

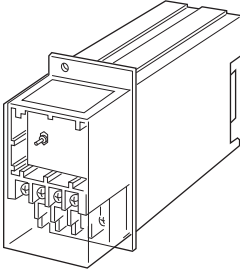
## High-density Signal Conditioners 10-RACK

/C03: Rubber coating

### CONTACT OUTPUT MODULE

#### Functions & Features

- Accepting status signals from a DCS
- Controlling valve operations
- External switches enables to switch valve operation to manual mode and to direct/reverse actions
- Internal switch enables manual operation under DCS control



### MODEL: 10BOS-1-R[1]

#### ORDERING INFORMATION

- Code number: 10BOS-1-R[1]  
Specify a code from below for [1].  
(e.g. 10BOS-1-R/Q)
- Specify the specification for option code /Q  
(e.g. /C01)

#### INPUT

Status signal from DCS

#### OUTPUT

Relay contact (two)

#### POWER INPUT

##### DC Power

R: 24 V DC

(Operational voltage range 24 V  $\pm$ 10 %, ripple 10 %p-p max.)

#### [1] OPTIONS

blank: none

/Q: With options (specify the specification)

#### SPECIFICATIONS OF OPTION: Q

**COATING (For the detail, refer to M-System's web site.)**

/C01: Silicone coating

/C02: Polyurethane coating

#### GENERAL SPECIFICATIONS

**Construction:** Rack-mounted; terminal access via screw terminals at the front and via card-edge connector at the rear; terminal cover provided

#### Connection

**Input:** M3.5 screw terminals (torque 0.8 N·m)

**Output:** M3.5 screw terminals (torque 0.8 N·m)

**Power input:** Supplied from card-edge connector

**Screw terminal:** Nickel-plated steel

**Housing material:** Flame-resistant resin (black)

**Isolation:** Input or power to output

**Test switch:** LED indicator

#### INPUT SPECIFICATIONS

**Input:** Status signal from DCS

**Coil rating:** 24 V DC @ 20 mA max.

#### OUTPUT SPECIFICATIONS

**Output:** Relay contact (two)

**Rating:** 220 V AC @ 5 A ( $\cos \phi = 1$ )

24 V DC @ 5 A (resistive load)

Electrical life  $\geq 1 \times 10^5$  cycles

**Maximum switching voltage:** 264 V AC or 100 V DC

**Minimum load:** 5 V DC @ 10 mA

**Mechanical life:**  $5 \times 10^7$  cycles

For maximum relay life with inductive loads, external protection is recommended.



MAN/DCS SW	INPUT				OUTPUT					
	MAN.SWITCH		SW	PULSE OUT. CARD		LED BACK	LED FWD	LED REV	OUTPUT	
	FWD	REV		FWD	REV				FWD	REV
OFF			AUTO	ON	ON	OFF	ON	ON	ON	ON
					OFF	OFF	ON	OFF	ON	OFF
				OFF	ON	OFF	OFF	ON	OFF	ON
					OFF	OFF	OFF	OFF	ON	OFF
				FWD	ON	OFF	ON	OFF	ON	OFF
					OFF	ON	OFF	ON	OFF	ON
			REV	ON	ON	OFF	OFF	ON	OFF	ON
					OFF	OFF	OFF	ON	OFF	ON
				OFF	ON	OFF	OFF	ON	OFF	ON
					OFF	OFF	OFF	ON	OFF	ON
				ON	ON	OFF	OFF	ON	OFF	ON
					OFF	OFF	OFF	ON	OFF	ON
ON	ON	ON	ON	ON	ON	ON	ON			
		OFF	ON	ON	OFF	ON	OFF			
		OFF	ON	ON	OFF	ON	OFF	ON		
			OFF	ON	OFF	ON	OFF	ON		
	OFF	ON	ON	ON	ON	ON	ON			
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		OFF	ON	OFF	ON	OFF	ON			

