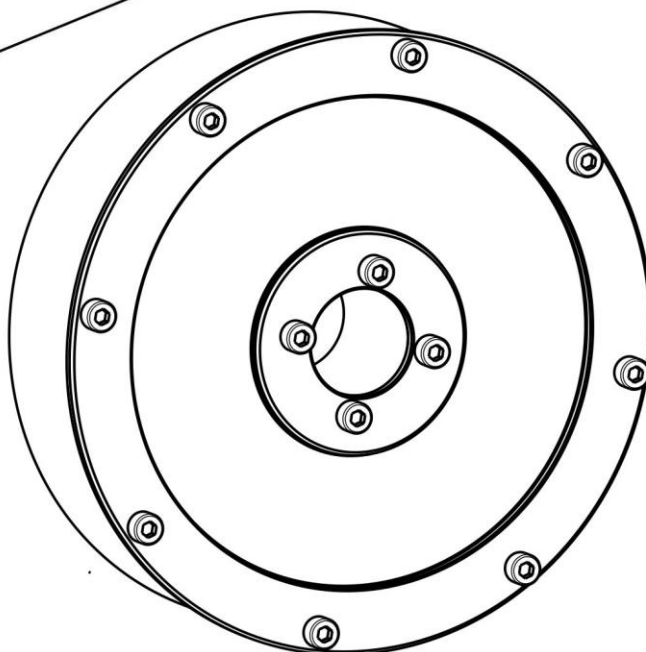


# DONUT 6

USER'S MANUAL



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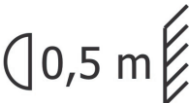





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## 1- SYMBOLS

Graphic symbols used on this manual:

	THIS SYMBOL INDICATES A HOT SURFACE
	THIS SYMBOL INDICATES ELECTRIC SHOCK RISK
	THIS SYMBOL INDICATES GENERAL RISK
$t_a$ 40°C	THIS SYMBOL INDICATES THE MAXIMUM OPERATING AMBIENT TEMPERATURE
	THIS SYMBOL INDICATES THE MINIMUM DISTANCE FROM THE ILLUMINATED OBJECTS
	THIS SYMBOL MEANS "DO NOT STARE AT THE OPERATING LIGHT SOURCE"
 Risk Group 2	THIS SYMBOL INDICATES PHOTOBIOLOGICAL SAFETY
	THIS SYMBOL INDICATES THE EUROPEAN COMMUNITY DIRECTIVE 2012/19/EU ON WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)
	DO NOT HANDLE LUMINAIRES BY THE FLYING LED CABLE OR ATTACHED CONTROLS DEVICES
	WARRANTY 5 YEARS

## 2- GENERAL WARNING

Read the instruction contained in this user manual carefully, as they give important information regarding safety during installation, use and maintenance.

The unit is not for household use and must be installed by a qualified electrician or experienced person.

## 3- GENERAL WARRANTY CONDITIONS

The unit is guaranteed for 36 months from the date of purchase against manufacturing material defects.

The warranty covers defects in materials and workmanship. The warranty is not applicable where a defect is caused by misuse or unauthorised repair of the product.

**Any functional or/and physical modification of the product is not allowed.**

## 4- TECHNICAL FEATURES

### Product codes:

03.DN004.F08	DONUT 6 FC Ultra-Narrow lenses
03.DN004.F10	DONUT 6 FC Narrow lenses
03.DN004.F25	DONUT 6 FC Medium lenses
03.DN004.F40	DONUT 6 FC Wide lenses

### Output

6 Full Color (RGBW) LEDs

Lumens: 2400 @ 700mA

LED lifespan: 50.000 hours (70% lumen output)

### Optical group

4 lenses sets available: Ultra-Narrow, Narrow, Medium, Wide

### Color generation

16 million colors

Wide palette of pure uniform whites with variable linear color temperature (2700K - 8000K)

### Power supply

External PSU @ 48Vdc:

DRIVENET 28C DIN

DRIVENET 28 EZ / 416 / 832 (full range 100-240Vac 50-60 Hz)

DRIVENET 1664 (range 180-240Vac 50-60 Hz)

External PSU @ 24Vdc:

DRIVENET 28C DIN

DRIVENET 832 24Vdc (full range 100-240Vac 50-60 Hz)

