

# Multi mode and single mode Fibre Modems for

**CONCEPT 4000** systems



A purpose built fibre optic solution designed specifically to work with Concept installations

- Multimode and single mode versions available
- Full-duplex communication
- Extends Concept LAN up to 13Km
- All the advantages of optical isolation
- Optional loop and branch mode configuration

The Inner Range Fibre Modem provides two separate, optically isolated ports to the Concept system LAN. A set of Fibre Modems are ideal for applications where modules in a Concept system are in different buildings and/or are separated by large distances.

In terms of a Concept system, Fibre Modem links boast maximum LAN distance whilst providing immunity to earth loops, induced electrical noise and propagation of pulses from lightning strikes by virtue of the optical isolation.

The modems have two fibre ports which enable sets of Fibre Modems to be arranged in 'branch' or 'loop' configurations. Each fibre port utilises a pair of fibres per link to provide full-duplex communication. Up to 5 Fibre Modems can be connected in series.

Both Single Mode and Multimode versions of the Fibre Modem are available.

## Features:

- Multimode Fibre Modems extend Concept LAN up to 10Km
- Single Mode Fibre Modems extend Concept LAN up to 13Km
- Electrical isolation from the remote LAN
- Fibre links immune to earth loops and induced noise
- Immune to propagation of electrical pulses due to lightning
- Supports loop and branch ("Y") configurations
- Redundant LAN path when Fibre Modems used in 'loop' configuration
- 'Loop Fault' and 'Branch Fault' auxiliary outputs

## Ordering Options

**995081**

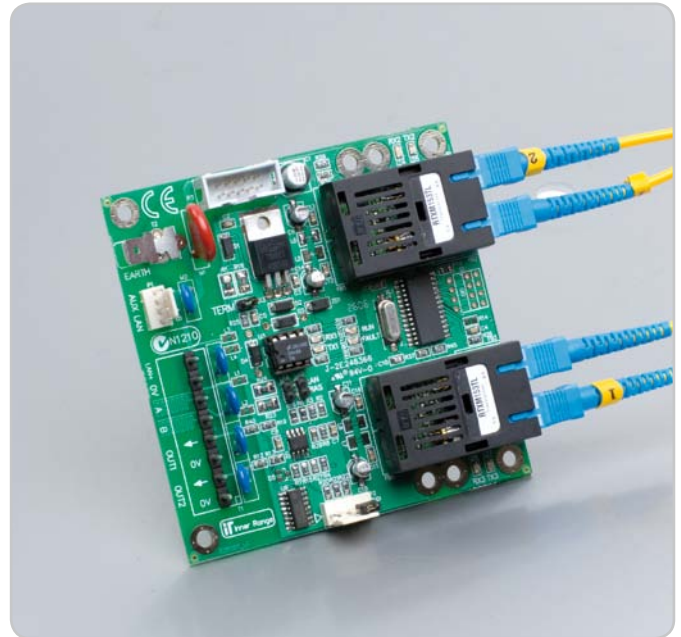
Multimode Fibre Modem

**995087**

Single Mode Fibre Modem



**Note:** Single Mode Fibre Modem (995087) is supplied in the same plastic enclosure as the Multimode Fibre Modem (995081). There is also provision to mount Fibre Modem PCBs in the Low Profile Enclosures along with Control Module and Expander Module PCBs



## SPECIFICATIONS

### Physical

Enclosure Dimensions	238(L) x 118(W) x 74(D) (mm)
PCB Dimensions	96(L) x 96(W) (mm) Note: Fibre Connector heads protrude 15mm from PCB
Installation Environment	0° – 40°C @ 15% to 85% Relative humidity (non-condensing)
Fibre Optic Connections	Type ST. 62.5/125 820nm multimode cable (Multimode) Type SC. 9/125 1310nm single mode cable (Single Mode)

### Electrical

Input Voltage to PCB	11-14VDC (From LAN or separate battery backed external power supply)
Operational Current	Multimode: 20mA idle – 120mA Max Single Mode: 150mA Idle – 260mA Max

### Optical

Tx Optical Power	-12dBm (typical)
Rx Optical Power	-24dBm (minimum for logic operation)
Max. Modem to Modem Optical Cable Distance (Multimode)	2km
Max. Modem to Modem Optical Cable Distance (Single Mode)	13km

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