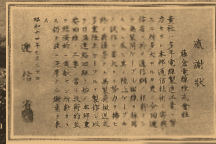


Japan-Manchukuo telephone line installation

Testimonial for building Japan-Manchukuo cable



FUJIKURA HISTORY

Long-distance communication line: In the turbulent times of the Manchurian Incident and the Shanghai Incident, the establishment of Manchukuo led the wire and cable manufacturers to expand their business in the Chinese mainland. Long-distance cable selection criteria were set up promptly, and the three manufacturers, Fujikura, Furukawa, and Sumitomo completed delivering the first carrier unloaded cables connected between Manchuria and Hoten in 1936.

Shaping the future with "Tsunagu" Technology.

FUJIKURA NEWS

2018 No.442

5

Automotive Products

Market Trends in Seat Belt Reminder Sensor

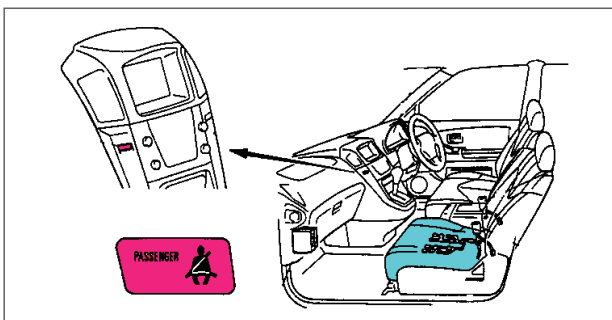
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Fujikura develops, designs, and sells sensors to detect seat occupancy in a vehicle for a system (seat belt reminder) that encourages passengers to wear a seat belt. These sensors use a membrane switching device made of polyester film, on the surface of which an electrically conductive circuit is screen-printed. These products have more than 10 years of proven track record in the sensor market.

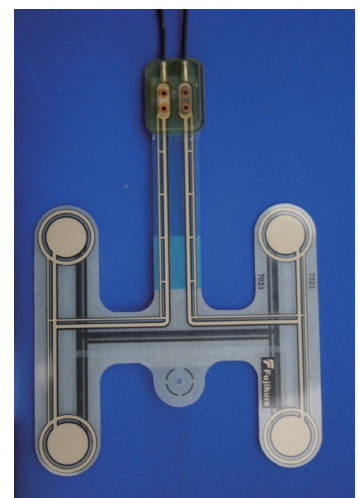
Conventional safety standards for road transportation vehicles required only the driver's seat to be equipped with a seat belt reminder. The revised safety standards mandate that, regarding new car models released after September 2020, the passenger seat (including that of trucks) be provided with a seat belt reminder and the rear seat with part of the function. Since the most effective way to reduce fatal traffic accidents is to wear a seatbelt, it is expected that the SBR system for urging occupants to fasten their seat belts will assume greater importance. In step with this, it is also predicted that the demands for our sensor

products and technical requirements will grow rapidly.

The bench seat or the rear seat of trucks are assumed to be subject to the addition of requirement specifications unique to each of occupant detection, non-detectability of object, and sensor placement. To produce a sensor that fulfills these additional requirements, we are verifying the structure, shape, and sensitivity. In designing a sensor, the structure and materials of a seat are also significant factors. We will carry on the development comprehensively suggesting the most suitable sensor.



● Overview of system



● Seat belt reminder sensor

Automotive Products Company

automotive@jp.fujikura.com



Plug Harness BNC75 Series for 4K and 8K Broadcasting

Fujikura has put the industry's top-class low-loss BNC (75 Ω) coaxial plug harness on the market, meeting the needs for transmission over 100 m with a 5C (*2) cable or transmission over a longer distance with a 3C cable under the 12G-SDI standard(*1).

*1: 12G-SD (I serial digital interface), the standard for 12 Gb/s video signal transmission of 4K broadcast without compressing data

*2: 5C, coaxial cable, of which insulation having 5 mm external diameter, and 3C, 3 mm

[Features]

- (1) The industry's top-class high-frequency properties [insertion loss (Table 1, Fig. 3), return loss (Fig. 4)]
- (2) Adoption of crimping method to ease connection (center, outer conductor) Contribution to clients' reducing processes by change from soldering to crimping

