

CIRCUIT DRAWN WITH  
POWER SUPPLY OFF

FOR TYPICAL REMOTE CONTROL  
DETAILS SEE DOCUMENT  
**RWS301**

TRANSFORMER TAPPING OPTIONS

TYPE 1

TAP	NOM 50/60HZ	50HZ	60HZ
W	220/230	176-242	198-259
X	380/400	304-418	342-446
Y	415/420	332-457	374-487
Z	440/460	352-484	396-517

FUSE FS1 - 250mA ANTI-SURGE

TYPE 2

TAP	NOM 50/60HZ	50HZ	60HZ
W	346/380	285-388	321-419
X	480/500	406-552	432-564
Y	240/240	192-261	216-282
Z	550/575	445-605	501-654

FUSE FS1 - 250mA ANTI-SURGE

TYPE 3

TAP	NOM 50/60HZ	50HZ	60HZ
X	660/660-690	534-726	600-726
Y	690/---	558-759	

FUSE FS1 - 150mA ANTI-SURGE

ALL TRANSFORMER TYPES - PS1 SELF  
RESETTING  
FUSE

NOTE

REFER TO PUBLICATION E170E FOR  
APPROVED FUSES FS1 AND FS2.

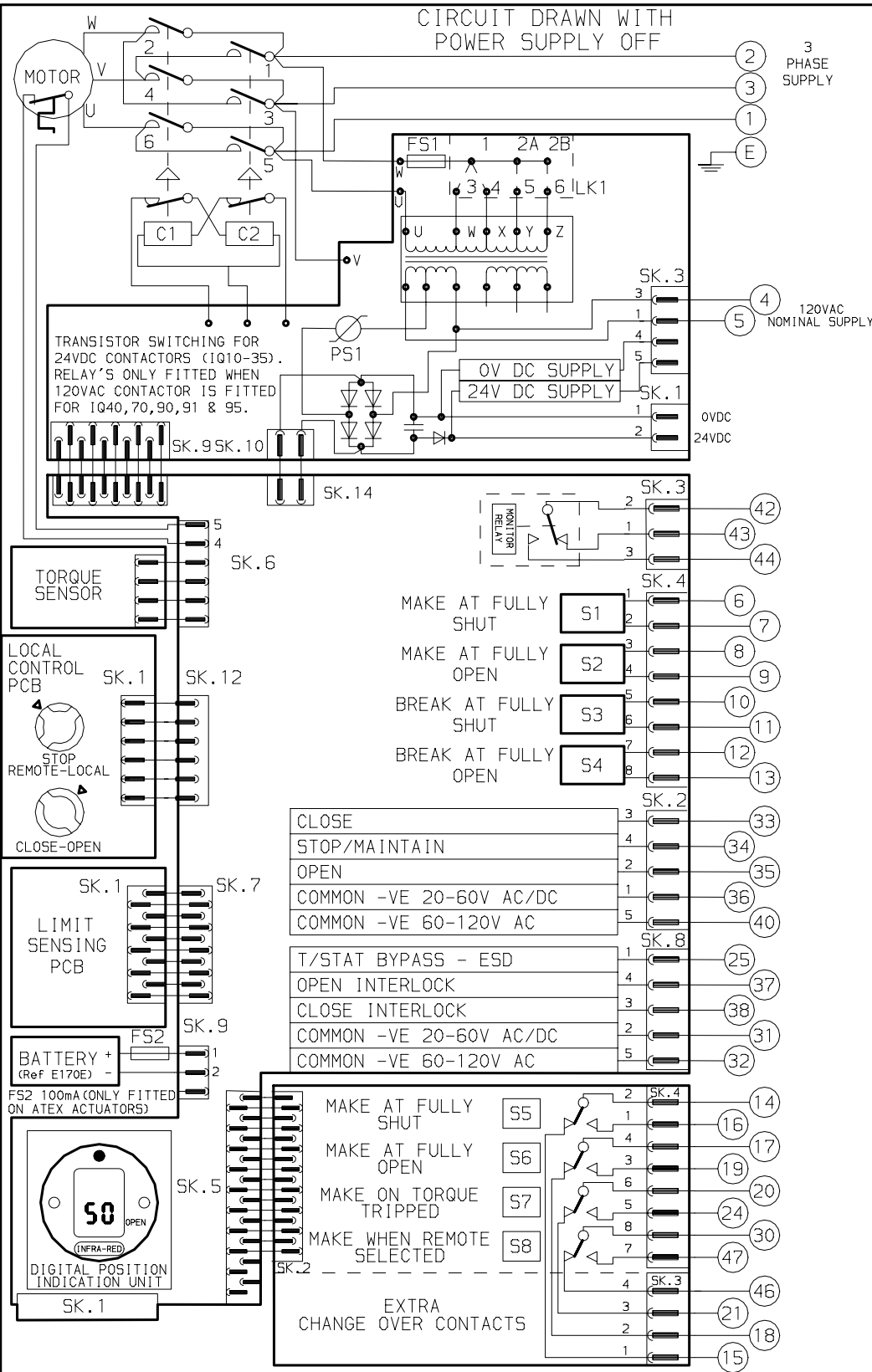
MAX EXTERNAL LOAD ON TERMINALS  
4 & 5 TO BE 15VA.

