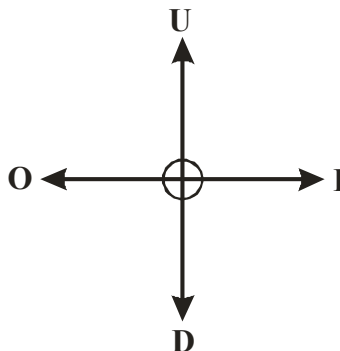
16. Se adjunta la lista de apartados que constituyen el expediente de homologación depositado en el servicio administrativo que ha concedido la homologación y que pueden ser obtenidos a petición. / *The list of documents deposited with the Administrative Service which has granted approval is annexed to this communication and may be obtained on request*.
 - Informe del ensayo / *Test report*
 - Documentación suministrada por el fabricante / *Documentation supplied by the manufacturer*

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





SUPERFICIE ILUMINANTE / ILLUMINATING SURFACE



Límite superior / Upper boundary "U" (mm)	Límite inferior / Down boundary "D" (mm)	Límite interior / Inner boundary "I" (mm)	Límite exterior / Outer boundary "O" (mm)
16	15	48	45

Lugar del ensayo / Test place: L'Albornar, E-43710 Santa Oliva (Tarragona)
Fecha del ensayo / Test date: 06/03/2020

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.

INFORMATION FOLDER:

FIRST APPLICATION
DATE: 15.04.2020

1. Specification data

Type	FT-072 LED	
Trade name or mark	Fristom	
Variants	FT-072 B LED ; FT-072 Z LED ; FT-072 C LED	
Function	Front position ; side marking , rear position , retro reflector class IA	
Color	white light color , amber light color , white light color	
Rated	Voltage	12V/24V
	Wattage	12V=1,2 W ; 24 V= 2,4 W
Applicable Regulation		R07 ; R91 ; R03
Light Source and connection		3 LED`s serial connected in 6 parallel sections
Location of marking	Light Source marks	See the drawing
	Trade mark	Marked on lampshade
	Approval mark	Marked on the lampshade

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:

NOTE : APPROVAL MARKINGS ARE SHOWN IN THE ATTACHED DRAWING. tel. 52 360 90 50

THIS INFORMATION FOLDER CONSISTS OF 1 PAGES

FRISTOM
Spółka z ograniczoną odpowiedzialnością Sp. k.
86-014 ŚCIENKO, ul. Przemysłowa 5
www.fristom.com.pl
NIP 5542926937 REGON 341640907

MICHAŁ DYBICZ

PC20020201
iDiADA

Manufacturer

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



Drawn by: Michał Dybicz
Date: 15-04-2020
sheet Nr.: 1/5

Type

FT-072 B LED – front LED position lamp with retro reflecting device IA

Light source

LIGHT SOURCE : LED CHIP SMD chip mounted
18 LED's white light color

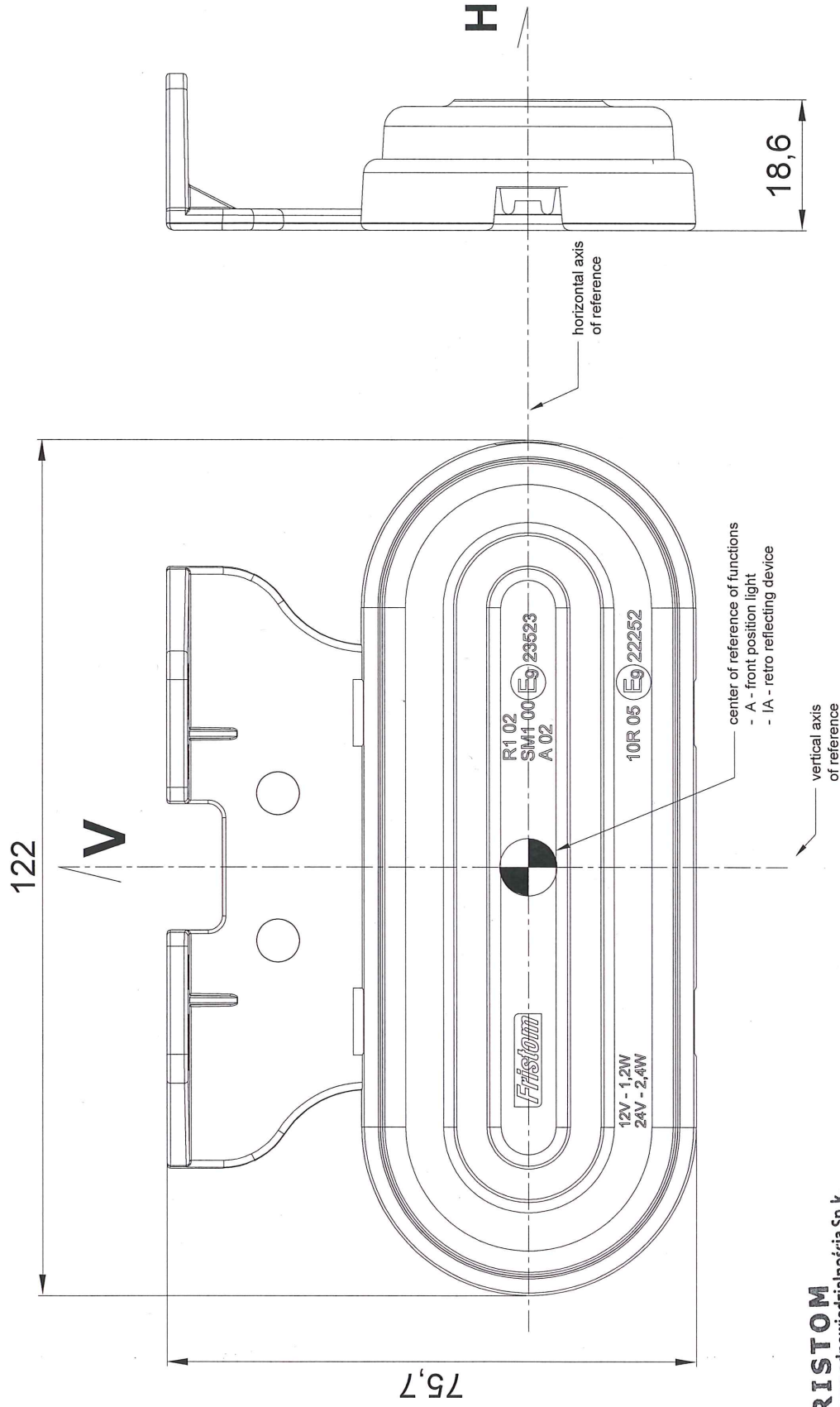
sheet description

general drawing / lamp functions

This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PMMA transparent clear
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin



FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp.k.
86-014 ŚCIEŃKO, ul. Przemysłowa 5

tel. 52 360 90 50

www.fristom.com.pl

NIP 5542926937 REGON 341640907

front view with angled assembly bracket
PC20020201

MICHAŁ DYBICZ

Manufacturer

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



Drawn by: **Date:**

Michał Dybicz 15-04-2020

sheet Nr.

2/5

Type

FT-072 B LED - front LED position lamp with retro reflecting device IA

Material used in manufacturing :

- lampshade PMMA transparent clear
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin

sheet description

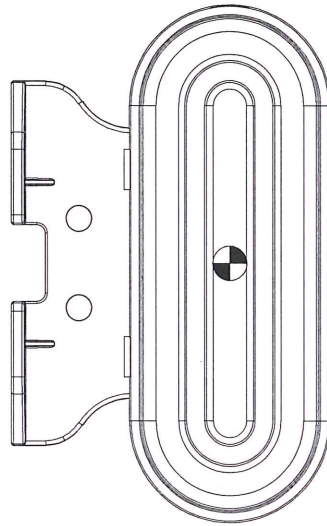
assembly on vehicle

This drawing is a part of the application for approval

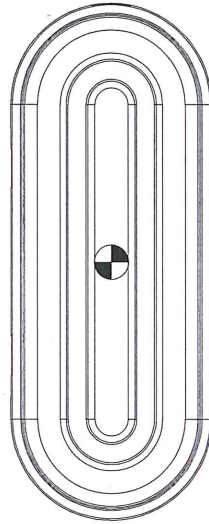
light source

LIGHT SOURCE : LED CHIP SMD chip mounted

18 LED's white light color



front view with angled assembly bracket



front view with simple flat assembly bracket

FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp.k.
86-014 SICIENKO, ul. Przemysłowa 5

tel. 52 360 90 50

www.fristom.com.pl

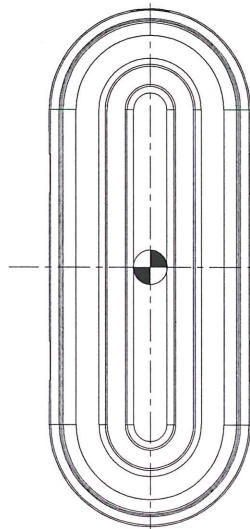
NIP 5542926937 REGON 341640907

MICHAŁ DYBICZ

forward
driving
direction



horizontal assembly on vehicle



top
of
vehicle

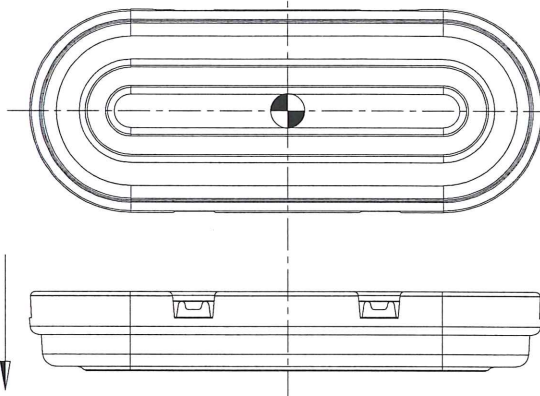
horizontal axis
of reference

vertical axis
of reference

forward
driving
direction



vertical assembly on vehicle



top
of
vehicle

horizontal axis
of reference

vertical axis
of reference

Manufacturer

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



Drawn by: Michał Dybicz

Date: 15-04-2020

sheet Nr.

3/5

Type

FT-072 B LED - front LED position lamp with retro reflecting device IA

Material used in

manufacturing :

- lampshade PMMA transparent clear
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin

