

Connect your temperature controllers to the EtherCAT network

EtherCAT[®] Network

EtherCAT
Communication Converter
COM-ME-3



COM-ME-3 can be used to connect our SRZ series, FZ series, and GZ series to the EtherCAT network.

Compatible models

SRZ Series

(Z-TIO-A / Z-TIO-B / Z-DIO / Z-CT)



FZ Series

(FZ110 / FZ400 / FZ900)



GZ Series

(GZ400 / GZ900)



Example of Connection

PLC
(EtherCAT master)

Temperature
Process

Do not use RKC Loader
Communication for process
control purpose

Parameter setup of Z-TIO/Z-DIO/Z-CT

RKC Loader Communication

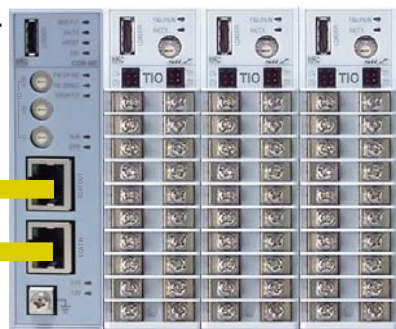
USB

Temperature / Process Control

SRZ Series

(Z-TIO-A / Z-TIO-B / Z-DIO / Z-CT)

COM-ME-3



Host Communication RS-485

RKC communication or MODBUS



Module management
software

PROTEM2

Available at RKC homepage

..... Max. 30 modules

Z-TIO module : Max. 14 modules
Z-DIO + Z-CT module : Max. 16 modules
or
Z-TIO module : Max. 16 modules
Z-DIO + Z-CT module : Max. 14 modules

PLC
(EtherCAT master)

Temperature
Process

EtherCAT[®]

COM-ME-3

Loader Communication

Controller communication

RS-485

MODBUS

Temperature / Process Control

FZ Series



Connecting
up to
31 units

GZ Series



Connecting
up to
31 units

Specification

EtherCAT communication

Device type : No profile
 Physical layer : 100BASE-TX
 User layer: EtherCAT
 Correspondence protocol : CAN application protocol over EtherCAT
 Communication object : SDO, PDO
 Connector type : RJ-45 (2 ports)
 PDO data length : Max. 1024byte
 Both RxPDO (Output) and TxPDO (Input)
 Synchronous mode : Free Run

Host communication or Controller communication

SRZ: Host communication
 FZ110 / FZ400 / FZ900, GZ400 / GZ900: Controller communication
 Interface : EIA RS-485
 * Multidrop wiring possible
 Synchronous method : Start/stop synchronous type
 Communication speed : 9600bps, 19200bps, 38400bps, 57600bps
 * Set to Modbus protocol on the connected module(s) while using 56700 bps.
 Data bit configuration : Start bit : 1
 Data bit : 7 or 8 (MODBUS 8 bit only)
 Parity bit : None, Odd or Even
 Stop bit : 1 or 2
 Protocol :
 a) RKC Communication : ANSI X3.28-1976 subcategories 2.5 and B1
 b) MODBUS Communication : MODBUS-RTU
 * Controller communication (Supported series: FZ110 / FZ400 / FZ900, GZ400 / GZ900) is only available with MODBUS-RTU (Master).
 Maximum connection : SRZ: Maximum 30 modules in a combination of Z-TIO + Z-DIO + Z-CT; the module number of Z-DIO and Z-CT varies depending on the total number of Z-TIO modules (maximum 16 Z-TIO modules per connection).
 FZ110 / FZ400 / FZ900, GZ400 / GZ900: Maximum 31 units.
 Address setting : RKC Communication : 0 to 99
 MODBUS-RTU : 01h to FFh
 Terminal type : Screw terminals

