IB-E03B/04F

RoHS Conformity | CE Conformity | UL Conformity | UKCA Conformity

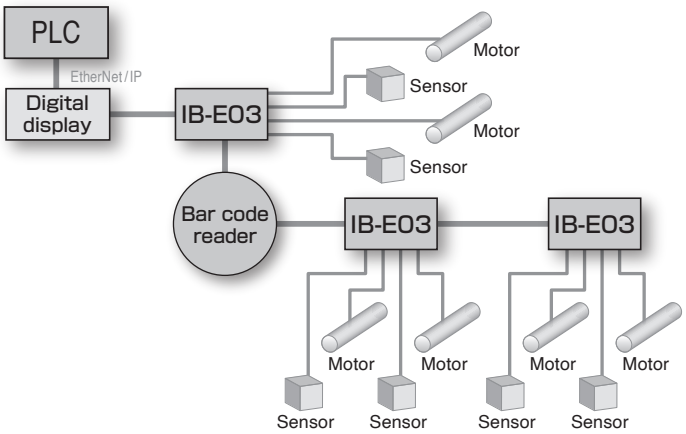
EtherNet/IP based high speed communication

【Applicable MDR models】
IB-E03B…FE series, FP series
IB-E04F…KT series

【Driver card model】

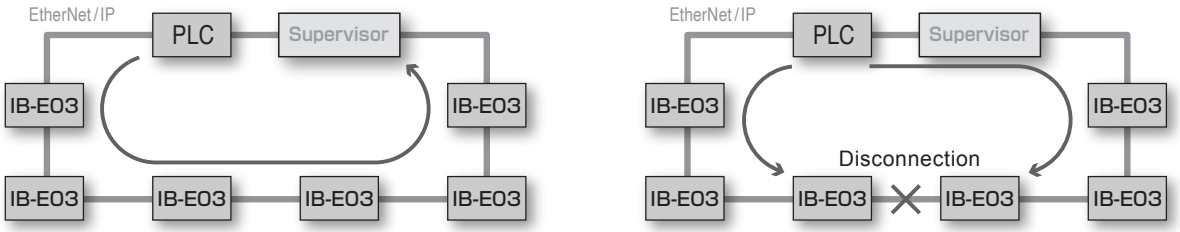
IB-E03B-N／IB-E04F-P

N : NPN signal input and output
P : PNP signal input and output



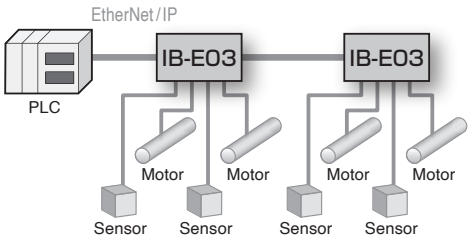
EtherNet/IP is the same Ethernet used in your front office combined with a common protocol that provides robust, real time networking for motion, drive, safety, process and high speed discrete control. It is an implementation of the Common Industrial Protocol (CIP). Custom programmable ladder logic is available for fine tuning your specific application.With direct connectivity over Ethernet, simple, seamless and high speed network communication system can be built from sensor signal through information data.

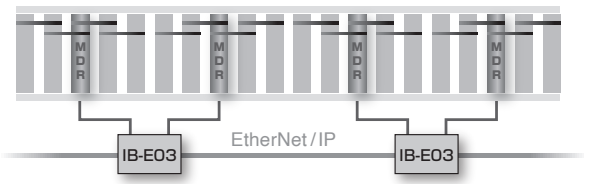
Device Level Ring (DLR) though Supervisor



- Device Level Ring (DLR) provides fault-tolerant network design for both daisy chain and linear topology. This ensures continued network communication.

Simplified wiring

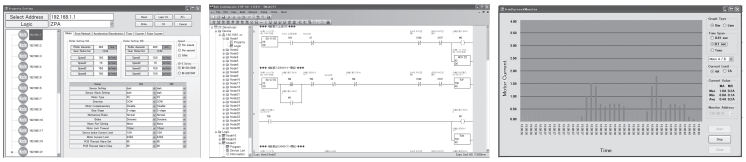




- IB-E03B has photo sensor wiring ports allowing seamless connections of signals and information.
- IB-E03B controls two MDR units, and simple LAN cable wiring connects multiple IB-E03B units.

