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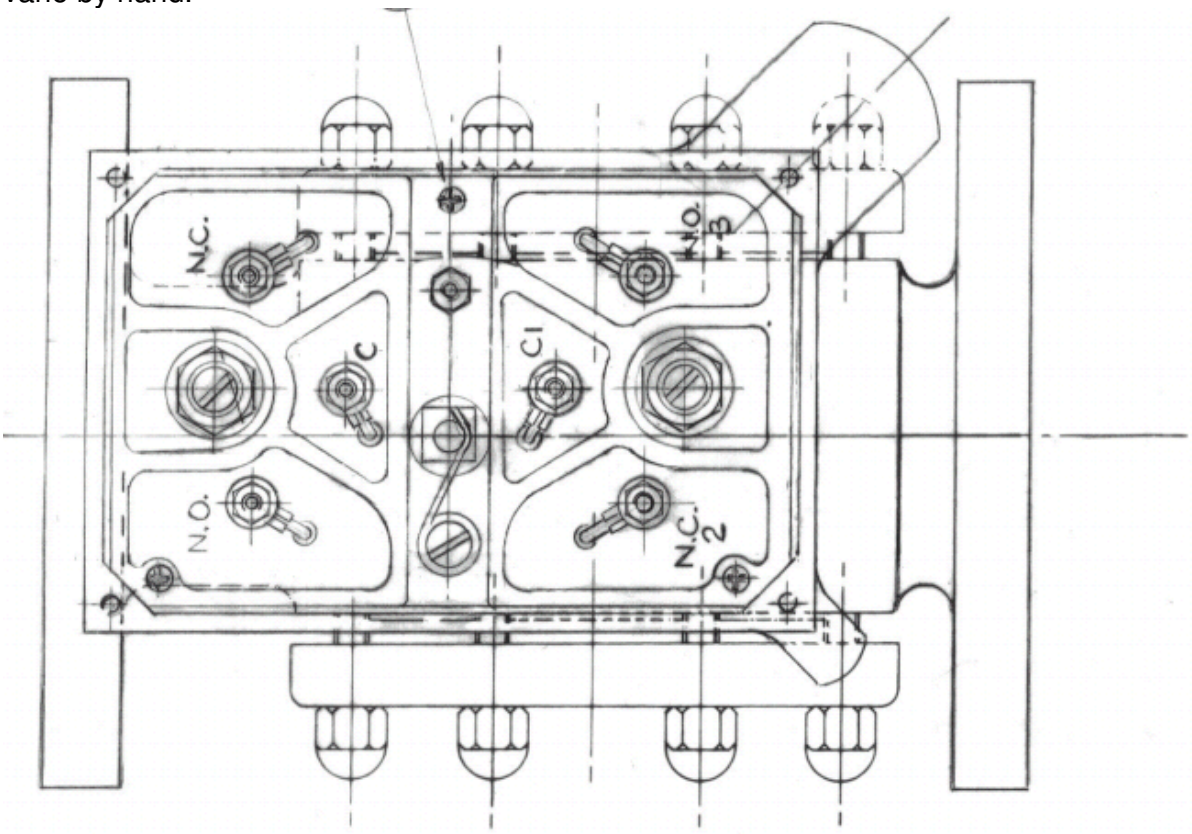
Ajax

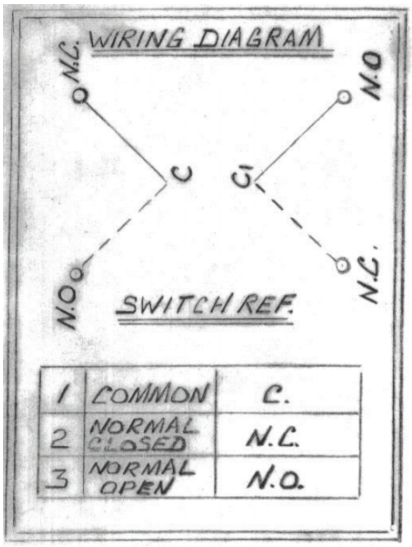
INSTALLATION & OPERATING INSTRUCTIONS
"*AJAX*" ELECTRIC FLOW INDICATOR - DOUBLE SWITCHBOX MODEL
GENERAL ARRANGEMENT DRAWING NO. 321/2319

