

PISO-P32A32/P32C32/P64/A64/C64

64-channel isolated digital I/O board



PISO-P32A32

Functional Description

The PISO-P32A32/P32C32/P64/A64/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 PNP transistor (PISO-P32A32/A64) or Darlington transistor (PISO-P32C32/C64) 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. The board interface to field logic signals, eliminating ground-loop problems and isolating the host computer from damaging voltages. The PISO-P32A32, PISO-P32C32, PISO-P64, PISO-A64 and PISO-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 fix with the case.

The user can use the DB-16P16R to connect the input ports (CON1) of the PISO-P32C32 for relay output.

Also use the DB-32R to connect the input ports (CON1) of the PISO-C64 for relay output.

Applications

- Factory Automation
- Product Test
- Laboratory Automation

Specifications

Isolated Digital Input

- Number of channels:
 - 32 (PISO-P32A32, PISO-P32C32)
 - 64 (PISO-P64)
- Type: Isolated current input
- Isolation voltage:
 - 3750V (Using external power)
 - 3000V (Using internal power)
- Input voltage: 5V to 30V
- Input impedance: $3K\Omega$ /1/4W
- Response time: 4KHz max

Features

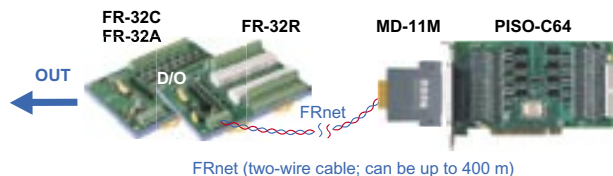
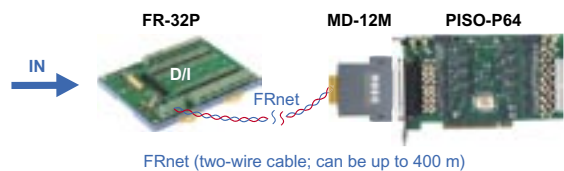
- 32-bit +5V PCI Bus, Plug & Play
- 32-channel isolated digital input & 32-channel isolated digital output (PISO-P32A32, PISO-P32C32)
- 64-channel isolated digital input (PISO-P64)
- 64-channel isolated digital output (PISO-A64, PSIO-C64)
- Sink current output (PSIO-P32C32, PISO-C64)
- Source current output (PISO-P32A32, PISO-A64)
- 3000VDC isolated voltage

Isolated Digital Output

- Number of channels:
 - 32 (PISO-P32A32, PISO-P32C32)
 - 64 (PISO-P64, PISO-A64, PISO-C64)
- Type: isolated open collector
- Sink current:
 - 100 mA/channel (PISO-P32C32, PISO-C64)
- Source current:
 - 100 mA/channel (PISO-P32A32, PISO-A64)
- External voltage: 30V max
- Response time: 30KHz max

General Specifications

- I/O connector: one 37-pin D-sub female
one 40-pin ribbon male
- Power requirements (typical):
 - +5V@ 600 mA (PISO-P32A32, PISO-P32C32)
 - +5V@ 400 mA (PISO-P64)
 - +5V@ 800 mA (PISO-A64, PISO-C64)
- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90% non-condensing
- Storage temperature: -20 ~ 80°C
- Dimensions: 180 mm x 105 mm



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

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PISO-P32C32



PISO-A64



PISO-P64

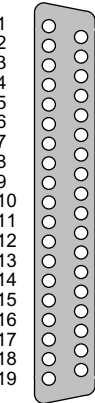


PISO-C64

Pin Assignment

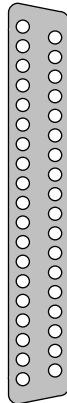
PISO-P32A32/PISO-P32C32

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
CON1 D/I COM1A	18	○	37	Power_DO(+)
CON1 D/I COM1B	19	○		



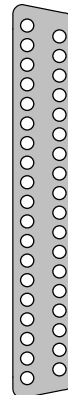
PISO-P64

GND1	1		20	GND1
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
PWR1	18	○	37	PWR2
NC	19	○		



PISO-A64/PISO-C64

GND_A(-)	1		20	GND_B(-)
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
Power_A(+)	18	○	37	Power_B(+)
N.C.	19	○		



Ordering Information

Standard

- PISO-P32A32:** 32-channel isolated digital input & 32-channel isolated open-collector output board. (current sourcing)
- PISO-P32C32:** 32-channel isolated digital input & 32-channel isolated open-collector output board. (current sinking)
- PISO-P64:** 64-channel isolated digital input board
- PISO-A64:** 64-channel isolated open-collector output board. (current sourcing)
- PISO-C64:** 64-channel isolated open-collector output board. (current sinking)

Optional

- DN-37:** 2x37-pin connector DIN-rail mounting terminal board
- DB-37:** 37-pin D-sub connector direct connection terminal board
- DB-16P16R:** 16-channel input terminal and 16-channel relay output board (For PISO-P32C32)
- DB-32R:** 32-channel relay output board (For PISO-C64)