



MINISTERIO  
DE INDUSTRIA, COMERCIO Y  
TURISMO

DIRECCIÓN GENERAL DE INDUSTRIA Y  
DE LA PEQUEÑA Y MEDIANA EMPRESA

SUBDIRECCIÓN GENERAL DE  
CALIDAD Y SEGURIDAD INDUSTRIAL

E9\*23R00/22\*23172\*00

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COMUNICACIÓN / COMMUNICATION:

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

Concerning <sup>(1)</sup>: APPROVAL GRANTED  
APPROVAL EXTENDED  
APPROVAL REFUSED  
APPROVAL WITHDRAWN  
PRODUCTION DEFINITELY DISCONTINUED

de un tipo de luz de marcha atrás en aplicación del Reglamento N°23.  
of a type of reversing lamp pursuant to Regulation No.23.

N° de homologación / Approval No.: E9\*23R00/22\*23172\*00

Extensión N° / Extension No.: ---

1. Marca de fábrica o comercial del dispositivo / Trade name or mark of the device: FRISTOM
2. Designación del tipo de dispositivo dado por el fabricante / Manufacturer's name for the type of device: FT-600 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: 11/03/2020
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: 27/03/2020
8. Número del informe emitido por dicho servicio / Number of report issued by that service: PC19070360

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



E9\*23R00/22\*23172\*00

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9. Breve descripción / *Concise description:*

- Número, categoría(s) y tipo de la(s) fuente(s) luminosa(s) / *Number, category and kind of light source(s):*  
8 x LED's
- Voltaje y potencia / *Voltage and wattage:* 13.5 V, 2.5 W
- Aplicación de una guía de control electrónica / *Application of an electronic light source control gear:* ---
  - a) formando parte de la luz / *being part of the lamp:* sí / yes - no / no <sup>(1)</sup>
  - b) no formando parte de la luz / *being not part of the lamp:* sí / yes - no / no <sup>(1)</sup>
- Tensión(es) de entrada suministrada(s) por la guía de control electrónica de la(s) fuente(s) luminosa(s) / *Input voltage(s) supplied by an electronic light source control gear:* ---
- Fabricante de la guía de control electrónica 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 manufacturer and identification number (when the light source control gear is part of the lamp but is not included into the lamp body):* ---
- Módulo de fuente de luz / *Light source module:* ~~sí~~/yes - no / no <sup>(1)</sup>
- Código de identificación específico del módulo de fuente de luz / *Light source module specific identification code:* ---
- Condiciones geométricas de instalación y variaciones relacionadas, en su caso / *Geometrical conditions of installation and relating variations, if any:* ---
- Para un tipo de luz de maniobra en aplicación del Reglamento N°23 párrafo 6.2.2. / *For a type of manoeuvring lamp pursuant to Regulation No. 23 paragraph 6.2.2.:*  
Altura máxima de montaje / *Maximum mounting:* ---
- 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:* ~~sí~~/yes - no / no <sup>(1)</sup>

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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. En el caso de una luz de marcha atrás, este dispositivo sólo puede instalarse en un vehículo, por pares: ~~sí~~ / no <sup>(1)</sup>  
/ *In the case of a reversing lamp, this device shall be installed on a vehicles only as part of a pair of devices: yes / no* <sup>(1)</sup>
12. Motivos de la extensión (en su caso) / *Reason(s) of extension (if applicable)*: ---
13. Se concede/~~deniega~~/~~extiende~~/~~retira~~ la homologación <sup>(1)</sup> / *Approval granted/~~refused~~/~~extended~~/~~withdrawn~~* <sup>(1)</sup>
14. Lugar / *Place*: Madrid
15. Fecha / *Date*: Ver firma electrónica / *See electronic signature*
16. 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
17. 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*

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

## Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp. z o.o.  
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 18-03-2020

sheet Nr.