light source

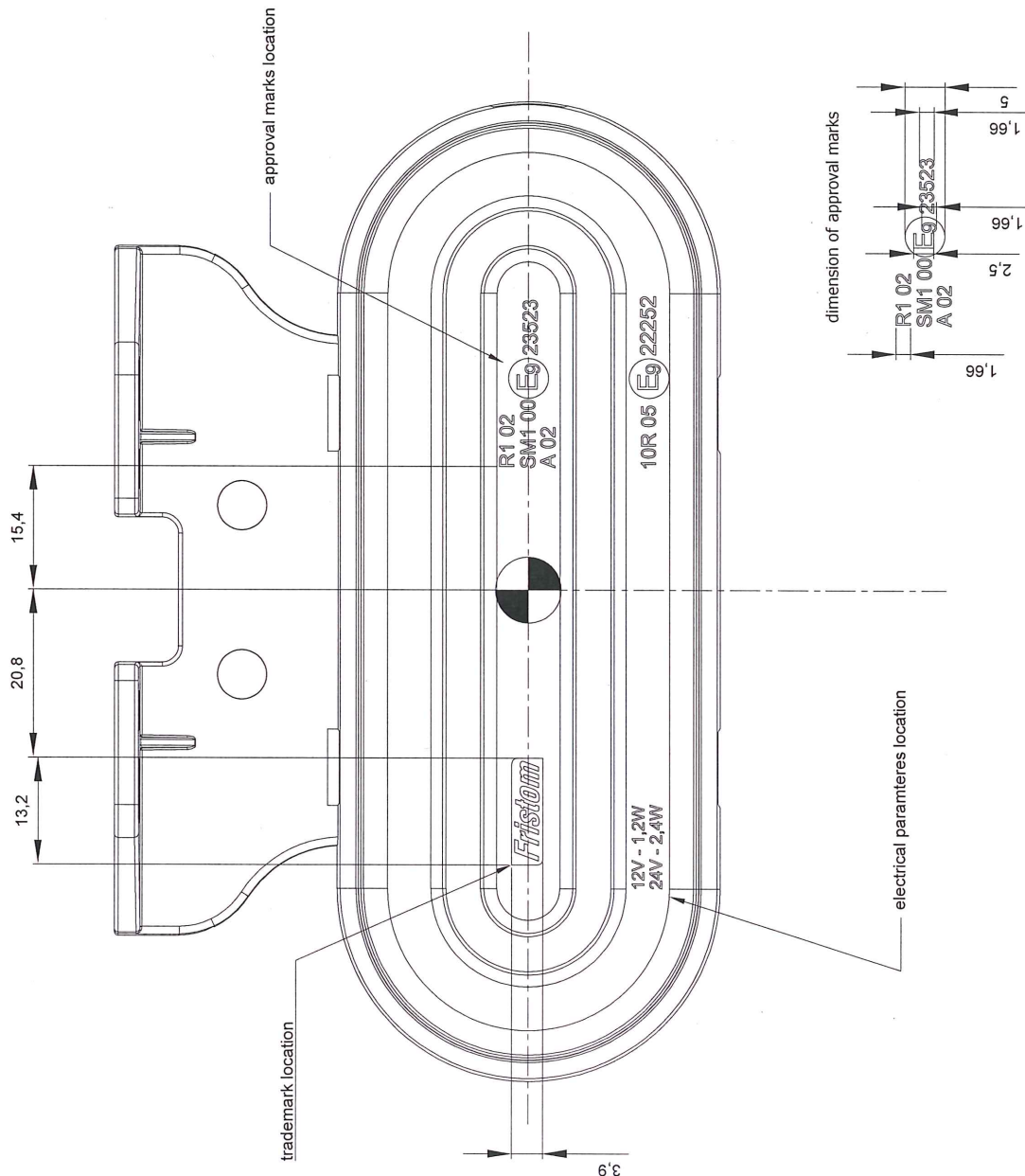
LIGHT SOURCE : LED CHIP SMD chip mounted

18 LED's white light color

sheet description

approval markings and electrical parameters

This drawing is a part of the application for approval



Function A - front position light

12 V - 1,2 W

24 V - 2,4 W

18 LED's white light color

3 LED's serial connected in 6 parallel sections

FRISTOM
Spółka z ograniczoną odpowiedzialnością Sp. z o.o.
86-014 SICIENKA, ul. Przemysłowa 5
tel. 52 360 90 50
www.fristom.com.pl
NIP 5542926937 REGON 341540907
MICHAŁ DYBICZ

Manufacturer

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



Drawn by:

Date:

15-04-2020

sheet Nr.

4/5

Type

FT-072 B LED - front LED position lamp with retro reflecting device IA

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
18 LED's white light color

sheet description

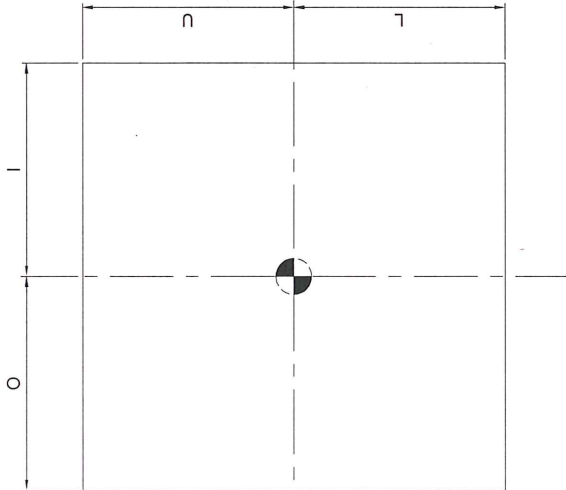
lighting surface

This drawing is a part of the application for approval

Material used in

manufacturing :

- lampshade PMMA transparent clear
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin



lighting surface				
function	U _{upper} (mm)	L _{lower} (mm)	O _{outer ring} (mm)	I _{inner ring} (mm)
A front position	11	11	45	45

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

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

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

FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp.k
86-014 SICIENKO, ul. Przemysłowa 5
tel. 52 360 90 50
www.fristom.com.pl

NIP 5542926937 REGON 341640907

MICHAŁ DYBICZ

Manufacturer

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



Drawn by:

Date:

Michał Dybicz

15-04-2020

sheet Nr.

5/5

Type

FT-072 B LED - front LED position lamp with retro reflecting device IA

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
18 LED's white light color

sheet description

variant tradenames and descriptions

This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PMMA transparent clear
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin

item	description
FT-072 B LED	FT-072 B LED Clearance Lamp LED 12-36V, white with reflector and a loom 0,5m.
FT-072 B LED Mxx	FT-072 B LED Clearance Lamp LED 12-36V, white with reflector and a loom xxm.
FT-072 B LED QS075	FT-072 B LED QS075 Clearance Lamp LED 12-36V, white with reflector a loom lenght 0,5m and connector QS075.
FT-072 B LED QS075 Mxx	FT-072 B LED QS075 Clearance Lamp LED 12-36V, white with reflector a loom lenght xxm and connector QS075.
FT-072 B LED QS150	FT-072 B LED QS150 Clearance Lamp LED 12-36V, white with reflector a loom lenght 0,5m and connector QS150.
FT-072 B LED QS150 Mxx	FT-072 B LED QS150 Clearance Lamp LED 12-36V, white with reflector a loom lenght xxm and connector QS150.
	where x is number from 0 till 9

FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp. k.
86-014 SICIENKO, ul. Przemysłowa 5
tel. 52 360 90 50

www.fristom.com.pl

NIP 5542926937 REGON 341640907

MICHAŁ DYBICZ

Manufacturer

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



Drawn by: **Date:**

Michał Dybicz 15-04-2020

sheet Nr.

