QUAD Dry Output Modules

DRY5Q
DRY12Q
DRY15Q
DRY24Q

Features

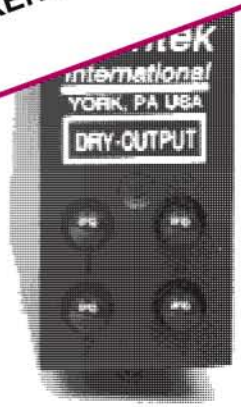
designs

- *AC/DC Switching*
- *Fits Industry Quad*
- *Operating*
- *3* *Warranty*

OBSOLETE Series

Please Note: The Gx2-QUAD Adapter provides a direct 'plug-in' upgrade for the DRY5Q Series. The adapter fits into a QUAD Socket location and accepts (2) Gx2-Series Modules.

Please contact Brentek Technical Support at 1-800-BRENTEK (1-800-273-6835) for application assistance.



Description

DRY5Q QUAD Series Dry Output modules offer true DRY CONTACT switching of AC/DC large and small signals. Direct compatibility with industry standard I/O mounting racks and high reliability make this series ideal for harsh industrial control applications. The input is active-low and accepts TTL, CMOS and open-collector logic control signals. Available types include 5V, 12V, 15V and 24V logic operation, as well as FORM A and FORM B contacts.

The versatile DRY CONTACT outputs offer zero OFF-state leakage current, low ON-state resistance, zero load current, high power factor load switching as well as the capability to control large and small signals, eliminating the need for separate AC and DC module types.

I/O System power-down defaults are easily configured by selecting FORM 1A and FORM 1B contacts for predetermined I/O points for fail-safe applications.

Output Contact Specifications

PARAMETER	STANDARD FORM 1A	-B Option FORM 1B	-5A Option FORM 1A	UNITS
Switching Voltage	175/250	140/200	250/30	ac/dc Volts
Switching Current	1	0.5	5	Amps
Carry Current	2	1	5	Amps
VA Rating	20	10	1250	VA
Initial Contact Resistance	0.15	0.15	0.03	Ohms

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*Absolute Maximum Ratings

Supply Voltage (pins 3 & 5)..... (see Vcc below)
Logic Input (pins 4 & 5)..... –0.5V, Vcc + 5V
Ambient Operating Temperature..... –20° to +70°C

*NOTE: STRESSES ABOVE THOSE LISTED UNDER ABSOLUTE MAXIMUM RATINGS MAY CAUSE PERMANENT DEVICE DAMAGE. OPERATION AT THESE RATINGS FOR EXTENDED PERIODS MAY AFFECT RELIABILITY.

Recommended Operating Parameters

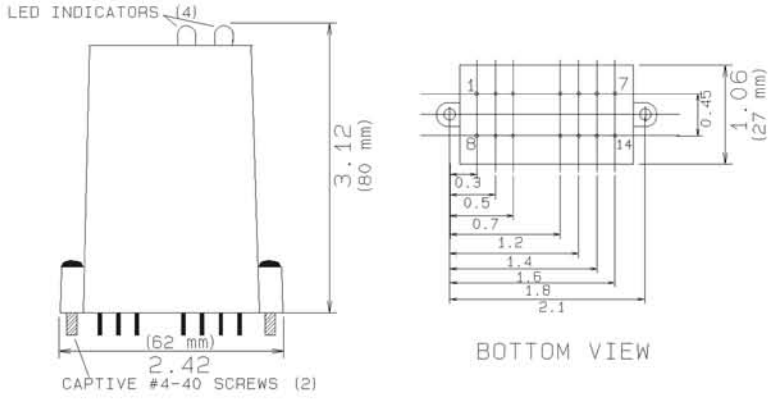
SYMBOL	PARAMETER	LIMITS			UNIT	CONDITION
		MIN	TYP	MAX		
Vcc	Supply Voltage (DRY5Q) (DRY12Q) (DRY15Q) (DRY24Q)	4.5 10.8 13.5 21.6		5.25 14.0 18.0 28.0	Vdc	Pins 4-7 and 11-14
Icc	Supply Current		11	16	mAdc	Per Output -Note 4
TA	Ambient Temp.	-20		+70	°C	Operating
ton	Pick-up Time (operate)		0.5	1	mSEC	Note 1
toff	Dropout Time (release)		0.25	1	mSEC	Note 1
VIL	Input Logic Voltage Low		1.0	0.8	V	DRY5Q
VIH	Input Logic Voltage High	3.0	2.4		V	DRY5Q
Ri	Insulation Resistance	10^{10}				OHMS @ 20°C
I_{IL}	Input Logic Low Current			-500	μA	DRY5Q, Note 2

Notes:

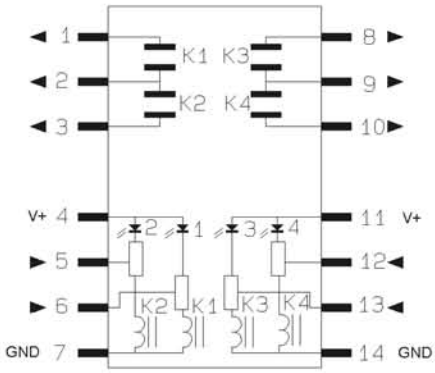
1. Maximum Pick-up and Drop-out times are 10 mS for outputs with the "-5A" option.
2. Each input has an internal pull-up resistor, no Input High current is required. Unit may be driven from Open-Collector logic. Input Low current rating is -2.5mA for output with the "-5A" option.
3. Each coil is suppressed with a clamping diode not shown.
4. Supply Current per active output for -5A Option is 48mA (5 volt models) and 24mA (12V & 15V models).

Dimensions

Dimensions are in inches except where noted otherwise.



Schematic Diagram



Part Numbering

DRY__Q__

Examples:

DRY5Q - 5V, 4 FORM A outputs
DRY12Q-1B-4B - 12V, Outputs 1 & 4 FORM B, 2 & 3 FORM A

Supply Voltage

5 Volt - 5
12 Volt - 12
15 Volt - 15
24 Volt - 24

Options

FORM 1B (Output#1) - -1B
FORM 1B (Output#2) - -2B
FORM 1B (Output#3) - -3B
FORM 1B (Output#4) - -4B

5 Amp Contacts (all 4) - -5A
FORM B Contacts (all 4) - -B

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