1/7

## Type

**FT- 600 LED - rear LED multifunction lamp**

## light source

LIGHT SOURCE : LED CHIP SMD chip mounted  
see table page 2

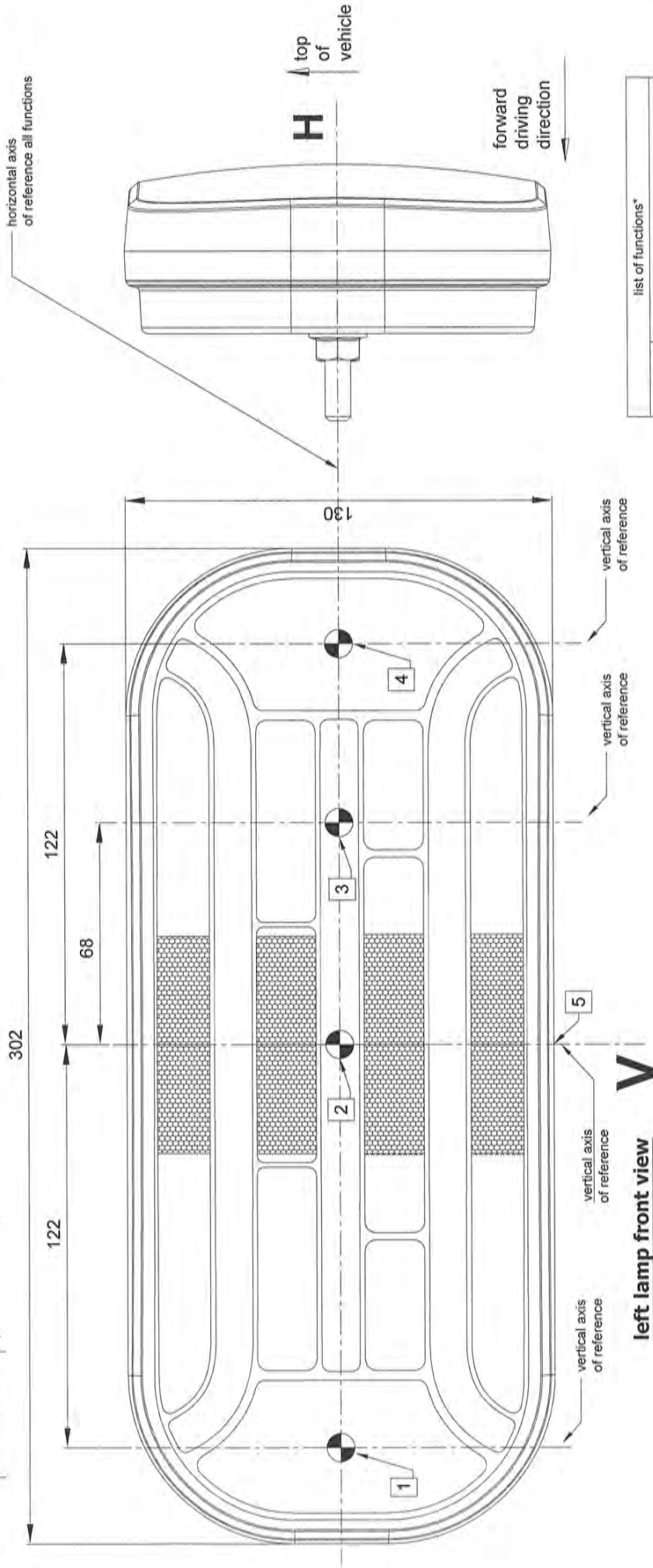
## sheet description

general drawing / lamp functions / assembly on vehicle

This drawing is a part of the application for approval

## Material used in manufacturing :

- lampshade PC transparent clear
- collimator / filter insert R1 PC red transparent
- collimator / filter insert S1 PC clear transparent
- collimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin



point of reference	function	list of functions*
1	rear fog F1	rear fog F1
2	rear direction indicator 2a - sequential	rear direction indicator 2a - sequential
3	retro reflecting device cat IA	retro reflecting device cat IA
4	rear position light R1	rear position light R1
5	stop light S1 (full function)	stop light S1 (full function)
6	stop light S1 (reduced stop variant)	stop light S1 (reduced stop variant)
7	reversing AR	reversing AR
8	registration plate light	registration plate light

lamp includes REDUCED STOP variant !