1/5

Type

FT-072 C LED - rear LED position lamp with retro reflecting device IA

light source

LIGHT SOURCE : LED CHIP SMD chip mounted

18 LED's red light color

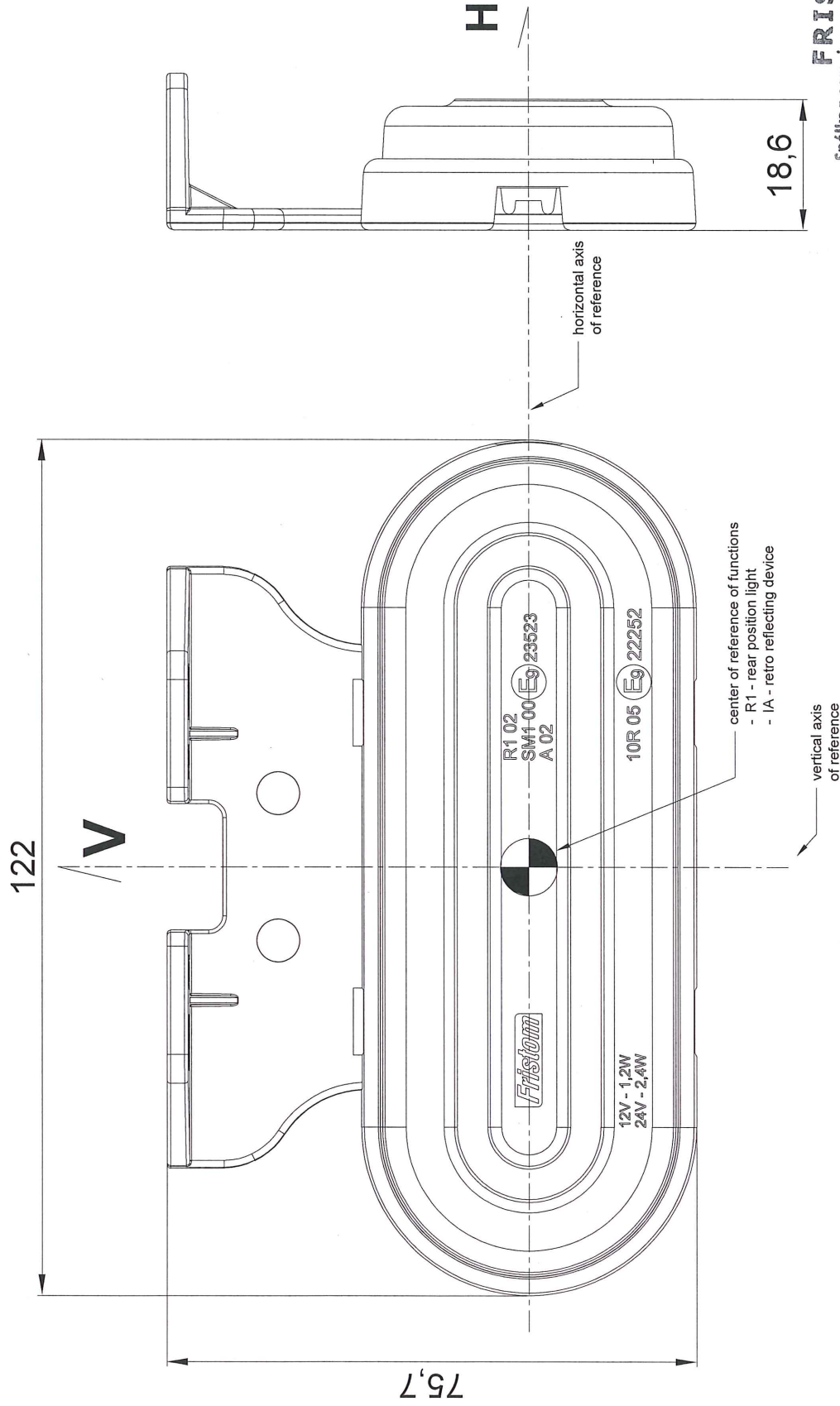
sheet description

general drawing / lamp functions

This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PMMA transparent red
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin



FRISTOM
Spółka z ograniczoną odpowiedzialnością Sp.k.
86-014 Sienko, ul. Przemysłowa 5
tel. 52 360 90 50
www.fristom.com.pl
NIP 5542926937 REGON 341640907

İDİADA front view with angled assembly bracket
PC20020201

MICHAŁ DYBICZ

Manufacturer

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



Drawn by: **Date:**

Michał Dybicz 15-04-2020

sheet Nr.

2/5

Type

FT-072 C LED - rear LED position lamp with retro reflecting device IA

Material used in manufacturing :

- lampshade PMMA transparent red
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin

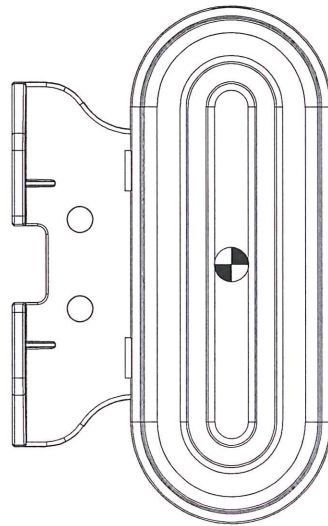
light source

LIGHT SOURCE : LED CHIP SMD chip mounted
18 LED's red light color

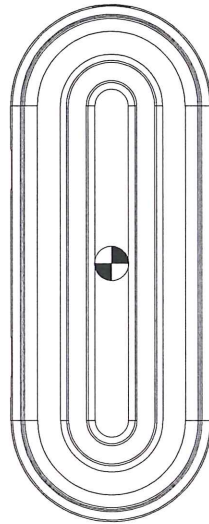
sheet description

assembly on vehicle

This drawing is a part of the application for approval



front view with angled assembly bracket



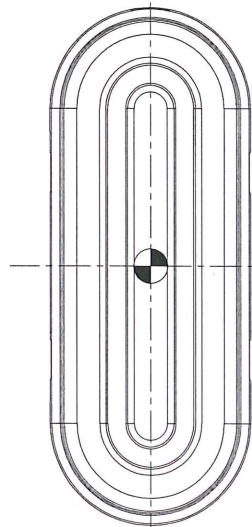
front view with simple flat assembly bracket

