CIRCUIT DRAWN WITH POWER SUPPLY OFF
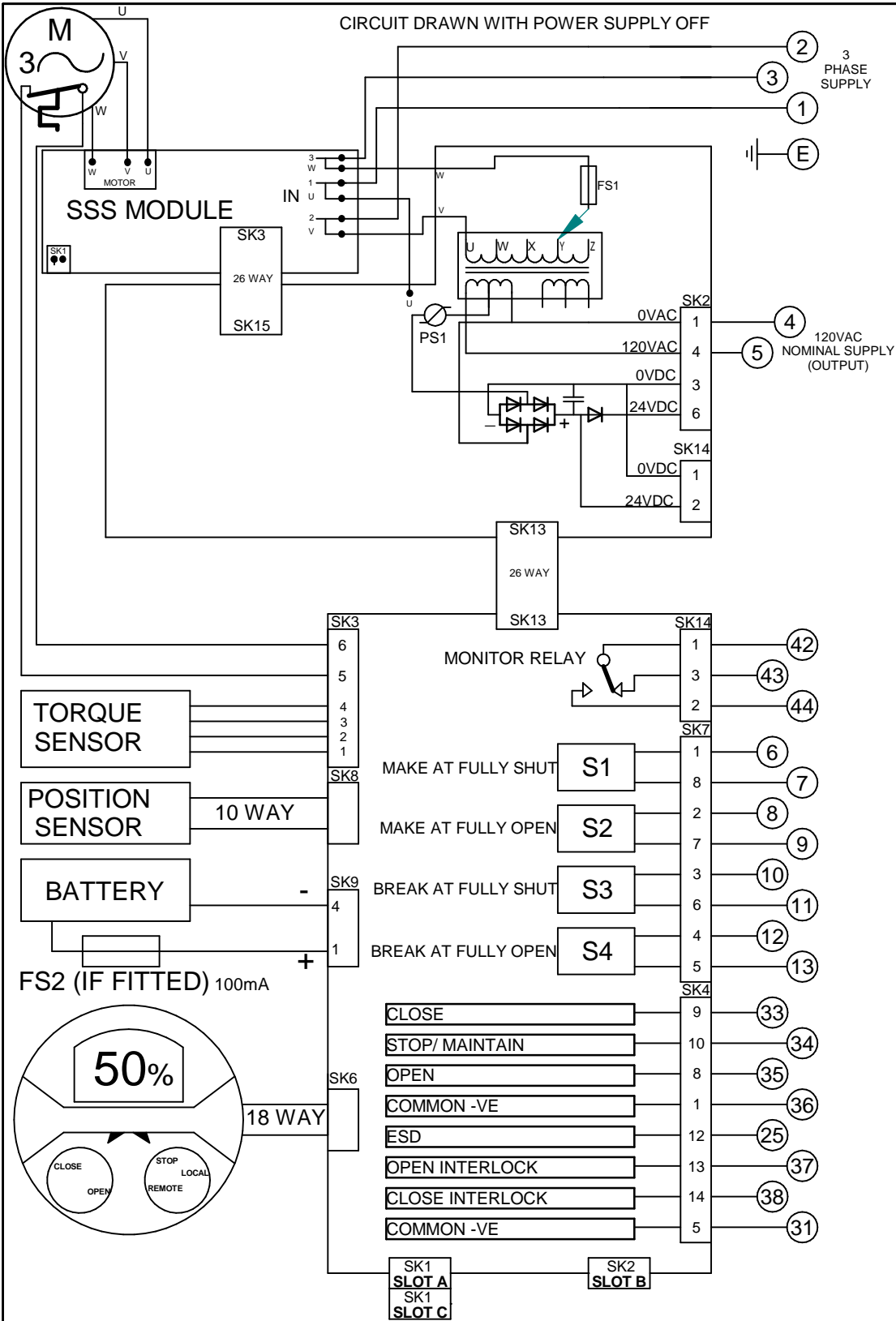
M 3 ~

U
V
W
MOTOR
W V U

SSS MODULE

SK1

SK3
26 WAY
SK15

3 W
1 U
2 V
IN

FS1

U W X Y Z

PS1

| TRANSFORMER TAPPING OPTIONS | |
| --- | --- |
| Tap | Nominal 50/60Hz |
| TYPE 1 | |
| W | 220/230 |
| X | 380/400 |
| Y | 400/415/420 |
| Z | 440/460 |
| FUSE FS1=250mA ANTI-SURGE | |
| TYPE 2 | |
| W | 346/380 |
| X | 480/500 |
| Y | 240/240 |
| Z | 550/575 |
| FUSE FS1=250mA ANTI-SURGE | |

3 PHASE SUPPLY

2
3
1
E

SK2
0VAC   1
120VAC 4
0VDC   3
24VDC  6

4
5
120VAC NOMINAL SUPPLY (OUTPUT)

