rev	change date	revision	name
A	04.05.23	Add BTC relay to 850-B4A02 C	DJG

naming . | material no | ind | material

dwn by: BJW | Date 10.20.2014

scale NONE

4/6/2023 4:58 PM

ProMation

WD-850-B4A0R

WD-850-B4A0R.dwg

On/Off wiring diagram for 120VAC PB(O) CW Spring Return with internal motor thermo-switch bypass out (BTC) relay op.

REV A

Wiring Diagram

0° - 5° *
5° - 90° *
COM *
85° - 90° *
0° - 85° *
COM *
* CONNECTIONS OPTIONAL

ACL
ANC
ACC
AOP
ANO
AOC

F BLK16
E BRN16
D WHT16
C GRY16
B BLU16
A RED16

AUXILIARY SWITCH (STANDARD)
AS4 RED CAM
AS3 GRN CAM
NO
COM
NC

SPRING RTN (FULL CW)
LOAD SPRING (FULL CCW)
-5° 0° 5° 85° 90° 95°
F
E
D COM SW4
C
B
A COM SW3

Thermal Circuit
Open - Thermal Overload Circuit is functional and motor will stop due to Motor Over Temperature
Closed - Thermal Overload Circuit is bypassed Motor will NOT stop running due to Motor Over Temperature

Relay Coil Voltage specified at Purchase

Thermal Circuit Dry Contact

Relay Isolates Motor circuit and can be in series with other isolation relays

H
N
120VAC LINE IN

FIELD CONTROL DEVICE
LOAD

GND

GND Screw

HOT
DRV
NEU

THERMAL SWITCH
7
6
5
4
3
1
15W 6K8 HEATER
BLU16
WHT16
RED16

WHT22 - NOT POLARIZED
24VDC Brake
BLK16
BLU16
RED16
THERMAL SWITCH
Capacitor
M
120V AC DRIVE MOTOR

SA176H 408-30278
250V 6.3A 5x20 FB
120/230:24VDC DCPS
(perm attach to base PCB)
J1
J2
J3
LD1
LD2
LD3
LD4
U2

LS2
COM RED CAM NC
GRY22 NON POLARIZED

LS1
COM GRN CAM NC
BLU22 NON POLARIZED

LED1 - Power

LED3 - Fully OPEN Position

LED 2 - Driving in the LOAD Direction.

LED 4 - In Spring Return and Restart Delay after Power Trip.

FIELD WIRING

INTERNAL ACTUATOR WIRING

OPEN showing in indicator window = FULLY LOADED (CCW)

CLOSED showing in indicator window = FULL SPRING RTN (CW)

Actuator ships in the fully UNLOADED (CW) position!

COM NO NC
TO J1 GRY22
TO J3 BLU22
RED AS4
GRN AS3
RED LS2
GRN LS1

Switch Stack Detail

Use For:

PB/PBO-CW-1202S4-BTC w/ relay

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