FRISTOM
Spółka z ograniczoną odpowiedzialnością Sp. z o.o.
86-014 SICIENKO, ul. Przemysłowa 5
tel. 52 360 90 50
www.fristom.com.pl
NIP 5542926937 REGON 341640907
MICHAŁ DYBICZ

forward
driving
direction



horizontal assembly on vehicle



top
of
vehicle

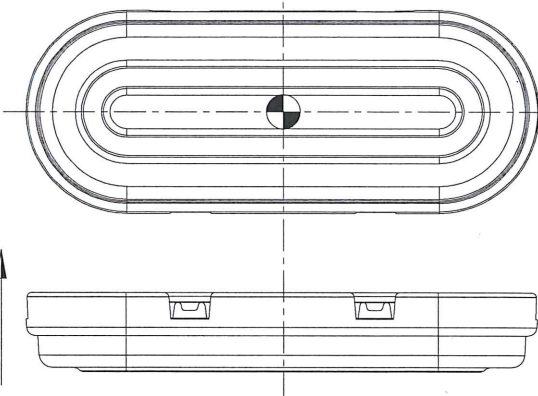
horizontal axis
of reference

vertical axis
of reference

forward
driving
direction



vertical assembly on vehicle



top
of
vehicle

horizontal axis
of reference

vertical axis
of reference

Manufacturer

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



Drawn by: Michał Dybicz

Date: 15-04-2020

sheet Nr. 3/5

Type

FT-072 C LED - rear LED position lamp with retro reflecting device IA

Material used in manufacturing :

- lamshade PMMA transparent red
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin

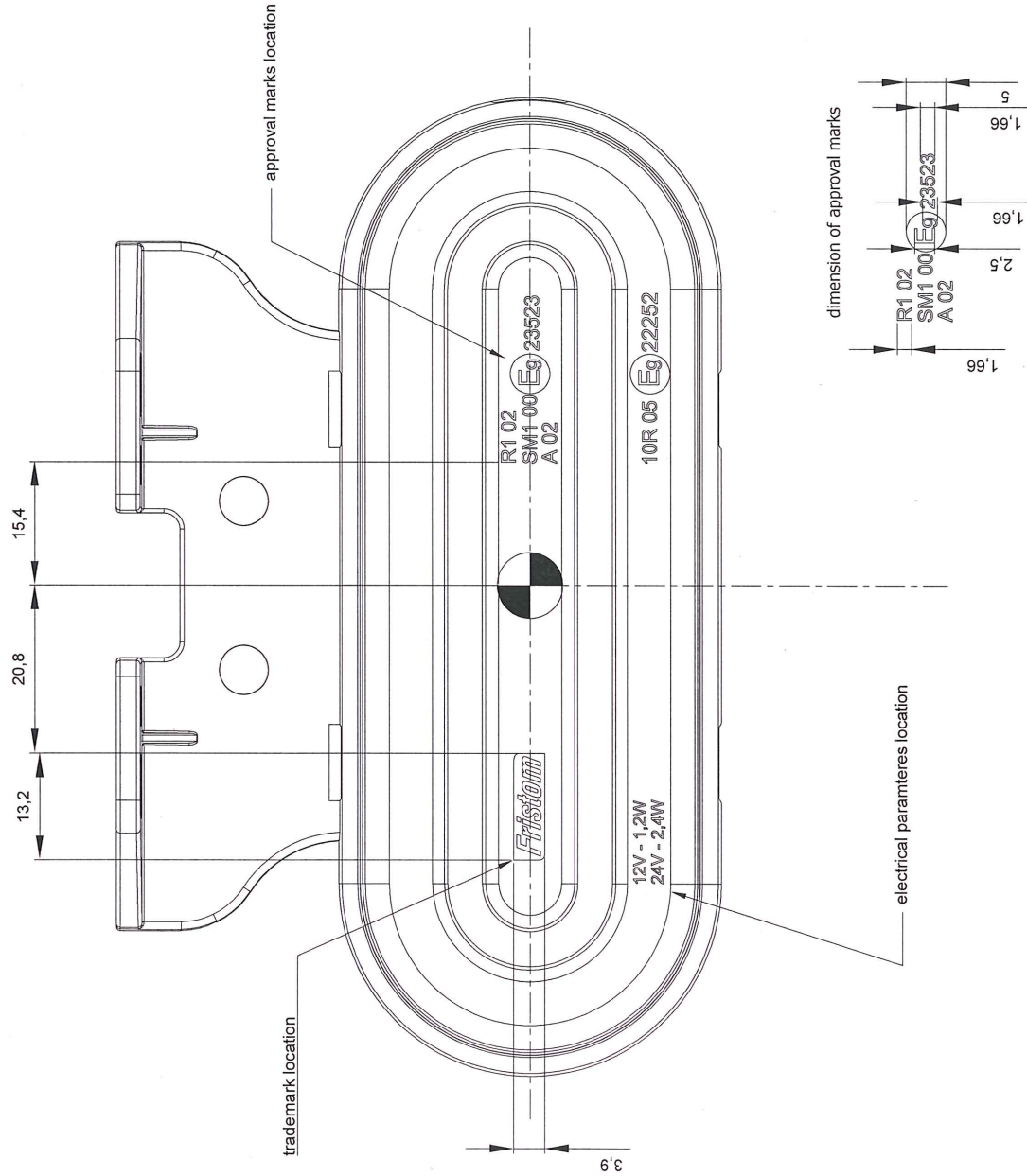
sheet description

approval markings and electrical parameters
This drawing is a part of the application for approval

light source

LIGHT SOURCE : LED CHIP SMD chip mounted

18 LED's red light color



Function R1 - rear position light

12 V - 1,2 W
24 V - 2,4 W

18 LED's red light color

3 LED's serial connected in 6 parallel sections

FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp. z o.o.
86-014 SICIENKO, ul. Przemysłowa 5
tel. 52 360 90 50
www.fristom.com.pl
NIP 5542926937 REGON 341640907

MICHAŁ DYBICZ

Manufacturer

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



Drawn by: Date:

Michał Dybicz 15-04-2020

sheet Nr.