SK14
0VDC  1
24VDC 2

SK13
26 WAY
SK13

REFER TO SHEET 2 FOR NOTES & OPTION PCB'S IF FITTED

THE ACTUATOR MUST BE PROTECTED USING SUITABLY RATED HIGH SPEED SEMI-CONDUCTOR FUSES ON THE INCOMING SUPPLY.
SUGGESTED FUSES :-
IQ10-20:10 Amp FERRAZ G330010
IQ25-35:20 Amp FERRAZ K330013
ALTERNATIVES =
IQ10-20:10 Amp SIBA 50-179-06/10A
IQ25-35:20 Amp SIBA 50-179-06/20A
OR EQUIVALENT PROTECTIVE DEVICE.

SK3
6
5
4
3
2
1

TORQUE SENSOR

SK8
POSITION SENSOR          10 WAY

SK9
BATTERY    -    4
               1
FS2 (IF FITTED) 100mA    +

50%
CLOSE
OPEN
STOP
LOCAL
REMOTE

SK6
18 WAY

MONITOR RELAY

SK14
1   42
3   43
2   44

MAKE AT FULLY SHUT    S1
MAKE AT FULLY OPEN    S2
BREAK AT FULLY SHUT   S3
BREAK AT FULLY OPEN   S4

SK7
1   6
8   7
2   8
7   9
3   10
6   11
4   12
5   13

SK4
CLOSE            9   33
STOP/ MAINTAIN   10  34
OPEN             8   35
COMMON -VE       1   36
ESD              12  25
OPEN INTERLOCK   13  37
CLOSE INTERLOCK  14  38
COMMON -VE       5   31

SK1 SLOT A
SK1 SLOT C
SK2 SLOT B

| Iss | Date | Chkd | Revision Details |
| --- | --- | --- | --- |
| 1 | 030314 | JC1 | First Issue. Slot A PUB Ref. changed to 003 |
| 2 | 120614 | JBA | |
| 3 | 030816 | PW | Updated notes on page 2 for modulating. |

www.rotork.com

ROTORK CONTROLS LTD
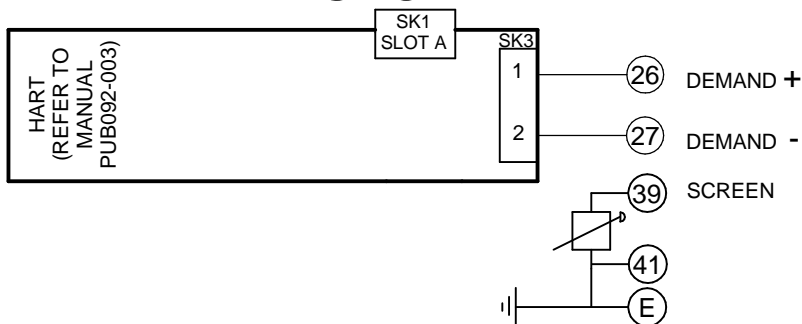BATH, BA1 3JQ
ENGLAND
Tel:01225-733200

