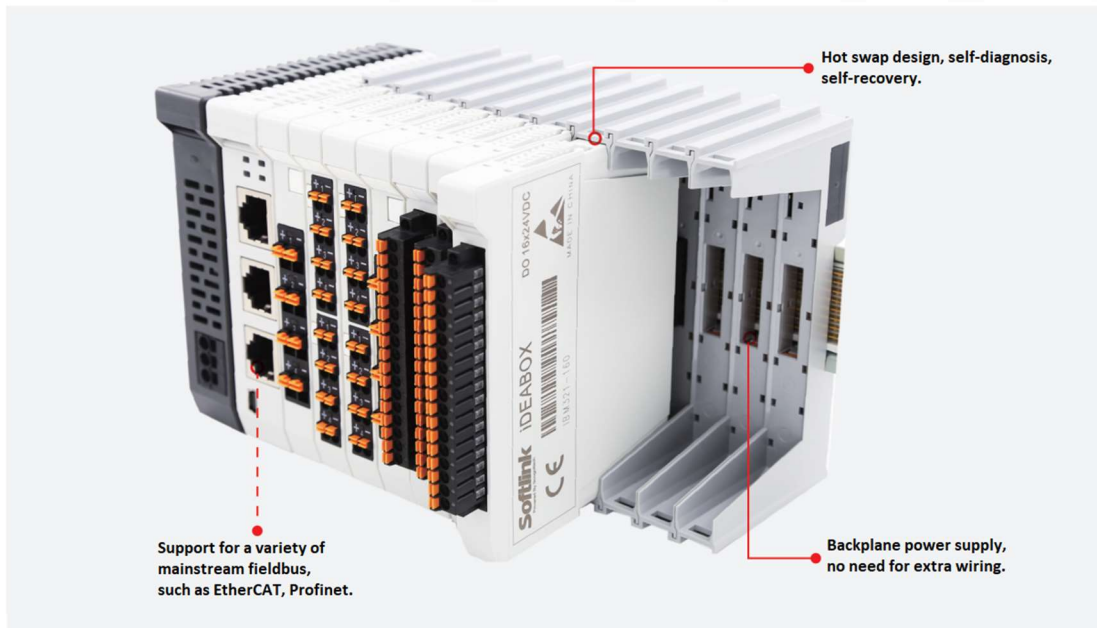


# iSpade Series IO Module



## Overview

iSpade series IO module is Softlink's latest small-volume universal remote IO module, which supports a variety of fieldbuses. It has a complete range of modules, small size, simplified installation, high speed and high reliability of the backplane bus.

