Optical Fiber Identifier

FID-30R/FID-31R

One Shot, Detects All

Fujikura

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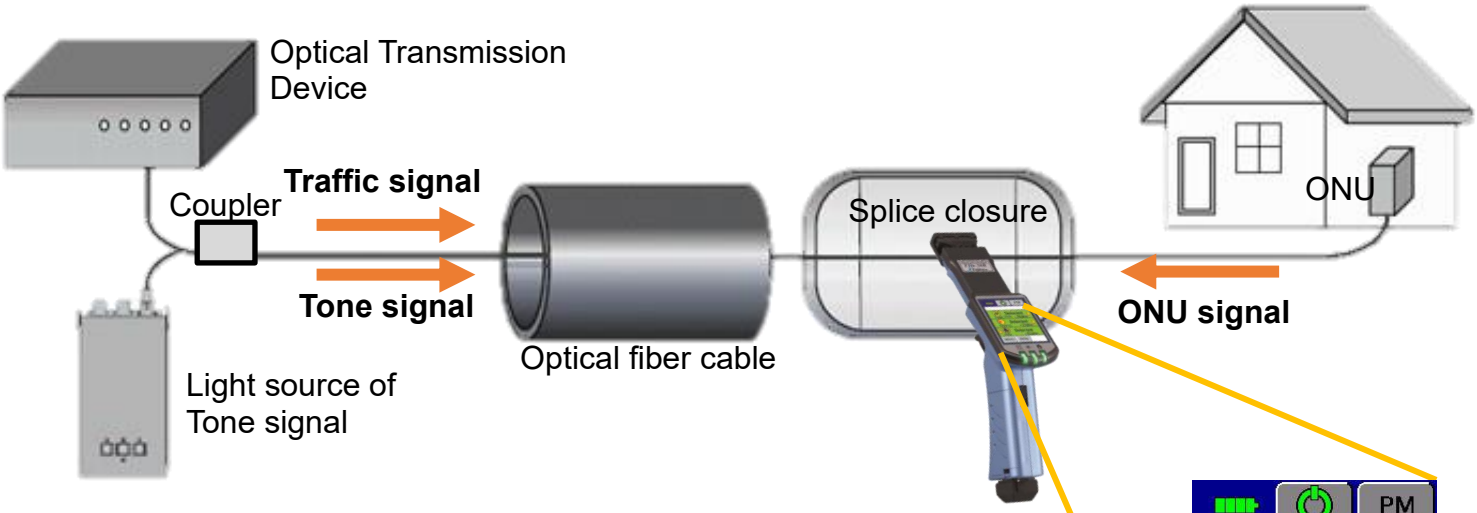
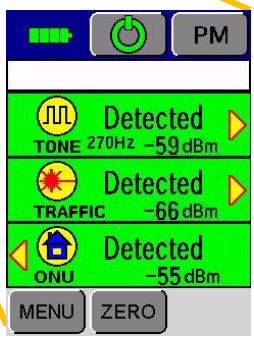
Advanced Features





1. Various measurement functions

FID-30R is a device that easily and quickly detects the presence or absence of "Tone signal", "Traffic signal", and "ONU signal" without interrupting the light by bending the optical coated fiber*. It supports single-mode and multimode optical fibers. The measurement mode (Normal, Fast, Fine) can be changed depending on the purpose of use and the line conditions.

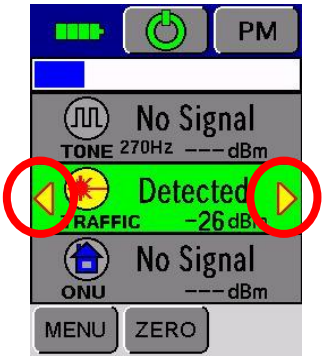
*It does not mean that all ONUs can be detected. If there is an ONU that is not detected, there is a possibility of analyzing and optimizing the waveform of ONU to detect.

2. No need to change clamp heads

The clamp head can accommodate 250µm single fiber up to 3000µm Jacketed cord, and up to 12-fiber ribbon. No need to change the clamp head depending on the type of optical fiber.

3. External Light Detection

Strong external light such as direct sunlight can cause false detection of "Traffic signal". When FID-30R detects external light, triangles indicating the light propagation direction are lit on both sides of the LCD screen at the same time. False detection can be prevented by covering the clamp head with your hand to block the external light source.



4. Power Meter for FID-30R

FID-30R is equipped with a power meter. It can measure "Traffic signal" with the wavelengths of 1310/1490/1550nm, as well as the intensity 270Hz/330Hz/1kHz/2kHz "Tone signal". It is possible to connect various optical connectors by selecting the optical connector head according to the connector type.

