

LED Star Lights

D978-XX-001



Relaxation under the twinkling stars

When the general cabin lighting is turned down at night time, hundreds of little stars, reminiscent of the Milky Way, illuminate the ceiling to create a unique atmosphere for passengers.

While most of these stars provide beautiful, discreet illumination, others twinkle, and some bright stars may even invite the passenger to discover the signs of the zodiac.

UTC Aerospace Systems' LED Star Lights add a classy lighting effect to the cabin, aiding passengers to find peaceful relaxation.

Unique lighting feature with simple architecture

UTC Aerospace Systems' LED Star Light System consists of LED driver modules and fibre optic bundles.

The fibre optic bundles are used as a flexible and robust medium for distributing LED light exactly to the dedicated spots. Each fibre optic bundle is made up of either 15 or 30 sleeved fibres that are brought together within an aluminium circular coupling. This coupling contains an optical window that mixes and distributes light into each fibre. At the other end, each fibre has a ferrule that is used to support and aid installation into the ceiling panel. Prior to installation, the ceiling panels are prepared by drilling the appropriate number of small holes to the desired pattern.

As far as creativity is concerned, design options are endless. Bright stars may form patterns or constellations, or the arrangement and mixture may be left to chance.

Each fibre optic bundle is inserted into one of the LED driver modules' ports and secured via a keeper plate and latch mechanism. Once connected, light from the LED driver modules is transmitted down the fibre and into the cabin.

LED driver modules are available with two, three, four and five ports that combine different output modes. Output ports may provide discreet background light, bright constellation light or twinkling light. For further information on the combinations available, please see the variant table.



For an even more dramatic effect, UTC Aerospace Systems' Star Lights can be paired with mood lighting. A blue ceiling with twinkling lights creates a star-like atmosphere for passenger comfort and relaxation.

LED Driver Modules | D978-20-001 to D978-29-001



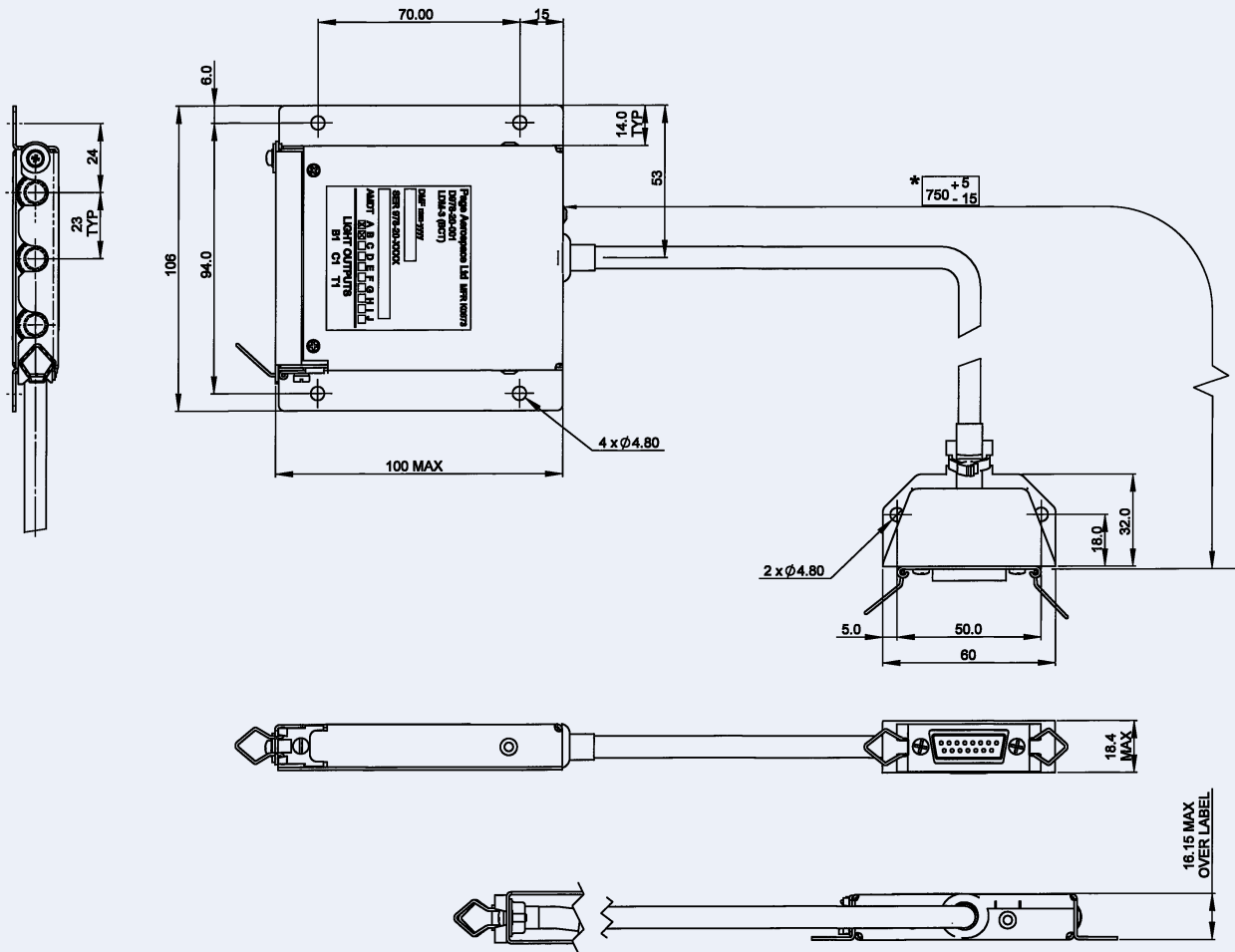
D978-20-001

Technical Data LED Driver Modules:

- Input Voltage: 28 VDC \pm 4 V
- Input Signal: 28 V PWM \pm 4 V (150 Hz nominal)
- Power Consumption: see variant table
- Lifetime: approx. 80,000 operating hours
- Light Color: white; brightness customizable by use of filter
- Weight: see variant table

D978-20-001

all dimensions in mm



Variant Table: LED Driver Modules

Part-Number	Number of Output Ports	Definition of Outputs (B = Background; C = Constellation; T = Twinkling)	Power Consumption	Weight
D978-20-001	3	B-C-T	≤ 1.7 W	0.73 lb/330 g
D978-22-001	5	B-B-C-T-T	≤ 2.1 W	0.96 lb/435 g
D978-24-001	2	B-T	≤ 1.2 W	0.51 lb/230 g
D978-25-001	3	B-T-T	≤ 1.7 W	0.73 lb/330 g
D978-26-001	4	B-C-T-T	≤ 1.9 W	0.85 lb/385 g
D978-27-001	2	C-C	≤ 1.2 W	0.51 lb/230 g
D978-29-001	4	B-B-T-T	≤ 1.9 W	0.85 lb/385 g

Fibre Optic Bundles | D978-40-001 to D978-48-001

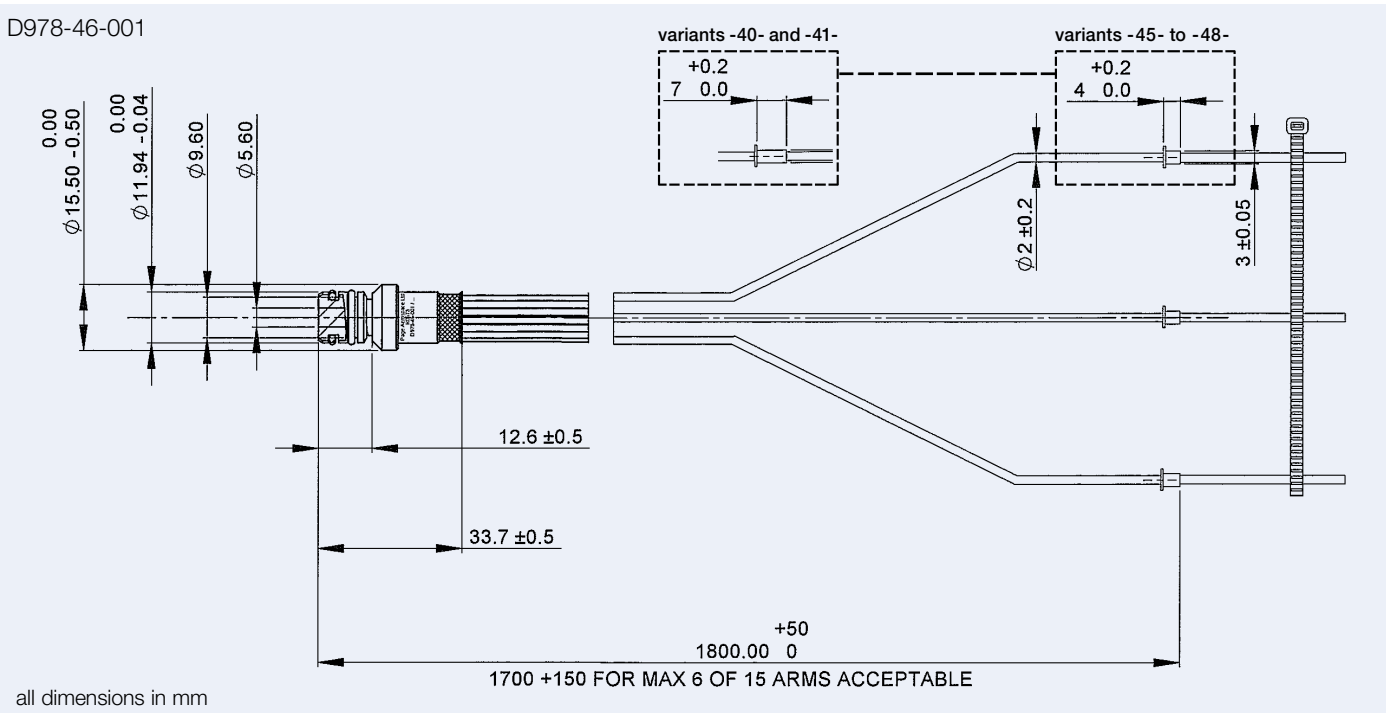


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Variant Table: Fibre Optic Bundles

Part-Number	Number of Fibres	Length of Fibres
D978-40-001	15	70,866"/1,800 mm
D978-41-001	30	70,866"/1,800 mm
D978-45-001	15	70,866"/1,800 mm
D978-46-001	30	70,866"/1,800 mm
D978-47-001	15	118,110"/3,000 mm
D978-48-001	30	118,110"/3,000 mm

D978-46-001



Operating the LED Star Lights

Plug and play: Star Lights operate on 28 VDC

Designed as a plug-and-play solution, the LED driver modules are supplied by 28 VDC and generate different output methods for the defined ports internally.

For dimming the LED Star Lights via the cabin management system, it is advantageous to choose a power supply unit capable of varying the voltage and providing a power width modulated signal.

Customized solutions for individual requirements

While the LED Star Lights were originally developed for Airbus A380 aircraft, the system can also be installed on any other aircraft.

A complete customized system architecture including all required components, power supplies and controllers for the LED Star Lights can be offered on request.

This document does not contain any export controlled technical data.

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