DRIVENET 1664 24Vdc (full range 100-240Vac 50-60 Hz)

Power consumption: 60W max

### Connections

End-stripped 8-pole cable (5 m length)

### Operating temperature

-20° / 40°C

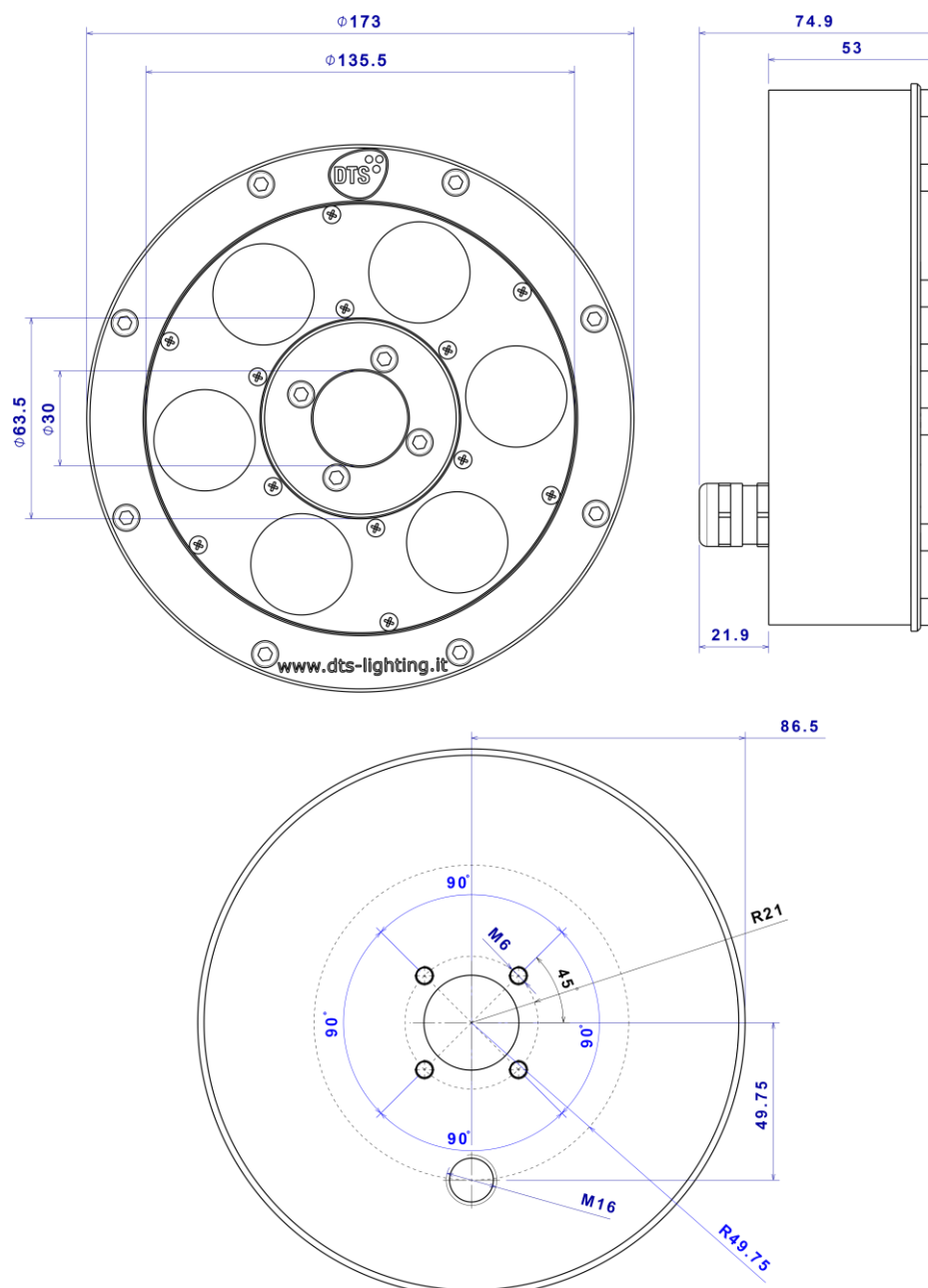
**Physical**

IP68

IK Rating: IK10

Housing: Bronze / Stainless steel

Weight: 5.7 Kg

**Beware**Underwater installation only allowedNever make the joints of the cables in water**Certifications*****DIMENSIONS***

## 5- ACCESSORIES

### Optional (on request)

8-pole underwater cable (code 0509C123)

HUB-IP20 Screw terminals 1 IN / 3 OUT (code 03.LA.131)

HUB-IP56 Screw terminals 1 IN / 3 OUT (code 03.LA.131.IP56)

## 6- IMPORTANT SAFETY INFORMATION

### 6.1 Fire prevention:

Minimum distance from the closest illuminable surface: 0,5 m.