Specifications

FID-30R/31R Specifications

Item			Specification		
Identification	Applicable fiber	Fiber type	Single mode optical fiber/Multi mode optical fiber		
		Cladding dia.	Approx.125µm		
	Applicable Cable		250 to 900um coated fiber		
			Up to 12 fiber ribbon		
			1100 to 3000µm Jacketed cord		
	Wavelength		850 to 1650nm		
	Display range of optical power	Fast mode	23 to -62dBm		
		Normal Mode	23 to -67dBm		
		Fine Mode	23 to -73dBm		
	Detectable light signals *1		270Hz, 330Hz, 1kHz, 2kHz		
	Direction detection		Display the direction of tone *2		
	ITU-T G.651 Insertion loss & Required Core power for Identification *3	Wavelength	850nm	1300nm	—
		250µm *4	Insertion loss : 0.2dB or less Normal mode : Avg. -43dBm or more	Insertion loss : 0.5dB or less Normal mode : Avg. -53dBm or more	—
		Fiber ribbon *4	Insertion loss : 0.2dB or less Normal mode : Avg. -40dBm or more	Insertion loss : 0.5dB or less Normal mode : Avg. -50dBm or more	
	ITU-T G.652 Insertion loss & Required Core power for Identification *3	Wavelength	1310nm	1550nm	1650nm
		250µm *4	Insertion loss : 0.5dB or less Normal mode : Avg. -53dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -53dBm or more	Insertion loss : 3.0dB or less Normal mode : Avg. -64dBm or more
		900µm *4	Insertion loss : 0.5dB or less Normal mode : Avg. -17dBm or more	Insertion loss : 2.5dB or less Normal mode : Avg. -27dBm or more	Insertion loss : 3.5dB or less Normal mode : Avg. -27dBm or more
		1.1mm *4	Insertion loss : 0.3dB or less Normal mode : Avg. -42dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -52dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -52dBm or more
		1.5mm *4	Insertion loss : 0.3dB or less Normal mode : Avg. -43dBm or more	Insertion loss : 1.5dB or less Normal mode : Avg. -55dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -55dBm or more
		1.7mm *4	Insertion loss : 0.5dB or less Normal mode : Avg. -11dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -21dBm or more	Insertion loss : 3.0dB or less Normal mode : Avg. -21dBm or more
		2mm *4	Insertion loss : 0.5dB or less Normal mode : Avg. -17dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -27dBm or more	Insertion loss : 3.0dB or less Normal mode : Avg. -27dBm or more
		3mm *4	Insertion loss : 1.0dB or less Normal mode : Avg. -13dBm or more	Insertion loss : 3.0dB or less Normal mode : Avg. -23dBm or more	Insertion loss : 4.0dB or less Normal mode : Avg. -23dBm or more
		Fiber ribbon *4	Insertion loss : 0.5dB or less Normal mode : Avg. -50dBm or more	Insertion loss : 2.5dB or less Normal mode : Avg. -60dBm or more	Insertion loss : 3.5dB or less Normal mode : Avg. -60dBm o more
	ITU-T G.657.A1 Insertion loss & Required Core power for Identification *3	Wavelength	1310nm	1550nm	1650nm
		250µm *4	Insertion loss : 0.2dB or less Normal mode : Avg. -41dBm or more	Insertion loss : 1.0dB or less Normal mode : Avg. -55dBm or more	Insertion loss : 1.5dB or less Normal mode : Avg. -55dBm or more
		500µm *4	Insertion loss : 0.5dB or less Normal mode : Avg. -55dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -64dBm or more	Insertion loss : 3.5dB or less Normal mode : Avg. -64dBm or more
Live Fiber Detection	Display range of optical power		23 to -59dBm		
	Detectable light signals *1		CW, Traffic		
Power Meter FID-30R	Wavelength		1310nm, 1490nm, 1550nm		
	Measurement Range		10 to -60dBm at modulated tone		
			10 to -40dBm at CW or Traffic *1		
	Accuracy *5		+/- 0.3dB		
	Detectable light signals *1		CW, Traffic or 270Hz, 330Hz, 1kHz, 2kHz tone		
ONU Detection FID-30R/31R	Applicable Cable		250 to 500um coated fiber		
			900um Loose tube		
	Required Core Power *6	G(E)-PON	Upper stream signal at 1310nm : -7.5 to 9.0dBm		
			Down stream signal at 1490nm : -25.5 to -6.7dBm		
			Down stream signal at 1550nm : -12.0 to 2.8dBm		
		B-PON	Upper stream signal at 1310nm : -5.5 to 4.0dBm		
			Down stream signal at 1490nm : -21.6 to -12.7dBm		
Physical description		Dimensions	Without projection Approx. W50mm × D210mm× H113mm		
		Weight	FID-31R Approx. 220g including battery FID-30R Approx. 235g including battery		
Environmental condition		Temperature	Operate : -10 to 50 degreeC, Storage : -20 to 60 degreeC		
		Humidity	Operate : 0 to 95%RH non-condensing, Storage : 0 to 95%RH non-condensing		
Interface		PC	USB2.0 Mini B type for Firmware update		
Power Source		Battery type	2 pieces of LR6/AA dry battery		
		Battery life *7	Approx. 8 hours		
Display		LCD monitor	TFT 2.4 inches with touch screen		
Other features	Trigger		Trigger hold function		
	Software for PC		Firmware update via internet		