## FRISTOM

Spółka z ograniczoną odpowiedzialnością Sp. z o.o.  
86-014 SICIENKA, ul. Przemysłowa 5  
tel. 52 360 90 50  
[www.fristom.com.pl](http://www.fristom.com.pl)

NIP 5542926937 REGON 341640907

**IBIADA** MICHAŁ DYBICZ  
PC19070360



Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.  
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Drawn by: **Date:** 18-03-2020  
Michał Dybicz

sheet Nr. 2/7

Type

FT- 600 LED - rear LED multifunction lamp

Material used in manufacturing :

- lampshade PC transparent clear
- collimator / filter insert R1 PC red transparent
- collimator / filter insert S1 PC clear transparent
- collimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin

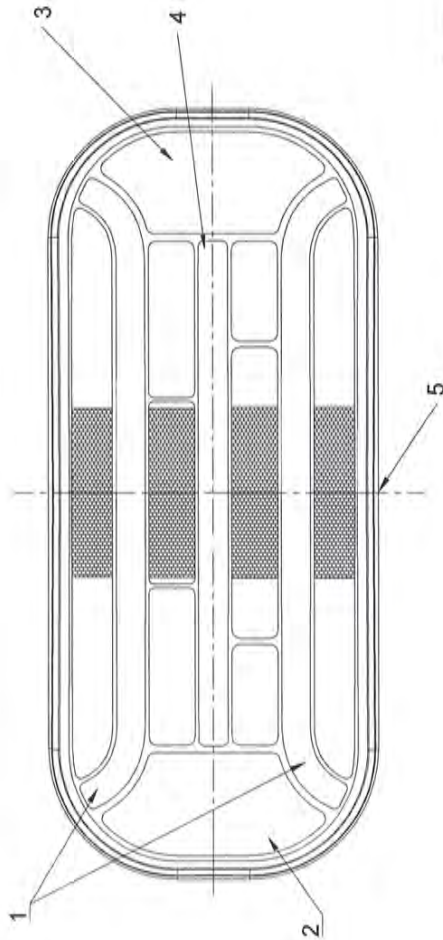
light source

LIGHT SOURCE : LED CHIP SMD chip mounted  
see table page 2

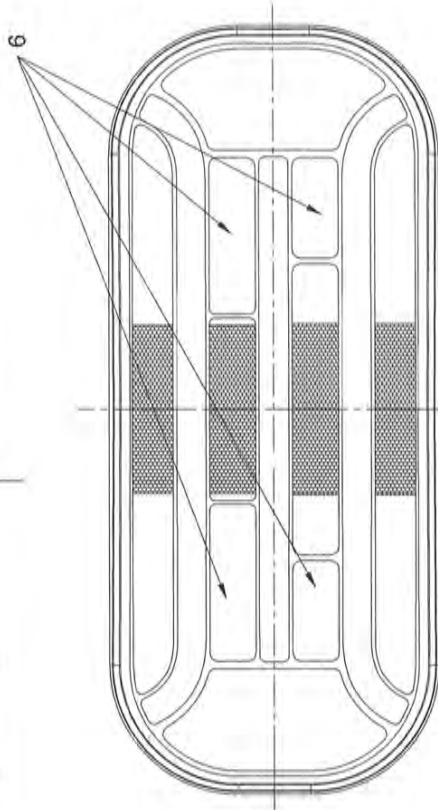
sheet description

LED sources and connections

This drawing is a part of the application for approval



left lamp front view



functions and LED connections					
1	R1	12 / 24 V - 2 / 4 W	4 LED's serial connected in 10 parallel sections	40 Led's red light color	
2	R1+L	12 / 24 V - 2.5 / 5 W			
3	F1	12 / 24 V - 2 / 4 W	4 LED's serial connected in 2 parallel sections	8 Led's red light color	
4	AR	12 / 24 V - 2.5 / 6 W	3 LED's serial connected in 2 parallel sections + 2 LED's serial connected in 1 section	8 LED's white light color	
5	2a	12 / 24 V - 10 / 20 W	3 LED's serial connected in 6 parallel sections	18 LED's amber light color	
6	L	12 / 24 V - 0.5 / 1 W	3 LED's serial connected in 2 parallel sections	6 LED's white light color	
7	S1	12 / 24 V - 4 / 8 W	4 LED's serial connected in 4 parallel sections	16 Led's red light color	
	S1 reduced	12 / 24 V - 2 / 4 W	4 LED's serial connected in 2 parallel sections	8 Led's red light color	

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NIP 5542926937 REGON 341640907  
MICHAŁ DYBICZ

In case of failure of one light source of the rear direction indicator a signal of activation of the tail is produced

PC19070360

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Drawn by: Michał Dybicz

Date: 18-03-2020

sheet Nr. 3/7

## Type

FT- 600 LED - rear LED multifunction lamp

## Material used in manufacturing :

- lampshade PC transparent clear
- collimator / filter insert R1 PC red transparent
- collimator / filter insert S1 PC clear transparent
- collimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin

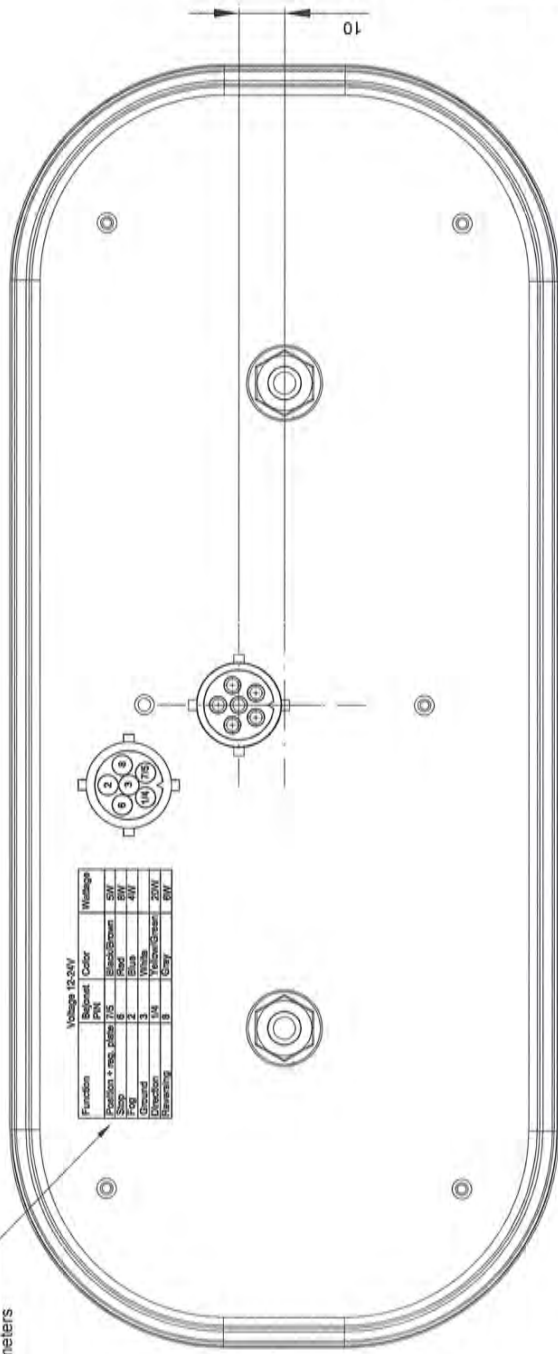
## light source

LIGHT SOURCE : LED CHIP SMD clip mounted  
see table page 2

## sheet description

general drawing lamp bottom/rear view / electrical parameter engravings  
This drawing is a part of the application for approval

marking of  
electrical parameters



Voltage 12-24V			
Function	Bayonet PIN	Color	Wattage
Position + req. plate	7/5	Black/Brown	5W
Stop	6	Red	8W
Fog	2	Blue	4W
Ground	3	White	
Direction	1/4	Yellow/Green	20W
Reversing	8	Gray	8W

