

# Smart I/O Expandable Type



Modbus TCP, EtherNet/IP, DeviceNet, Profibus-DP

## Features

- IEEE 802.3 standard
- Modbus TCP/IP, EtherNet/IP
- 10/100BASE-TX media
- Ethernet twisted pair 2 ports (RJ-45)
- 2 channels Ethernet MAC
- Auto-negotiation/Auto-crossover
- Various system configuration

## Available Module

In/Out	Part Number	XDL-BSSA	XPL-BSSA	XEL-BSSA	XEL-BSSB	XRL-BSSA	XEL-BSSCT
DC Input	XBE-DC08A	O	O	O	O	O	O
	XBE-DC16A(B)	O	O	O	O	O	O
	XBE-DC32A	O	O	O	O	O	O
AC Input	XBE-AC08A	X	O	O	O	O	O
Relay Output	XBE-RY08A(B)	O	O	O	O	O	O
	XBE-RY16A	O	O	O	O	O	O
TR Output	XBE-TN(TP)08A	O	O	O	O	O	O
	XBE-TN(TP)16A	O	O	O	O	O	O
	XBE-TN(TP)32A	O	O	O	O	O	O
Mixed	XBE-DR16A	O	O	O	O	O	O
	XBE-DN32A	X	X	O	O	X	O
AD	XBF-AD04A	O	O	O	O	O	O
	XBF-AD08A	X	O	O	O	O	O
	XBF-AD04C	X	O	O	O	O	O
DA(I)	XBF-DC04A	O	O	O	O	O	O
	XBF-DC04C	X	O	O	O	O	O
DA(V)	XBF-DV04A	O	O	O	O	O	O
	XBF-DV04C	X	O	O	O	O	O
Mixed	XBF-AH04A	O	O	O	O	O	O
RTD	XBF-RD04A	O	O	O	O	O	O
TC	XBF-TC04S	O	O	O	O	O	O
Loadcell	XBF-LD02S	X	X	X	X	X	O
HSC	XBF-HO2A	X	X	X	X	X	O
	XBF-HD2A	X	X	X	X	X	O

## DeviceNet Specification

Item	Specification
Communication Interface	Poll, Bit-strobe, COS/cyclic
	Group 2 only slave
	Auto baud rate
Master/Slave	Slave
Max. Station	64 (Including master)
Max. No. of Extension I/O Equipment	8
Max. Digital I/O Point	512 point (Input max 256 point/output max 256 point)
Max. No. of Analog I/O Channel	Input 16 channels (Output 16 channels)
Cable	125kbps
	250kbps
	500kbps
Communication Speed & Distance	Speed: 500m, 250m, 100m
	Distance: DC 24V
Input Power	Rated Input Voltage: 19.2V ~ 28.8V (Available to operate in 11V)
	Power Range: 5V(±20%) / 1.5A
	Output Voltage/Current: Speed (Kbps)
	Insulation: Distance (m)
Basic Specification	Weight (g): 100

## Modbus TCP, EtherNet / IP Specification

Item	Specification	
Communication Speed	10/100mbps	
Transmission Path Method	Base band	
Standard Functions	IEEE 802.3	
Flow Control	HALF/FULL	
Modulation Type	NRZI	
Max. Distance Between Nodes	100m	
Max. Protocol Size	Data 1500byte	
Communication Zone Access Method	CSMA/CD	
Check Method for Frame Error	CRC32	
Connector Connection	RJ-45(2Port)	
IP Setting	S/W setting	
Topology	Bus, Star	
Protocol	MODBUS/TCP, EtherNet/IP	
Max. Digital I/O Point	512 (Input 256, Output 256)	
Max. Digital I/O Connection Number	8	
Max. Analog I/O Connection Number	8	
Expansion Analog Module Occupation Number	8byte	
Power	Rated Input Voltage/Current	DC 24V/0.7A
	Power Range	DC 19.2V ~ 28.8V
	Output Voltage/Current	5V (±20%) / 1.5A
	Insulation	Non-insulation
Weight(g)	100	

## Profibus-DP Specification

Item	Specification					
Standard	EN50170 / DIN 19245					
Interface	RS-485					
Medium Access	Polling					
Topology	Bus					
Encoding Method	NRZ					
Communication Interface	Sink mode, Freeze mode					
Master/Slave	Auto baud rate					
Cable	Slave					
Communication Speed and Distance	Shielded twisted pair					
	Speed (Kbps)	9.6	19.2	93.75	187.5	500
	Distance (m)	1200	1200	1200	1000	400
	Speed (Kbps)	1500	3000	6000	12000	-
Distance (m)	200	100	100	100	-	
	Max. Node	100 station (Setting range: 0 ~ 99)				
Max. Modular Type I/O Equipment No.	8					
Max. Digital I/O Point	512point (Input Max.256point/output max.256point)					
Max. Analog I/O Channel No.	32 channels (Input Max. 16 channels/output Max. 16 channels) (Analog module occupy Digital 64 point)					
Input Power	Rated Input Voltage/Current	DC 24V / 0.55A				
	Power Range	DC19.2 ~ 28.8V				
	Output Voltage/Current	5V (±20%) / 1.5A				
	Insulation	Non-insulation, Communication part insulation				
Weight (g)	100					