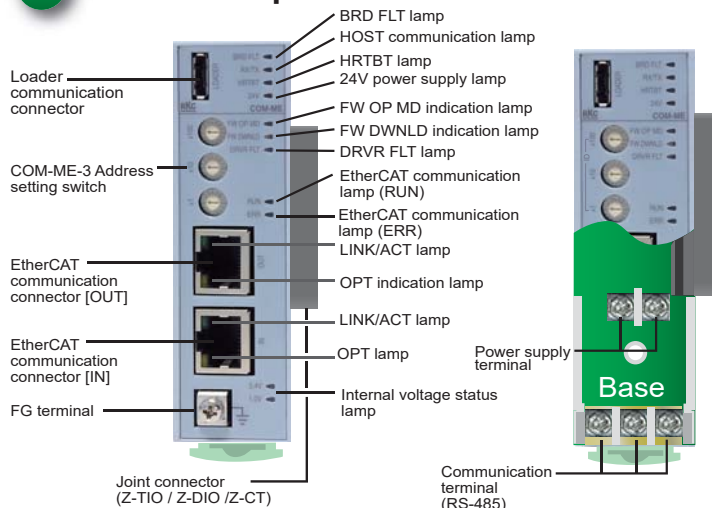
Loader communication

Communication speed : 38400bps
 Maximum connections : 1unit
 Connection with a loader communication cable for our USB converter COM-KG (sold separately).

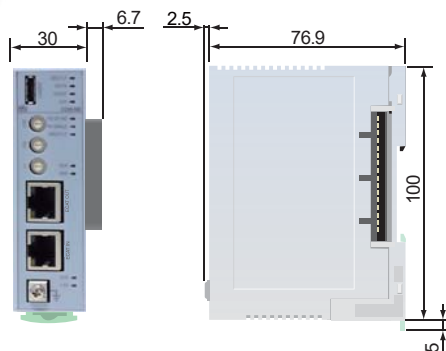
General specifications

Power supply voltage : DC24V
 Current consumption : 150 mA max. Rush current : Less than 15A
 Power failure effect : A power failure of 4m sec or less will not affect the action.
 Memory backup : Back-up by non-volatile memory
 1) Number of writing : 1,000,000 times
 2) Data retaining period : Approx. 10 years
 Allowable ambient temperature : -10 to +55°C
 Allowable ambient humidity : 5 to 95%RH
 Weight : Approx. 150 g
 Safety standards :
 1) UL UL61010-1
 2) cUL CAN/CSA-22.2 NO.61010-1
 3) CE Marking : EMC Directive EN61326-1
 RoHS Directive EN IEC 63000
 4) RCM : EN55011

Parts Description



External Dimensions



Model and Suffix Code

Compatible models : SRZ Series (Z-TIO-A / Z-TIO-B / Z-DIO / Z-CT)

Specifications	Model and Suffix Code				
	COM-ME -3 5 * 02				
Network	①	EtherCAT	3		
Host communication	②	RS-485		5	
Supported Controller	③	SRZ (Z-TIO-A / Z-TIO-B, Z-DIO, Z-CT)			02

Compatible models : FZ110 / FZ400 / FZ900, GZ400 / GZ900

Specifications		Model and Suffix Code				
		① ② ③ ④ ⑤ COM-ME -3 5 * 07 <input type="checkbox"/> <input type="checkbox"/>				
Mandatory	Network	①	EtherCAT	3		
	Controller Communication	②	RS-485	5		
	Supported Controller	③	FZ110 / FZ400 / FZ900, GZ400 / GZ900	07		
Option	Factory Setting (Communication mode)	④	None (Communication mode is npt specified. Single word)			No code
			Specify the communication mode			/1
	Supported Communication Mode		None (Communication mode is npt specified. Single word)			No code
			Single word mode			1
			FZ Series double word mode (Order of data transfer: upper word to lower word)			2
			FZ Series double word mode (Order of data transfer: lower word to upper word)			3
		⑤	GZ Series double word mode (Order of data transfer: upper word to lower word)			4
			GZ Series double word mode (Order of data transfer: lower word to upper word)			5
			GZ Series, HA Series mode (Order of data transfer: upper word to lower word)			6
			GZ Series, HA Series mode (Order of data transfer: lower word to upper word)			7

* If communication mode is not specified, the "single word mode" is set by default.



- Before operating this product, read the instruction manual carefully to avoid incorrect operation.
- This product is intended for use with industrial machines, test and measuring equipment. It is not designed for use with medical equipment.
- If it is possible that an accident may occur as a result of the failure of the product or some other abnormality, an appropriate independent protection device must be installed.

Caution for the export trade

All transactions must comply with laws, regulations, and treaties.

Caution for imitated products

As products imitating our product now appear on the market, be careful that you don't purchase these imitated products. We will not warrant such products nor bear the responsibility for any damage and/or accident caused by their use.

RKC® RKC INSTRUMENT INC.
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