Carefully unpack the instrument and clear any loose packing material which may have entered the inside of the body. Check with the order or delivery note to see if the instrument is arranged for horizontal, upward or downward flow. If the instrument is of the flanged type, the mating flanges should be true parallel. Use a soft packing of cork or rubber or a corrugated metallic joint, and tighten flange bolts evenly. If a stop valve is fitted in circuit the instrument should be fitted after this.

ELECTRICAL CONNECTIONS. By removing cover plate from the top of the switchbox the terminal plate is accessible (see Drg. No. 321/2319). The lead entry is tapped M25 x 1.5P conduit and it is suggested that a short length of flexible conduit be used adjacent to the switchbox. The connections marked (C) **"common"** on the terminal plate are the supply to the switch, there are Terminals marked (NC) **"normally closed"** (when no liquid is flowing) The (NO) **"normally open"** connections for the Alarm Set Point condition. Connections can be checked by removing a sight window and operating the vane by hand.



VIEW ON ARROW 'W' WITH SWITCHBOX COVER AND GASKET REMOVED



WIRING DIAGRAM

Double Switchbox using 2 OFF SPDT Microswitch, see our General Arrangement Drawing No. 321/2619A for additional information

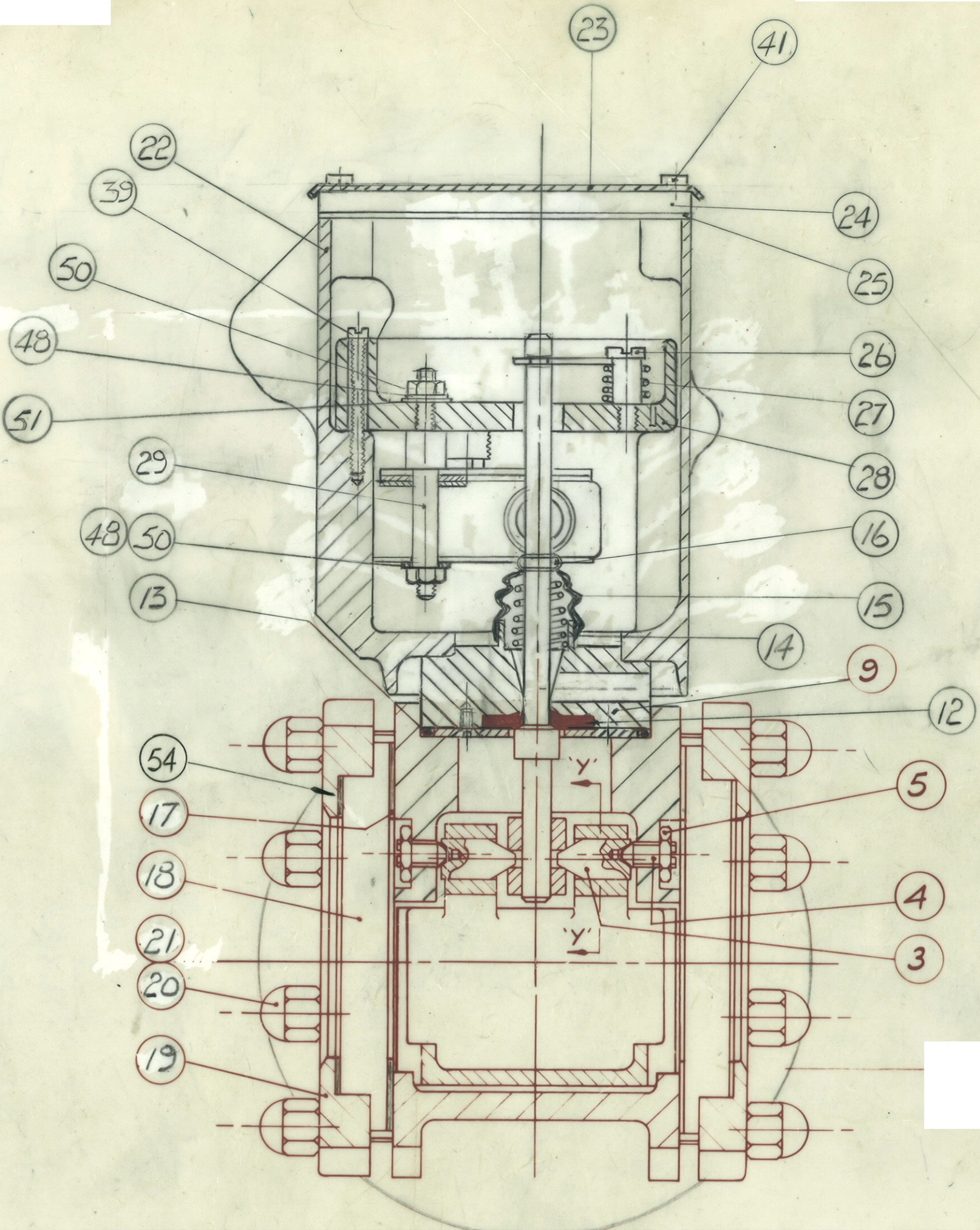
Switch Type	Plunger Microswitch
Normal Position	Normally Open (NO), Normally Closed (NC)
Voltage	250 Volt AC
Current	15 Amp

