

FUJIKURA HISTORY

Trust in technology: The early Showa period saw a prolonged recession partly due to the Great Depression. On the other hand, Fujikura successively developed and manufactured the nation's first cable called "Tokosen" for internal combustion engines and the SL cable. Fujikura won the contract with the electricity department of Yamaguchi Prefecture for SL cables supported by a reliable patented technology in competition with two other electric cable companies.

Shaping the future with "Tsunagu" Technology.

FUJIKURA NEWS 2018 No.441 4



Release of "IoT Sensor Trial Kit" Incorporating Multi-hop Wireless EH Sensor System and IoT Cloud

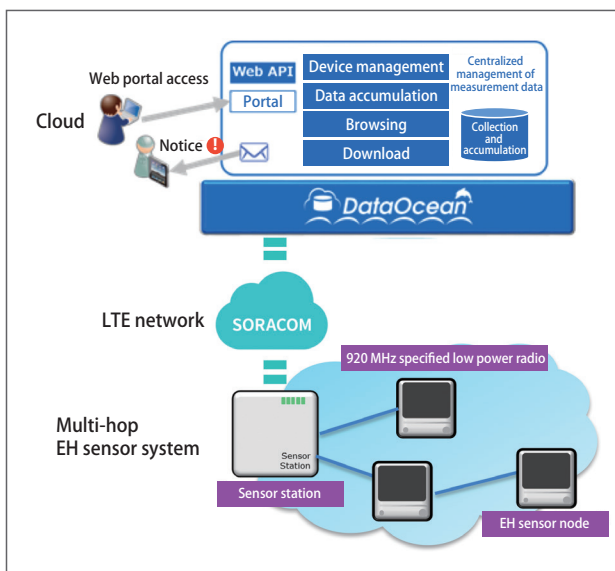
2018
4

Fujikura has developed a 920 MHz band multi-hop wireless sensor system, which is wholly new in concept. This system is combined with a cloud service and LTE network and to be released in April as a trial kit that supports data collection (temperature, moisture, pressure, illuminance, motion) and visualization. This new wireless sensor system uses a die-sensitized solar cell (DSC), which allows constant power supply in low or scattered light conditions, as its energy harvesting (EH) power source. The system also contains a wireless module for wireless communication and thus requires no wiring. These features enables the system to carry out 100% EH

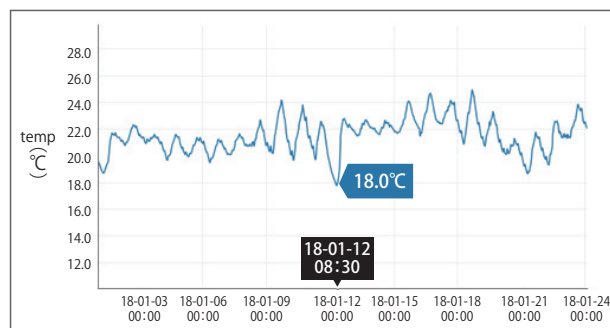
operation under certain illuminance conditions and maintenance-free IoT sensing.

This trial kit easily achieves visualization by connecting to DataOcean® cloud service provided by Uniadex Ltd. through the communication platform of SORACOM®. This package of service facilitates customer using data to help them develop IoT systems. In addition, this trial kit is priced at 198,000 (net) including the expenses for communication and cloud use for three months. Furthermore, we also provide support for customers who are considering transition to the commercial service in developing solutions such as application software as requested.

● Service Guide



● Visualization of temperature data by cloud service



* SORACOM is a registered trademark of Soracom, Inc.
* Data Ocean is a registered trademark of Uniadex, Ltd.
* Other names of companies and products are each company's trademark or registered trademark.

■ Contact for application and inquiry

✉ Sensor and System Research Department ask-dsc@jp.fujikura.com

Exhibition 10th Data Center Expo Spring

Dates May 9 (Wed) to 11 (Fri)
10:00-18:00 (Last day until 19:00)

Venue Fujikura Booth E32-36,
East 4 Hall, Tokyo Big Sight

Fujikura participates 10th Data Center Expo Spring to be held in May. This exhibition is held as part of Japan IT Week 2018 Spring, a comprehensive exhibition that gathers all kinds of cloud and IoT technologies and solutions (estimated number of exhibitors 1600, visitors 90,000). Data Center Expo showcases any kind of IT products including datacenter facilities and network equipment and solutions for datacenter construction and operations. This year marks our participation for the third consecutive year

following May 2016 and 2017.

We introduce our solutions for data centers with our slogan "to be the most trusted partner in Tsunagu (connecting) technology" in mind.

This time specifically, we are going to suggest solutions for fast and smooth problem solving at our booth equipped with a mockup of wiring in a data center. We sincerely look forward to seeing you at our booth.

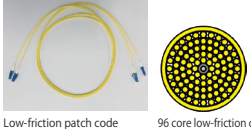
Our world-class technology solves customers' challenges.

