

**0.83 ÷ 0.86
μm**

**CW output power
> 1.0 mW**

LFO-17m-ip

Description:

LFO-17m-ip – is a series of optical modules based on 850nm VCSEL and coupled with multimode optical fiber. Hermetically sealed modules are performed in standard coaxial package with built-in InGaAs monitor photodiode and collimating ball lens. The modules operate in wide temperature range, have stable output power and more than $5 \cdot 10^5$ hours of lifetime.

LFO-17m-ip – are the best light sources for digital (up to 622 Mb/s) fiber-optic communication lines, optical testers, systems of optical synchronization and other applications.



Absolute maximum ratings:

Laser diode

Max. output power (mW)	2.0
Reverse voltage (V)	5.0

Monitor photodiode

Reverse voltage (V)	10
Forward current (mA)	1.0

Environment

Operating temperature range (°C)	-40..+55
Storage temperature range (°C)	-40..+70

Assembly

Pin soldering temperature (°C)	200
Pin soldering time (sec)	3.0

Optical and electrical characteristics (T=25°C):

Characteristics	Symbol	Test condition	Min	Typ.	Max	Units
Laser diode						
Output power from fiber end	P_{OP}	I_{OP}	0.8	1.0		mW
Wavelength	λ_{OP}	P_{OP}	830	850	860	nm
Spectral width (FWHM)	$\Delta\lambda$	P_{OP}		0.85	2.0	nm
Threshold current	I_{TH}	CW		3.0	6.0	mA
Forward current	I_F	P_{OP}		20	30	mA
Forward voltage	U_{OP}	P_{OP}	1.7	1.9	2.3	V
Rise time/fall time	τ_R/τ_F	P_{OP}		0.3	0.7	ns
Monitor photodiode						
Monitor current	I_{PD}	$U_{REV}=5.0\text{ V}, P_{OP}$	30	100		μA
Dark current	I_D	$U_{REV}=5.0\text{ V}$			0.1	μA
Optical fiber						
Fiber core/cladding diameter	D_C/D_{CL}			50/125		μm
Fiber length	L			400..1500		mm
Optical connector type				«FC»		

ROITHNER LASERTECHNIK

A-1040 VIENNA, SCHOENBRUNNER STRASSE 7, AUSTRIA

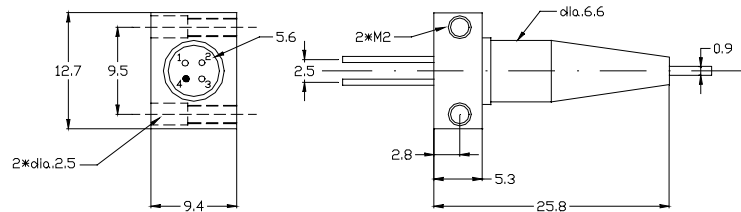
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LFO-17m-ip

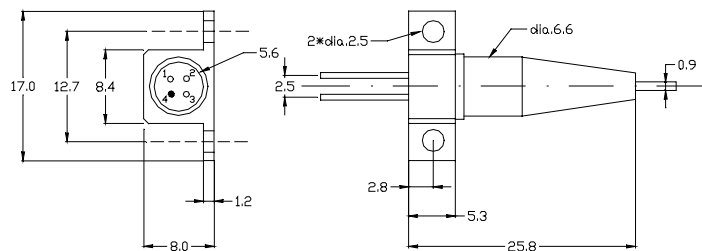
Package specifications (type «A»):

Pin	Function
1	LD cathode (-)
2	LD anode (+), PD cathode (+)
3	PD anode (-)
4	case



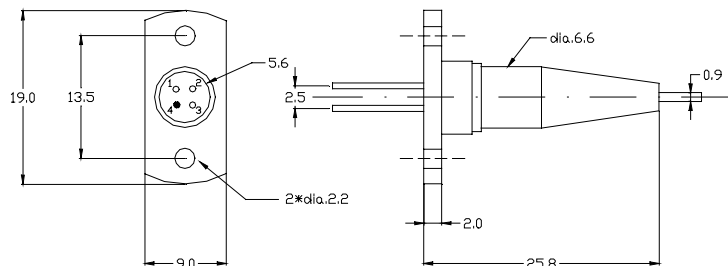
Package specifications (type «B»):

Pin	Function
1	LD cathode (-)
2	LD anode (+), PD cathode (+)
3	PD anode (-)
4	case

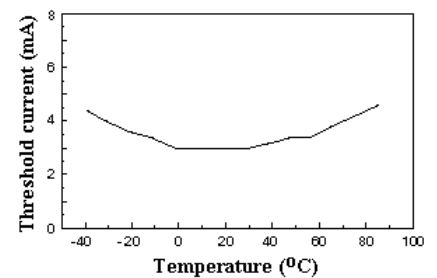
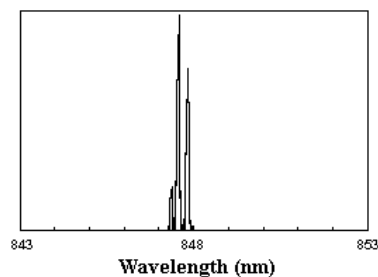
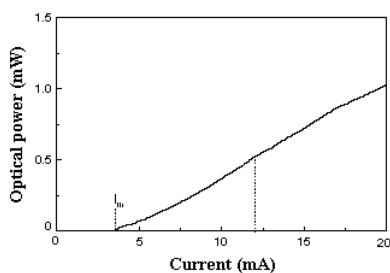


Package specifications (type «C»):

Pin	Function
1	LD cathode (-)
2	LD anode (+), PD cathode (+)
3	PD anode (-)
4	case



Typical optical and electrical characteristics (T=25°C):



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