### 6.2 Prevention of electric shock:



Class II LED product according to standard IEC 60598-1.

### 6.3 Safety:



Risk group 2 product according to IEC 62471.



Risk Group 2

CAUTION. Do not look directly into the light output. May be harmful to the eyes and skin.



Do not stare at the operating light source.

The unit is not for household use and must be installed by a qualified electrician or experienced person.

LEDs are not replaceable.

The external surface of the unit may exceed 50°C; never handle the unit until at least 5 minutes have elapsed since the unit was turned off.

Never install the unit in an enclosed area lacking sufficient air flow.



The ambient temperature should not exceed 40°C.  $t_a$  40°C

Refer to local norms in case of underwater installation. Max immersion depth: 2 m.



### 6.4 Maintenance:

DONUT is made on Bronze and 316 Stainless Steel.

#### Bronze:

Bronze is a durable material with strong anti-corrosion properties.

Bronze can be easily scratched or marred with improper care and it oxidizes if not periodically maintained. Routine cleaning and polishing are required in order to maintain the brilliance of the surface.

Always wear clean gloves when handling the unit, direct contact with bare hands may cause a fast oxidation of the handled surface.

Do not expose the unit to air contaminants as heavy exhaust or solvent fumes.

Do not use cleaning or polishing products containing harsh chemicals (ammonia or chlorine) or abrasive chemicals.

Do not use any cleaning towels that are abrasive. Use only microfiber towels. If unsure about the suitability of a product for cleaning bronze, contact DTS.

Maintenance period can vary depending on water quality and environment conditions.

#### 6.4 Maintenance:



##### 316 Stainless Steel:

316 Stainless Steel is a durable material with strong anti-corrosion properties. With proper care and maintenance, it will maintain an optimal appearance over a long service life.

Exposure to high-saline environments, chlorides, abrasive chemicals, or carbon steel will diminish its anti-corrosion properties and increase the risk of damage.

Always wear clean gloves when handling the unit.

Do not weld, cut, drill or grind carbon steel near the unit before installation. Resulting particles will contaminate and rust stainless steel.

Do not clean stainless steel in direct sunlight or excessive temperatures.

Do not use cleaning products containing chlorides (i.e. hydrochloric acid) or other abrasive chemicals. Do not use high-pressure cleaners.

If unsure about the suitability of a product for cleaning stainless steel, contact DTS.

Routine cleaning with soap and water is usually sufficient to maintain the corrosion resistance and appearance of 316 Stainless Steel. Use a soft nylon brush to remove any accumulated dirt.

Wash with mild soap or detergent, then rinse in clean water and wipe dry with a soft cloth.

If signs of corrosion appear, clean immediately. To avoid progression of damage, identify and address problems as early as possible.

Heavy damage includes structural compromises such as visible dents, cracks, breaks and rust that can undermine the integrity of a product. Heavily damaged products should be removed from service until a repair or replacement can be made. To prevent worsening of damage, any significant rust should be removed as soon as possible.

If any parts are broken or missing, contact DTS to determine the availability of replacements. Replace any screw only by 316 stainless steel screws. To replace cable or gaskets, contact DTS. Maintenance period can vary depending on water quality and environment conditions.