Note

*1 CW is a light signal that is not modulated. Traffic is a light signal modulated by a random data sequence. Tone is a light signal modulated into a nominal 50% duty cycle square wave.

*2 The direction may not be displayed for fiber type, coating material, color, environmental condition, etc.

*3 Using 270Hz modulatede light at 25degreeC. Insertion loss and minimum detect level varies due to coating material, color, environmental condition, etc.

*4 ITU-T G.651 250µm : ITU-T G.651 with 250µm coated fiber
ITU-T G.651 Fiber ribbon : ITU-T G.651 with 2 to 12 fiber ribbon
ITU-T G.652 250µm : ITU-T G652 with 250µm coated fiber
ITU-T G.652 900µm : ITU-T G652 with 900µm coated fiber
ITU-T G.652 1.1 to 3mm : ITU-T G.652 with 1.1 to 3mm Jacketed cord
ITU-T G.652 Fiber ribbon : ITU-T G.652 with 2 to 12 fiber ribbon
ITU-T G.657.A1 250µm : ITU-T G.657.A1 with 250µm coated fiber
ITU-T G.657 A1 500µm : ITU-T G657 A1 with 500µm coated fiber
Fiber in the loose tube
ITU-T G.652 0.25mm : ITU-T G.652 with 250µm coated fiber
ITU-T G.657.A1 0.25mm : ITU-T G.657 with 250µm coated fiber

*5 Under the condition of temperature 25degreeC with input power at -20dBm.

*6 It does not mean that all ONUs can be detected. If there is an ONU that is not detected, there is a possibility of analyzing and optimizing the waveform of ONU to detect.

*7 Test condition (1) Operation cycle : measuring operation for 5 seconds, and waiting for 5 seconds. (2) At room temperature (3) Using a not degraded alkaline batteries
The battery life changes when testing with a different conditions from the above.

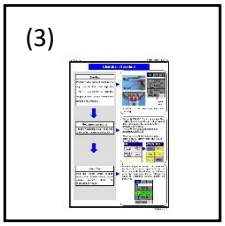
Standard Package

FID-30R/31R Standard package

Item	Model	Qty
Optical Fiber Identifier	FID-30R / FID-31R	1 pc
(1) Soft Case	FID-CASE-02	1 pc
(2) Instruction Manual	M-FID30R	1 pc
(3) Quick Reference Guide	QRG-07-E or J	1 pc
(4) Strap	ST-01	1 pc

(1)


(2)


(3)


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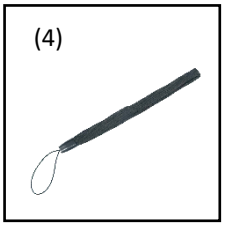

Options

Item	Model	Remark
Optical Connector Head	OCH-02-FC	Optical connector head for FC type
	OCH-02-UC	Optical connector head for UC type
	OCH-02-LC	Optical connector head for LC type
	OCH-02-SC	Optical connector head for SC type
USB Cable	USB-01	USB(A)-USB(miniB)

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Fujikura Ltd.	**1-5-1, Kiba, Koto-ku, Tokyo 135-8512, Japan** **General inquiries, Service & support : +81-3-5606-1636** **https://www.fujikura.co.jp/en/**
Fujikura Asia Ltd.	438A Alexandra Road, Block A Alexandra Technopark #08-03 Singapore 119967 General inquiries, Service & support : +65-6-278-8955 https://www.fujikura.com.sg
Fujikura Europe Ltd.	C50 Barwell Business Park, Leatherhead Road, Chessington, Surrey KT9 2NY, General inquiries : +44-20-8240-2000 Service & support : +44-20-8240-2020 https://www.fujikura.co.uk
America Fujikura Ltd.	110 Hidden Lake Circle, Duncan, SC29334, USA General inquiries : +1-800-235-3423 Service & support : +1-800-866-3602 https://www.aflglobal.com
Fujikura (China) Co., Ltd.	7th Floor, Shanghai Hang Seng Bank Tower, 1000 Lujiazui Ring Road, Pudong New Area, Shanghai 200120, CHINA General inquiries, service & support : +86-21-6841-3636 http://www.fujikura.com.cn