"Tsunagu"Technology New Product News
Fujikura NEWS

Fujikura

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R&D

Fujikura Receives "17th Superconductivity Science and Technology Award" from the Society of Non-Traditional Technology

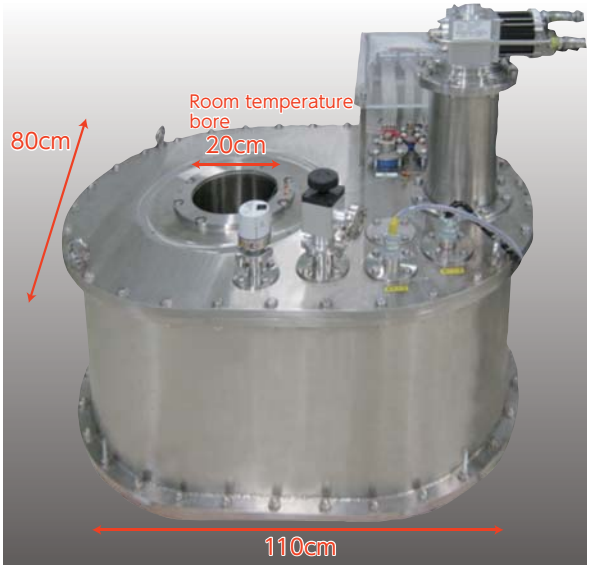
The developers of "Yttrium-based 5T (Tesla) High-Temperature Superconducting Magnet with a 400 kJ (Kilojoules) stored energy," which was developed by Fujikura, have been awarded the 17th Superconductivity Science and Technology Award from the Society of Non-Traditional Technology.

This award publicly honors researchers who have obtained outstanding research results in the area of superconductors Specifically, this award, which was created in order to encourage further development of the research, is presented to: (1) researchers whose research results have a worldwide impact on the basic research; (2) researchers who have contributed to the progress of high technology that could represent a milestone in the development of applications; or (3) researchers who have played a leading role in promoting this field for the development of research or in domestic/international events.

Fujikura has succeeded in developing the world's first practical Yttrium-based high-temperature superconducting magnet having a stored energy exceeding 100 kJ, and has validated the world's highest performing Yttrium-based high-temperature superconducting wire, which has been developed over 25 years. This honorable award has been given to us in recognition of the superconducting magnet's technological abilities and potential.

Fujikura will continue to promote further development of high-performance wires and to contribute to society by advancing the development of practical high-temperature superconducting coils and magnets aimed at use in the fields of industrial equipment and medical applications, which are expected to grow in the future.

■ Developed Yttrium-based High-temperature Superconducting Magnet



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Power & Tele-communi-cations

IEC/ISO/IEEE 80005-1 Development of Cables and Connectors for On-Shore Power Supply System (High Voltage Shore Connection (HVSC) System)

In recent years, environmental contamination and global warming caused by emissions of air contaminants, such as CO^2, NOx, and SOx, have been highlighted, and countermeasures against these problems have become a major issue. One of the main sources of contamination is ships, such as a container ships that use heavy oil as fuel. A ship anchored in a harbor generates power by the engine installed in the ship. Especially, a refrigerated container ship must generate high power to keep the cargo frozen and emits air contaminants even while at anchor. As harbors are near densely-populated areas, pollution-related health damage is addressed as a serious problem, and we have been working on reducing air contaminants.

As one way to tackle these issues, we are introducing what is known as on-shore power supply system, stopping the engine of a ship at anchor by supplying on-shore power of low environmental load. Before full introduction of the system to harbors and ships of countries around the world, this system was standardized by IEC/ISO/IEEE 80005-1 in July 2012. In the USA, adaptation of this system is made mandatory for over 50% of ships reaching ports in California by 2014 and over 80% of these by 2020 under CARB regulations, the California Air Resources Board.

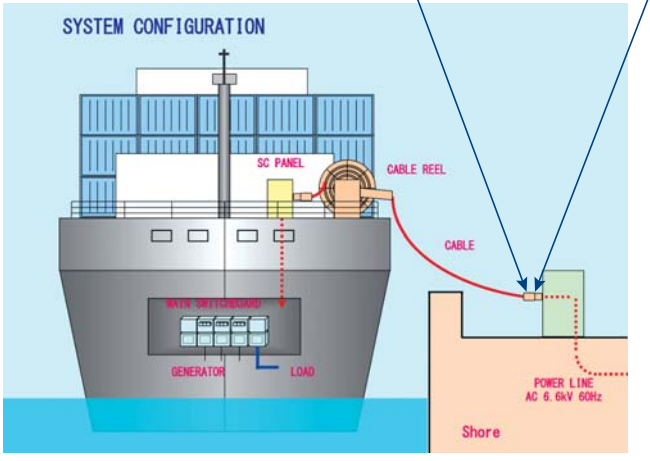
Fujikura, as the first Japanese manufacturer, has developed cables and connectors for reels according to this standard. From now, Fujikura will launch a public relations campaign to promote these products to ship-owners, system manufacturers, reel manufacturers, and device manufactures, and plans to start delivering them by the end of this fiscal year.

