

FOS 33



User's Manual Rel 1.2 **GB**

D.T.S. Illuminazione srl - ITALY
<http://www.dts-lighting.it>



The Lighting Company

Made in Italy

Le informazioni contenute in questo documento sono state attentamente redatte e controllate. Tuttavia non è assunta alcuna responsabilità per eventuali inesattezze. Tutti i diritti sono riservati e questo documento non può essere copiato, fotocopiato, riprodotto per intero o in parte senza previo consenso scritto della D.T.S .

D.T.S si riserva il diritto di apportare senza preavviso cambiamenti e modifiche estetiche , funzionali o di design a ciascun proprio prodotto. D.T.S non assume alcuna responsabilità sull'uso o sull'applicazione dei prodotti o dei circuiti descritti.

The information contained in this publication has been carefully prepared and checked. However, no responsibility will be taken for any errors. All rights are reserved and this document cannot be copied, photocopied or reproduced, in part or completely, without prior written consent from D.T.S. D.T.S. reserves the right to make any aesthetic, functional or design modifications to any of its products without prior notice. D.T.S. assumes no responsibility for the use or application of the products or circuits described herein.

Les informations contenues dans le présent manuel ont été rédigées et contrôlées avec le plus grand soin. Nous déclinons toutefois toute responsabilité en cas d'éventuelles inexactitudes. Tous droits réservés. Ce document ne peut être copié, photocopié ou reproduit, dans sa totalité ou partiellement, sans le consentement préalable de D.T.S.

D.T.S. se réserve le droit d'apporter toutes modifications et améliorations esthétiques, fonctionnelles ou de design, sans préavis, à chacun de ses produits. D.T.S. décline toute responsabilité sur l'utilisation ou sur l'application des produits ou des circuits décrits.

Las informaciones contenidas en este documento han sido cuidadosamente redactadas y controladas. Con todo, no se asume ninguna responsabilidad por eventuales inexactitudes. Todos los derechos han sido reservados y este documento no puede ser copiado, fotocopiado o reproducido, total o parcialmente, sin previa autorización escrita de D.T.S.

D.T.S. se reserva el derecho a aportar sin previo aviso cambios y modificaciones de carácter estético, funcional o de diseño a cada producto suyo. D.T.S. no se asume responsabilidad de ningún tipo sobre la utilización o sobre la aplicación de los productos o de los circuitos descritos.

DESCRIPTION

FOS 33 is a new compact self-contained LED bar designed for colouring large surfaces with a uniform projection, either indoor and outdoor.

FOS 33 can be used for many applications, such as: • professional, for an ample range of special events; • theatre and television, for uniform background colours and cycloramas; • architectural, for lighting building facades, public and commercial spaces, monuments, etc. FOS 33 is made on aluminium and steel offering high resistance to mechanical stress, with an IP65 protection rating.

FOS 33 length is 33 cm.

Various FOS 33 units can be easily connected together (max 3 pcs): the LEDs distribution pattern guarantees no black spaces between the LEDs of in-line bars, and an even coverage of lighted surfaces.

FOS 33 can be used with a range of dedicated power supply / LED controllers: Z10 IP65, Z10 IP20, Z4, Z1 IP65, Z1 IP20.

Three dedicated lenses sets (Spot, Medium flood, Wide flood) are available for each model, offering different light beam projection angles.

FOS 33 can be controlled via any DMX lighting console (external power supply / LED controller needed).

FOS 33 range comprises various models, which employ different sets of LEDs tailored for distinct applications:

FOS 33 FULL COLOUR (Full colour LEDs);

FOS 33 RGBA (Red + Green + Blue + Amber LEDs);

FOS 33 WHITE (3 x White + Amber LEDs).

FOS 33 FULL COLOUR

5 x 3W Full Colour LEDs • Spot / Medium flood / Wide flood lenses

FOS 33 RGBA

16 x 1W Red, Green, Blue + Amber LEDs (4+4+4+4) • Spot / Medium flood / Wide flood lenses

FOS 33 WHITE

16 x 1W White + Amber LEDs (12+4) • Spot / Medium flood / Wide flood lenses

FOS 33 TRIPLE

3 x FOS 33 + 1 x TRIPLE BRACKET 33

All FOS 33 models are also available with spot / medium flood / wide flood lenses

LED technology

FOS 33 FULL COLOUR: 5 x 3W Full colour LEDs

16 million colours; linear colour temperature 3200°K ÷ 5500°K; 16 selectable types of White.