#### 6.5 Waste Electrical and Electronic Equipment (WEEE) directive:

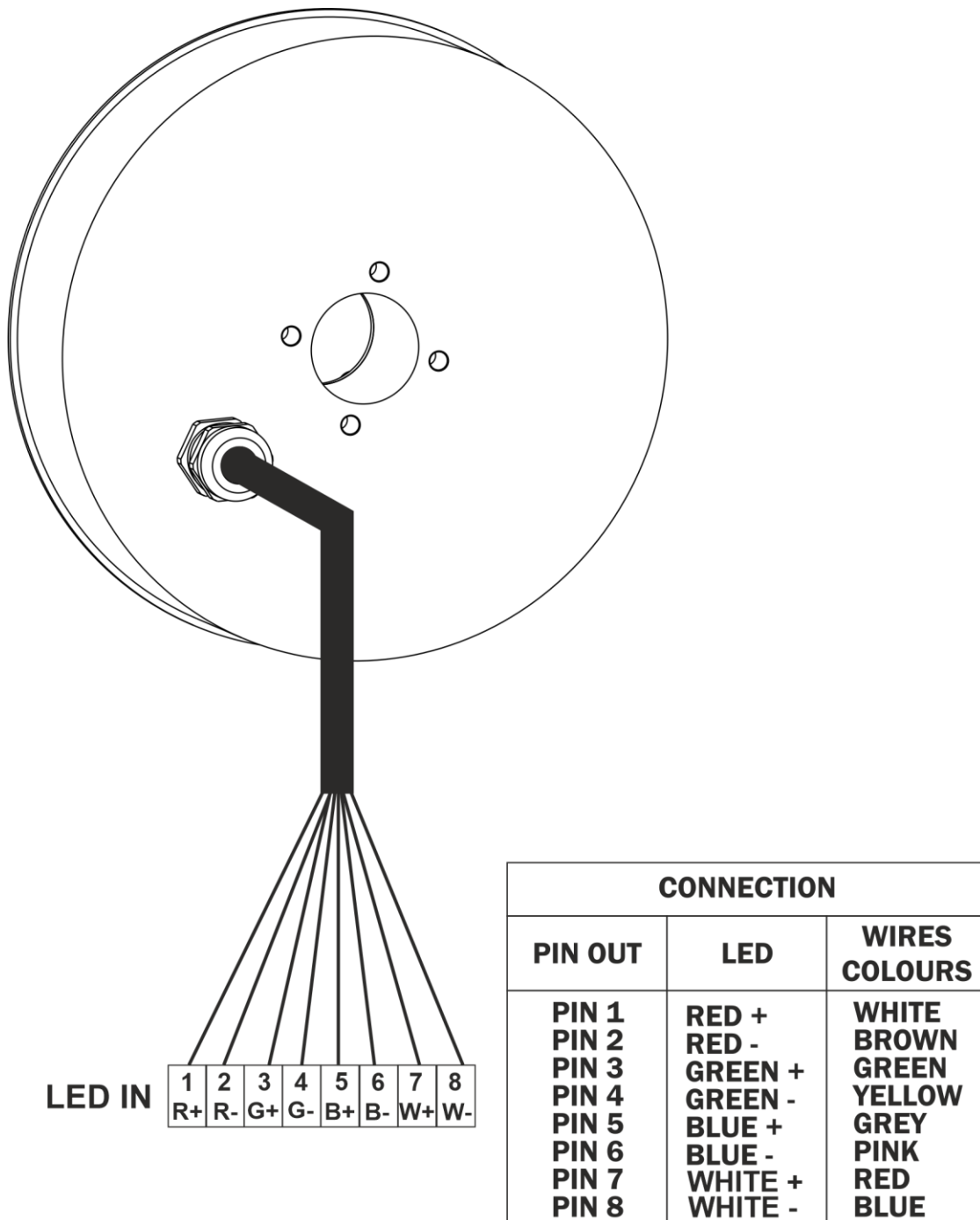
The machine, accessories and packaging should be sorted for environmental-friendly recycling.

For EC countries: according to the European Directive 2012/19/EU for Waste Electrical and Electronic Equipment and its implementation into national right, luminaires that are no longer usable must be collected separately and disposed of in an environmentally correct manner.



## 7- CONNECTIONS

DONUT 6 FC is provided with end-stripped 8-pole cable (5 m length).