DC products

- Optical code and cable with connector
- Optical termination box and optical patch panel Connector module
- Optical cable
- Metal LAN cables Cat5e/6/6A
- Fusion splicer and optical testing instrument

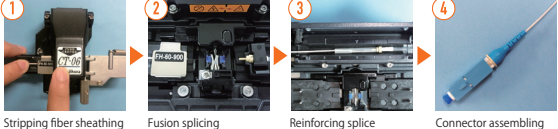
Network construction

Congestion solution Low-friction code and cable




Low-friction patch code 96 core low-friction cable

Congestion solution Field-attachable connector




1 Stripping fiber sheathing 2 Fusion splicing 3 Reinforcing splice 4 Connector assembling

High-density terminal box




Patch panel for preventing inadvertent connector disconnection

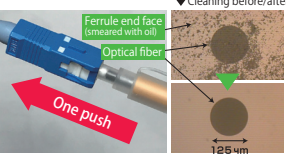


Operation and maintenance

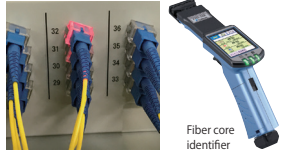
Connector end face observation



Connector end face cleaning



Prevention of inadvertent connector disconnection



Major exhibits

Super multi-core optical fiber wiring solution

Introduction to super multi-core optical fiber wiring solutions for data centers with fiber cables of thousands of cores

Local wiring solutions

Introduction to construction method solutions using fusion-type field-attachable connector, which allows design-free excess-length-fiber-free quick attachment and congestion prevention

Operation and maintenance solutions

Introduction to solutions for connector cleaning in optical network construction, improvement of network quality by end face observation, and inadvertent disconnection in removal or replacement of wiring



Digital Output Micro-pressure Sensor, AL4 series

Fujikura has developed the AL4 series, new pressure sensors for micro-pressure ranges, and start volume production in Autumn 2018. Recently, there have been growing needs for higher-precision, easier-to-use pressure sensors in applications, including various medical instruments and industrial equipment that require sensing of a few kPa micro-pressure range. This product has achieved high-precision pressure sensing in a micro pressure range by the use of a high-sensitivity pressure sensor chip of our proprietary design to capture subtle changes in pressure. The product also has high resistance to a maximum pressure of 100 kPa. In addition, the product has also attained the highest in moisture sensitivity level (MSL 1), by improvements in assembling sensor to reduce the effect of absorbing moisture in the reflow process. This enables customers to be freed from a special pretreatment or complicated working time management and also requires no use of moisture-resistance packing materials for environmental friendliness. We will contribute to society by continuously

supplying the latest, simple, easy-to-use pressure sensing solutions, which enable customers to freely design applications.

● New Model (AL4 series)



Item	AL4 series	Unit
Pressure type	Gage pressure	-
Pressure measurement range	2 to 10	kPa
Maximum pressure	100	kPa
Pressure data output mode	14bit digital	-
Pressure system accuracy	±1.5	%FS
Operating voltage	3 / 3.3 / 5	V
Operating temperature range	-40 to 85	°C
Accuracy compensation temperature range	-5 to 65	°C

✉ Sensor Business Unit

sensor@jp.fujikura.com



2018 Japan International Welding Show

Dates

April 25 (Wed) to 28 (Sat)
10:00-17:00 (Last day until 16:00)

Venue

**Fujikura Booth E2016, Hall 2 East,
Tokyo Big Sight**



Fujikura participates 2018 International Welding Show to be held at the end of April and puts our fiber lasers on display. Our booth will show a new model of CW fiber laser, which has excellent resistance to return light and introduce examples using processed samples. We suggest processing techniques suitable for different applications. We look forward to welcoming you at our booth.

* Return light: light reflected back from a workpiece after the light is emitted and hits the workpiece



● New 8 kW CW fiber laser

✉ Fiber Laser Division

fiber_laser@jp.fujikura.com

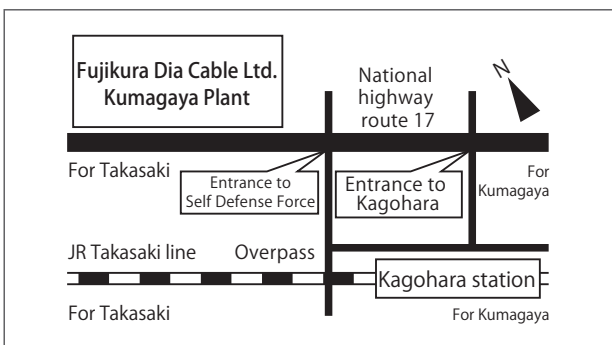
INformation

Showroom Opens at Kumagaya Plant

Fujikura Dia Cable Ltd. has opened a showroom at Kumagai Plant in July last year. The showroom of about 200 m2 consists of four zones of Assurance, Safety, Ease, and Convenience, where visitors can look, touch and learn about different products on display. In the Safety zone, visitors can try diagnosing the deterioration or determining an accident location of cables in simulated accident conditions. Visitors also can check the safety of our products through the video images of combustion testing. In addition, in the Ease zone, power-saving products are put on display with intention of letting visitors actually use them and recognize their ease of use. Furthermore, this zone offers visitors Wi-Fi access through a leaky coaxial cable to enable them to connect to our showroom website and retrieve the information on the exhibits.



● Safety zone (diagnostic technology)



Fujikura Dia Cable Ltd.
 Showroom at Kumagai Plant
 Address: 1008 Niibori, Kumagaya City, Saitama Prefecture
 Phone number: 048-532-2311
 Nearest station: 12-minute walk from Kagohara station of JR Takasaki line

Fujikura Dia Cable Ltd. <http://www.fujikura-dia.co.jp/contact/>