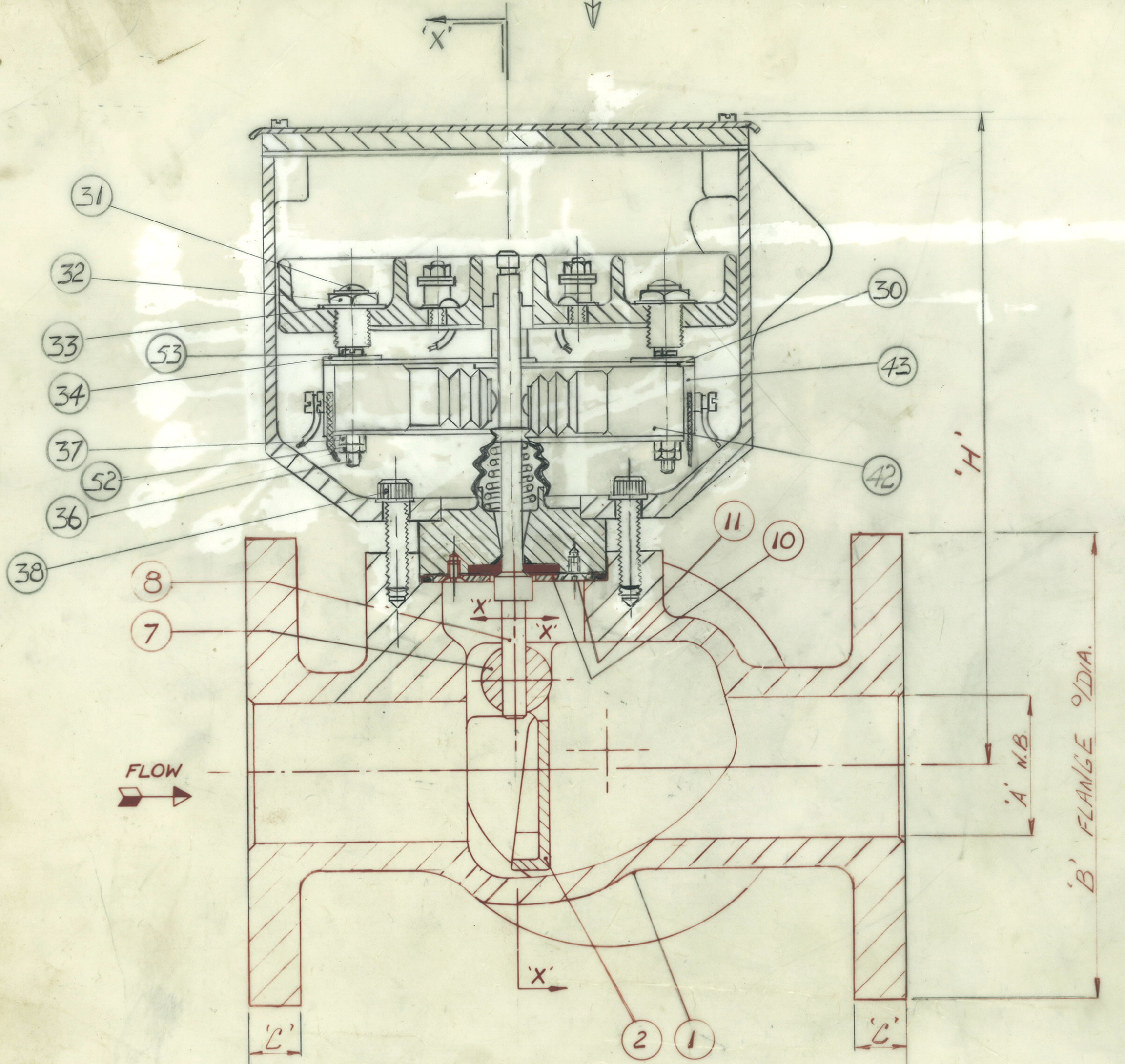
ELECTRICAL RATINGS

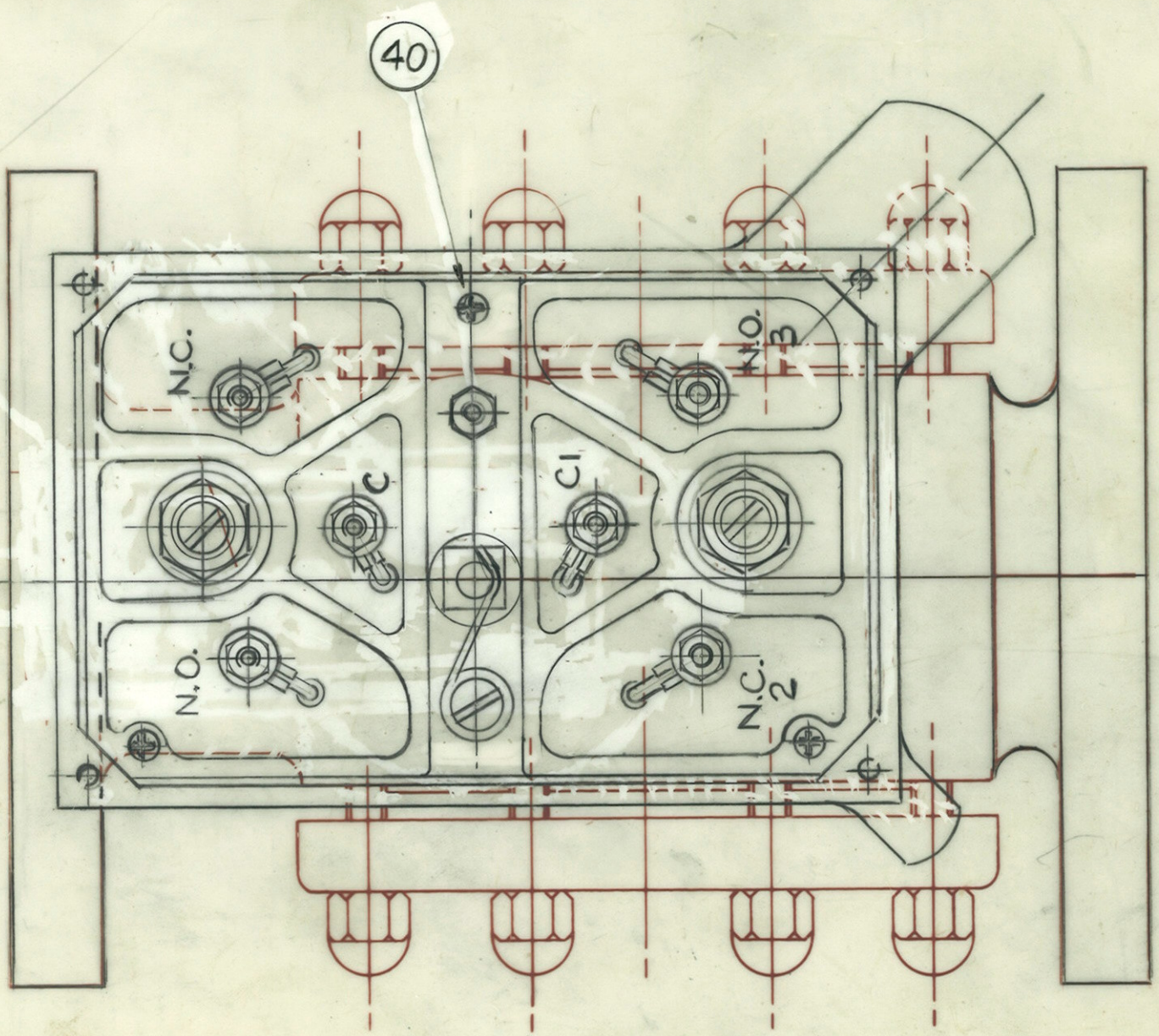
AC (RESISTIVE) :	15A, 125V or 15A, 250V or 15A, 440V
AC (INDUCTIVE) :	15A, 125V or 15A, 250V or 4A, 440V
DC (RESISTIVE) :	0.5A, 125V or 0.25A, 250V
DC (INDUCTIVE) :	0.05A, 125V or 0.03A, 250V