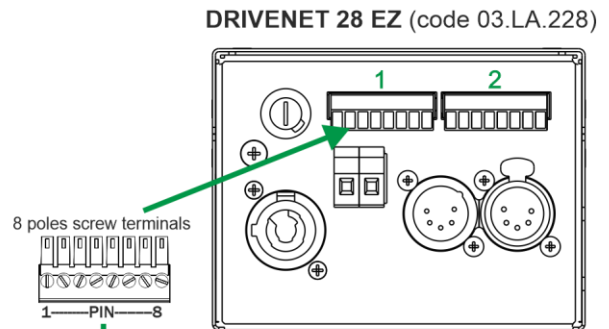
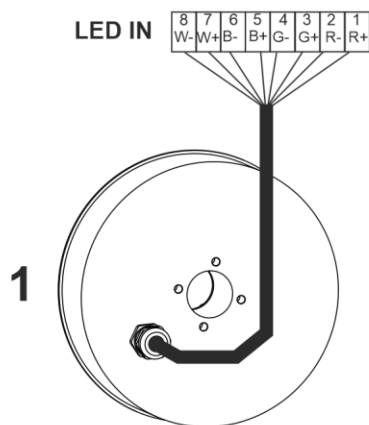
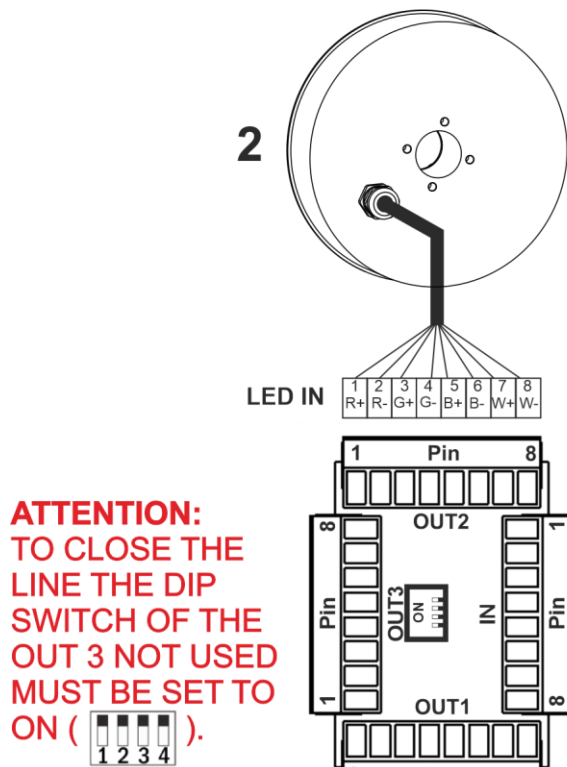


The maximum distance between DRIVENET PSU and DONUT 6 FC unit should not exceed 100 meters.

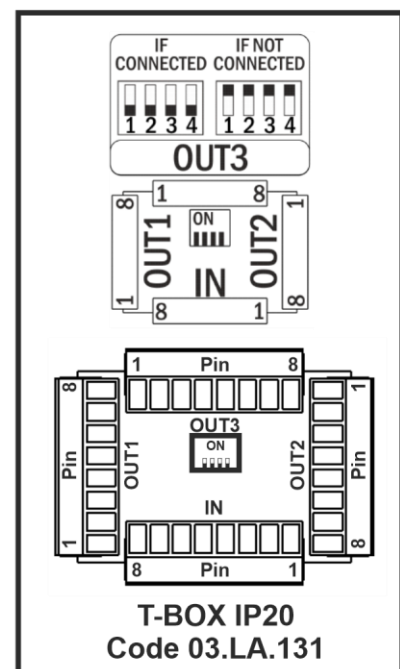
### 8- CONNECTION DIAGRAMS

The maximum number of DONUT 6 FC connectable to each output of the DRIVENET 28 EZ / 416 / 832 / 1664 is 2 pcs serial wired.

The maximum distance between DRIVENET PSU and last DONUT 6 FC unit of the line should not exceed 100 meters.



