MASTER STATION

■ DATA SHEET ■   PNT···3

This instrument controls signal exchange with FFI system field instruments, and transmits process values and alarm signals in the field instruments to the host system.

It can support a maximum of 8 field instruments, uses RS-232C or Ethernet communication for transmission to the host side and has functions for duplex configuration to secure redundancy.

FEATURES

1. Connection of up to 8 filed instruments
A single master station can support up to 8 field instruments via an optical star coupler.

2. General-use transmission interface
A host system is connectable via the general-use RS-232C or Ethernet interface .
This interface allows a personal computer or a control device to collect the data of field instrument and set parameters in the field instrument.

3. System duplicable (with Ethernet)
This station has functions compatible with a duplex system so that system redundancy is ensured.

SPECIFICATIONS

Functional specifications

1. Interface with field instruments
Applicable optical fiber cable:
silica fiber ... core/clad diameter 100/140 μm
Optical connector:
FC connector
Transmission distance:
1.5 km max.
(between field instruments and master station)
Number of connectable field instruments:
Max. 8 instruments via an optical star coupler
Transmission cycle:
0.2 sec (transmission with each field instrument at intervals of 0.2 sec)

2. Interface with host system
(1) RS-232C
Transmission method:
Polling/selecting method
Code format: Binary format
Transmission speed:
9600 bps

Synchronous system:
Start-stop synchronization
Communication interval:
1 sec or longer
Transmission distance:
15 m or less
(2) Ethernet
Protocol: TCP/IP, UDP/IP
Transmission specification:
10BASE-T
Code format: Manchester code
Transmission speed:
10 Mbps
Communication interval:
200 ms or longer

3. Indicating function (LED lights up on instrument front)
POWER: Lights up when power supply is turned on.
LINK/ACT: Lights up in Ethernet communication.
FLT/ALM: Lights up when an error occurs.
BATT: Lights up when a battery alarm occurs in field instrument.
OPR: Lights up in the operating status.

4. Duplexing function (available in Ethernet specification)
Using two master stations, the optical star coupler and host system can be connected in two lines for duplex configuration. If the primary master station become faulty or the primary line is disconnected in the duplex configuration, the standby line can be activated owing to system redundancy.
In the duplex configuration, communication with field instruments starts on reception of a working command from the host system.

5. Operating conditions

Power supply: 100V AC, 50/60 Hz
Power consumption:
          Approx. 10 VA
Ambient temperature:
          0 to +50°C
Storage temperature:
          –10 to +60°C
Ambient humidity:
          90% RH or less

Physical specifications

Enclosure: Indoor type
Case material: Polycarbonate
Mounting method:
          Rack mounting
Mass: Approx. 0.6 kg
Power supply and ground connection:
          Via front panel screw terminals (M4)
RS-232C connection:
          Front panel connector (D-SUB 9 pins)
Ethernet connection:
          Front panel connector (modular connector of 8 poles)

CODE SYMBOLS

1 2 3	4	5 6	7 8		Description
P N T		0 0	0 3		
					Transmission and duplexing functions
	1				Ethernet without duplexing
	2				Ethernet with duplexing
	3				RS-232C (without duplexing)

SCOPE OF DELIVERY

Master station (including fixture)

