

ETHERNET-TO-FIBRE MEDIA CONVERTER



Ethernet Media Converter

The LEMO Ethernet to fibre media converter has been designed to ensure reliable operation in harsh environments. A pair of media converters enables the conversion of signal from Ethernet 100 BaseT copper networks to fibre optics and vice-versa. Using fibre optics allows the signal to be transmitted over a long distance without loss of quality. Additional advantages are immunity to electromagnetic interference and increased security for sensitive information.

Benefits

- Ruggedised construction tested to MIL 810F
- Watertight to IP68
- Easy to deploy and operate
- Quick conversion of existing systems
- Fibre transmission totally secure
- Fibre safe to use through explosive environments
- Lightweight fibre for easy transportation
- Long distance transmission – to 20km



Applications

The LEMO Ethernet converter enables quick conversion of any existing 10/100base T ethernet system to fibre optic, thus gaining all the benefits available from fibre, particularly long transmission distance without losses and total security (whether from enemy surveillance in military applications or hazard avoidance in explosive environments).

Potential applications include:

- Military communications
- Police covert communications
- Emergency services
- Portable video surveillance
- Industrial and process plant

Technical characteristics

The LEMO Ethernet converter has been satisfactorily tested to a range of MIL Spec 810F requirements including:

- Temperature
- Sand and dust
- Solar radiation
- High altitude
- Rain and immersion
- Vibration and shock tests

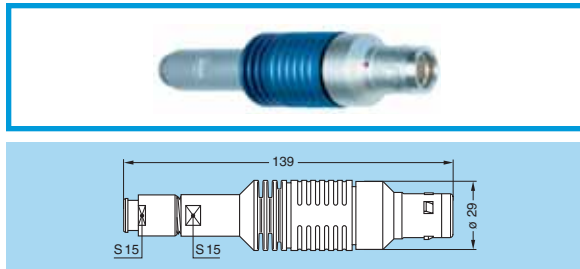
It has also been tested to a full range of EMI tests to MIL spec 416E for both emissions and susceptibility, and passed all requirements.

Characteristics	Values
Transmission Wavelength	1310 nm
Fibre type	Singlemode 9/125 μ m
Electrical Inputs	10/100 BaseT Ethernet, 5V supply (280mA max.)
LD Optical Output	200 μ W (Typical)
Photodiode Sensitivity	-37 to -5 dBm
Data Rate	125 Mbps (max.)
Transmission Distance	over 20km
Protection index	IP 68 (when mated)
Temperature range/ Humidity range	-20°C to +65°C/85% Rh

FGG Ethernet converter with fibre optic plug and cable collet

Part number	Mating connector optical side
FGG.ME.3KA.CCZC**Z	PHG.3K.03A.CLZT**Z

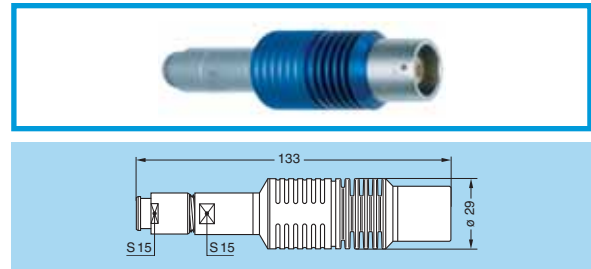
Note: replace ** by the cable diameter required (consult LEMO). Available in different colours.



PHG Ethernet converter with fibre optic socket and cable collet

Part number	Mating connector optical side
PHG.ME.3KA.CCZC**Z	FGG.3K.03A.CLZT**Z

Note: replace ** by the cable diameter required (consult LEMO). Available in different colours.



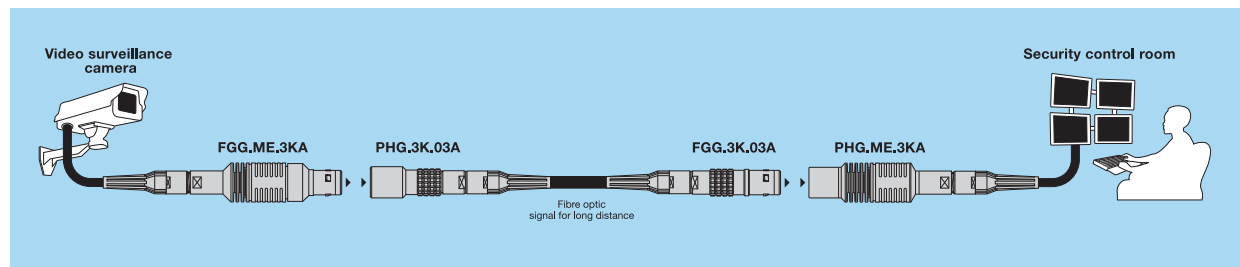
Cable assemblies

LEMO Ethernet converters can be supplied with either trailing leads or customer-specified connectors (e.g. MIL38999 or your standard industrial connector) already terminated for connection to your existing ethernet system. Fibre cables are also available to length as required – standard LEMO fibre cable assembly uses high quality Military tactical two-fibre cable with kevlar reinforcement.

Some examples of standard cable assemblies FGG.3K.03A to PHG.3K.03A on 2-fibre singlemode MIL-Tac cable

Part number	Length
UKF.3K.B93.010000	100 Metre
UKF.3K.B93.020000	200 Metre
UKF.3K.B93.100000	1000 Metre

Note: Other lengths available on request.



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