FOS 33 RGBA: 16 x 1W P4 LEDs (4 x Red, 4 x Green, 4 x Blue, 4 x Amber)

16 million colours; linear colour temperature 3200°K ÷ 5500°K; 16 selectable types of White.

FOS 33 WHITE: 16 x 1W P4 LEDs (12 x White, 4 x Amber)

Linear colour temperature 3200°K ÷ 5500°K; 16 selectable types of White.

No infrared emission; no ultraviolet emission

LEDs average lifespan: 100.000 hours

Optical units

3 lenses sets available (Spot, Medium flood, Wide flood)

Control

Via any DMX lighting console (external power supply / LED controller needed).

Protection

IP65 protection level against the penetration of solids and liquids

Construction

FOS is made on aluminium and steel

Power supply

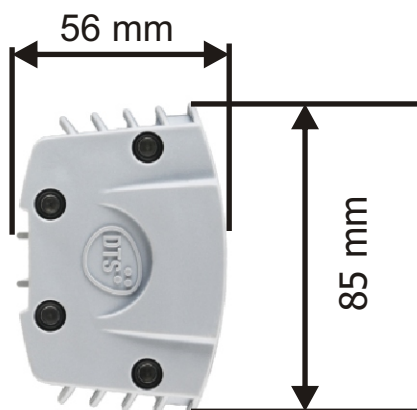
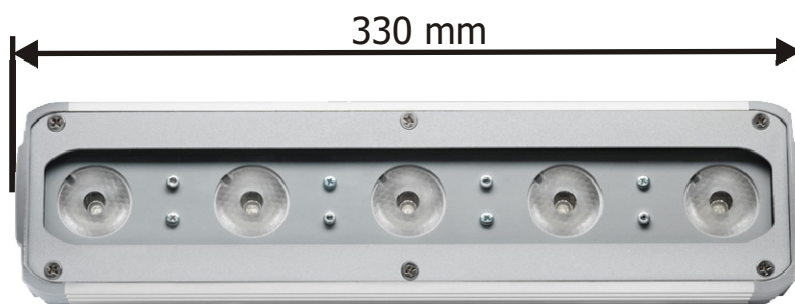
Dedicated power supply / LED controllers: Z10 IP65, Z10 IP20, Z1 IP65, Z1 IP20, Z4

Connection

M12 connection system

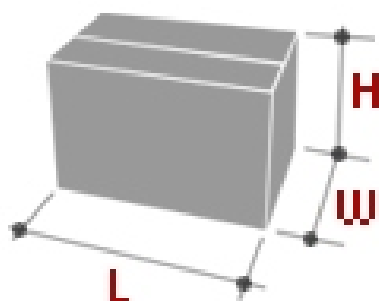
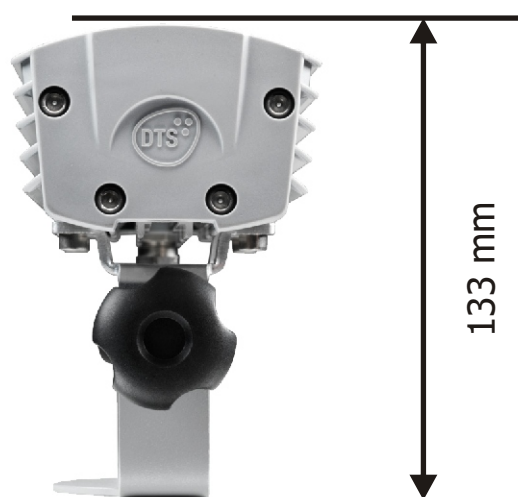
ACCESSORIES

