

Optical Variable Attenuators

AQ-3105A/-3140

*Designed for measuring single-mode fibers
High return loss ≥ 40 dB (AQ-3140)*



AQ-3140

Introduction

The AQ-3105A and AQ-3140 are highly precise optical variable attenuators, ideal for measurement of optical loss characteristics and transmission error rate in evaluating single-mode fiber-optic communications equipment. The AQ-3105A and AQ-3140 contain both a step attenuator and a continuous attenuator for precise optical level adjustments up to 65 dB.

Non-reflective coating on the optical surface enables the AQ-3140 to achieve the high return loss of 40dB. This is suitable for measuring systems having optical devices like a light source that is susceptible to reflected light.

Features

- Can be used for 1.3 μ m and 1.55 μ m wavelengths
- Low insertion loss: ≤ 3.0 dB
- High return loss: ≥ 40 dB (AQ-3140)
- Uses a super PC-type plug for optical in/output connectors and reduces reflected light when connected
- Compact and lightweight: 1.5 kg (3.3 lbs.)

Optical Variable Attenuators AQ-3105A/-3140

Specifications

Model	AQ-3105A	AQ-3140																																
Wavelength	1.3 μm /1.55 μm																																	
Max. attenuation	65 dB																																	
Attenuation	0 to 50 dB in 10 dB steps and ∞ ; 0 to 15 dB continuously variable																																	
Attenuation deviation	<table border="1"> <thead> <tr> <th colspan="2">Attenuation</th> <th colspan="2">Deviation</th> </tr> <tr> <th>10 dB step att.</th> <th>Continuous att.</th> <th>AQ-3105A¹⁾</th> <th>AQ-3140²⁾</th> </tr> </thead> <tbody> <tr> <td>0 dB</td> <td>5, 10, 15 dB</td> <td colspan="2">± 0.5 dB or less</td> </tr> <tr> <td>10 dB</td> <td rowspan="5">0 dB</td> <td colspan="2">± 1.0 dB or less</td> </tr> <tr> <td>20 dB</td> <td colspan="2">± 2.0 dB or less</td> </tr> <tr> <td>30 dB</td> <td colspan="2">± 2.5 dB or less</td> </tr> <tr> <td>40 dB</td> <td colspan="2">Attenuation: 70 dB or more</td> </tr> <tr> <td>50 dB</td> <td colspan="2"></td> </tr> <tr> <td>∞</td> <td></td> <td colspan="2"></td> </tr> </tbody> </table>		Attenuation		Deviation		10 dB step att.	Continuous att.	AQ-3105A ¹⁾	AQ-3140 ²⁾	0 dB	5, 10, 15 dB	± 0.5 dB or less		10 dB	0 dB	± 1.0 dB or less		20 dB	± 2.0 dB or less		30 dB	± 2.5 dB or less		40 dB	Attenuation: 70 dB or more		50 dB			∞			
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Insertion loss	3 dB or less (at attenuation setting of 0 dB)																																	
Return loss	22 dB or more ¹⁾	40 dB or more ²⁾																																
Connector ³⁾	FC-PC (FC can also be connected)	FC-Super PC																																
Applicable fibers	SM (10/125 μm)																																	
Environmental conditions	Operating temperature: 0 to 40°C, Storage temperature: -10 to +50°C																																	
Dimensions and mass	Approx. 140(W) x 95(H) x 85(D) mm, approx. 1.5 kg/3.3 lbs.																																	
Accessories	Instruction manual (1 ea.)																																	

1) Ando standard optical fiber with PC connector, wavelength 1.3 μm .

2) Ando standard optical fiber with Super PC connector, wavelength 1.3 μm .

3) For other optical connectors, please consult us.

Specifications are subject to change without notice.

Ando Electric Co., Ltd.

3-484, Tsukagoshi, Saiwai-ku, Kawasaki, Kanagawa, 212-8519 Japan Phone: +81 (0)44 549 7300 Fax: +81 (0)44 549 7450 URL: www.ando.co.jp

Ando Shanghai Trading Co., Ltd.

Room 202, Citic Pent-OX Business Building, No. 1081 Pudong Ave., Shanghai, China 200135 Phone: +86 21 5821 6240 Fax: +86 21 5821 9254

Yokogawa Corporation of America

20420 Century Boulevard Germantown, MD 20874, U.S.A. Phone: +1 301 916 0409 Fax: +1 301 916 1498 URL: www.ando.com

Yokogawa Europe B.V.

Databankweg 20, 3821 AL Amersfoort, The Netherlands Phone: +31 33 464 1800 Fax: +31 33 464 1811 URL: www.ando.nl

Yokogawa Engineering Asia Pte. Ltd.

5 Bedok South Road, Singapore 469270, Singapore Phone: +65 6241 9933 Fax: +65 6444 6252

Yokogawa Measuring Instruments Korea Corporation - YIK

Rm. 405-9, City Air Terminal Bldg., #159-6 Samsung-dong, Kangnam-ku, Seoul, Korea Phone: +82 2 551 0660 Fax: +82 2 551 0665