

# ISO-P32C32/P64/C64

64-channel isolated DI/O board



ISO-P32C32

### Functional Description

The ISO-P32C32/P64/C64 provide 64 optically isolated digital input and/or output channel, arranged into four isolated banks. Each input channel use a photo-coupler input which allows either internal isolated power supply or external power selected by jumper. Each digital output offers a Darlington transistor and integral suppression diode for inductive load. The power supply of the input port may use the external power or the power from the PC side using DC/DC converter. The power supply of the output port should use the external power. This interface board is easily installed in any PC/AT. The board interface to field logic signals, eliminating ground loop problems and isolating the host computer from damaging voltages. The ISO-P32C32/P64/C64 has one 37-pin D-Sub connector and one 40-pin male header. The 40-pin to DB-37 flat-cable is used to fixed with the case. The user can connect the digital signal through the second D-Sub connector.

### Applications

- Factory Automation
- Product Test
- Laboratory Automation

### Specifications

#### Isolated Digital Output

- Number of channels: 32 (ISO-P32C32)  
64 (ISO-C64)
- Type: Isolated open-collector (NPN type)
- Sink current: 100 mA per channel
- External voltage: 30V max
- Response time: 30KHz max

### Features

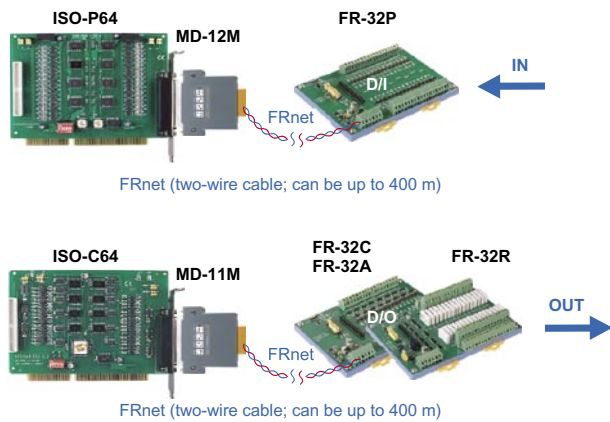
- 32-channel isolated digital input & 32-channel isolated digital output (ISO-P32C32)
- 64-channel isolated digital input (ISO-P64)
- 64-channel isolated digital output (ISO-C64)
- Sink current up to 100 mA on each isolated output
- Four isolated bank, 3000VDC isolation voltage
- DC/DC converter build-in (ISO-P32C32 & ISO-P64)
- Two interrupt source: channel 0 and channel 15 (ISO-P32C32)

### Isolated Digital Input

- Number of channels: 32 (ISO-P32C32)  
64 (ISO-P64)
- Type: Isolated current input
- Isolation voltage:  
3750V (using external power)  
3000V (using internal power)
- Input voltage: 5V to 30V
- Input impedance: 3KΩ; 1/4W
- Response time: 4KHz max

### General Specifications

- I/O connector:  
one 37-pin D-Sub female & one 40-pin header
- Power requirements:  
+5V @ 600 mA (ISO-P32C32)  
+5V @ 400 mA (ISO-P64)  
+5V @ 800 mA (ISO-C64)
- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90% non-condensing
- Storage temperature: -20 ~ 70°C
- Dimensions: 163 mm x 115 mm



Please refer to page 8-7 MagicWire and FR I/O for detail information

ISA Isolated DIO Board

# ISO-P32C32/P64/C64

64-channel isolated DI/O board



ISO-P64



ISO-C64

## Pin Assignment

### ISO-P32C32

GND_DO (-)	1	○	20	GND_DO (-)
DI_0	2	○	21	DO_0
DI_1	3	○	22	DO_1
DI_2	4	○	23	DO_2
DI_3	5	○	24	DO_3
DI_4	6	○	25	DO_4
DI_5	7	○	26	DO_5
DI_6	8	○	27	DO_6
DI_7	9	○	28	DO_7
DI_8	10	○	29	DO_8
DI_9	11	○	30	DO_9
DI_10	12	○	31	DO_10
DI_11	13	○	32	DO_11
DI_12	14	○	33	DO_12
DI_13	15	○	34	DO_13
DI_14	16	○	35	DO_14
DI_15	17	○	36	DO_15
EXT_Power_DI (+)	18	○	37	EXT_Power_DO (+)
GND_DI (-)	19	○		

### ISO-C64

GND_1 (-)	1	○	20	GND_2 (-)
DO_0	2	○	21	DO_16
DO_1	3	○	22	DO_17
DO_2	4	○	23	DO_18
DO_3	5	○	24	DO_19
DO_4	6	○	25	DO_20
DO_5	7	○	26	DO_21
DO_6	8	○	27	DO_22
DO_7	9	○	28	DO_23
DO_8	10	○	29	DO_24
DO_9	11	○	30	DO_25
DO_10	12	○	31	DO_26
DO_11	13	○	32	DO_27
DO_12	14	○	33	DO_28
DO_13	15	○	34	DO_29
DO_14	16	○	35	DO_30
DO_15	17	○	36	DO_31
EXT_Power_1 (+)	18	○	37	EXT_Power_2 (+)
N.C.	19	○		

### ISO-P64

GND_1	1	○	20	GND_2
DI_0	2	○	21	DI_16
DI_1	3	○	22	DI_17
DI_2	4	○	23	DI_18
DI_3	5	○	24	DI_19
DI_4	6	○	25	DI_20
DI_5	7	○	26	DI_21
DI_6	8	○	27	DI_22
DI_7	9	○	28	DI_23
DI_8	10	○	29	DI_24
DI_9	11	○	30	DI_25
DI_10	12	○	31	DI_26
DI_11	13	○	32	DI_27
DI_12	14	○	33	DI_28
DI_13	15	○	34	DI_29
DI_14	16	○	35	DI_30
DI_15	17	○	36	DI_31
EXT_Power_1	18	○	37	EXT_Power_2
N.C.	19	○		

## Ordering Information

### Standard

**ISO-P32C32:** 32-channel isolated digital input and 32-channel isolated open-collector output board

**ISO-P64:** 64-channel isolated digital input board

**ISO-C64:** 64-channel isolated digital output board

### Optional

**DN-37:** 2x37-pin connector DIN-rail mounting terminal board

**DB-37:** 37-pin D-sub directly connector terminal board

**DB-16P16R:** 16-channel of input terminal and 16-channel of relay output daughter board (For ISO-P32C32)

**DB-32R:** 32-channel of relay output daughter board (For ISO-C64)