

MODICON® QUANTUM™ 140DRA84000 RELAY OUTPUT MODULE



General Description

The Quantum 140DRA84000 RELAY Output Module provides (16x1) Normally Open Relay outputs.

A Quantum removable terminal strip allows for easy maintenance.

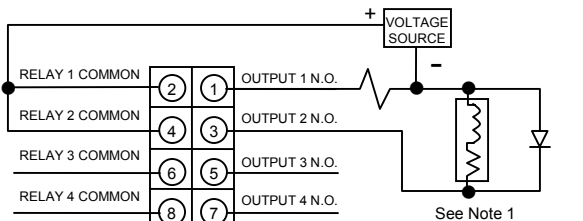
Quantum backplanes (ordered separately) come in 2,3,4,6,10, and 16 slot versions. Any Quantum module can be used in any slot. A Quantum power supply is required in each rack. The power supply provides logic power to all modules on the bus.

All Quantum I/O modules are optically isolated from the bus, ensuring safe and trouble-free operation.

Optionally, you can insert mechanical keys between the I/O module and the terminal strip to ensure that the field wiring and the module type are properly matched. Key codes are unique for each module type. Key kits are shipped with each I/O module.

As an option, modules can be ordered with a conformal coating applied to protect the internal circuitry from corrosive gases such as Chlorine, Nitric Oxide, Hydrogen Sulfide and Sulfur Dioxide.

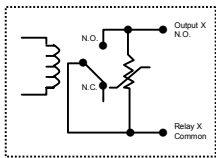
Wiring examples
(refer to user guide for important safety information):



See Note 1

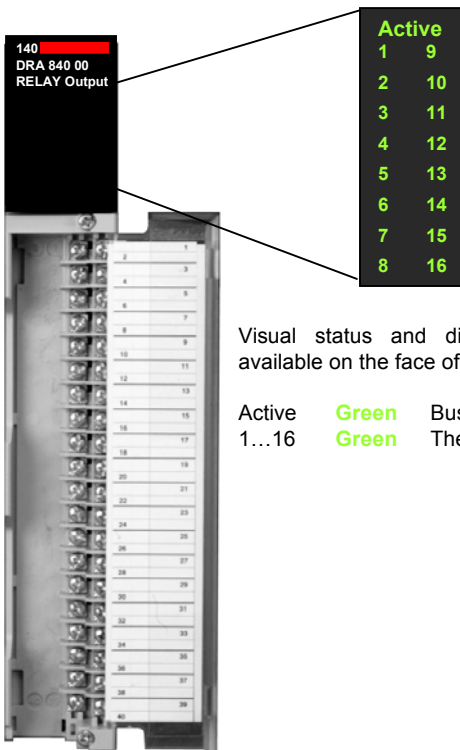
NOTE 1: For 125 VDC inductive loads, external clamping is recommended to extend relay contact life (1N 4004 or equivalent).

NOTE 2: N/C=Not Connected.



One of sixteen Typical

RELAY 1 COMMON	2	1	OUTPUT 1 N.O.
RELAY 2 COMMON	4	3	OUTPUT 2 N.O.
RELAY 3 COMMON	6	5	OUTPUT 3 N.O.
RELAY 4 COMMON	8	7	OUTPUT 4 N.O.
N/C	10	9	N/C
RELAY 5 COMMON	12	11	OUTPUT 5 N.O.
RELAY 6 COMMON	14	13	OUTPUT 6 N.O.
RELAY 7 COMMON	16	15	OUTPUT 7 N.O.
RELAY 8 COMMON	18	17	OUTPUT 8 N.O.
N/C	20	19	N/C
RELAY 9 COMMON	22	21	OUTPUT 9 N.O.
RELAY 10 COMMON	24	23	OUTPUT 10 N.O.
RELAY 11 COMMON	26	25	OUTPUT 11 N.O.
RELAY 12 COMMON	28	27	OUTPUT 12 N.O.
N/C	30	29	N/C
RELAY 13 COMMON	32	31	OUTPUT 13 N.O.
RELAY 14 COMMON	34	33	OUTPUT 14 N.O.
RELAY 15 COMMON	36	35	OUTPUT 15 N.O.
RELAY 16 COMMON	38	37	OUTPUT 16 N.O.
N/C	40	39	N/C



Visual status and diagnostic information is available on the face of the module as LED's.