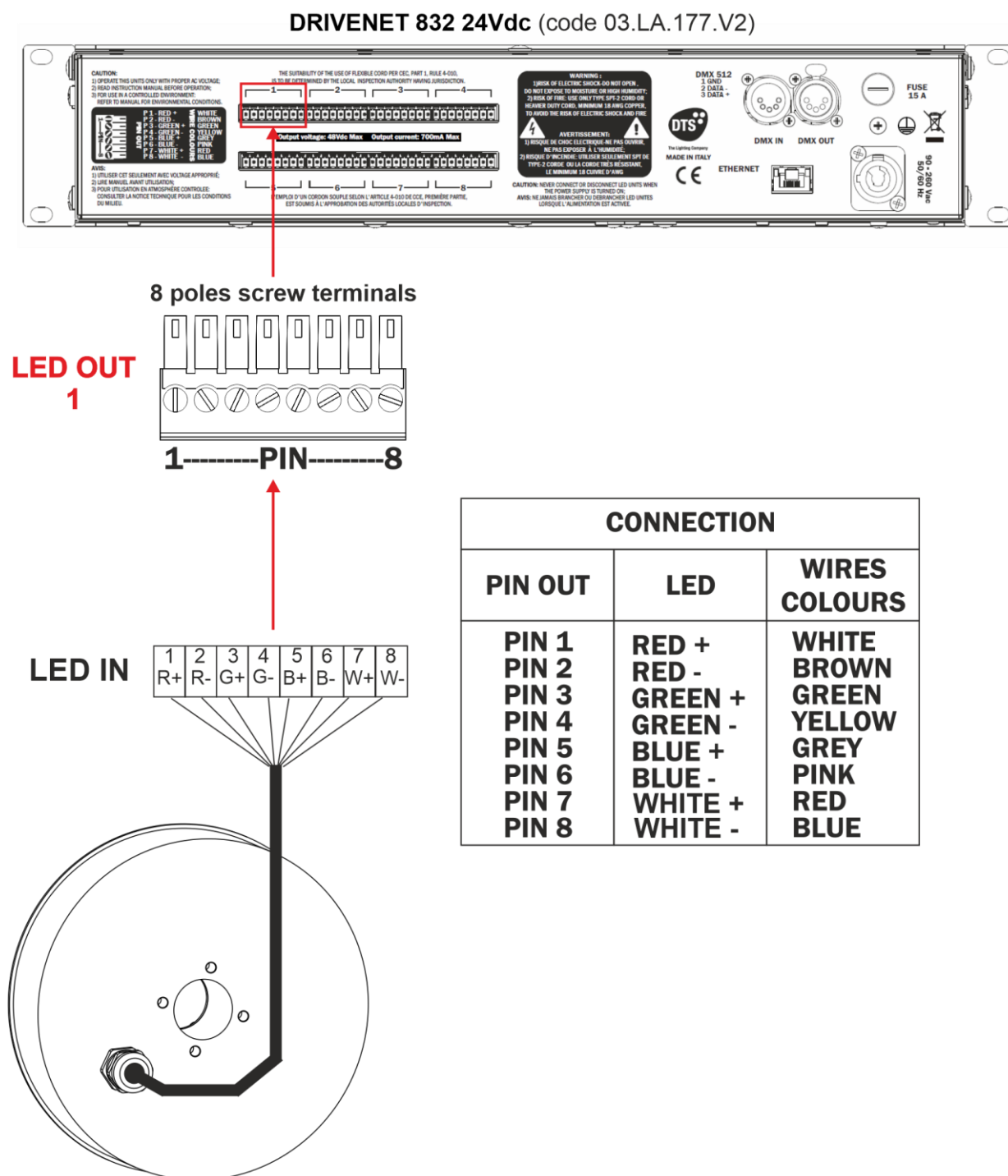
CONNECTION		
PIN OUT	LED	WIRES COLOURS
PIN 1	RED +	WHITE
PIN 2	RED -	BROWN
PIN 3	GREEN +	GREEN
PIN 4	GREEN -	YELLOW
PIN 5	BLUE +	GREY
PIN 6	BLUE -	PINK
PIN 7	WHITE +	RED
PIN 8	WHITE -	BLUE



## 8- CONNECTION DIAGRAMS

The maximum number of DONUT 6 FC connectable to each output of the DRIVENET 832 or 1664 24Vdc is 1 piece.

The maximum distance between DRIVENET PSU and DONUT 6 FC unit should not exceed 100 meters.



## **ISO 9001:2015**

DTS quality system is  
certified to the ISO  
9001:2015 standard.



**ITALIAN  
PROFESSIONAL  
LIGHTING**

D.T.S. Illuminazione S.r.l.  
via Fagnano Selve, 12/14  
47843 Misano adriatico (RN) Italy  
+39 0541 611131  
[www.dts.lighting](http://www.dts.lighting) - [info@dts-lighting.it](mailto:info@dts-lighting.it)