- Lenses set Spot available for each model
- Lenses set Medium flood available for each model
- Lenses set Wide flood available for each model
- Z10 power supply / LED controller IP20 (black finish) (Cod. 03.LA.020)
- Z10 power supply / LED controller IP20 (grey finish) (Cod. 03.LA.020.26)
- Z10 power supply / LED controller IP65 (black finish) (Cod. 03.LA.020.IP65)
- Z10 power supply / LED controller IP65 (grey finish) (Cod. 03.LA.020.IP65.26)
- Z1 power supply / LED controller IP20 (Cod. 03.LA.009)
- Z4 RACK power supply / LED controller (Cod. 03.LA.014)
- Z1 OUTDOOR (IP65) power supply / LED controller (Cod. 03.LA.009.IP65)
- IR receiver for Z1/Z1 OUTDOOR/Z4/Z10 (Cod.03.LA.016)
- RJ12 6-pole male connector (Cod. 0508B058)
- 10XAWG26 multipolar black outdoor cable (Cod. 0509C061)
- 6-pole flat cable for RJ connectors (Cod. 0509C053)
- Crimping tool for RJ connectors (Cod. 0508A036)
- M12 female (8 pole) cable connector (Cod. 0520P050)
- M12 male (8 pole) cable connector (Cod 0520P051)



Unit Dimensions
(LxWxH)
330 x 56 x 85 mm

Weight
1,7 Kg



Packing Dimensions
(LxWxH)
380 x 160 x 163 mm

Weight
2,7 Kg

IMPORTANT SAFETY INFORMATION

Fire prevention:

Never locate the fixture on any flammable surface.
Minimum distance from flammable materials: 10 cm

Safety:

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.

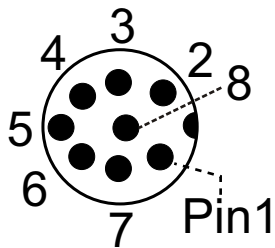
Never install the unit in an enclosed area lacking sufficient air flow.

The ambient temperature should not exceed 40°C and should not be lower than -10°C.

WIRING DIAGRAM

FOS 33 is provided with an M12 male connector (30cm cable length).

M12 PIN CONNECTOR
MALE ON BOARD
FOS 33



LEDS CONNECTOR
WIRING
FOS 33 FULL COLOUR

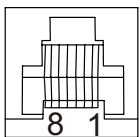
1-RED +
2-RED -
3-GREEN +
4-GREEN -
5-BLUE +
6-BLUE -
7-not used
8-not used

LEDS CONNECTOR
WIRING
FOS 33 RGBA

1-RED +
2-RED -
3-GREEN +
4-GREEN -
5-BLUE +
6-BLUE -
7-AMBER -
8-AMBER +

LEDS CONNECTOR
WIRING
FOS 33 WHITE+AMBER

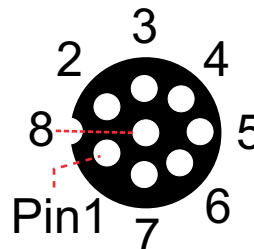
1-WHITE1 +
2-WHITE1 -
3-WHITE2 +
4-WHITE2 -
5-WHITE3 +
6-WHITE3 -
7-AMBER -
8-AMBER +



8-pin Female (RJ45)

Pin 1 = RED +
Pin 2 = RED -
Pin 3 = GREEN +
Pin 4 = GREEN -
Pin 5 = BLUE +
Pin 6 = BLUE -
Pin 7 = AMBER +
Pin 8 = AMBER -

M12 PIN CONNECTOR
FEMALE ON BOARD
Z1 OTDOOR / Z10 LED CONTROLLER



PIN CONNECTOR FEMALE
ON BOARD

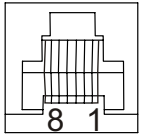
For application where IP65 rating is not necessary, FOS 33 cabling connection can be done with a standard UTP TIA/EIA 568-B2 category 5E cable.

The maximum distance between power supply and the unit should not exceed 100 meters.

For IP65 rating application, D.T.S. recommends the use of an IP65/68 cable as the 10XAWG26 multipolar black outdoor cable (IP68) (D.T.S. Code: 0509C061).

The maximum distance between power supply and the unit on the line should not exceed 100 meters.