ADJUSTMENT

The following sequence has been found best for adjustment. Increase the liquid flow through the instrument to well above the safe minimum quantity (if out of the pipeline, operate the vane manually to simulate this condition), back of the locknuts (32) on the adjusting screw (31) one half turn, rotate the adjusting screw until the micro switches are changing over at this higher flow. Now reduce the liquid flow to the trip setting required and adjust the micro switches to the required setting - rotating the adjustment screw clockwise. Check the operation of the instrument and if satisfactory re-fit cover. If no Isolating Valve is fitted the water supply should be cut off. One window can then be removed, and the vane manually operated. The relative maximum vane deflection having been ascertained before cutting off water supply. The above procedure should then be followed.


23
41
22
39
24
50
25
48
26
51
27
29
28
48
50
16
13
15
14
9
12
54
'Y'
5
17
18
4
'Y'
21
3
20
19


'X'
31
32
33
53
34
37
52
36
38
8
7
30
43
42
11
10
'H'
'A' M.B
'B' FLANGE O/DIA.
FLOW
'X'
'X'
'X'
'L'
'L'
2
1


40
N.C.
C
C1
N.O.
3
N.O.
N.C.
2

DISMANTLING

If the occasion arises for the instrument to be dismantled, the following sequence must be adhered to. (Removal from the pipeline makes the operation much more convenient). Remove the switchbox cover screws (41) and three screws (39/40) on the terminal plate assembly and withdraw from housing. After removal of this assembly it is recommended, where practical, that the micro switch (42) positions are not disturbed. However, if existing switches have to be replaced, their positions should be carefully marked on micro switch support plate (30) prior to removal. Unscrew switchbox anchor bolts (38). With the switchbox now removed, the entire spindle and sealing assembly can be withdrawn, but under NO circumstances should this unit be further dismantled. Remove windows and bezels. Back off vane locknuts and unscrew pivots. The vane assembly can now be removed.

NOTE: The spindles are handed and should not be reversed. When re-assembling, the reverse to this sequence must be followed. The pivots should be adjusted so that there is neither stiffness nor play in the vane.

NOTE: Before replacing the switchbox cover make sure that the compensating spring (27) is replaced in the groove on the operating spindle (8).

The following tools are necessary for the above work:-

(1) Small and Large Screwdrivers
(2) 7/16" A/F Tube Spanner
(3) Allen Key 3/16" A/F
(4) 9/16" A/F Tube Spanner

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