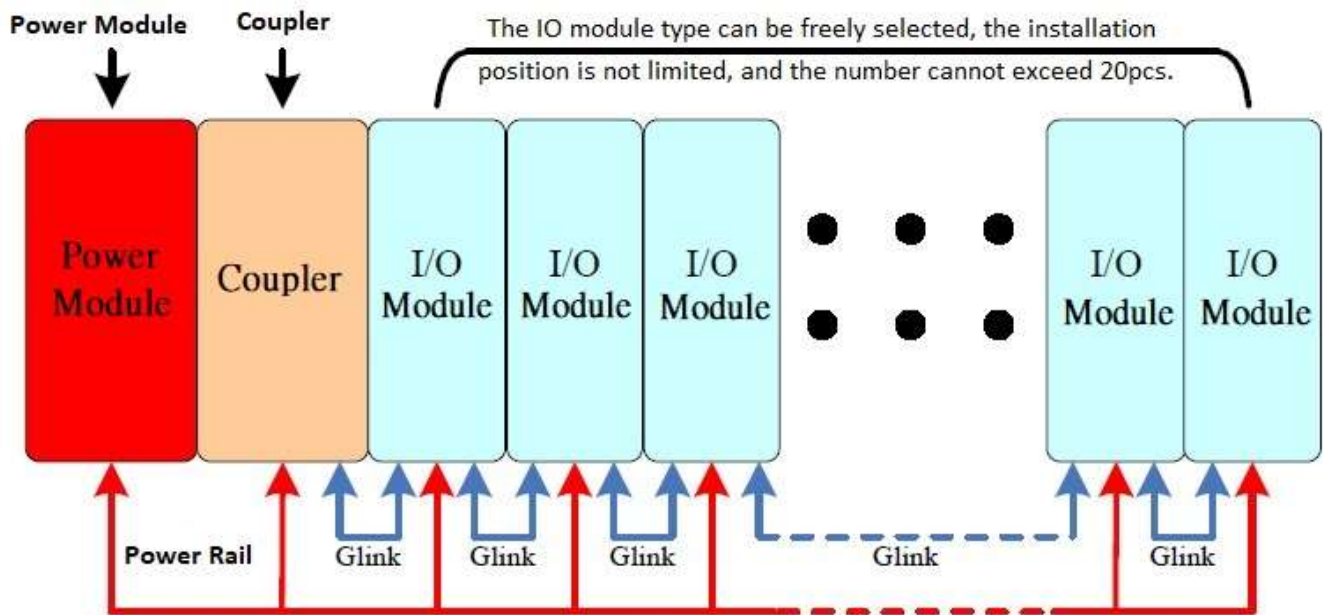
## Main Features

- Support for a variety of fieldbus and industrial Ethernet in the market;
- A new generation of high-speed backplane bus with fast data response and strong expansibility;
- Compact modular design with high integration and small size;
- Easy to install, modules are independent, and wiring doesn't require tools;
- There are many kinds of modules, such as IO, analog, temperature, counting, serial port and other modules;
- Support online diagnosis;

## System Structure

Module installation sequence:

1. The power module is placed in the first position.
2. The coupler is placed in the second position;
3. I/O module is placed behind the coupler.



## Specifications



### 16 Channel Digital Input Module

Model	Description
IBM311-160	16-channel digital input module.
Function	
Input Channel	16
Input Type	Source/Sink input
"0" Signal Level	-3~5V (IEC61131-2, type 1)
"1" Signal Level	15~30V (IEC61131-2, type 1)
Maximum Current	type: 10mA (IEC61131-2, type 1)
Backplane Bus Power Consumption	≤400mA@5V
Rated Power Supply	24VDC (-15%/+20%)/0.1A (IEC61131-2, type 1)
Electrical Isolation	Control/Input area: 500V DC
Dimension	100 x 101.30 x 12 mm

### 16 Channel Digital Output Module

Model	Description
IBM321-160	16-channel digital output module.
Function	
Output Channel	16
Output Type	Transistor (Sink output)
On-Resistance	Type: 90mΩ/Max: 180mΩ
Maximum Load Current	Max. 0.5 A/Channel
Rated Total Output Current	8A
Backplane Bus Power Consumption	≤400mA@5V
Rated Power Supply	24VDC (-15%/+20%)
Electrical Isolation	Control/Output area: 500V DC

#### 4 Channel Analog Output Module

Model	Description
IBM322-041	4-channel analog output module.
Function	
Output Channel	4
Resolution	12 Bits (11 data bits + 1 sign bit)
Output Signal Type	Current/Voltage
Absolute Error	≤±0.1%
Measuring Range	Voltage: 0~5V/0~10V/±5V/±10V; Current: 4~20mA/0~20mA
Drive Capability	Minimum resistive load 1KΩ limit; maximum capacitive load 1 μF
Output Protection	Maximum short circuit limit 16mA
Backplane Bus Power Consumption	≤600mA@5V
Electrical Isolation	Control/Output area: 500V DC
Dimension	100 x 93.20 x 12 mm