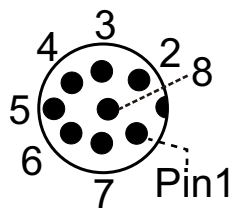
WIRING CONNECTIONS



8-pin Female (RJ45)

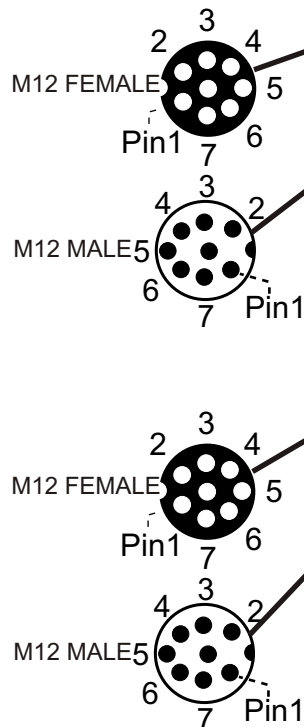
Pin 1 = RED +
 Pin 2 = RED -
 Pin 3 = GREEN +
 Pin 4 = GREEN -
 Pin 5 = BLUE +
 Pin 6 = BLUE -
 Pin 7 = AMBER +
 Pin 8 = AMBER -

M12 PIN CONNECTOR
 MALE ON BOARD
 FOS 33 FULL COLOUR



Pin 1 = RED +
 Pin 2 = RED -
 Pin 3 = GREEN +
 Pin 4 = GREEN -
 Pin 5 = BLUE +
 Pin 6 = BLUE -
 Pin 7 = AMBER -
 Pin 8 = AMBER +

Z1 DMX-512 LED driver
 Code 03.LA.009



FOS 33 FULL
 COLOR

FOS 33 RGBA

FOS 33
 WHITE+AMBER

IMPORTANT:

The Z1 power supply can be used only with the FOS 33 FULL COLOUR (not with the FOS 33 RGBA or FOS 33 WHITE+AMBER); in fact the Z1 has only 3 LED Outputs (you need 4 LED Outputs to control the FOS 33 RGBA or FOS 33 WHITE+AMBER).

The maximum number of FOS 33 FULL COLOUR connectable to the Z1 Power supply is 3 pcs.

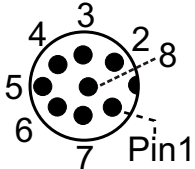
Never plug in a FOS 33 unit when the power supply is turned on.

WIRING CONNECTIONS

FOS 33 FULL COLOUR

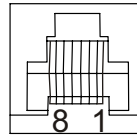


M12 PIN CONNECTOR
MALE ON BOARD
FOS 33 FULL COLOUR



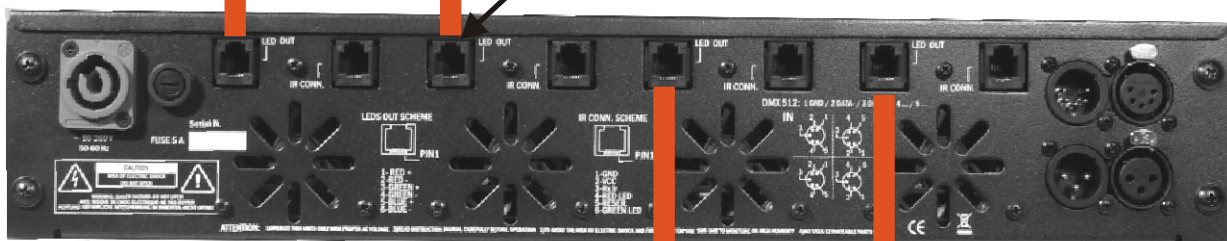
Pin 1 = RED +
Pin 2 = RED -
Pin 3 = GREEN +
Pin 4 = GREEN -
Pin 5 = BLUE +
Pin 6 = BLUE -
Pin 7 = AMBER -
Pin 8 = AMBER +

FOS 33 WHITE + AMBER



8-pin Female (RJ45)

Pin 1 = RED +
Pin 2 = RED -
Pin 3 = GREEN +
Pin 4 = GREEN -
Pin 5 = BLUE +
Pin 6 = BLUE -
Pin 7 = AMBER +
Pin 8 = AMBER -



Z4 DMX-512 LED driver
Code 03.LA.014



FOS 33 FULL COLOUR



FOS 33 RGBA

IMPORTANT:

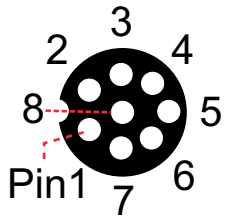
The Z4 power supply can be used only with the FOS 33 FULL COLOUR (not with the FOS 33 RGBA or FOS 33 WHITE+AMBER); in fact the Z4 has only 3 LED Outputs (you need 4 LED Outputs to control the FOS 33 RGBA or FOS 33 WHITE+AMBER).