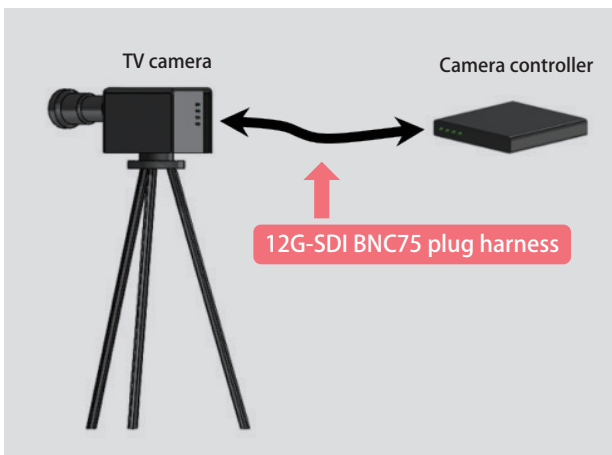


12G-SDI 5.5CSHV (for long-distance connection)



12G-SDI 3CUHD (for short-distance connection)

● Fig.1 : Appearance of harness



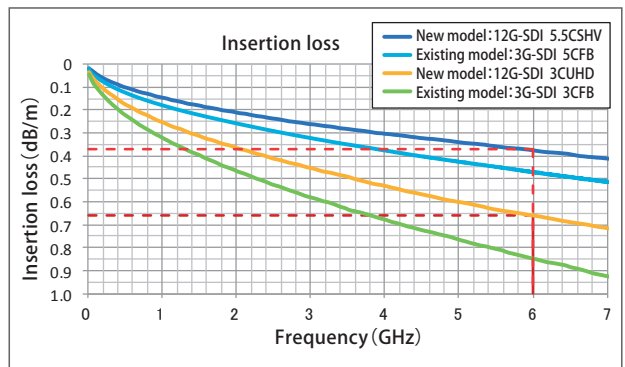
● Fig.2: Application

● Table 1: Specifications and high-frequency performance of plug harness

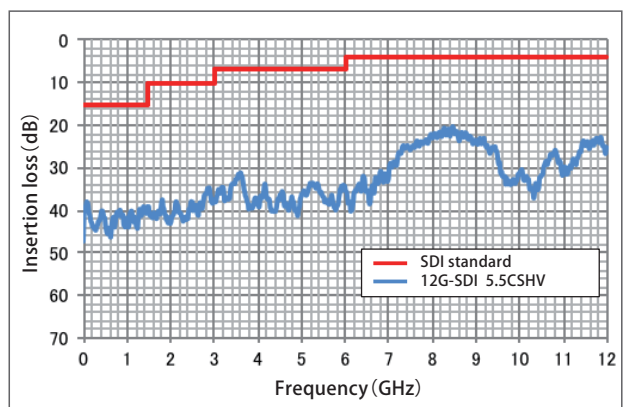
External diameter (mm)		SDI standard	Model	Weight g/m	Insertion loss dB/m *3	Transmission distance *4
5C equivalent	1. New model	12G	5.5CSHV	70	0.37	108m
	2. Existing model	3G	5CFB	71	0.47	85m
3C equivalent	3. New model	12G	3CUHD	38	0.66	61m
	4. Existing model	3G	3CFB	40	0.84	48m

*3: Insertion loss: actual performance value of 5.94 GHz

*4: Transmission distance: range at 40 dB



● Fig.3: Insertion loss wave form of plug harness



● Fig.4: 12G-SDI5.5CSHV return-loss characteristics

EXhibition **JECA FAIR 2018** (66th Electrical Construction Equipment and Material Fair)

Dates **May 23 (Wed.)-25 (Fri.), 2018**
10:00-17:00 (first day: 10:30-17:00, last day 10:00-16:30)

Venue **Fujikura Dia Cable booth 5-48,**
Halls 3, 4, 5, Intex Osaka Halls

JECA FAIR 2018 is the largest exhibition, where manufacturers and salespersons of electrical equipment, materials and tools gather together under one roof, for the electrical construction equipment and material industry.

"To a new social environment--Challenge the electrical

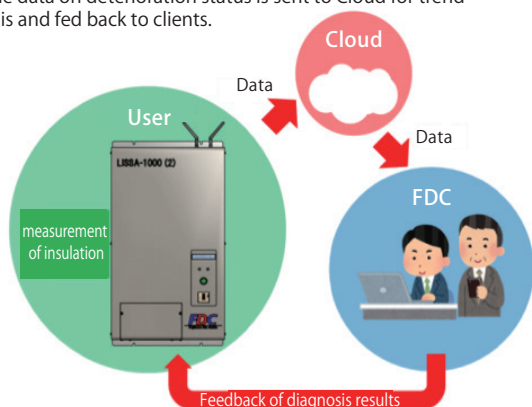
construction technology" is the theme for this exhibition. Fujikura Dia Cable Ltd. (FDC) put deterioration diagnosis service, foam-insulation LCXs, and meta-seal cables on display under the slogan of "conversion from goods to things," "labor-saving in installation," and "safety and assurance."

