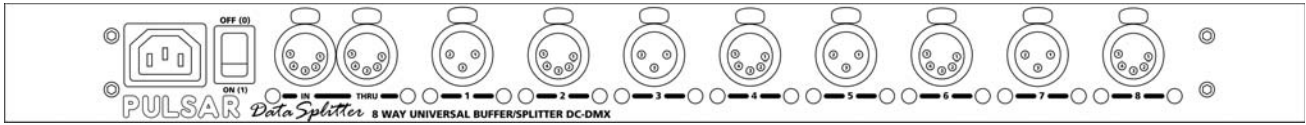
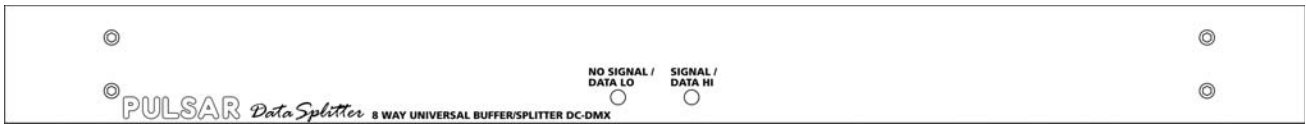


# DATASPLITTERS



<p><b>WARNING</b> THIS EQUIPMENT MUST BE EARTHED DISCONNECT MAINS BEFORE REMOVING COVER NO USER SERVICEABLE PARTS INSIDE</p> <p>Designed &amp; Manufactured in Cambridge, UK : by Pulsar Light of Cambridge Ltd 3 Coldhams Business Park, Norman Way, Cambridge, CB1 3LH, UK www.pulsarlight.com - TEL: +44 (0)1223 403500</p>	<p><b>DMX DIGITAL MULTIPLEX</b> TERMINATE LINE WITH 100R RESISTOR BETWEEN PINS 2-3 BRANCHING NOT OK</p> <p>NOTE: IF USING DMX AND THE THRU CONNECTION IS NOT REQUIRED, THIS UNIT BECOMES THE FINAL DMX UNIT AND MUST BE TERMINATED WITH A 100R RESISTOR</p>	<p><b>BUFFER / SPLITTER</b> DC - DMX RS422, RS485, ETC. 500K BAUD MAX A MINIMUM SIGNAL OF 200mV WILL PRODUCE FULL OUTPUT 8 INDEPENDANT FULLY BUFFERED, COMPLEMENTARY OUTPUT STAGES &amp; FAULT ON ANY OUTPUT LINE DOES NOT AFFECT THE OTHER OUTPUTS THE EXCELLENT COMMON MODE RANGE ALLOWS THE UNIT TO READ AND RECOVER DATA WITH UP TO 100V PE-PK OF MAINS HUM OR INTERFERENCE</p> <p><b>DMX TERMINATION</b> UNUSED OUTPUTS DO NOT NEED TO BE TERMINATED THE FINAL DMX UNIT MUST BE TERMINATED WITH A 100R RESISTOR (PINS 2-3)</p> <p><b>PROTECTION</b> ALL INPUTS AND OUTPUTS ARE PROTECTED AGAINST THE ACCIDENTAL APPLICATION OF MAINS VOLTAGE AND STATIC, WITHOUT DAMAGE MAINS VOLTAGE APPLIED TO ONE CONNECTOR WILL NOT COUPLE TO THE OTHERS</p>
<p><b>DMX SIGNAL AND LOW VOLTAGE SUPPLY</b> 1 = SCREEN 2 = DATA - 3 = DATA + 4 = NO CONNECTION 5 = LVS OUT 12-25VDC (IN ONLY) LVS IN 12-25VDC (THRU 2,4,6,8)</p>		



## GENERAL INFORMATION

DS3	3 Way Universal Buffer / Splitter DC-DMX 3 pin XLR
DS5	5 Way Universal Buffer / Splitter DC-DMX 5 pin XLR
DS8	8 Way Universal Buffer / Splitter DC-DMX 3&5 pin XLR

The **DS3, DS5 and DS8** (DS) are 8 Way Universal Buffer/Splitters for DC and DMX (**D**igital **M**ultiplex) making them suitable for RS232, DMX512 and RS485 protocols. An input THRU socket for connection to other devices or further DataSplitters is provided.

All 3 and 5 pin XLR inputs and outputs are protected against accidental application of mains voltages and static. All outputs are fully buffered, which means a fault on any output line will not affect the other outputs.

The DataSplitters may be powered by a mains connection of between 100 and 230Vac. Alternatively, the **DS5/8** may be powered by a Low Voltage Supply of +12...25Vdc to pin 5 of any of the 5 pin XLRs except IN.

The input and outputs have LED indicators, enabling the user to check the status of the input and all outputs.

The DataSplitters have been designed with two front panels to allow the units to be rack mounted as a touring version (all inputs and outputs to front for ease of connectivity), or as an installed version (all inputs and outputs to rear to give an uncluttered front). The DataSplitters may also be truss mounted using the M10 nutserts fitted to the base.

## MAINS OPERATION

This section is applicable to the DS3. It is also applicable to the DS5 if a Low Voltage Supply of +12...25Vdc @ 100mA is not available on pin 5 of the THRU or any output XLR socket.



**SERVICE AND REPAIR** must only be carried out by suitably skilled and competent persons. There are no user serviceable parts inside. Where a mains connection is used, the DataSplitter must be connected in accordance with current local and national wiring regulations. If the DataSplitter is not installed or operated according to this instruction leaflet then the protection provided by the DataSplitter may be impaired.

