

## TOYOPUC FL Remote

This product is a remote I/O with FL-net system, in which JTEKT's PC10G-CPU (Fig. 1) and 2PORT-EFR (Fig. 2) are set up as master-station, and a maximum of 63-slave stations (JTEKT's FRMT Series (Fig. 3)) can be connected. The communication speed is high at 100 Mbps. The total extension distance of the communication line is lengthened with 2 km to use switching HUB (JTEKT's FE-SWH Series (Fig. 4)). In addition, with reference to the slave station, other manufacturers are developing the modules for FL remote and expanding a variation of accessible devices.



Fig. 1 PC10G-CPU



Fig. 2 2PORT-EFR



Fig. 3 FRMT Series



Fig. 4 FE-SWH Series

### Purpose of Development

Ethernet for the information system, FL-net for the control system and DeviceNet for the remote I/O are commonly used as a network of equipment. When changing remote I/O into FL-net system, the network wiring kinds of equipment can be unified. In addition, as the connection station only becomes abnormal by branch wiring through switching HUB even at the time of short circuit and disconnection of the cable, the cause can be identified easily.

### Features

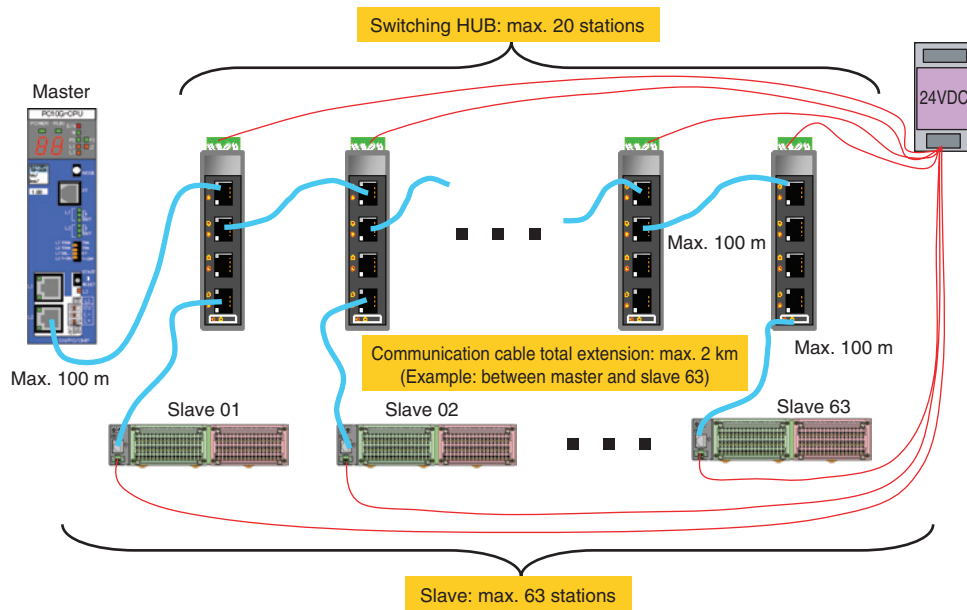
- 1) High-speed communication (100 Mbps)
- 2) Long-distance communication (Total extension 2 km)
- 3) Slave with the diagnosis function (FRMT Series)
  - ① Short circuit detection function
  - ② Disconnecting detection function
  - ③ I/O power source and voltage monitor function

### General Specifications

Items	Specifications
Communication speed	10 Mbps, 100 Mbps
Communication distance	Between node*-HUB: max. 100 m Between HUB-HUB: max. 100 m Between node-node (1vs.1 for connection): max. 100 m Total extension distance: max. 2 km
The maximum number of connected nodes	64 units (master: 1 station, slave: 63 stations)
Node address	Master: 00, Slave: 01-63
I/O points	Max. (input 64 points + output 64 points)/slave × 63 slaves =max. (input 4 032 points + output 4 032 points)
I/O allocation	Min. 8 points unit

\*Node stands for master and slave.

**Example of Device Connection**



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