Fujikura continues its commitment to develop environmental and energy products, and to contribute to realization of a low carbon society.

■ Cable with a plug

■ Socket-outlet

■ System configuration



■ Product specifications

Item	Specification
Rated voltage	7.2kV AC
Rated current	350A
Protection rating	IP67
Power-frequency withstand voltage	20kV AC1minute

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Electronics & Business

Newly Establishing Kabinburi Plant in Thailand

Fujikura' s main FPC factories, Ayutthaya Factory (Rojana Industrial Park, Ayutthaya Province) and Navanakorn Factory (Navanakorn Industrial Zone, Pathumthani Province), were submerged and badly damaged by the flood that hit Thailand in October, 2011. Both factories have already been restored after taking post-flood countermeasures. In the light of its BCP (business continuity plan); however, Fujikura acquired land in Kabinburi Industrial Zone, Prachinburi Province, located 24 meters above sea level, which is free of flooding. We proceeded with the construction of new factory, which is now completed. The new Kabinburi factory is located 200 km northeast of Bangkok, which is three hours by car, and along the national highway Route 304, which is known as a transportation crossroads.

Initially, the new Kabinburi factory will mainly perform the front-end process production work (up to the surface treatment) of FPCs. Eventually the new factory will handle the entire process, from the front-end process to the back-end process. Many state-of-the-art production lines are installed in this factory with the aim of higher efficiency and higher productivity than found in our existing factories.

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Power & Tele-communi-cations

Release of Optical Camera Link Cable Assemblies for Full Configuration

Fujikura has been released optical Camera Link*1 cable assemblies, the FOCLF series, for long distance transmission of high resolution and high speed signals from industrial digital cameras this month

The company has been a provider of the active optical cable assemblies, the FOCLB series which comply with the Camera Link standard, and has been receiving favorable reputations. Utilizing optical transmission technologies, the FOCLB series are able to transmit image signals up to 100 meters.

The cable assemblies which will be released this month conform to Full Configuration (8bit-8tap) which is an upper connection configuration for transmitting high resolution signals in Camera Link standard. They realize maximum 100 meters transmission of high resolution and high speed signals by using two cable assemblies- an FOCLF cable and an FOCLB cable.

*1.Camera Link: Camera Link is standardized by the AIA (Automated Imaging Association), USA. This is one of the interface standards to transmit image signals output from industrial digital cameras to image-processing boards.

■ Optical camera link cable assembly FOCLF series

Main features

- The maximum transmission distance which is restricted up to 10meters in Camera Link standard is extended up to 100 meters without applying repeater.
- The electrical interface is the same as the one for the conventional metal cable.
- The cable assemblies have power supply functions to cameras.
- The cables are more flexible than conventional metal cables and easier to handle.
- High flex cycles cables are available as an option.

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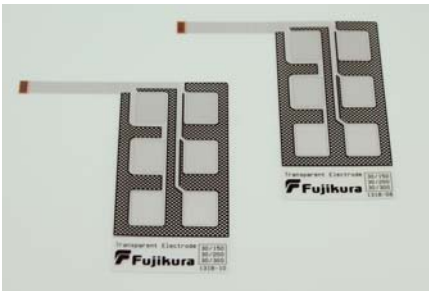
Electronics & Business

Starting Mass Production of Sensor Film for Transparent Touch Keys

Fujikura has started to mass-produce a sensor film for transparent touch keys, with which a fine sliver mesh-like pattern is applied to a transparent electrode. By using Fujikura's original gravure offset printing technology, this sensor film has been successfully commercialized without using expensive materials like ITO film, by forming a fine silver mesh-like pattern for printing having a line length of 30μm. This sensor film is flexible and well designed so that it can be applied on a curved surface.

■ Example of transparent touch keys

■ Sensor film for transparent touch keys



■ Applications

- Household appliances
- Small electronic devices
- In-car switches
- Others

■ Product specifications

Item	Specification
Silver mesh-like pattern	Line width:30μm Pitch:1mm
Full spectrum transparency of a transparent electrode section	Over 80%
Flexibility	Radius of curvature Over 0.5mm

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Exhibition

Cable Tech Show 2013

Cable Tech Show 2013 ケーブルコンベンションイベント ケーブル技術ショー

Date and time July 30 (Tue) to July 31 (Wed), 2013 10:00 to 17:00

Venue Tokyo International Forum, Exhibition Hall (Fujikura booth 04)

Cable Tech Show 2013, whose theme is "Toward New Digital Age! Cable promoting the life of safety and security and contributing Smart Society" is a general exhibition aiming for further development of the CATV industry and for development of cable technologies in an era of fusion of broadcasting/communication and wired/wireless amalgamations.

Under Fujikura's main theme of "FTTH optical wiring," we will introduce optical wiring materials, such as indoor cables, field-installable optical connectors, and optical termination boxes; optical connector cleaners; fiber fusion splicers; redundancy optical switches; and cable protectors manufactured by KYOEI HIGH OPT Co., Ltd.

We look forward to welcoming you at our booth.

Scene from the Fujikura booth at last year's exhibition

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