

**IR104-
PBF**
High
Density
Optoisolate
d Input +
Relay
Output
PC/104
Module



DIAMOND
S Y S T E M S



FEATURES

- 20 optoisolated digital inputs
- 20 SPST Relay outputs
- Inputs accept 3-24V DC or AC
- Outputs switch up to 5A @ 250VAC
- Detachable connectors for relay contacts
- -25°C to +70°C operating temperature

◆ Description

IR104-PBF is a high-density PC/104 format digital I/O module designed for industrial applications requiring isolation between the computer and the external signals it is monitoring and controlling. This module features 20 optoisolated digital inputs and 20 relay outputs. Each input can accept both AC and DC voltages as low as 3V and as high as 24V.

The optocoupler inputs are located on a pin header at the top of the board, while the relays feature quick-disconnect terminal blocks (10 relays per block) that accept wire ranging from 14-28AWG. The board will operate in ambient temperatures ranging from -25 to +70C.

Note: The maximum component height on this board is .492", slightly higher than the PC/104 standard of .435". This extra height will usually not be a problem unless the board stacked directly above the IR104-PBF has components mounted on the bottom of the board or through-hole pins that exceed .043" in height. In this case you can mount the IR-104-PBF on the top of the stack.

*Customize
This Product*

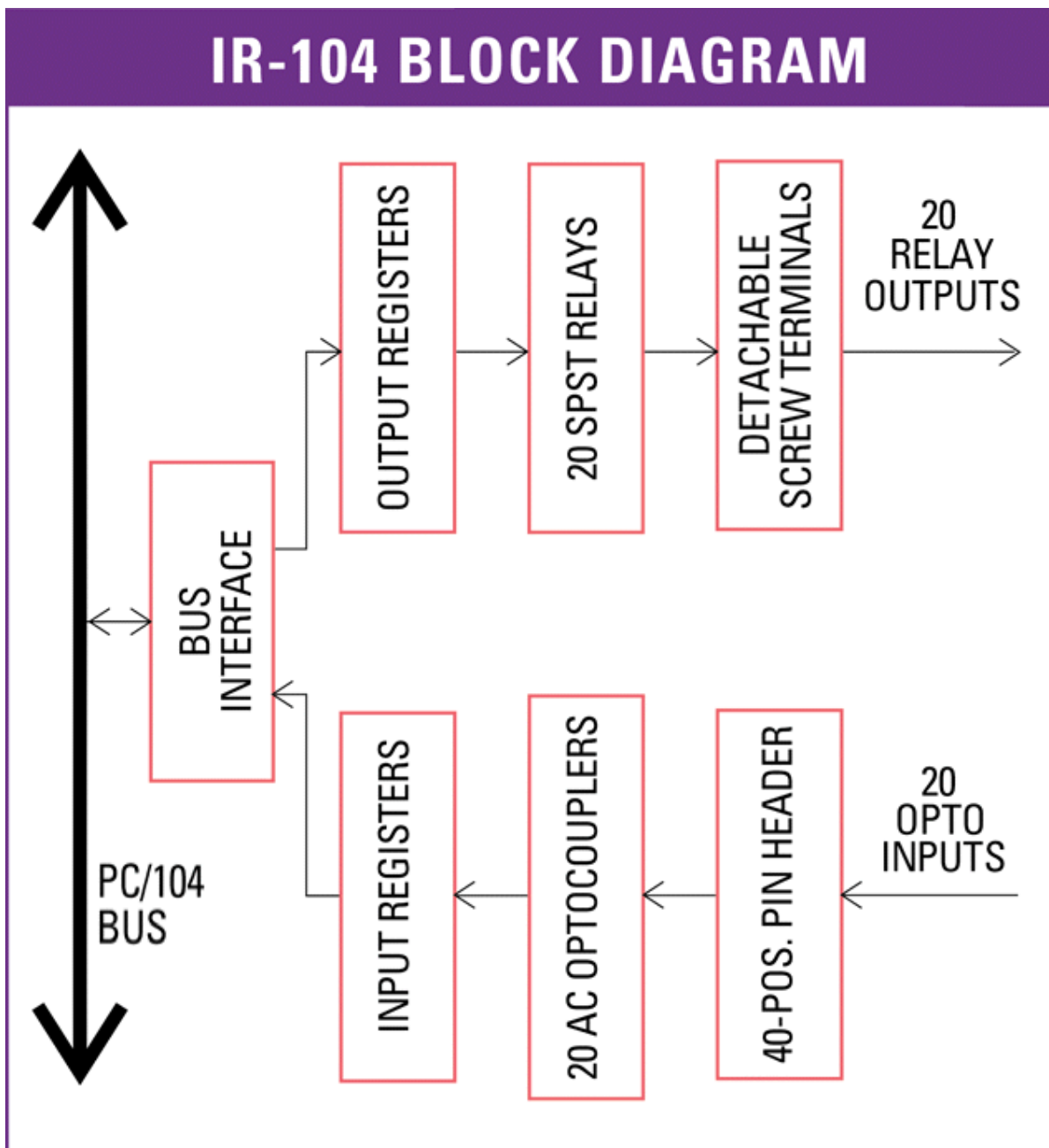
{Click Here to
Learn More}

Output Relays

The 20 relay outputs have SPST (form A) normally open contacts. Each relay can switch both AC and DC voltages. The relays have long lifetime (20,000,000 operations, 100,000 at full load) and quick actuation time (6ms max operate, 3ms release). Maximum load is 5A @30VDC. Relay connections are made with detachable screw terminal blocks. Each of the 2 blocks carries contacts for 10 relays.

Input Optoisolators

The 20 optoisolators can accept either AC or DC inputs ranging from 3V to 24V. Opto input connections are made with a 40-pin pin header that mates with standard ribbon cables.



◆ Specifications

Inputs	20 Optoisolated inputs
Input voltage	3-24V AD or AC
Input impedance	2.8KΩ
Outputs	20 SPST relays
Max voltage	150VDC, 250 VAC
Max current	5A AC or DC (30VDC max)
Max power	150W, 1250VA
Contact resistance	30mΩ initially
UL rating	5A/30VDC or 250VAC 1/10HP 120VAC
Lifetime	20,000,000 cycles mechanical 100,000 cycles @ full power
Actuation time	6ms operate, 3ms release

I/O connectors

Inputs:	2x20 pin header, .1" spacing
Outputs:	Dual 1x20 detachable screw terminals
Power	5V @ 110mA typ (all relays off)
Operating Temp	-25°C to +70°C
Size	3.550" x 3.775" 0.492" max component height
Weight	3.2 oz/90g
MTBF	57,450 hours
RoHS	Compliant

◆ Models and Accessories

IR104-PBF

available models:

IR104-PBF 20 relays + 20 Optoisolated Inputs PC/104 Module Available

Please [login](#) or [signup](#) for an online quote request.

Cables and accessories

available models:

C-40-18 40-conductor 18" ribbon cable Data Acquisition

Please [login](#) or [signup](#) for an online quote request.



www.diamondsystems.com | [Sunnyvale, California USA](#) | [+1-650-810-2500](tel:+1-650-810-2500) | sales@diamondsystems.com