



## Description

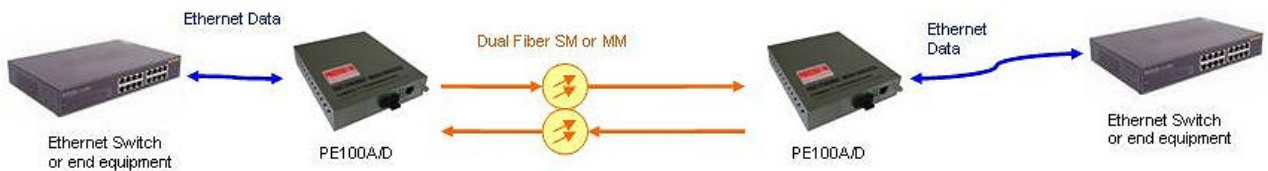
Precision's PE100 series media converter transmits 10/100Mbps Ethernet data over multi-mode or single-mode fibre-optic cable over distances of up to 25km. These media converters have built-in duplex flow control and half-duplex back-pressure control. The PE100 series is field-hardened with a telco-grade MTBF (longer than 50000 hours) for operation in harsh field conditions. The PE100 series is available as standalone metal cased units with internal power supplies, which can also be unplugged and rack-mounted for high density applications.

## Key Features

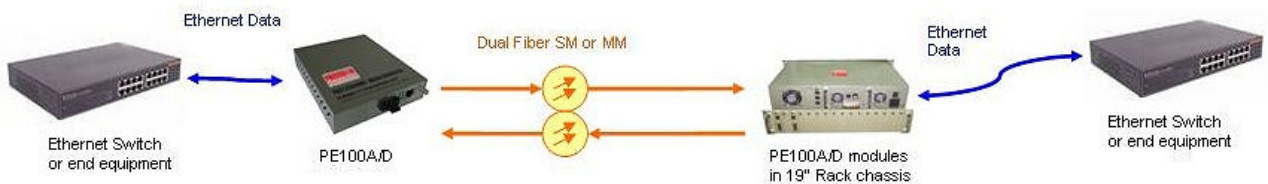
- Field hardened media converter with high MTBF > 50000 hours
- Ethernet port speed auto detection, auto cross-over support
- Support jumbo frames up to 1600 bytes
- Duplex or Simplex SC Fibre connector options
- Low delay < 0.9us pass through, <9.6us store & forward
- Low BER < 1E-9
- Hot-swap 19" rack-mount card or standalone units
- Supplied with internal switch-mode power supply options for 220V AC, or 24V AC, or 12V DC.

## Typical applications

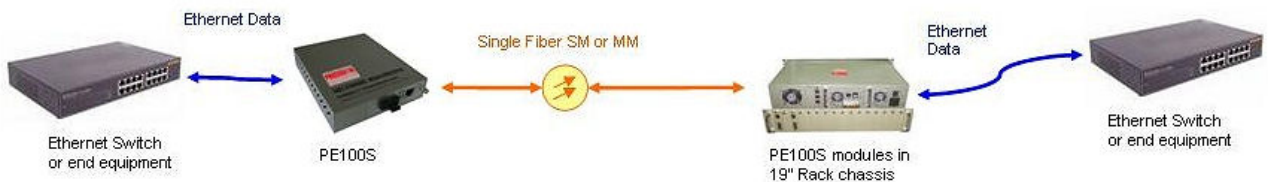
### Typical application: 100Mbps full duplex link over duplex fibers



### Typical application: 100Mbps full duplex link over duplex fibers to 19" rack



### Typical application: 100Mbps full duplex link over single fiber



## Specifications

### Optic

Optic wavelength	Duplex model (-D/-A) Simplex models: (-S)	1310nm on 2 fibres 1310nm & 1550nm
Optic transmit power	Multi-mode: Single-mode:	-16 dBm typ. +/- 4dB -12 dBm typ. +/- 4dB
Optic receive sensitivity	Multi-mode: Single-mode:	-30 dBm -28 dBm
Optic budget	Multi-mode: Single-mode:	12 dB typ. 16 dB typ.
Optic Connector	SC Duplex (-D/-A) SC Simplex (-S)	

### Ethernet

Ethernet Connector	RJ45	
Speed	10/100Mbps autoneg	
Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3x IEEE 802.1q IEEE 802.1p IEEE 802.1d	10Base-T 100Base-TX/FX Flow control VLAN passthrough Priority QoS passthrough Spanning Tree
Conversion method	Media conversion	Store & Forward / pass
Time delay	Store & forward Pass through	9.6 us 0.9 us
Filtering rate	At 10Mbps At 100Mbps	14880 pps 148800 pps
MAC table	Store & Forward only	1K entries

### System

BER	1E-9 max
MTBF	> 50000 Hr

### Dimensions

Standalone unit	157mm x 128mm x 32mm
Rack-mount card	2U, 1 slot (of 16)

### Power

Standalone unit	Internal Mains supply Internal 24V AC supply Internal 12V DC supply	110-220V AC 50-60Hz 24V AC 50-60Hz 12V DC	5 Watt max 5 Watt max (210mA) 5 Watt max (420mA)
Rack-mount card	Rack power		










### Environmental


Storage temperature	-40°C to +70°C
Operating temperature	0°C to +60°C
Humidity	0 to 95% (non cond)

