MAN0941-05-EN Specifications / Installation



## **SmartBlock Relay & SSR**

### **High Current Socketed Output Modules**

# HE569DQM212 (7A Form C), HE569DQM204 (1A AC SSR), HE569DQM205 (2A DC SSR)

#### 1 Specifications

		Specification	S				
Gene	ral	All Versions					
Outputs (Commons)		8 (8)					
LED indi	LED indication		ON indication per Relay Output				
DC Input	DC Input Power		<200mA @ 24Vdc (17-30Vdc)				
Load Termi	Load Terminal Type		Removable Spring-Clamp (2 x 12posn)				
Storage	Temp.	-40° to +80° Celsius					
Operating	Temp.	-20° to +60° Celsius					
Relative H	umidity	5 to 95% Non-condensing					
Dimensions	Dimensions HxWxD		5" x 4.31" x 2.5" (127x110x63mm)				
Weig	Weight		340g (12oz.)				
CE (UL) Co	mpliance	CE (all components UL recognized)					
Contact F	Ratings		DQN	1212			
Contact Configuration		Normally Open & Normally Closed					
AC Voltag	AC Voltage, max.		400Vac				
AC curren	AC current, max.		7A* per Load, 50A max/board				
DC Voltag	DC Voltage, max		220Vdc				
DC current, max		7A* @	220m	nA @	80mA@		
		30Vdc		10Vdc 220Vd			
		ambient rise, derate max. current by 12.5%					
Minimum	Minimum Output		5V @ 5mA				
Response	e Time	8mS OFF>ON, 6mS ON>OFF					
Life		30 million cycles mechanical					
		70,000 cycles minimum at rated load					
Contact Ratings		DQM204		_	DQM205		
Contact Configuration		Normally Open					
Voltage, max.		275Vac		35Vdc			
Rated Current		1A @ 240Vac		2A @ 24Vdc			
Minimum Output		12Vac @ 50mA		1.5Vdc @ 1mA			
Off-state leakage current		1mA		0.01mA			
	On-state voltage drop		1.1Vac		0.3Vdc		
Response	OFF>ON	10mS			0.05mS		
Time	ON>OFF	10mS			0.25mS		

#### 2 Output Wiring

Model	Top Connector Terminal Number (left to right)											
Model	1	2	3	4	5	6	7	8	9	10	11	12
DQM212	1C	NO	NC	2C	NO	NC	3C	NO	NC	4C	NO	NC
DQM204	1C	NO		2C	NO		3C	NO		4C	NO	
DQM205	1C	NO		2C	NO		3C	NO		4C	NO	
Model	Bottom Connector Terminal Number (left to right)											
Model	1	2	3	4	5	6	7	8	9	10	11	12
DQM212	5C	NO	NC	6C	NO	NC	7C	NO	NC	8C	NO	NC
DQM204	5C	NO		6C	NO		7C	NO		8C	NO	
DQM205	5C	NO		6C	NO		7C	NO		8C	NO	
C = Common NO=Normally Open NC=Normally Closed <empty>=No Connect</empty>												

#### 2.1 CsCAN Network Wiring

Color		Signal	Description		
•	Red	V+	DC Power In		
	White	CAN_H	CAN Data High		
		SHIELD	Shield Ground		
	Blue	CAN_L	CAN Data Low		
	Black	V-	CAN Ground		

#### 2.2 CsCAN Network ID



The CsCAN Network ID is set using two 16-position rotary switches labeled HI and LO. Addresses 01-FD hex (1-253 decimal) are legal in CsCAN. To convert the readings in hex on the rotary switches to the eqivalent decimal value, use the following equation:

ID (decimal) = HI x 16 + LO

#### 3.0 Software Configuration

The DQM modules are configured in Cscape as a 16pt SmartStix Output module. Sixteen bits of output reference data (e.g. %Q) are assigned to the unit. The first eight bits control the relay outputs, and the last eight bits are unused.

#### 3.1 LED Status Indication

Each output has an ON status LED physically located next to the relay on the DQM module. There is also a PWR LED (lit when DC power is applied), and CsCAN status LEDs labeled MS (module status) and NS (network status). Those LEDs are described below.

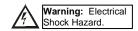
Diagnostic LED	State	Meaning			
	Solid Red	RAM or ROM test failed			
MS: (Module Status)	Blinking Red	I/O test failed			
wis. (Wodule Status)	Blinking Green	Module is in power-up state			
	Solid Green	Module is running normally			
	Solid Red	Network Ack or Dup ID test failed			
	Blinking Red	Network ID test failed			
NS: (Network Status)	Blinking Green	Module is in Life Expectancy default			
	Dilliking Green	state			
	Solid Green	Network is running normally			

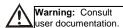
#### 4 Installation / safety

**Warning:** Remove DC and AC power from the relay module and any peripheral equipment connected to this local system before adding or replacing this or any module.

a. All applicable codes and standards should be followed in the installation of this product.

When found on the product, the following symbols specify:





#### 5 Technical Support

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