

DIG.IN & DIG.OUT

Digital I/O Isolating Terminal Blocks



- **5000Vrms isolation**
- **Connect any voltage to a PLC input stage**
- **Input & output units**
- **Low cost solution**

DESCRIPTION

The 420-DIG range of digital input and output units are typically used to provide field to PLC isolation for all types of digital signals.

The units are ultra-compact and can be mounted on standard DIN Rail, taking just 22.5mm by 77mm of space.

The digital inputs provide an open collector output to the logic side and can accept 24Vdc or 48Vdc signals from the field. They use high voltage opto-isolators to provide up to 7500Vdc (5000Vrms) of field to logic isolation.

The digital outputs can switch up to 50Vdc @ a nominal current of 1A, and are controlled from standard TTL logic levels. An isolation voltage of 5000Vrms is provided.

Options include an isolated wetting voltage for the digital inputs and multi-way I/O cards for both inputs and outputs.

Input / Output Options

Digital Inputs

Wide range of field voltages can be converted to a volt-free open collector output, including 230 or 115 Vac, 24 or 48 Vdc.

Or a volt free field contact can be converted to an isolated open collector output.

Digital Outputs

Can be used to provide a relay output from a low voltage low current digital signal

+24V	SPNO O/P
TTL Input	
0V	(SPCO Optional)

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ISO9001 CERTIFIED

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Digital Inputs Technical Specifications

Parameter	Typical
Input Range	24Vdc / 48Vdc / Volt Free Contact
Overload Capability	125%
Isolation (Input to Logic Output)	5000Vrms, 7500Vdc
Power Surge Capability	IEC 255-22 Class 3
Input Current 24Vdc Logic Input	10mA (Voltage Inputs)
Power Supply Current	20mA (24Vdc Input, Isolated wetting supply for volt free contact)
Operating Ambient	-15°C to +80°C
Open Collector Output:	
ON State Voltage Saturating Operation	0.5V max @ 5mA, 1V max @ 10mA
On State Voltage Non-Saturating Operation	0.8V max @ 5mA, 1V max @ 10mA
OFF State Voltage	60V max
Rise / Fall Time	6ms (Non-saturating Operation)

Connection Details

1. Power Supply +ve (Wetting Voltage Option Only)
2. Power Supply -ve (Wetting Voltage Option Only)
3. 24V Wetting Supply +ve / Volt Free +ve
4. Signal Input +ve or Volt Free -ve
5. Signal Input -ve / Wetting Supply -ve
6. Output Pull-Up Supply
7. Open Collector Output +ve
8. Output Common

Ordering Information

Please supply:
Part Number:
Example: DIG.IN
Input Type: e.g 48 Vdc

Digital Outputs Technical Specifications

Parameter	Typical
Output Range	Up to 50Vdc 1A Resistive
Overload Capability	70V
Isolation	5000Vrms, 7500Vdc Channel-Field / 500Vrms Channel-Channel
Operating Ambient	-15°C to +80°C
Control Input	5V TTL
Minimum Logic ON Voltage	2.4V
Minimum Logic OFF Voltage	0.8V
Max Current @ 5V Logic ON	1mA
24V Supply Current @ Logic ON	10mA

Connection Details

1. Logic Input
2. Input Common
3. +24V Supply
4. Relay Output
5. Relay Output

Ordering Information

Please supply:
Part Number: DIG-OUT
Type: e.g TTL logic in relay out