

# SERBAL™ HD/SDI-TO-FIBRE CONVERTER



## SERBAL™ - SMPTE Electrical Reconfigurable Bidirectional Alternative Link

### 4 channel Coax-to-fibre media Converter

The LEMO SERBAL™ is a 4 channel multiplexer that makes HD/SDI to fibre conversion possible. The SERBAL™ provides a compact conversion unit which allows output from up to 4 cameras to be transmitted over a single standard LEMO 3K.93C SMPTE cable.

The optical multiplexers of the SERBAL™ use Wavelength Division Multiplexing (WDM).

Each signal within a fibre has a different optical wave length, enabling interference free transmission over longer distance.

The system is available in three versions: it can send 4x HD/SDI signals from the cameras to the OB van using one SMPTE cable. The second version can send 2x HD/SDI signals from the cameras to the OB van, while using the remaining 2 signals for monitor feedback. If only one monitor feedback is required, the third version can send up to 3 camera signals to the OB van.



## Technical characteristics

Characteristics	Values	
Weight / dimension	2 kg / 172 x 125 x 50 mm	
Transmission wavelength	1310 nm / 1550 nm	
Cable	hybrid	SMPTE 311 M
	2 fibre 9/125	2 fiber single mode cable
Fibre type	Single mode	
Optical connector	LEMO 3K.93C Series	
Electrical coax connector	BNC 75Ω	
Optical launch power	- 6 dB @ 1310 nm	
	- 4,5 dB @ 1550 nm	
Optical receive sensitivity	- 30 dB @ 1310 nm	
	- 30 dB @ 1550 nm	
Equalisation (camera side)	up to 300 m @ 270 Mb/s up to 100 m @ 1,485 Gb/s	
Temperature range	-30°C to +70°C	
Humidity range	Up to 95%	
Input voltage	6Vdc @ 1,5 A maximum	

	Broadcast setup	SERBAL™ Part number
Camera side	4 cameras	PHW.MS.3C4.TPBCC
	2 cameras / 2 monitors	PHW.MS.3C2.TPBCC
	3 cameras / 1 monitor	PHW.MS.3C3.TPBCC
CCU side	4 Tx signals	PHW.MS.3C4.TPBCM
	2 Tx signals + 2 Rx signals	PHW.MS.3C2.TPBCM
	3 Tx signals + 1 Rx signals	PHW.MS.3C3.TPBCM

Every coax-to-fibre Media Converter comes with power supply (110V/220V) adapter.

## Applications

- Golf, skiing, auto racing, olympic games
- Pre-fibred venues
- Stadiums, racing tracks

## Benefits

- Plug & play solution
- High quality signal transmitted over fibre
- Compact

## Features

- Converts from Coaxial BNC input to transmission over standard 3K.93C cable assemblies
- Multiple transmission options available
  - 4 x Tx
  - 2 x Tx + 2 x Rx
  - 3 x Tx + 1 x Rx
- Audio/Data: passes pre-embedded Audio
- Supports all NRZI data formats from 10 Mb/s to 1.5 Gb/s
- Signal format: HD/SDI SMPTE 292 M, SDI, DVB-ASI, 19.4 Mb/s SMPTE 310, 142-540 Mb/s SMPTE 259 M, SDTI.