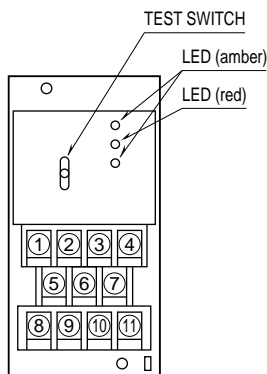
## INSTALLATION

**Current consumption:** Approx. 40 mA  
**Operating temperature:** -5 to +55°C (23 to 131°F)  
**Operating humidity:** 30 to 90 %RH (non-condensing)  
**Mounting:** Standard Rack 10BXx  
**Weight:** 300 g (0.66 lb)

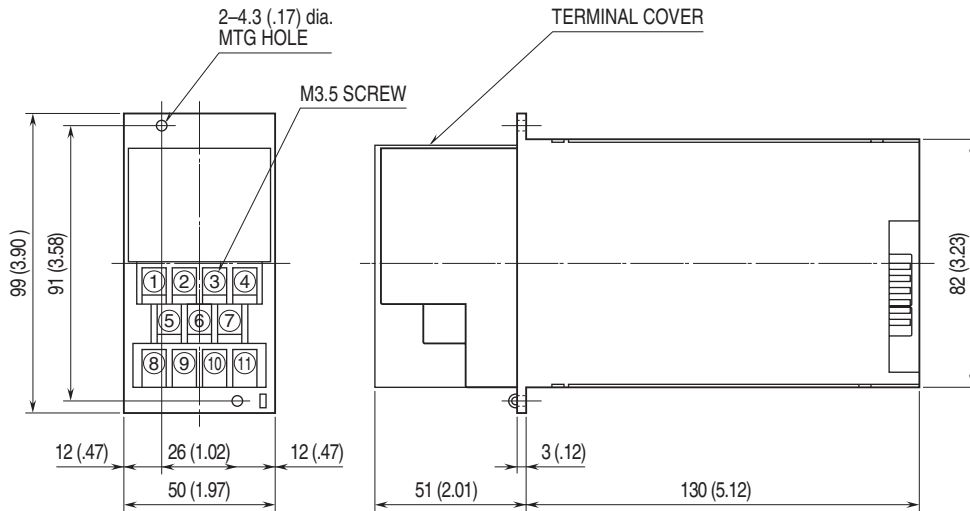
## PERFORMANCE

**Insulation resistance:**  $\geq 100 \text{ M}\Omega$  with 500 V DC  
**Dielectric strength:** 1500 V AC @ 1 minute  
 (input or output to power)  
 1500 V AC @ 1 minute (output to ground)

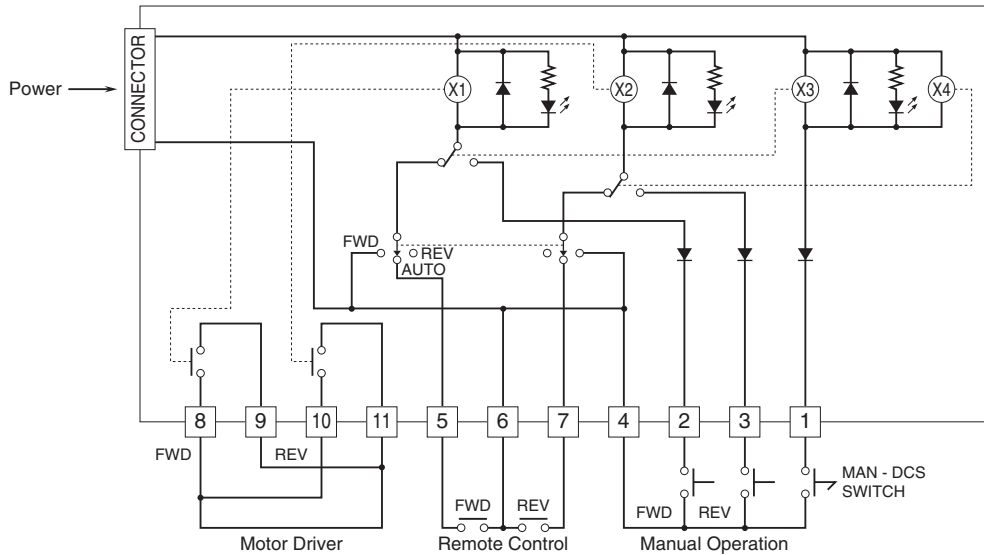
## EXTERNAL VIEW



## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.