The maximum number of FOS 33 FULL COLOUR connectable to the Z4 Power supply is 3 pcs each LED output (12 pcs totally).

Never plug in a FOS unit when the power supply is turned on.

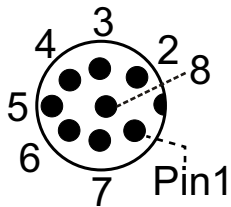
WIRING CONNECTIONS

M12 PIN CONNECTOR
FEMALE ON BOARD
Z1 OUTDOOR



Pin 1 = RED +
Pin 2 = RED -
Pin 3 = GREEN +
Pin 4 = GREEN -
Pin 5 = BLUE +
Pin 6 = BLUE -
Pin 7 = AMBER -
Pin 8 = AMBER +

M12 PIN CONNECTOR
MALE ON BOARD
FOS 33

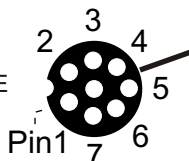


Pin 1 = RED +
Pin 2 = RED -
Pin 3 = GREEN +
Pin 4 = GREEN -
Pin 5 = BLUE +
Pin 6 = BLUE -
Pin 7 = AMBER -
Pin 8 = AMBER +

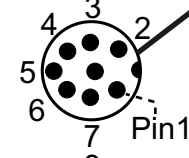


Z1 OUTDOOR DMX-512 LED driver
Code 03.LA.009.IP65

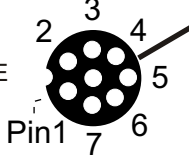
M12 FEMALE



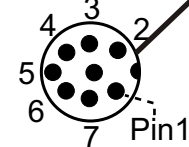
M12 MALE



M12 FEMALE



M12 MALE



FOS 33 FULL
COLOR



FOS 33 RGBA



FOS 33 RGBA /
WHITE+AMBER

IMPORTANT:

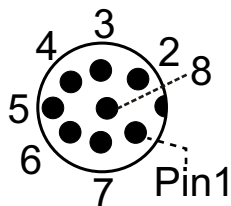
The Z1 OUTDOOR power supply can be used only with the FOS 33 FULL COLOUR (not with the FOS 33 RGBA or FOS 33 WHITE+AMBER); in fact the Z1 OUTDOOR has only 3 LED Outputs (you need 4 LED Outputs to control the FOS 33 RGBA or FOS 33 WHITE+AMBER).

The maximum number of FOS 33 FULL COLOUR Led projector connectable to the Z1 OUTDOOR Power supply is 3 pcs.

Never plug in a new UNIT when the power supply is turned on.

WIRING CONNECTIONS

M12 PIN CONNECTOR
MALE ON BOARD
FOS 33 RGBA / WHITE+AMBER



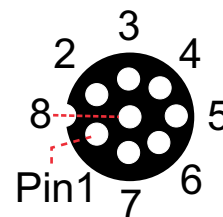
FOS 33 RGBA/
FULL COLOR

FOS 33 WHITE+AMBER

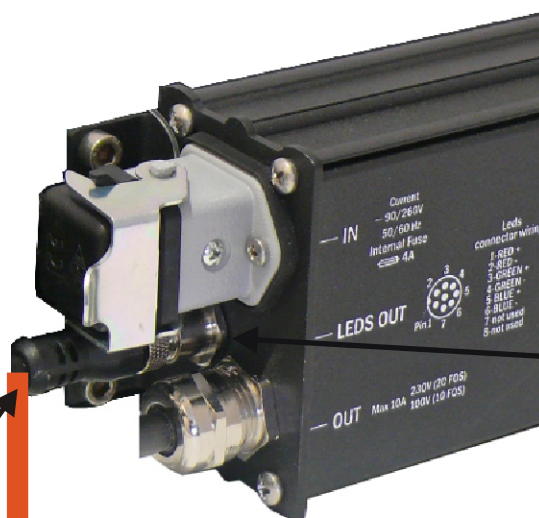
Pin 1 = RED +
Pin 2 = RED -
Pin 3 = GREEN +
Pin 4 = GREEN -
Pin 5 = BLUE +
Pin 6 = BLUE -
Pin 7 = AMBER -
Pin 8 = AMBER +