Active **Green** Bus communication is active
1...16 **Green** The output is ON

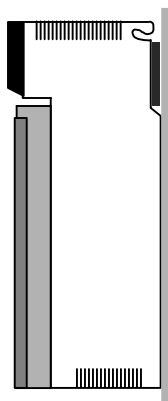
Removable terminal strip is ordered separately.

140XTS00200 Standard, Screw Type, 40 points

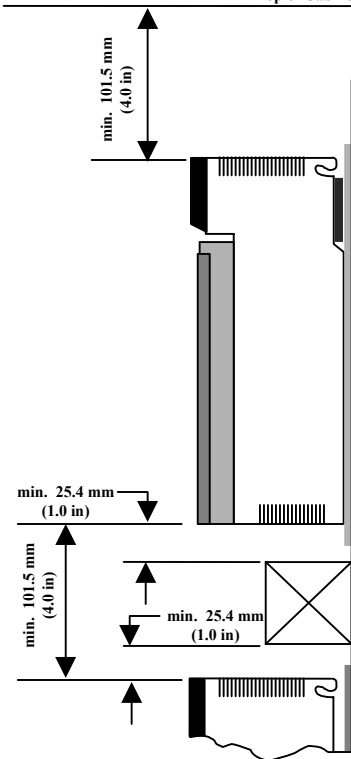
Optional rack accessories are ordered separately.

140XCP50000 Dummy module without terminal block

140XCP51000 Dummy module with cover



Top of Cabinet



Specifications	
Module Type	16 Normally Open RELAY pairs
Working Voltage	20...250VAC; 5...30VDC; 30...150VDC (reduced load)
Maximum Load Current	2 A max at 250VAC or 30VDC @ 60 C ambient, resist load
Each point	1 A Tungsten lamp load 1 A @ a power factor of 0.4 1/8 hp @ 125/250 VAC
Each point (30 ... 150 VDC)	300 mA (resistive load) 100 mA (L/R = 10 msec)
Minimum Load Current	50mA (Minimum load current if contact is used at rated loads of 5 ... 150 VDC or 20 ... 250 VAC)
Each point (30 ...150 VDC)	Derated to 0.5 A per point
Mechanical Operations	10,000,000
Electrical Operations	200,000 (resistive load @ max voltage and current)
Electrical Operations (30 to 150 VDC)	100,000 (300 mA resistive load) 50,000 (500 mA resistive load) 100,000 (100 mA L/R = 10 ms)
Relay Type	Form A
Maximum surge current (per point)	10 A capacitive load @ $\tau = 10$ ms
Switching Capability	500 VA resistive load
Response Time (resistive loads)	10 ms (max) OFF to ON, 20 ms (max) ON to OFF
Off State Leakage	< 100 μ A
Bus current required	1100 mA (max)
Channel to Channel Isolation	1780 VAC rms for 1 minute
Channel to Bus Isolation	1780 VAC rms for 1 minute; 2500 VDC for 1 minute
Storage Temperature	-40 ... +85 degrees C (-40 ... 185 degrees F)
Power Dissipation	5.5 W + (# of inputs ON X 0.5 W)
Operating Temperature	0 ... 60 degrees C (32 ... 140 degrees F)
Relative Humidity	0 ... 95% Non-condensing @ 60 degrees C
Weight	2.0 lb (1 kg) Maximum
RFI Immunity	80 ... 1000 MHz, 10 V/m (meets IEC 1000-4-3)
Ground Continuity	2 kV shield to ground
Electrostatic Discharge	8 kV air/4kV contact (meets IEC 1000-4-2)
Agency Approvals	UL 508, CSA 22.2-142, CE, FM Class 1 Div 2
Software Support	Concept™, ProWORX®, Unity™, ProWORX® 32™
IO Map	1 Output word

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 For detailed technical documentation visit:
www.us.telemecanique.com

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