

# VOA 4

## VARIABLE OPTICAL ATTENUATOR



- Available in both singlemode and multimode versions
- Wide attenuation range (60 dB for singlemode)
- Accuracy and repeatability better than 0.1 dB
- Programmable via a serial (RS-232) port
- Battery or AC powered
- Understands Standard Commands for Programmable Instruments (SCPI)



## DESCRIPTION

The VOA is a precision, optical attenuator that can be operated under local (front panel) or remote (PC) control. Two models are available, the VOA 4 MM for multimode applications and VOA 4 SM for singlemode applications.

In the field, the VOA 4 can be used to verify specific optical margins. A technician can add a precise amount of attenuation to a newly installed optical span and verify the no performance monitoring (PM) messages are generated by the optical receiver.

In R&D applications, the VOA 4 is an excellent

network simulator for both telecom and LAN equipment manufacturers. In production test and quality assurance applications, the VOA 4 can be used to verify the operating range of optical network equipment prior to shipment.

The VOA 4 is equipped with a serial (RS-232) port for remote control using a PC and can understand over 20 "SCPI" style commands. SCPI (Standard Commands for Programmable Instruments) was chosen because it is used by many programmable instruments.

## SPECIFICATIONS

MODELS	VOA 4 MM	VOA 4 SM
OPTICAL SPECIFICATIONS		
Fiber Type	62.5 μm, multimode	9 μm, singlemode
Operating Wavelength Range	700 to 1300 nm	1270 to 1580 nm
Calibrated Wavelengths	850 and 1300 nm	1310 and 1550 nm
Attenuation Range	0 to 40 dB (plus insertion loss)	0 to 60 dB (plus insertion loss)
Insertion Loss	< 3.5 dB	
Display Resolution	0.1 dB	
Accuracy at Calibrated Wavelengths	± 0.1 dB (A <sub>filter</sub> = 0 to 30 dB)	
Repeatability	± 0.1 dB	
Maximum Input Level	+20 dBm	
Available Connectors	ST, FC, SC	
GENERAL SPECIFICATIONS		
Power	4 AA alkaline batteries (IEC LR6), 120 or 220 volt AC adapters	
Battery Life	8 hrs. typical operation with 4 AA alkaline batteries	
Size	8.25" H x 4" W x 1.75" D (21 x 10 x 4.5 mm)	
Weight	1 lb. 9 oz. (700 grams)	
Operating Temperature	0° to 50° C	
Storage Temperature	-20° to 60° C	
Relative Humidity	0 to 90% (non-condensing)	

Noyes Fiber Systems is continually improving its products therefore specifications are subject to change.

## ORDERING INFORMATION

The VOA 4 comes complete with carry case, user's guide, screwdriver, hex head screwdriver, warranty registration card, 4 AA alkaline batteries, 120 or 220 volt AC power adapter and a protective rubber boot. Please specify optical connector and an AC power adapter type when ordering.



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