**WARNING - THIS APPLIANCE MUST BE EARTHED**

**IEC320 Mains Inlet Connector Voltage:** 100 - 230Vac +/-10%, single phase. There is no voltage selector - the electronics automatically adjusts to the incoming voltage.

**Power Consumption:** The DataSplitters consume less than 10W.

**Fusing:** A self-resetting solid state fuse is incorporated for minimal maintenance.

**Electronics On/Off switch with built in indicator neon:** controls the mains power to the unit.

## LOW VOLTAGE OPERATION DS5 & 8

If a mains connection is not available, a Low Voltage Supply of +12...25Vdc @ 100mA is required. This supply can be connected to pin 5 of the THRU or OUTPUT 1-8 XLRs on DS5 or OUTPUT 2,4,6,8 on DS8.

This supply could come, for example, from a Pulsar Dimmer/Switching Pack or a CFLD / CBAT etc.

**Note:** a Low Voltage Supply output is available on pin 5 of the IN XLR to power other equipment.

## CONNECTIONS

**DIGITAL AND LOW VOLTAGE SUPPLY CONNECTIONS** are made by using the 3 or 5 pin XLR sockets provided.

The connections are indicated on the lid and are:

PIN No.	Function	Pulsar DMX Cable Colours
1	Screen-Chassis Earth	Screen
2	Signal -	Blue
3	Signal +	White
4	no connection (DS5/8)	Green
5	Low voltage supply IN DS5/8 THRU and DS5 1-8 DS8 2,4,6,8 XLRs	Red

**Note (DS5&8 only):**

Pins 4 and 5 are occasionally used by other manufacturers for data. We recommend the use of 2 core plus screen cable, leaving pins 4 and 5 open circuit, to connect to this type of equipment.

# PULSAR

## LEDs AND TERMINATION

**LEDs:** The **RED** LEDs show when there is no signal or data is Lo. The **GREEN** LEDs show when there is a signal or data is Hi. Typically both red and green LEDs will be on, indicating a digital data stream.

**Note:** illuminated LEDs do not mean that the data is valid; they show its presence. Errors can often occur if the DMX line is not terminated.

The end of the DMX line(s) must always be terminated with a 100Ω resistor connected between data+ and data-, this resistor can conveniently be mounted in a 3 or 5 pin XLR plug which should be inserted in the last unit on the DMX line(s).

The Thru and each of the output lines 1-8 need terminating.

5 pin DMX line terminating plugs are available from Pulsar, Product No. 21750.4

Unlike DMX, PMX may be branched and needs no termination.

## OTHER INFORMATION

**TRUSS MOUNTING:** Two M10 nutserts are provided in the base of the DataSplitter. The maximum thread depth from panel to bottom of nutsert is 25mm. Select a suitable length M10 bolt to attach the hangers to the DataSplitter and attach the hangers to the truss.

A safety chain may be attached to one of the rack mounting holes.

**PORTABLE APPLIANCE TESTING** - The **DataSplitter** may be safely Earth Bond and Insulation Tested.

**Index of Protection** - IP20



EMC directive  
Low Voltage Directive

**GUARANTEE** - three years from the date of original purchase. The guarantee covers defects in manufacturing workmanship and materials. It is limited to parts and labour. The guarantee becomes void if the product is: a) misused, b) not used in accordance with the instructions, c) the cable connections are not made according to our instructions if the unit is used in damp or wet environments, d) repairs are made by unauthorised persons, e) the serial number label has been removed or defaced. Pulsar's maximum liability shall not exceed the price paid for the product. In the unlikely event of a fault occurring, do not use without repair. Return the product, with a description of the fault, to your supplier or direct to Pulsar for immediate attention.

## ACCESSORIES

The Pulsar **DataSplitter** has been designed to work with and complement the following products. Please contact us to receive further details of these superb products!

### Digital Control

Product No.	Controller
20054	Minipiece 54 Control Desk
23000/1	48/96 Channel Masterpiece Control Desk
24000	108 Channel Masterpiece Control Desk
20216	216 Channel Masterpiece Control Desk
27216	Masterpiece Replay Unit 216

### Control Desks

Product No.	Controller
23930	18 Channel 1 Preset Analogue/DMX Desk/Tester
23940	12 Channel 2 Preset Manual Desk with DMX
23950	18 Channel 2 Preset Manual Desk with DMX
62014	18 Channel DMX Board

### Signal Processing

Product No.	Controller
27770	6 Channel PMX/DMX 0-10V Interface
27350	18 Channel Universal Interface
27300	36 Channel Universal Interface
27400	18 Channel Switching Interface

### Rackpaks and Datapaks

A range of dimming, and switching, packs for control of up to 20A per channel.

### ChromaRange

Product No.	Controller
24500	ChromaZone 12 Way Controller for ChromaRange

### Cables

Product No.	Cable
21750.4	DMX Line Terminator Plug (XLR-5)
21755.1	2m DMX Ext. Lead - 5 core (1 XLR-5 Plug, 1 Skt)
21755.2	5m DMX Ext. Lead - 5 core (1 XLR-5 Plug, 1 Skt)
21755.3	10m DMX Ext. Lead - 5 core (1 XLR-5 Plug, 1 Skt)

## DIMENSIONS AND WEIGHTS

Code	Description	Width	Height	Depth	Weight
		mm	mm	mm	kg
DS3/5/8	8 Way Universal Buffer/Splitter	486.0	44.5	110.0	1