4/5

Type

FT-072 C LED - rear LED position lamp with retro reflecting device IA

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
18 LED's red light color

sheet description

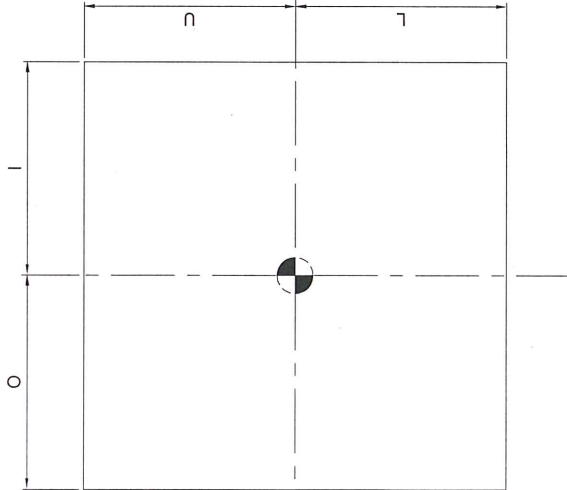
lighting surface

This drawing is a part of the application for approval

Material used in

manufacturing :

- lampshade PMMA transparent red
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin



lighting surface				
function	U _{upper} (mm)	L _{lower} (mm)	O _{outer} (mm)	I _{inner} (mm)
R1 rear position light	11	11	45	45

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

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

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

FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp.k.
86-014 SICIENKO, ul. Przemysłowa 5

tel. 52 360 90 50

www.fristom.com.pl

NIP 5542926937 REGON 341640907

MICHAŁ DYBICZ

Manufacturer

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

**Drawn by:**

Michał Dybicz

Date:

15-04-2020

sheet Nr.

5/5

Type**FT-072 C LED** - rear LED position lamp with retro reflecting device IA**Material used in manufacturing :**

- lampshade PMMA transparent red
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
18 LED's red light color

sheet description

variant tradenames and descriptions

This drawing is a part of the application for approval

item	description
FT-072 C LED	FT-072 C LED Clearance Lamp LED 12-36V, RED with reflector and a loom 0,5m.
FT-072 C LED Mxx	FT-072 C LED Clearance Lamp LED 12-36V, RED with reflector and a loom xmm.
FT-072 C LED QS075	FT-072 C LED QS075 Clearance Lamp LED 12-36V, RED with reflector a loom lenght 0,5m and connector QS075.
FT-072 C LED QS075 Mxx	FT-072 C LED QS075 Clearance Lamp LED 12-36V, RED with reflector a loom lenght xmm and connector QS075.
FT-072 C LED QS150	FT-072 C LED QS150 Clearance Lamp LED 12-36V, RED with reflector a loom lenght 0,5m and connector QS150.
FT-072 C LED QS150 Mxx	FT-072 C LED QS150 Clearance Lamp LED 12-36V, RED with reflector a loom lenght xmm and connector QS150.
	where x is number from 0 till 9

FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp. k.
86-014 SICIENKO, ul. Przemysłowa 5

tel. 52 360 90 50

www.fristom.com.pl

NIP 5542926937 REGON 341640907

MICHAŁ DYBICZ

İDİADA**PC20020201**

Manufacturer

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



Drawn by: Michał Dybicz

Date: 15-04-2020

sheet Nr. 1/5

Type

FT-072 Z LED - LED side marking lamp with retro reflecting device IA

Material used in

manufacturing :

- lampshade PMMA transparent amber
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin

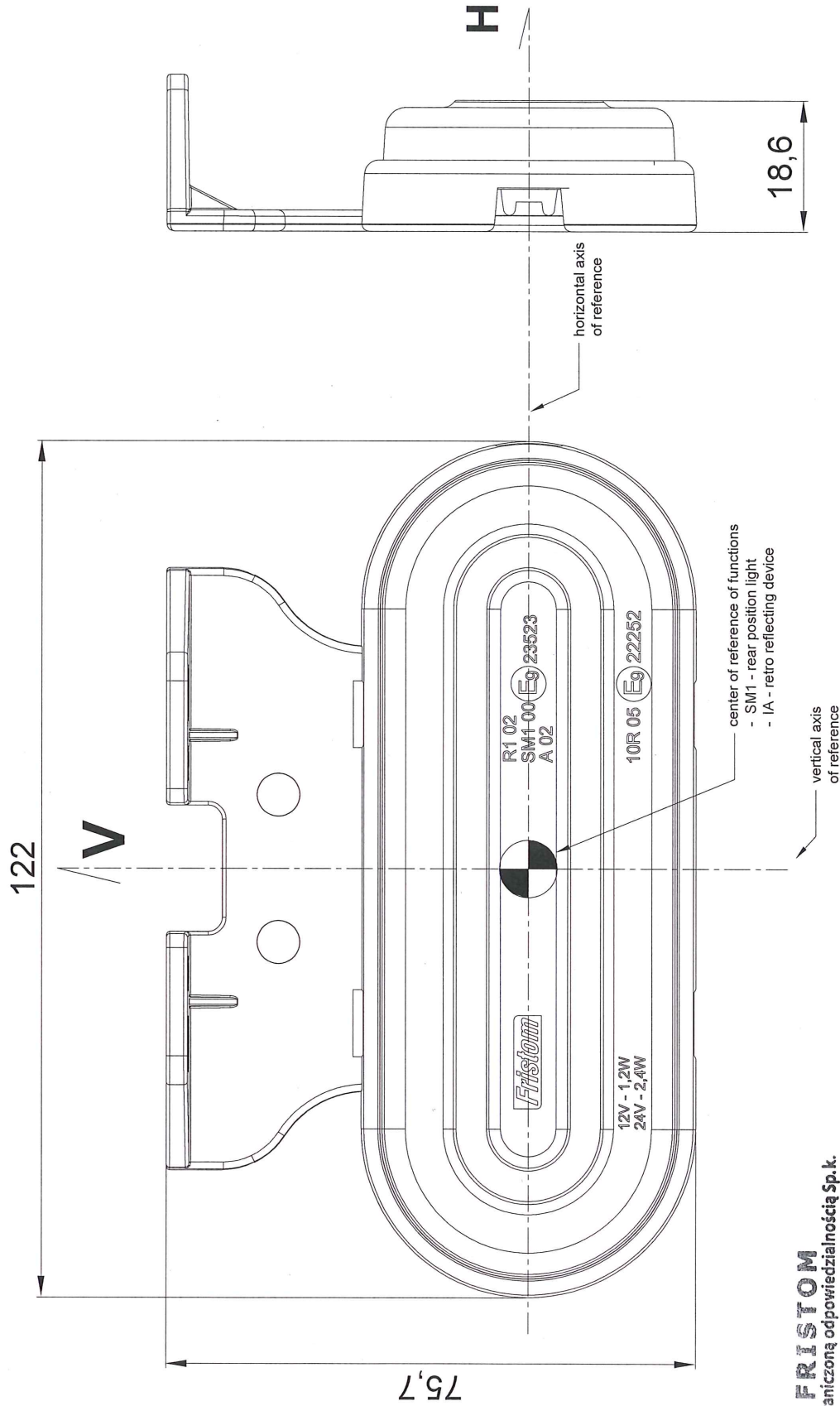
light source

LIGHT SOURCE : LED CHIP SMD chip mounted
18 LED's white light color

sheet description

general drawing / lamp functions

This drawing is a part of the application for approval



FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp.k.
86-014 SICIENKA, ul. Przemysłowa 5

tel. 52 360 90 50

www.fristom.com.pl

NIP 5542926937 REGON 141640307

MIŁOŚĆ DŁUGOŚĆ

front view with angled assembly bracket

PC20020201

Manufacturer

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



Drawn by: **Date:**

Michał Dybicz 15-04-2020

sheet Nr.

2/5

Type

FT-072 Z LED - LED side marking lamp with retro reflecting device IA

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
18 LED's white light color

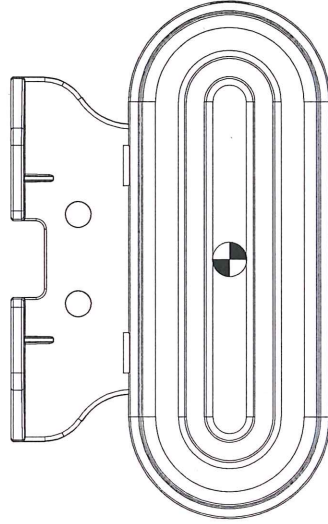
sheet description

assembly on vehicle

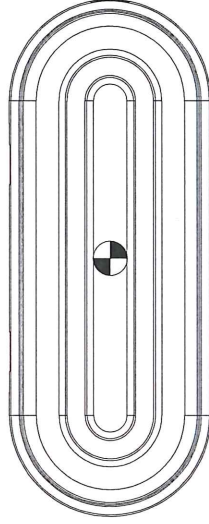
This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PMMA transparent amber
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin



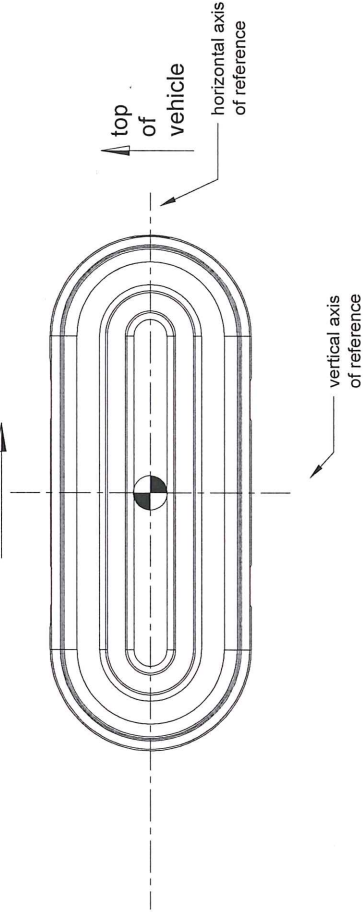
front view with angled assembly bracket



front view with simple flat assembly bracket

only horizontal assembly on vehicle

forward driving direction if assembled right



FRISTOM
Spółka z ograniczoną odpowiedzialnością Sp. z o.o.
86-014 SICIENKO, ul. Przemysłowa 5
tel. 52 360 90 50
www.fristom.com.pl
NIP 5542926937 REGON 341640907
MIGHAŁ DYBICZ

Manufacturer

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



Drawn by: Michał Dybicz

Date: 15-04-2020

sheet Nr.

3/5

Type

FT-072 Z LED - LED side marking lamp with retro reflecting device IA

Material used in manufacturing :

- lampshade PMMA transparent amber
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin

