

DC Fibre Optic Links



Our **point2point** DC Fibre-Optic-Links provide a high performance analogue instrumentation system which produces great benefits for users who require a solution to electrical interference and noise problems in signal monitoring and distribution.

The electrical input/output interface to the system is analogue, and this means that the link is transparent to almost any data format or signal type.

The point2point DC Transmitter converts the analogue input signal into an optical digital signal for transmission over the optical fibre. At the Receiver, the signal is converted back into an electrical signal. This high speed Analogue-to-Digital conversion technique has many advantages over conventional analogue solutions as it produces very high levels of accuracy and stability.

APPLICATIONS

- EMC Test Chambers.
- Electrically noisy environments.
- Power distribution monitoring.
- High voltage monitoring and analysis.
- Automotive applications requiring monitoring of true DC signals.
- Signals containing very low frequency or DC components.

BENEFITS

The use of optical fibre has a number of inherent advantages over conventional copper based alternatives:

- Immunity to electrical interference, so the signal is not corrupted by radiated interference.
- It is non-conductive, thus providing an intrinsically safe transmission path for the monitoring of equipment at hazardous voltages.
- It uses highly flexible and small diameter cable.
- Elimination of ground loops.

HIGH PERFORMANCE

The PPM DC-1MHz Analogue Fibre-Optic-Link offers particular advantages:

- Analogue-to-Digital Conversion technology for high accuracy, low drift and high reliability.
- True DC coupling for monitoring of DC and very low frequency signals.
- High DC stability and path length independence due to the use of digital signal transmission.
- Electrically screened Shielded Remote Modules for operation in high levels of electrical interference.
- A range of input and output voltage levels.
- Wide dynamic range suitable for simultaneously monitoring low and high level signals.

SYSTEM CONFIGURATION

The DC-1MHz Analogue Fibre-Optic-Link belongs to PPM's modular point2point product range, where Transmitter and Receiver units can be delivered in Remote, Shielded Remote or Plug-In Module options. A typical system configuration comprises a Shielded Remote Transmitter Module connected to a Plug-In Receiver Module via a lightweight Fibre Optic Cable.

USER SPECIFIED PARAMETERS

The uniquely modular design of the point2point system enables the user to specify a range of link parameters to suit any particular application:

- Input and output levels;
- Housing type;
- Optical connection type (including ruggedised connectors and high strength cable).

The following are the different types of DC Analogue Fibre-Optic-Links

- [DC-1MHz Analogue Fibre-Optic-Links](#)
- [DC-5MHz Analogue Fibre-Optic-Links](#)