RELATED DEVICES

- Field instruments (pressure/differential pressure transmitters, temperature transmitter, etc.)
- Optical star coupler ... EDS8-48
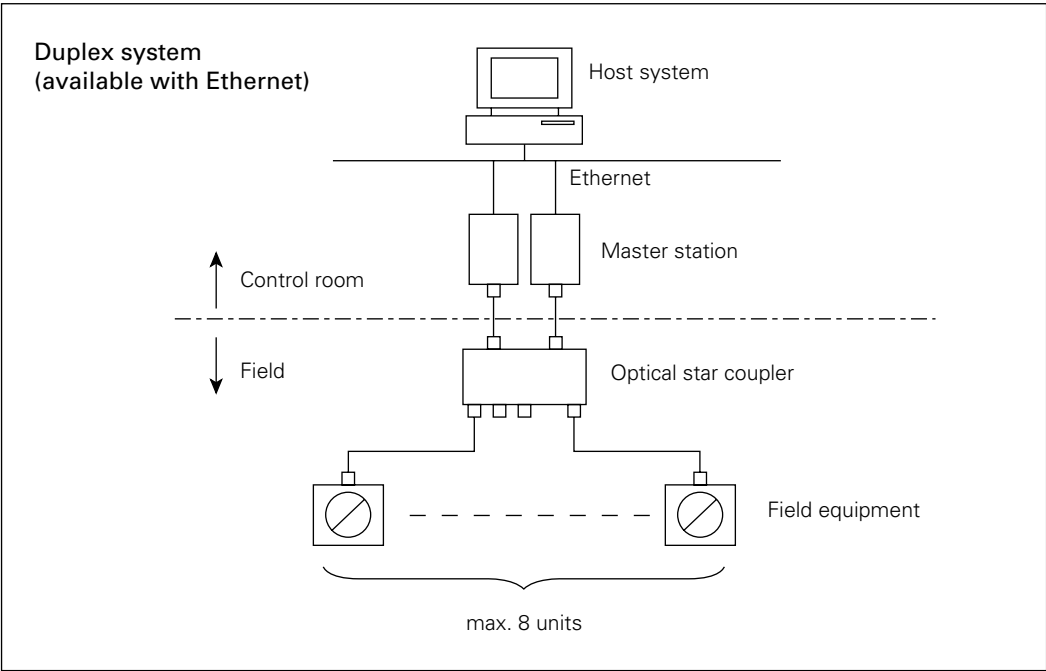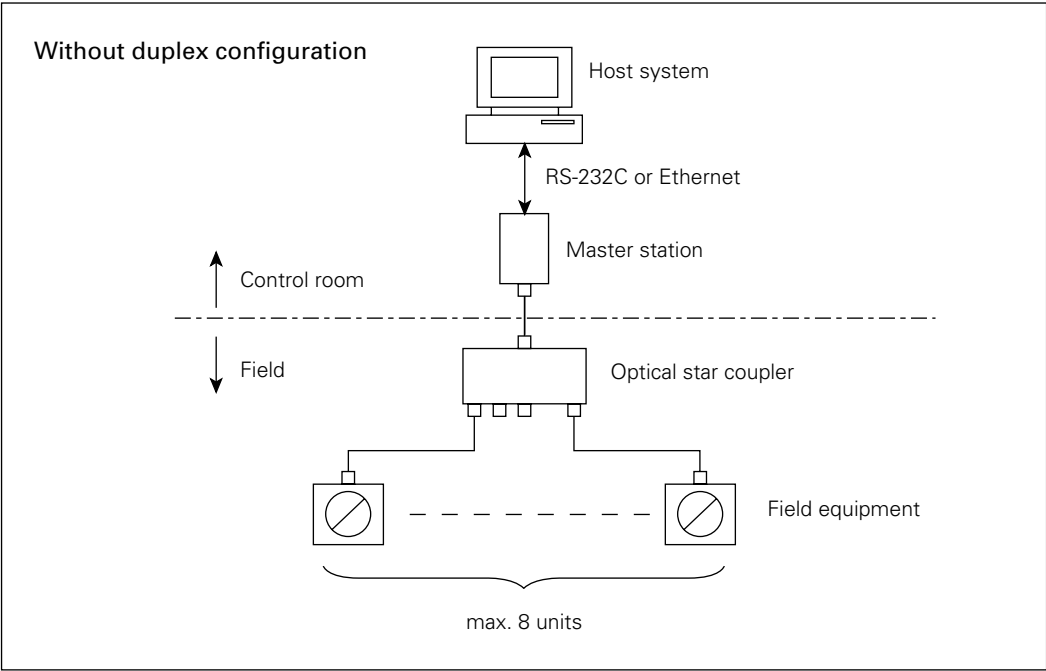- Hand-held communicator ... EDS8-44