ROTORK CONTROLS INC
ROCHESTER
NY 14624, USA
Tel:585-247-2304

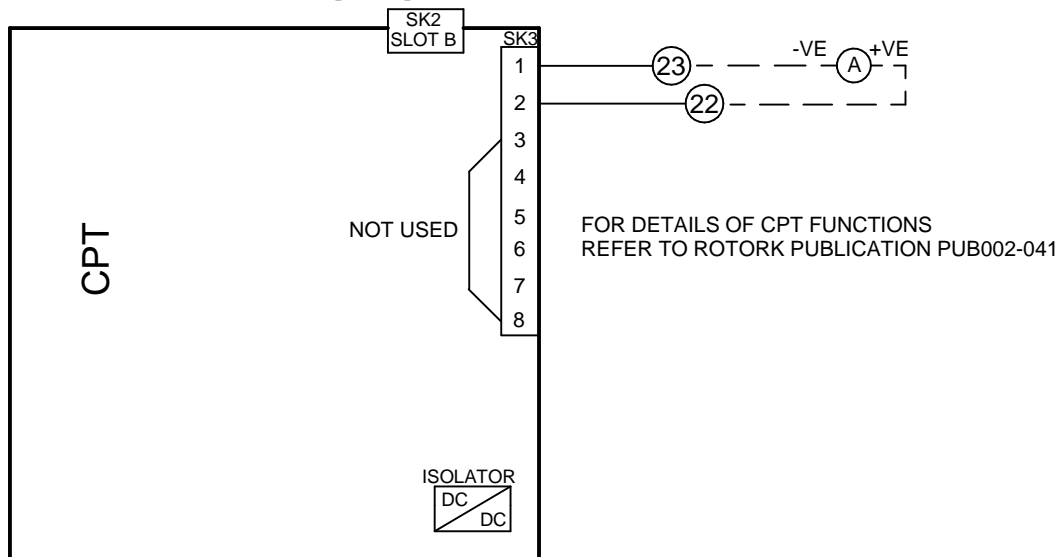IQM + 120VAC CUSTOMER SUPPLY + CPT + HART + EXTRA RELAYS S5-S8

Drawn by: PJW
Date    : 030314
Base WD: 211H2010
Job No   : - -
MI No    : - -
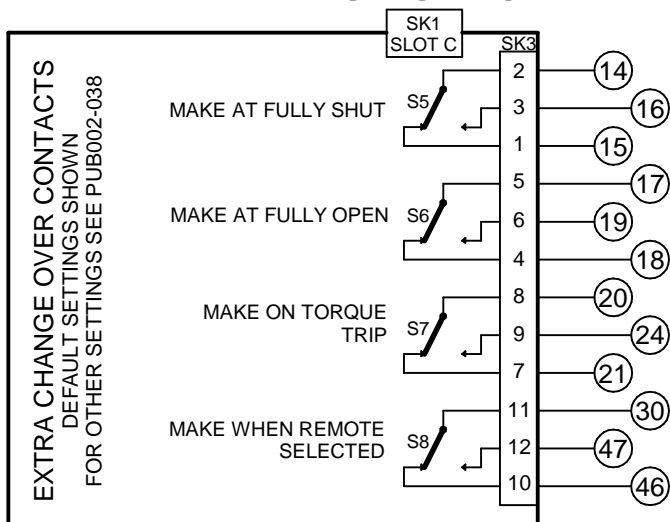
Circuit Diagram Number
211H2010
B1 C1 B2 C2 B1 C1 M1 V1

Issue No
3

Sheet
1
of 2

IQ3

# SLOT A

SK1
SLOT A
SK3

HART
(REFER TO MANUAL PUB092-003)

1 — 26 DEMAND **+**

2 — 27 DEMAND **-**

39 SCREEN

41

E

# SLOT B

SK2
SLOT B
SK3

CPT

NOT USED

1 — 23 — — -VE (A) +VE

2 — 22 — — — — —

3
4
5
6
7
8

FOR DETAILS OF CPT FUNCTIONS
REFER TO ROTORK PUBLICATION PUB002-041

ISOLATOR
DC
DC

# SLOT C

SK1
SLOT C
SK3

EXTRA CHANGE OVER CONTACTS
DEFAULT SETTINGS SHOWN
FOR OTHER SETTINGS SEE PUB002-038

MAKE AT FULLY SHUT — S5

2 — 14
3 — 16
1 — 15

MAKE AT FULLY OPEN — S6

5 — 17
6 — 19
4 — 18

MAKE ON TORQUE TRIP — S7

8 — 20
9 — 24
7 — 21

MAKE WHEN REMOTE SELECTED — S8

11 — 30
12 — 47
10 — 46

## NOTES

**1.FUSES:**
-PS1 is a self-resetting fuse.
-Refer to publication PUB002-039 for approved fuses FS1 and FS2.
-Actuator rated voltage specified on nameplate. Voltage tolerance +/-10%, applies for rated torque performance; duty cycle is not gauaranteed.

**2.REMOTE CONTROL:**
-For typical remote control circuits refer to:
  -RWS indicated or PUB002-041.
-For DC control, connect –ve to terminal 36.
-(For negative switch / positive common, refer to RWS indicated).
-Control signal threshold voltages:
  -DC: "on" ≥16Vdc / "off" ≤8Vdc, max 60Vdc.
 -Control signal duration to be 100ms minimum.
-Maximum current drawn from remote control signals is:
  -8mA at 24Vdc .
-Supply provided on terminals 4 & 5:
  -NOT Intended for remote control.
  -Max external load 5VA at 120Vac

**3.INDICATION:**
-For typical position, status and alarm indication see PUB002-041.
-"S" contacts are user configurable and are shown in their default setting.
-Refer to PUB002-040 for functions and configuration instructions.
-Monitor Relay indicates actuator availability for remote control (shown "unavailable"). It can be configured to exclude local/remote selection.
-Refer to PUB002-040 for monitored functions and configuration instructions.
-Voltage applied to indication contacts must not exceed 150Vac
-Individual Switch current must not exceed 3.5A inductive, 5A resistive and no more than 8A in total for all 4 contacts.

**4.BATTERY:**
-Battery maintains local and remote "S" contact indication only.
-Refer to installation manual for approved replacement battery types.

| Circuit Diagram Number | Issue No | Sheet |
|---|---|---|
| 211H2010 | 3 | 2 of 2 |

See Sheet 1 for all Revision details/information

IQ3