● Examples of exhibits

Conversion from goods to things

Offering of deterioration diagnosis service

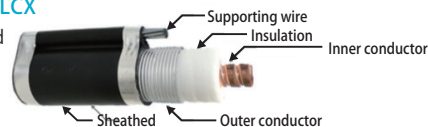
Sheath insulation and shield resistance are always monitored, and the data on deterioration status is sent to Cloud for trend analysis and fed back to clients.



Labor-saving in installation

Foame insulation LCX

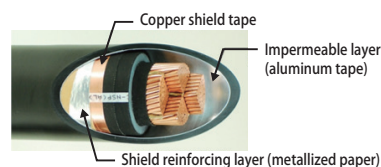
Weight reduction and Improved flexibility



Safety and assurance

Meta-seal cable

Chemical and water-treeing resistance



Fujikura Dia Cable Ltd.

<https://www.fujikura-dia.co.jp/contact/>

Power & Telecom **Renewal of Adhesive Polyethylene Tape (FB-U Tape)**

Fujikura has renewed its adhesive polyethylene tape mainly used to insulate electric cables.

This tape consists of two layers, the adhesive layer and the polyethylene base material layer, of different hardness. The excellent waterproofness and weather resistance as well as high insulation properties of the tape have won many clients. The existing product needed workers' sophisticated skills in winding the tape and could suffer collapse of coil at the terminal of a cable that is subject to sudden fluctuations in load. The new tape has been renewed so as to prevent collapse of coil by reviewing the composition of ingredients while maintaining other performance

of the previous product. Since the number of licensed electricians is decreasing, there have been needs for products that need only a short time to complete the work at work site without special skills. We will keep on developing products that meet customer needs.



Fujikura Components Ltd. Distribution System Engineering Department

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Introduction to MX Room-star (Indoor Cabling Unit)

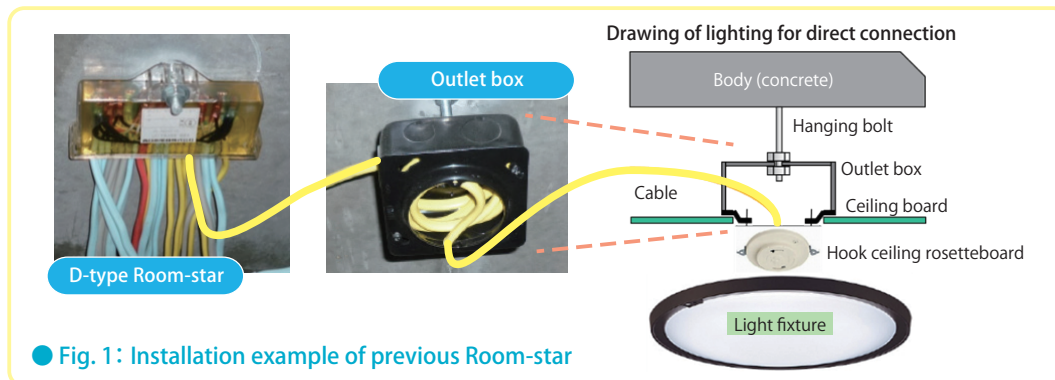
MX-type Room-star functions as a mount for a light fixture and an outlet box.

1. Function as mount for light fixture

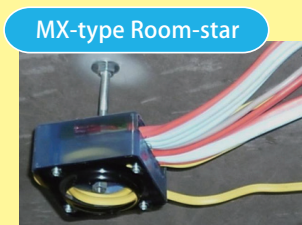
In installing lighting in an apartment room, in some cases, a hook ceiling rosette is mounted on an outlet box embedded in a ceiling. The outlet box is, however, not necessary if an MX-type Room-star mold case is placed in the same place and a hook ceiling rosette is fixed to the case.

2. Function as joint box

Electric cables for lighting or a ventilator are already included in some modular baths. In such a case, an outlet box needs to be placed to connect these cables to the cables of Room-star. However, for MX-type Room-star, its mold case plays the same role as that of an outlet box, and thus a new joint box is not necessary. In addition, placing a spare wire in MX-type Room-star facilitates field installation because the spare wire and additional cable can be connected in adding another power source.



● Fig. 1: Installation example of previous Room-star



MX-type Room-star

- Unit Cable with outlet box function
 - Reduced materials of box and hanging bolt and installation time
- 【Major specifications】
- Same size as medium cube (108 mm in width, depth x 50 mm in height)
 - Maximum number of cables: 13

Fixed to hanging bolt, wired to light cables, and mounted to covering

● Fig. 2: MX-type Room-star

■ Contact for application and inquiry

Nishinippon Electric Wire and Cable Ltd. [Technical service] rc-sales@nnd.co.jp