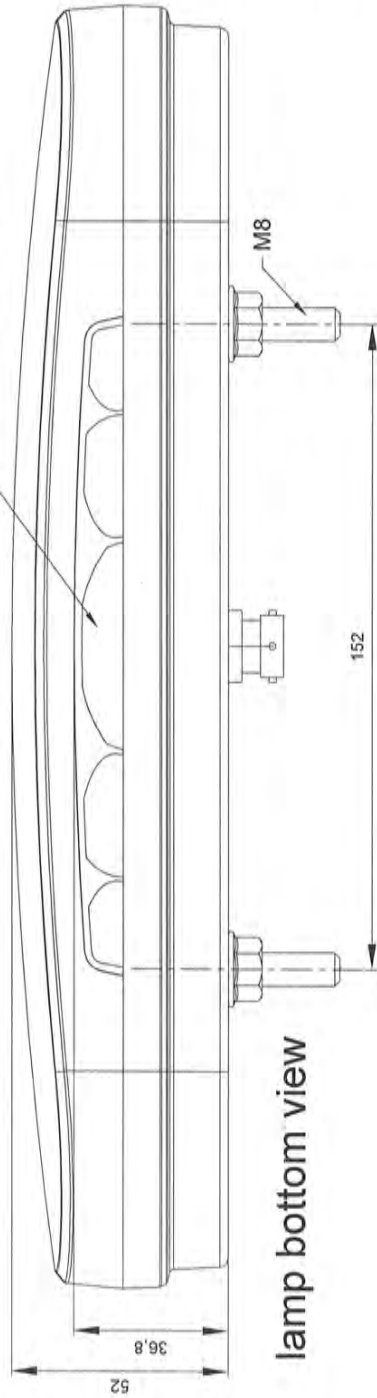
parameter table

Voltage 12-24V

Function	Bayonet PIN	Color	Wattage
Position + req. plate	7/5	Black/Brown	5W
Stop	6	Red	8W
Fog	2	Blue	4W
Ground	3	White	
Direction	1/4	Yellow/Green	20W
Reversing	8	Gray	8W

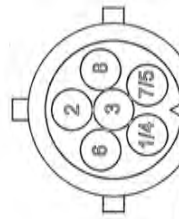
lamp rear view - bayonet version

Registration plate light L



lamp bottom view

pin settings



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**İDİADA** PC19070360

MICHAŁ DYBICZ



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Drawn by: **Date:**

Michał Dybicz 18-03-2020

sheet Nr.

