

EtherCAT Specification

Item	EtherCAT Series
Interface Specifications	
I/O Size	ET-DI32U (In : 4byte) ET-DO32P, ET-DO32N (Out : 4byte) ET-DH16P, ET-DH16N (In : 2byte, Out : 2byte)
Max. Nodes	65535
Communication Speed	100Mbps
Interface Connector	Two Port RJ45 Socket (J1) / ECAT IN / ECAT OUT
Indicator	Power : Green, Module Power Status RUN : Green, EtherCAT Communication Status Active : Yellow, Network Status I/O(DI/DO) Green/1pt
General Specification	
System Power	Supply Voltage : 24Vdc nominal Supply Voltage Range : 11~28.8Vdc Protection : Output Current limit (Min. 1.5A) Reverse polarity protection
Power Dissipation	300mA typical@24Vdc
Isolation	DeviceNet to internal System : Non-isolation Internal System to I/O driver : Isolation
Field Power	Supply Voltage : 24Vdc nominal Supply Voltage Range : 11~28.8Vdc
Weight	About 60g, TBD
Board PCB Size	70mm x 100mm
Environment Condition	Refer to 'Environment Specification' (page : 4-5)

Environment Specification

Environmental Specifications	
Operating Temperature	-20°C ~ 60°C, TBD
Storage Temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% non-condensing
Operating Altitude	2000m
General Specification	
Shock Operating	10g
Shock Non-Operating	30g
Vibration/shock resistance	Displacement : .012Inch p-p from 10~57Hz Acceleration : 2G's from 57~500Hz Sweep Rate : 1 octave Per Minute Axes to test : x, y, z Frequency Sweeps Per Axis : 10
EMC resistance burst/ESD	EMC Directive
Installation Pos. / Protect. Class	Variable/IP20
Product Certifications	UL/cUL, CE, TBD

EtherCAT ET-Series (Board Type)

DI (Digital Input)

Item	Specification
Input type	ET-DI32U : Bi-Direction (Sink/Source) Input (32pt) ET-DH16P : Bi-Direction (Sink/Source) Input (16pt) ET-DH16N : Bi-Direction (Sink/Source) Input (16pt)
Indicator	11Led/point
On-state Voltage	24Vdc Nominal Min. 14Vdc to Max 26Vdc
Off-state Voltage	Max. 10Vdc
On-state Current	2.5mA max./point @24Vdc
Input Delay	OFF to ON : 0.5msec max. ON to OFF : 0.5msec max.
Nominal Input Impedance	10K Ω typical
General Specification	
Power Supply	From external, 24Vdc Nominal, 11~26Vdc
Power Dissipation	<100mA/24Vdc, TBD
Isolation	DI/DO to System : Photo coupler isolation
Environment Condition	Refer to 'Environment Specification' (page : 4-5)

DO (Digital Output)

Item	Specification
Input type	ET-DO32U : Bi-Direction (Sink/Source) Output (32pt) ET-DO32P : Source Output (32pt) ET-DO32N : Sink Output (32pt) ET-DH16P : Source Output (16pt) ET-DH16N : Sink Output (16pt)
Indicator	1Led/point
On-state Voltage Range	Nominal 24Vdc, min. 11Vdc, max. 26Vdc
On-state Voltage Drop	Max. 0.2Vdc@25 $^{\circ}$ C
On-state Current	Min. 1mA/channel
Output Delay	OFF to ON : 0.3msec max. ON to OFF : 0.3msec max.
Off-state Leakage Current	Max. 0.3mA
Output Current Rating	Max. 0.5A/channel, 4A/all channel
Surge Current Rating	1A for 10msec, repeatable every 3sec
Protection	Short, Reverse voltage protection on ET-DO32P, ET-DO32N, ET-DH16P, ET-DH16N
General Specification	
Power Supply	From external, 24Vdc Nominal, 11~26Vdc
Power Dissipation	<100mA/24Vdc, TBD expect Output Driver Current
Isolation	DI/DO to System : Photo coupler isolation
Environment Condition	Refer to 'Environment Specification' (page : 4-5)

I/O Terminal Board (TW-DH16N)

Item	Specification
Matching Board Type	ET-DH16N : Bi-Direction (Sink/Source) Input (16pt) Sink Output (16pt)
Indicator	16 Green Led/point for Input 16 Red Led/point for Input 4 Red Led/8point for Field power (Fuse/LD1, LD2, LD3, LD4)
Overcurrent Protection (Fuse)	I hold : 1.50A** I trip : 3.00A V max : 24Vdc I max : 20A Maximum Time to Trip Current : 8.00A Time : 1.5Sec.
General Specification	
Power Supply	From external, 24Vdc Nominal, 11~26Vdc
Power Dissipation	<150mA/24Vdc, TBD

** I hold = Hold current : maximum current device will pass without tripping in 20 $^{\circ}$ C stukk air.
I trip = Trip current : minmun current at which the device will trip in 20 $^{\circ}$ C still air.
V max = Maximum voltage device can withstand without damage at rated current (I max)
I max = Maximum fault device can withstand without damage at rated voltage (V max)

FnIO-B Series

Additional Information

Dimension

- 70 x 100mm