ORDERING INFORMATION

1. Part name
2. Model type
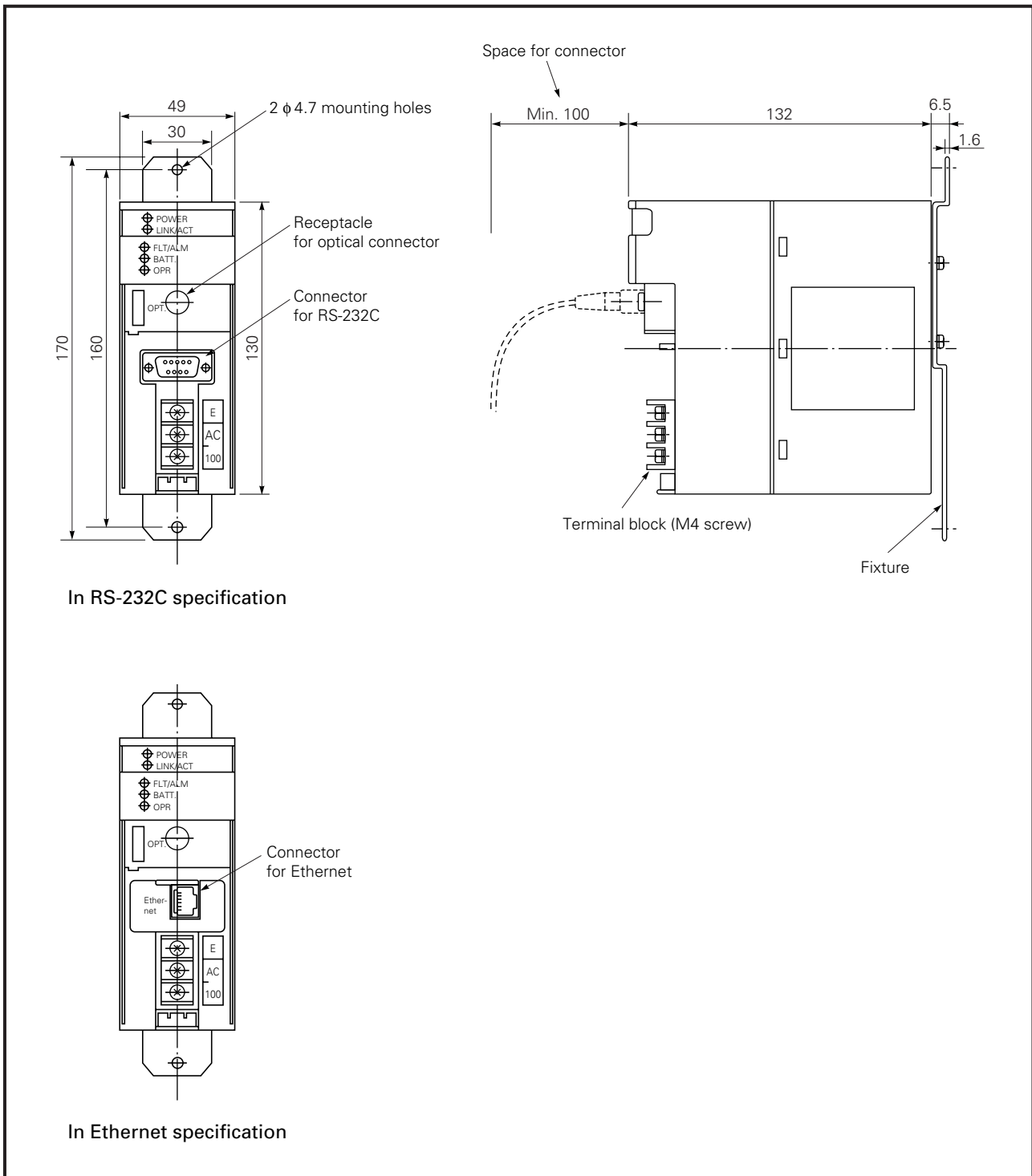3. IP address in Ethernet specification (shown below)
   10.55.136.<u>01</u>
             These digits need to be specified in hexadecimal notation (allowed within 01 to FF).

SYSTEM BLOCK DIAGRAM

Without duplex configuration

Host system

RS-232C or Ethernet

Master station

Control room

Field

Optical star coupler

Field equipment

max. 8 units

Duplex system
(available with Ethernet)

Host system

Ethernet

Master station

Control room

Field

Optical star coupler

Field equipment

max. 8 units

OUTLINE DIAGRAM (Unit : mm)

49

30

2 φ 4.7 mounting holes

170

160

130

POWER
LINK/ACT

FLT/ALM
BATT.
OPR

OPT.

Receptacle
for optical connector

Connector
for RS-232C

E
AC
100

Space for connector

Min. 100

132

6.5

1.6

Terminal block (M4 screw)

Fixture

In RS-232C specification

POWER
LINK/ACT

FLT/ALM
BATT.
OPR

OPT.

Ether-
net

Connector
for Ethernet

E
AC
100

In Ethernet specification

⚠ Caution on Safety

*Before using this product, be sure to read its instruction manual in advance.

Fuji Electric Co., Ltd.

Information in this catalog is subject to change without notice.

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