CONTROL SIGNAL THRESHOLD VOLTAGES  
TO BE MINIMUM 'ON' 20V AC/DC  
MAXIMUM 'OFF' = 3V  
MINIMUM CONTROL SIGNAL DURATION  
TO BE 300MS.

CURRENT DRAWN FROM EACH REMOTE  
CONTROL SIGNAL IS 5mA ON 24V DC  
OR 12mA ON 120V AC

WIRES ARE IDENTIFIED AT EACH END  
BY TERMINAL No. OR TAG No.

INDICATION CONTACTS S1-S4 AND EXTRA  
INDICATION CONTACTS S5-S8 ARE SHOWN  
IN THEIR DEFAULT CONFIGURATION.  
CONTACTS MAY BE CONFIGURED FOR ANY  
OF THE FUNCTIONS DESCRIBED IN E170E



TRANSISTOR SWITCHING FOR  
24VDC CONTACTORS (IQ10-35).  
RELAY'S ONLY FITTED WHEN  
120VAC CONTACTOR IS FITTED  
FOR IQ40, 70, 90, 91 & 95.

TORQUE  
SENSOR

LOCAL  
CONTROL  
PCB

LIMIT  
SENSING  
PCB

BATTERY +  
(Ref E170E) -

DIGITAL POSITION  
INDICATION  
UNIT

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

CLOSE  
STOP/MAINTAIN  
OPEN  
COMMON -VE 20-60V AC/DC  
COMMON -VE 60-120V AC  
T/STAT BYPASS - ESD  
OPEN INTERLOCK  
CLOSE INTERLOCK  
COMMON -VE 20-60V AC/DC  
COMMON -VE 60-120V AC

MAKE AT FULLY  
SHUT S5  
MAKE AT FULLY  
OPEN S6  
MAKE ON TORQUE  
TRIPPED S7  
MAKE WHEN REMOTE  
SELECTED S8  
EXTRA  
CHANGE OVER CONTACTS

No	DATE	REVISION DETAILS
03	301004	DIAGRAM RE-FORMATTED TO SEPERATE REMOTE CONTROL CIRCUITRY (See 'RWS' Ref)

**www.rotork.com**  
ROTORK CONTROLS LTD  
BATH, BA1 3JQ  
ENGLAND  
Tel: 01225-733200  
ROTORK CONTROLS INC  
ROCHESTER  
NY 14624, USA  
Tel: 585-328-1550

CONFIG BY PRE  
DATE 081004  
CHECKED PJW  
BASE WD 3100-001  
JOB No --  
M.I.No .

**IQ + INDICATION RELAYS  
120VAC CUSTOMER SUPPLY**  
CIRCUIT DIAGRAM No -REV  
**3100-001-03**  
B1 C1 B2 C2 B1 C1 M1 V1