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## Type

FT- 600 LED - rear LED multifunction lamp

## light source

LIGHT SOURCE - LED CHIP SMD chip mounted  
see table page 2

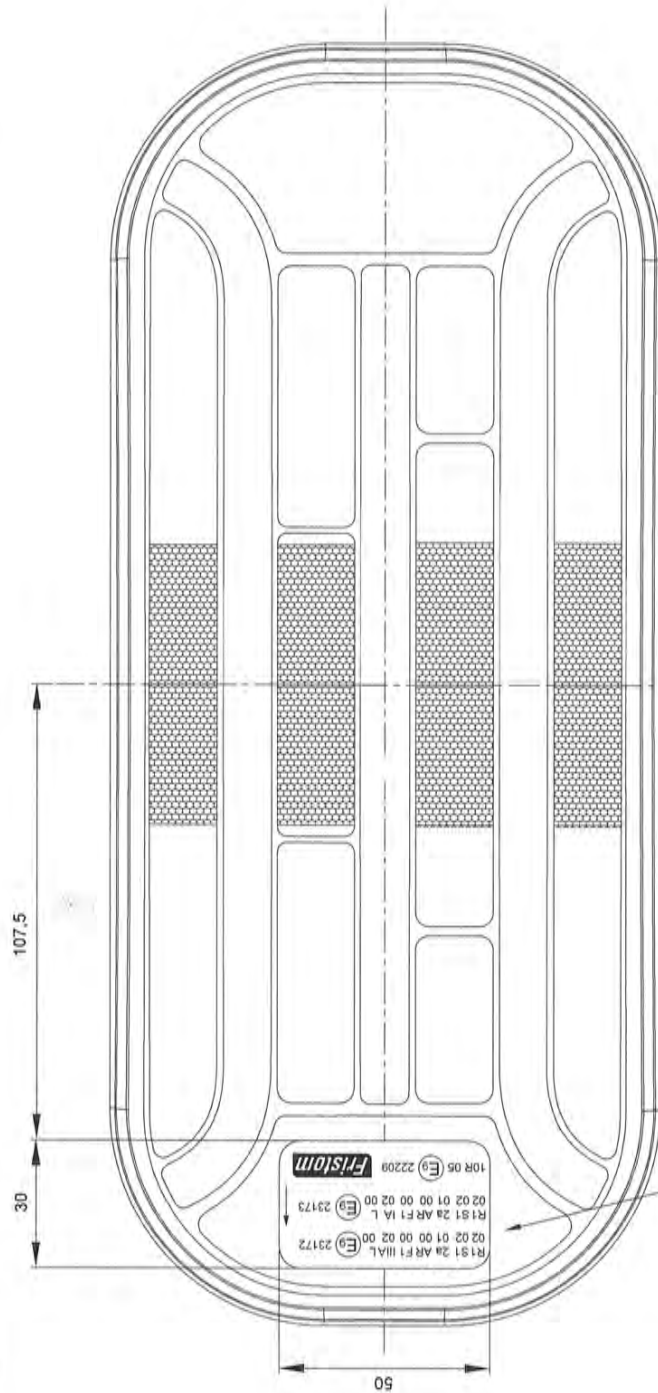
## sheet description

general drawing / lamp functions / assembly on vehicle

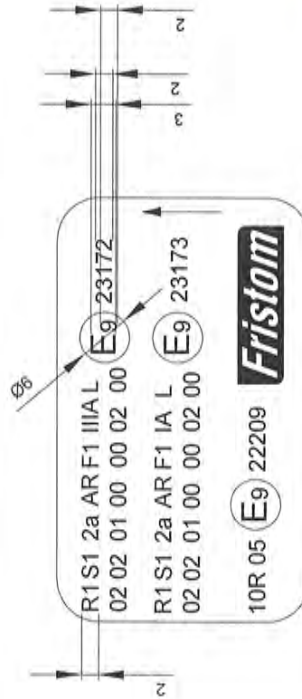
This drawing is a part of the application for approval

## Material used in manufacturing :

- lampshade PC transparent clear
- collimator / filter insert R1 PC red transparent
- collimator / filter insert S1 PC clear transparent
- collimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin



approval markings and trademark on lampshade



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MICHAŁ DYBICZ

PC19070360

Manufacturer

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Drawn by:

Michał Dybiec

Date:

18-03-2020

sheet Nr.

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Type

FT- 600 LED - rear LED multifunction lamp

light source

LIGHT SOURCE - LED CHIP SMD chip mounted  
see table page 2

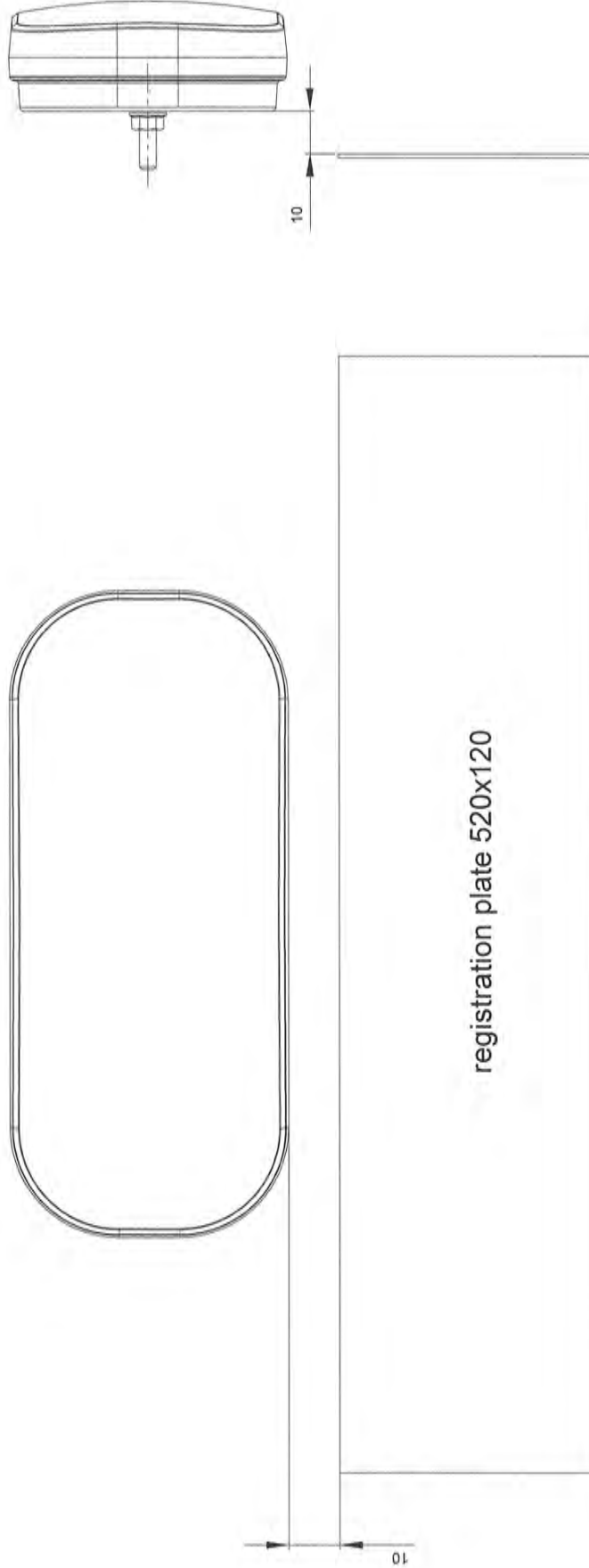
sheet description

registration plate light and positioning

This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PC transparent clear
- collimator / filter insert R1 PC red transparent
- collimator / filter insert S1 PC clear transparent
- collimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin



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IDIADA PC19070360



Manufacturer

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Drawn by: Michał Dybicz

Date: 18-03-2020

sheet Nr. 6/7

Type

FT- 600 LED - rear LED multifunction lamp

light source

LIGHT SOURCE : LED CHIP SMD chip mounted  
see table page 2

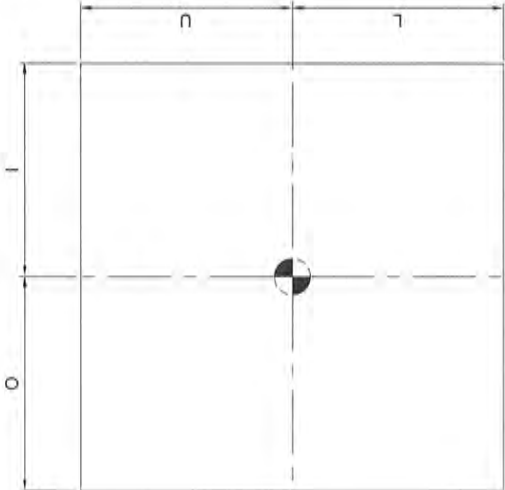
sheet description

lighting surface

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Material used in manufacturing :

- lampshade PC transparent clear
- collimator / filter insert R1 PC red transparent
- collimator / filter insert S1 PC clear transparent
- collimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin

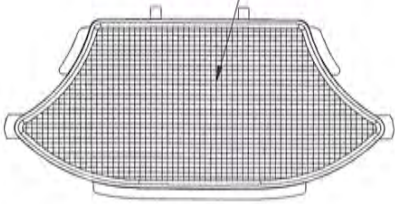


lighting surface				
function	U <sub>upper</sub> (mm)	L <sub>lower</sub> (mm)	O <sub>outer</sub> (mm)	I <sub>inner</sub> (mm)
stop S1 Full	25	25	98	98
stop S1 reduced	25	25	31	31
direction indicator 2a	5	5	98	98
fog F1	42	42	18	18
reversing AR	42	42	18	18
position R1	52	52	124	124

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.



lighting area of rear fog light function  
~23 cm<sup>2</sup>

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*Dybicz*  
MICHAŁ DYBICZ

**Manufacturer**

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**Drawn by:****Date:**

Michał Dybicz

18-03-2020

**sheet Nr.**

7/7

**Type****FT- 600 LED - rear LED multifunction lamp****light source**

LIGHT SOURCE : LED CHIP SMD chip mounted  
see table page 2

**sheet description**

variant tradenames and descriptions

This drawing is a part of the application for approval

**Material used in manufacturing :**

- lampshade PC transparent clear
- collimator / filler insert R1 PC red transparent
- collimator / filler insert S1 PC clear transparent
- collimator / filler insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin

FT-610 L LED AMP	FT-610-15 LED universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, left without registration plate light, with connector AMP 7PIN.
FT-610 L T LED AMP	FT-610-135 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, left with registration plate light, with connector AMP 7PIN.
FT-610 P LED AMP	FT-610-25 LED universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, right without registration plate light, with connector AMP 7PIN.
FT-610 P T LED AMP	FT-610-235 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, right with registration plate light, with connector AMP 7PIN.
FT-610 L LED BAJ 6PIN	FT-610-16 LED universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, left without registration plate light, with connector BAJONET 6PIN.
FT-610 L T LED BAJ 6PIN	FT-610-136 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, left with registration plate light, with connector BAJONET 6PIN.
FT-610 P LED BAJ 6PIN	FT-610-26 LED universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, right without registration plate light, with connector BAJONET 6PIN.
FT-610 P T LED BAJ 6PIN	FT-610-236 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, right with registration plate light, with connector BAJONET 6PIN.
FT-610 L LED	FT-610-14 LED universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, left without registration plate light, 2m cable
FT-610 L T LED	FT-610-134 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, left with registration plate light, 2m cable
FT-610 P LED	FT-610-24 universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, right without registration plate light, 2m cable
FT-610 P T LED	FT-610-234 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, right with registration plate light, 2m cable

**FRISTOM**

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MICHAŁ DYBICZ