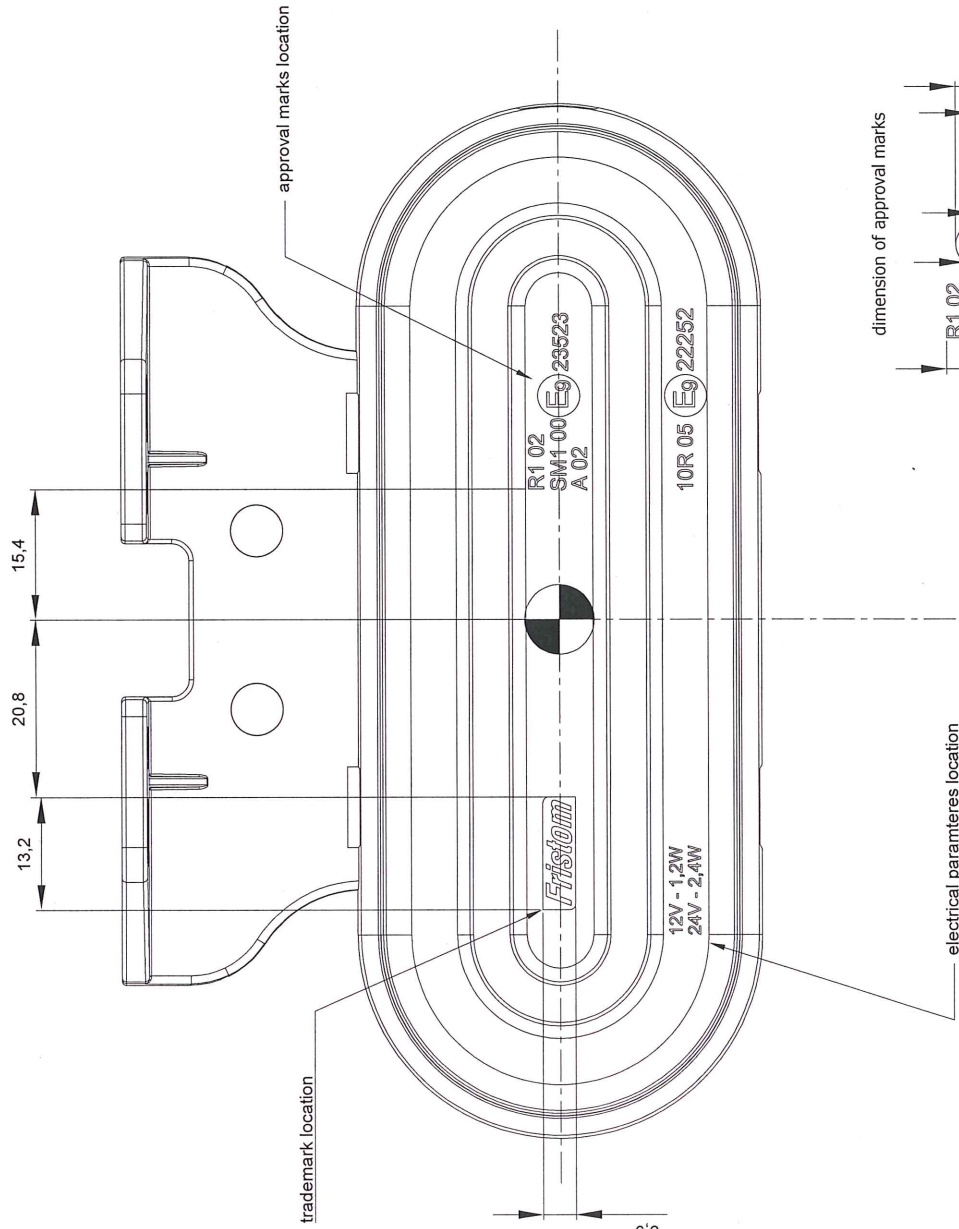
sheet description

approval markings and electrical parameters
This drawing is a part of the application for approval

light source

LIGHT SOURCE : LED CHIP SMD chip mounted

18 LED's white light color



Function SM1 - side marking light

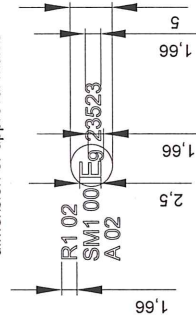
12 V - 1,2 W

24 V - 2,4 W

18 LED's white light color

3 LED's serial connected in 6 parallel sections

dimension of approval marks



FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp. k.

86-014 SICIENKA, ul. Przemysłowa 5

tel. 52 360 90 50

www.fristom.com.pl

NIP 5542926937 REGON 341640907

MICHAŁ DYBICZ

IDIADA PC20020201

Manufacturer

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



Drawn by: **Date:** 15-04-2020
Michał Dybicz

sheet Nr. 4/5

Type

FT-072 Z LED - LED side marking lamp with retro reflecting device IA

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
18 LED's white light color

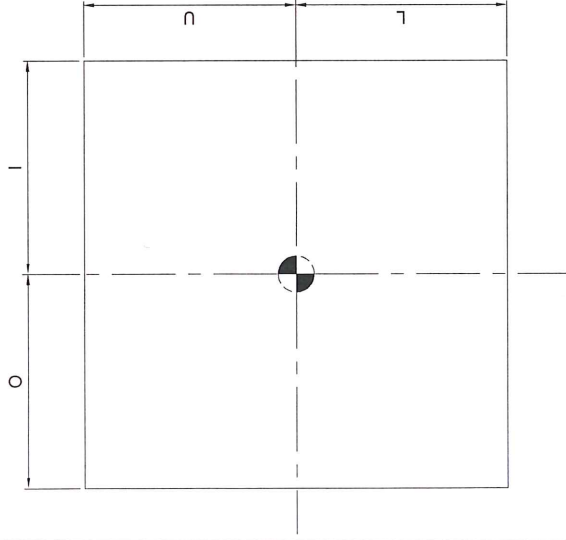
sheet description

lighting surface

This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PMMA transparent amber
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin



lighting surface				
function	U _{upper} (mm)	L _{lower} (mm)	O _{outer} (mm)	I _{inner} (mm)
SM1 side marking light	11	11	45	45

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

FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp. k.
86-014 SICIENKO, ul. Przemysłowa 5

tel. 52 360 90 50

www.fristom.com.pl

NIP 5542926937 REGON 341640907

MICHAŁ DYBICZ

Manufacturer

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



Drawn by:

Michał Dybicz

Date:

15-04-2020

sheet Nr.

5/5

Type

FT-072 Z LED - LED side marking lamp with retro reflecting device IA

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
18 LED 's white light color

sheet description

variant tradenames and descriptions

This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PMMA transparent amber
- housing PC translucent diffusive
- frame - mounting bracket - PBT black
- PCB FR4
- potting compound epoxy resin

item	description
FT-072 Z LED	FT-072 Z LED Clearance Lamp LED 12-36V, YELLOW with reflector and a loom 0,5m.
FT-072 Z LED Mxx	FT-072 Z LED Clearance Lamp LED 12-36V, YELLOW with reflector and a loom xxm.
FT-072 Z LED QS075	FT-072 Z LED QS075 Clearance Lamp LED 12-36V, YELLOW with reflector a loom lenght 0,5m and connector QS075.
FT-072 Z LED QS075 Mxx	FT-072 Z LED QS075 Clearance Lamp LED 12-36V, YELLOW with reflector a loom lenght xxm and connector QS075.
FT-072 Z LED QS150	FT-072 Z LED QS150 Clearance Lamp LED 12-36V, YELLOW with reflector a loom lenght 0,5m and connector QS150.
FT-072 Z LED QS150 Mxx	FT-072 Z LED QS150 Clearance Lamp LED 12-36V, YELLOW with reflector a loom lenght xxm and connector QS150.
where x is number from 0 till 9	

FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp. k.
86-014 SICIENKO, ul. Przemysłowa 5

tel. 52 360 90 50

www.fristom.com.pl

NIP 5542926937 REGON 341640907

MICHAŁ DYBICZ