### Quality/Safety standards

ISO9001
CE Mark
FCC class A

## Ordering information

PE100 Series 10/100 Duplex fibre media converters							
PE100A-2MM-SA220	10/100Base Ethernet Media converter, MM, 2KM, SC, 2-Fiber, Standalone, Internal Power Supply 110-220V AC 50-60Hz Type-M 15A Plug. Removable card is rack-mountable in 16-slot chassis.		MM 50/125	Standalone or Rackmount	SC x2	1310nm	1310nm
PE100A-2MM-SA12	10/100Base Ethernet Media converter, MM, 2KM, SC, 2-Fiber, Standalone, Internal Power Supply 12V DC 2-pin Screw Terminal. Removable card is rack-mountable in 16-slot chassis.		MM 50/125	Standalone or Rackmount	SC x2	1310nm	1310nm
PE100A-2MM-SA24	10/100Base Ethernet Media converter, MM, 2KM, SC, 2-Fiber, Standalone, Internal Power Supply 24V AC 50-60Hz 2-pin screw terminal. Removable card is rack-mountable in 16-slot chassis.		MM 50/125	Standalone or Rackmount	SC x2	1310nm	1310nm
PE100A-2MM-RM	10/100Base Ethernet Media converter, MM, 2KM, SC, 2-Fiber, Rack-mount card, powered from 16-slot chassis.		MM 50/125	Rackmount	SC x2	1310nm	1310nm
PE100D-2SM-SA220	10/100Base Ethernet Media converter, SM, 20KM, SC, 2-Fiber, Standalone, Internal Power Supply 110-220V AC 50-60Hz Type-M 15A Plug. Removable card is rack-mountable in 16-slot chassis.		SM 9/125	Standalone or Rackmount	SC x2	1310nm	1310nm
PE100D-2SM-SA12	10/100Base Ethernet Media converter, SM, 20KM, SC, 2-Fiber, Standalone, Internal Power Supply 12V DC 2-pin Screw Terminal. Removable card is rack-mountable in 16-slot chassis.		SM 9/125	Standalone or Rackmount	SC x2	1310nm	1310nm
PE100D-2SM-SA24	10/100Base Ethernet Media converter, SM, 20KM, SC, 2-Fiber, Standalone, Internal Power Supply 24V AC 50-60Hz 2-pin screw terminal. Removable card is rack-mountable in 16-slot chassis.		SM 9/125	Standalone or Rackmount	SC x2	1310nm	1310nm
PE100D-2SM-RM	10/100Base Ethernet Media converter, SM, 20KM, SC, 2-Fiber, Rack-mount card, powered from 16-slot chassis.		SM 9/125	Rackmount	SC x2	1310nm	1310nm
PE100S Series 10/100 Simplex fibre media converters							
PE100ST-SM-SA220	10/100 Base Ethernet Media converter T-side 1310Tx & 1550Rx, SM, 20KM, SC, Single-Fiber, Standalone, Internal Power Supply 110-220V AC 50-60Hz Type-M 15A Plug. Removable card is rack-mountable in 16-slot chassis.		SM 9/125	Standalone or Rackmount	SC x1	1310nm	1550nm

PE100ST-SM-SA12	10/100 Base Ethernet Media converter T-side 1310Tx & 1550Rx, SM, 20KM, SC, Single-Fiber, Standalone, Internal Power Supply 12V DC 2-pin Screw Terminal. Removable card is rack-mountable in 16-slot chassis.		SM 9/125	Standalone or Rackmount	SC x1	1310nm	1550nm
PE100ST-SM-SA24	10/100 Base Ethernet Media converter T-side 1310Tx & 1550Rx, SM, 20KM, SC, Single-Fiber, Standalone, Internal Power Supply 24V AC 50-60Hz 2-pin screw terminal. Removable card is rack-mountable in 16-slot chassis.		SM 9/125	Standalone or Rackmount	SC x1	1310nm	1550nm
PE100ST-SM-RM	10/100 Base Ethernet Media converter T-side 1310Tx & 1550Rx, SM, 20KM, SC, Single-Fiber, Rack-mount card, powered from 16-slot chassis.		SM 9/125	Rackmount	SC x1	1310nm	1550nm
PE100SR-SM-SA220	10/100Base Ethernet Media converter R-side 1550Tx & 1310Rx, SM, 20KM, SC, Single-Fiber, Standalone, Internal Power Supply 110-220V AC 50-60Hz Type-M 15A Plug. Removable card is rack-mountable in 16-slot chassis.		SM 9/125	Standalone or Rackmount	SC x1	1550nm	1310nm
PE100SR-SM-SA12	10/100 Base Ethernet Media converter R-side 1550Tx & 1310Rx, SM, 20KM, SC, Single-Fiber, Standalone, Internal Power Supply 12V DC 2-pin Screw Terminal. Removable card is rack-mountable in 16-slot chassis.		SM 9/125	Standalone or Rackmount	SC x1	1550nm	1310nm
PE100SR-SM-SA24	10/100 Base Ethernet Media converter R-side 1550Tx & 1310Rx, SM, 20KM, SC, Single-Fiber, Standalone, Internal Power Supply 24V AC 50-60Hz 2-pin screw terminal. Removable card is rack-mountable in 16-slot chassis.		SM 9/125	Standalone or Rackmount	SC x1	1550nm	1310nm
PE100SR-SM-RM	10/100 Base Ethernet Media converter R-side 1550Tx & 1310Rx, SM, 20KM, SC, Single-Fiber, Rack-mount card, powered from 16-slot chassis.		SM 9/125	Rackmount	SC x1	1550nm	1310nm
<b>PE media converters rack &amp; accessories</b>							
PER216-DS220	19" Rack with 16 slots for Ethernet cards, 2U, with dual power supply for 110-220V AC 50-60HZ. Type-M 15A Plug	Rack for PE	NA	Rackmount	NA	NA	NA

**Note: PE100S Simplex version must be used as matched T/R pairs**

Data Sheet Version

1.2

2009/08/13