WHITE1 +
WHITE1 -
WHITE2 +
WHITE2 -
WHITE3 +
WHITE3 -
AMBER-
AMBER+

M12 PIN CONNECTOR
FEMALE ON BOARD
Z10

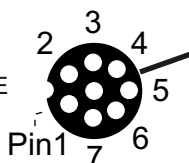


Pin 1 = RED +
Pin 2 = RED -
Pin 3 = GREEN +
Pin 4 = GREEN -
Pin 5 = BLUE +
Pin 6 = BLUE -
Pin 7 = AMBER -
Pin 8 = AMBER +

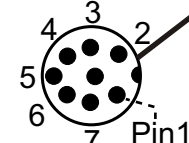


Z10 power supply / LED
controller IP65
(Cod. 03.LA.020.IP65)

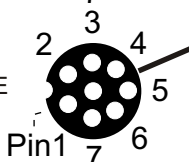
M12 FEMALE



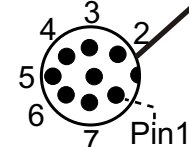
M12 MALE



M12 FEMALE



M12 MALE



FOS 33 FULL
COLOR

FOS 33 RGBA

FOS 33 RGBA /
WHITE+AMBER

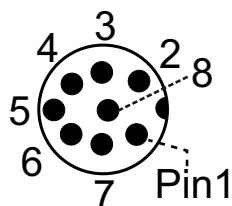
IMPORTANT:

The maximum number of FOS 33 FULL COLOUR / RGBA / WHITE+AMBER Led projector connectable to the Z10 IP65 Power supply is 3 pcs.

Never plug in a new UNIT when the power supply is turned on.

WIRING CONNECTIONS

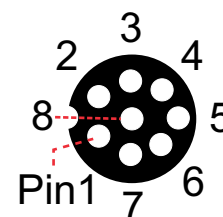
M12 PIN CONNECTOR
MALE ON BOARD
FOS 33 RGBA / WHITE+AMBER



Z10 power supply / LED
controller IP20
(Cod. 03.LA.020)



M12 PIN CONNECTOR
FEMALE ON BOARD
Z10



Pin 1 = RED +
Pin 2 = RED -
Pin 3 = GREEN +
Pin 4 = GREEN -
Pin 5 = BLUE +
Pin 6 = BLUE -
Pin 7 = AMBER -
Pin 8 = AMBER +

FOS 33 RGBA

FOS 33 WHITE+AMBER

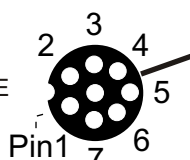
Pin 1 = RED +
Pin 2 = RED -
Pin 3 = GREEN +
Pin 4 = GREEN -
Pin 5 = BLUE +
Pin 6 = BLUE -

WHITE1 +
WHITE1 -
WHITE2 +
WHITE2 -
WHITE3 +
WHITE3 -

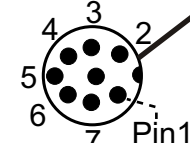
Pin 7 = AMBER -
Pin 8 = AMBER +

AMBER-
AMBER+

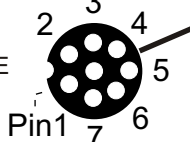
M12 FEMALE



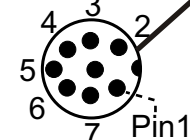
M12 MALE



M12 FEMALE



M12 MALE



FOS 33 FULL
COLOR

FOS 33 RGBA

FOS 33 RGBA /
WHITE+AMBER

IMPORTANT

The maximum number of FOS 33 FULL COLOUR / RGBA / WHITE+AMBER Led projector connectable to the Z10 IP20 Power supply is 3 pcs.

Never plug in a new UNIT when the power supply is turned on.

NOTE

The information contained in this publication has been carefully prepared and checked. However, no responsibility will be taken for any errors. All rights are reserved and this document cannot be copied, photocopied or reproduced, in part or completely, without prior written consent from D.T.S.

D.T.S. reserves the right to make any aesthetic, functional or design modifications to any of its products without prior notice. D.T.S. assumes no responsibility for the use or application of the products or circuits described herein.

MADE IN ITALY



The Lighting Company

ISO 9001:2000

D.T.S. quality system
is certified to the
ISO 9001:2000 standard



D.T.S. products are designed
and manufactured at the D.T.S.
plants in Italy