ICE – Itoh Configurator for EtherNet/IP Dedicated PC application software for setting parameters

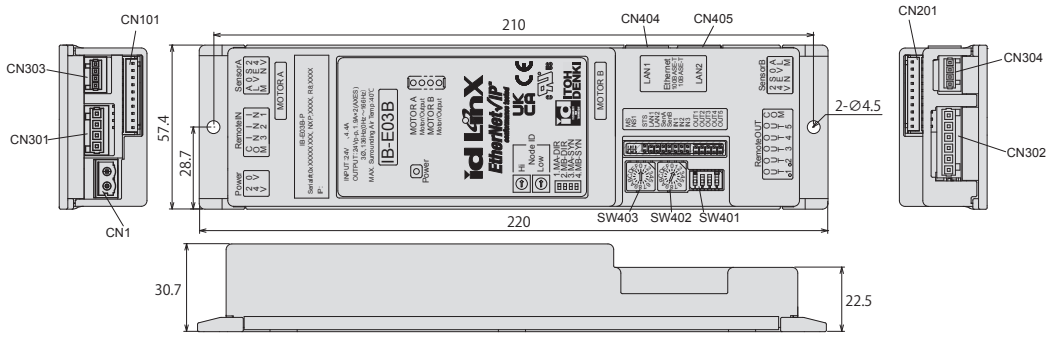
- Enables autonomous distributed control through local logic setting, allowing the control to make local decision without waiting for high layer command.
- Various monitor functions (MDR failure diagnosis)



Parameter setting | Ladder logic setting | MDR current draw

IB-E03B/04F

■ Dimensions



■ Controller specifications

		IB-E03B	IB-E04F
Motor power	Nominal voltage	24V DC	24V DC
	Static current	0.15A	0.15A
	Peak current	20A（1msec）	20A（1msec）
	Starting current	4.0A	7.0A
Control power	Nominal voltage	24V DC	24V DC
	Current	0.05A	0.05A
LED indication		Power Mot A/B (Motor/Output) STS (Motor status) SEN A/B (Sensor status) Remote IN/OUT LAN 1/2 (Communication) Error	
Thermal overload protections	driver card	95℃	95℃
	motor	105℃	105℃

Brake selection		Electric (dynamic) brake Servo lock brake
Power connector	Controller side	231-532/001-000
	Wiring side	231-302/026-000
Sensor connector	Controller side	WAGO 733-364
	Wiring side	WAGO 733-104
Communication connector	Controller side	TMR 11R-5M2-88（Hirose）
	Wiring side	RJ45（Hirose）
Environmental conditions	Ambient temperature	0 to 40℃
	Humidity	≦ 90%Relative Humidity (no condensation)
	Atmosphere	No corrosive gases
	Vibration	≦ 1.0G

■ Communication specifications

ODVA conformance test	CT11
Protocol	Ethernet (IEEE 802.3)
Transmission media	Standard Ethernet cable (CAT 5 or over) 100BASE-TX
Communication speed	10Mbps/100Mbps (automatic negotiation)
Transmission form	Full duplex/half duplex (Auto negotiation)
Standard	UL and CSA recognized (pending) UL 61800-5-1 and CSA C22.2 No.274-13 (Recognized component) ●Category Code No. (CCN): NMMS2, NMMS8 ●- File No. E333970

■ Standard accessories

- ●Cross-recessed head screws: M4 x 15
- ●Hexagonal nut: M4

■ Options

Name	Part number	Manufacturer
●Motor power connector (CN1)	231-302 / 026-000	WAGO
●Communication connector	RJ 45	Hirose
●Sensor connector	733-104	WAGO
●Control connector	734-204 (External input)	WAGO
	734-206 (Signal output)	WAGO

■ Applicable model

IB-E03B…FE series
FP series
MDR motor cable should be 10pin connector type in case of using with IB-E03 driver card.
IB-E04F…KT series
Both IB-E04 driver card and KT series roller are equipped 12pin motor connector as a standard.
The roller built-in brake is not applicable.