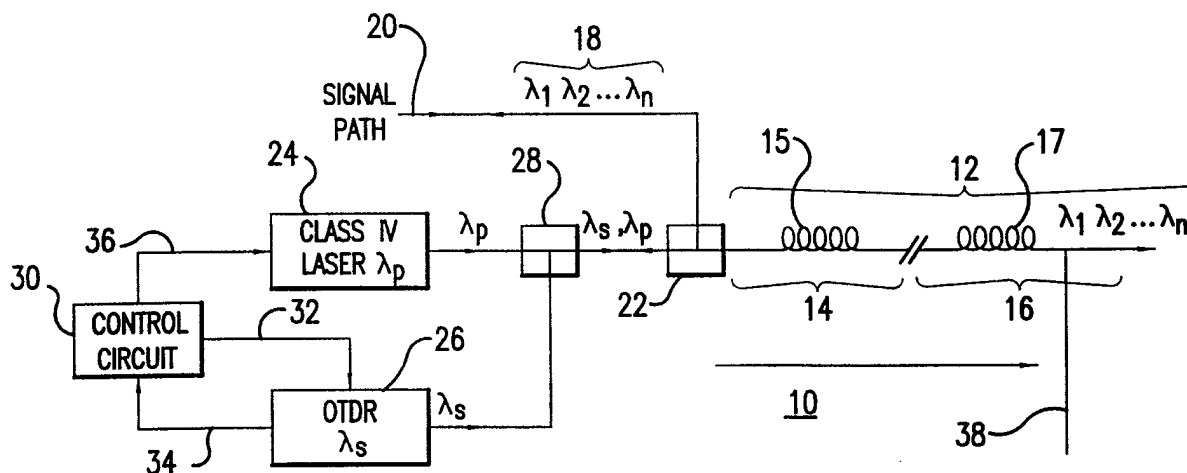




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(54) Title: INTERLOCKED HIGH POWER FIBER SYSTEM USING OTDR



(57) Abstract

The in-fiber safety interlock system includes a high power (Class IV) laser (24) interlocked to an OTDR (26). A plurality of WDM data signals are transmitted over the fiber system (12), including a terminal portion (14) and an extended portion (16). A control circuit (30) is connected to the laser (24) and OTDR (26). The OTDR (26) monitors the integrity of the fiber system (12), including both the terminal portion and the extended portion. If the OTDR (26) detects a fault in the optical transmission path, the OTDR (26) and the control circuit (30) operate to automatically disable or shut down the laser.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US97/18149

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :G01N 21/88

US CL :356/73.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 356/73.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3,981,592 A (WILLIAMS) 21 September 1976 (21-09-76), see col.5,line 53 to col. 6, line 6 and the Figure.	1



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Date of the actual completion of the international search

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