#### 4 Channel Analog Input Module

Model	Description
IBM312-041	4-channel analog input module.
Function	
Input Channel	4
Resolution	16 Bits (15 data bits + 1 sign bit)
Absolute Error	≤±0.05%
Input Signal Type	Current/Voltage
Measuring Range	Voltage: 0~5V/0~10V/±5V/±10V; Current: 0~20mA
Input Resistance	Voltage: ≥1MΩ (IEC61131-2); Current: 249Ω
Input Limit (Damage Value)	Voltage: ±15V (continuously); Current: ±60mA (continuously)
Backplane Bus Power Consumption	≤400mA@5V
Electrical Isolation	Control/Input area: 500V DC
Dimension	100 x 93.20 x 12 mm

#### EtherCAT Coupler Module

Model	Description
IBM337-001-EC	EtherCAT coupler module
Function	
Extension Module	Maximum 20pcs
Rated Supply Voltage	5VDC (±10%), (IEC61131-2, type 1)
Rated Supply Current	0.5A
Transmission Distance	100m
Transmission Medium	Category 5 cable
Dimension	100 x 97 x 20 mm

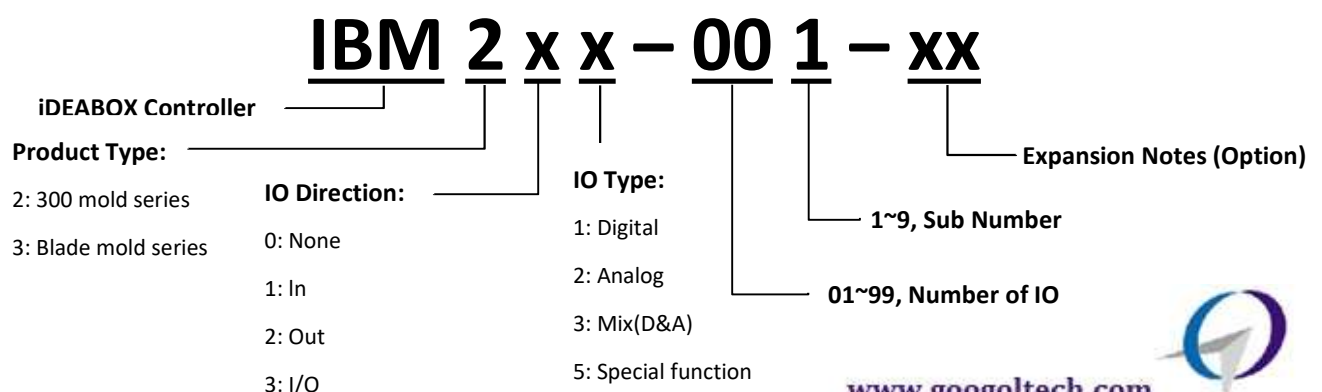
#### Profinet Coupler Module

Model	Description
IBM337-002-PN	Profinet coupler module
Function	
Extension Module	Maximum 20pcs
Rated Supply Voltage	5VDC (±10%), (IEC61131-2, type 1)
Rated Supply Current	0.5A
Transmission Distance	100m
Transmission Medium	Category 5 cable
Dimension	100 x 97 x 20 mm

#### Power Module

Model	Description
IBM305-001-PS	Power module
Function	
Rated Input Voltage	24VDC (-15%/+20%), (IEC61131-2, type 1)
Rated Input Current	1.5A
Rated Output Voltage	5V DC (±2%)
Rated Output Current	6A
Isolation Withstand Voltage	1500V DC
Dimension	100 x 97 x 20 mm

## Selection Guide



## Dimension



## Ordering Guide

Type	Ordering Number	Description
Power Module	IBM305-001-PS	24V DC power supply; output voltage: 5V, 6A.
EtherCAT Coupler Module	IBM337-001-EC	EtherCAT coupler module.
Profinet Coupler Module	IBM337-002-PN	Profinet coupler module.
Digital Input Module	IBM311-160	16DI, source/sink type.
Digital Output Module	IBM321-160	16DO, transistor, sink type.
Relay Output Module	IBM321-081	8DO, relay output.
Analog Input Module	IBM312-041	4 channel 16-bit analog input module.
Analog Output Module	IBM322-041	4 channel 12-bit analog output module.



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