

Fibre optic digital multiplexer



High capacity audio/data/contacts optical transceiver, D701 model

GENERAL FEATURES

Functionality	Bi-directional Multiplexer / Demultiplexer
Number of available channels	40 (8 preinstalled + 32 by capacity expansion)
Capacity expansion	By means of up to 4 D241 units (8 channels each one)
Available boards for each channel	Digital audio (RCA type) (2 x channel) Asynchronous data (1 x channel) ON/OFF contacts (2 x channel)

OPTICAL PARAMETERS

Optical Emitter / Receiver	Laser / PIN
Output / input wavelength (see note 1)	1,310 nm. emitter / 1,550 nm. receiver (AB version) 1,310 nm. receiver / 1,550 nm. emitter (BA version)
Number and type of fibre	1 x Singlemode (9/125 µm) (Optionally multimode)
Average optical power (see note 2)	≥ -4 dBm
Sensitivity of the receiver (see notes 2 and 3)	≤ -29 dBm

AUDIO ELECTRICAL PARAMETERS

Type of signal	20 Hz – 20 kHz, 0 dBm nom., +10 dBm max.
Resolution / Sampling frequency	24 bits / > 55 kHz
Signal to noise ratio (weighted)	> 80 dB
Input / output impedance (see note 4)	High / low impedance

DATA ELECTRICAL PARAMETERS

Type of data signal (user configurable)	RS-232, RS-422, RS-485 (2 or 4 w)
Maximum binary rate	> 128 kbits/s (RS-232/422), > 19.2 kbit/s (RS-485)

CONTACTS ELECTRICAL PARAMETERS

Type of input / output contact	Active by earth closing / dry contact
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POWER PARAMETERS

Power requirements / Consumption (see note 1)	Internal by D221, < 8 W (Optionally desktop, 12 Vdc)
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MECHANICAL PARAMETERS

Format	Module for 19" rack 3U high
Dimensions	14 TE wide, 160 mm deep (without connectors)
Optical / channels / D241 connector	FC/PC / 8 x RJ45 / 4 x RJ45

ENVIRONMENTAL CONDITIONS

Operating temperature range	-40 °C to +74 °C
Humidity range	0 to 95% without condensation

INDICATORS AND ALARMS (see note 5)

Unit in operation	Green	ON
Absence of input optical power	Red	APO
For each auxiliary channel	2 x Amber	1A, 1B, ..., 8A, 8B
Audio	A/B	Excessive input signal
Data	A/B	Data transmission / reception
Contacts	A/B	Output relay 1/2 closed
D241 (x 4)	1 x Bicolour	LINK
	Off	No link with D241
	Green	Correct link
	Red	Synchronism failure

Note 1.- Typical values, as a production average

Note 2.- Actual values are given in the test sheet. These values are measured according to the test procedure for this device

Note 3.- Value guaranteed for a BER < 10⁻⁹ in all the operating range

Note 4.- 600 Ω if the two channels are combined to transmit a balanced audio signal

Note 5.- LEDs on the front side

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