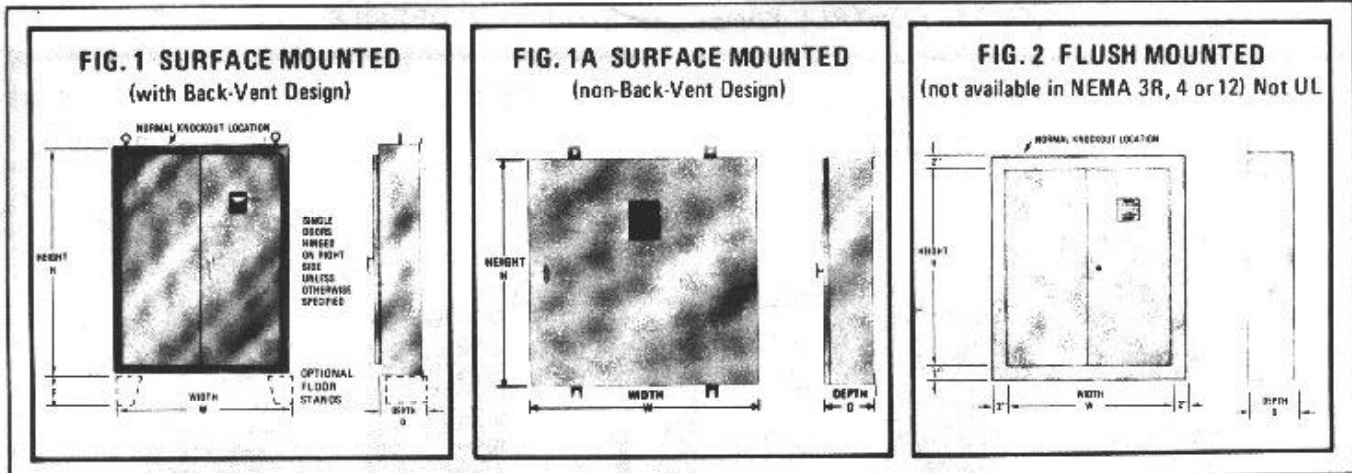


**SUBMITTAL DATA
REMOTE CONTROL PANELS
GENERAL DESCRIPTION AND BUILT-IN FEATURES**



KEY TO OPTIONAL CONTROL FEATURES

- | | | | |
|--|--|--|---|
| <p>2. Magnetic Contactor, Disconnecting
A. Back-Up
B. Safety
E. Operating</p> <p>4. Mercury Contactor, Disconnecting
A. Back-Up
B. Safety
C. Horizontal Airflow
D. Vertical Airflow
E. Operating</p> <p>5. Fuses, Main Supply (Applicable only to heaters with 48A or less total current)</p> <p>6. Fuses, One Set Per Step</p> <p>7. Fuses per NEC, 48A Maximum per Circuit</p> <p>8. Automatic Circuit Breakers, Main Supply (Applicable only to panels with 48A or less total current)
B. Handle Protrudes Thru Cover
C. Handle Concealed
D. Interlocking Handle</p> <p>9. Automatic Circuit Breakers, One Per Step
(Use Key 8 Options)</p> <p>10. Automatic Circuit Breakers per NEC, 48A Maximum per Circuit Breaker (Applicable to panels exceeding 48A total current)
(Use Key 8 Options)</p> <p>11. Transformer
A. With Primary Fusing
B. With Secondary Fusing
C1. Used as Fan Interlock-120V Primary
C2. Used as Fan Interlock-208V Primary
C3. Used as Fan Interlock-277V Primary
C4. Used as Fan Interlock-480V Primary</p> | <p>C5. Used as Fan Interlock-240V Primary</p> <p>14. Fan Interlock Relay
A. 24 Volts
B. 120 Volts
C. 208/240 Volts
D. 277 Volts
E. 480 Volts</p> <p>15. Disconnect Switch—Main
A. Fused, Interlocking
C. Nonfused, Interlocking</p> <p>16. Pilot Light(s)
A. One Per Step
B. Control Voltage On
C. Power On (Line Volts)
D. Normal Operation
E. Airflow Switch Open
F. Manual Reset Thermal Cutout On
G. Push-To-Test Type
H. Waterproof (Not UL)
J. Overtemperature
K. NEMA 12
L. Heater On</p> <p>17. Toggle Switch(es)
A. One Per Step
B. Interrupts Control Voltage
C. Momentary Test
D. NEMA 12</p> <p>18. PE Switches
A. Close on Pressure Rise (Reverse Acting)
1. Fixed Differential
2. Adjustable Differential
B. Open on Pressure Rise (Direct Acting)
(Use Key 18-A Options)
C1. Furnished by Others, Installed, Wired, Piped and Calibrated by Brasch</p> | <p>C2. Furnished by Others, Installed and Wired by Brasch</p> <p>D1. Furnished, Installed, Wired, Piped and Calibrated by Brasch</p> <p>D2. Furnished, Installed and Wired by Brasch</p> <p>21. Step Controller(s)
A1. Direct Acting Pneumatic Signal
A2. Reverse Acting Pneumatic Signal
C. Furnished by Others, Installed and Wired by Brasch
D. Furnished, Installed and Wired by Brasch
Q. Vernier
S1. Single Input-1000 Ohm Balco Sensor
S2. Single Input-135 Ohm Signal
S3. Single Input-4-20 MA Signal
S4. Single Input-0-16 VDC
S5. Single Input-6-9 VDC
S6. Single Input-0-10 VDC
T. Dual Input-1000 Ohm Balco Sensor
V. Step Controller Carries Load
P. Pilot Duty Application</p> <p>22. SCR Controller(s)
A. Horizontal Airflow
B. Vertical Airflow
H. 1K-50K Thermistor Input
J1. Pneumatic Input-Direct Acting
J2. Pneumatic Input-Reverse Acting
K. 0-135 Ohm Input
L. 0-16 VDC Input
M. 0-10 VDC
Q. Vernier
S. 1000 Ohm Nickel or Balco Sensor Input
T. 4-20 ma, DC Input
U. 6-9 VDC Input
V. Other Input (Specify)
W. Disconnecting Contractors</p> | <p>23. Door Interlock Switch
A. Defeatable Door Switch
B. Nondefeatable Door Switch
C. Interrupting Relay</p> <p>24. Time Delay Relay</p> <p>31. 1 Phase Circuits from 3 Phase, 3 Wire Supply</p> <p>32. 1 Phase Circuits from 3 Phase, 4 Wire Supply</p> <p>35. Other (see Certified Print or Order Acknowledgment for details)</p> <p>38. Pressure Transducer (Pneumatic to 135 Ohm)
A. Direct Acting
B. Reverse Acting
C. Furnished by Others, Installed and Wired by Brasch
D. Furnished, Installed, and Wired by Brasch</p> <p>52. Special Line Blocks for Single Supply Circuit (over 285 amps total current)</p> <p>53. Motor Starter (Not UL)
A. With Hand-Off-Auto Button
B. With Start-Stop Button
C. Furnished by Others, Installed, Wired and Tested by Brasch
D. Furnished, Installed, Wired, and Tested by Brasch
E. With Motor Branch Circuit Fusing</p> |
|--|--|--|---|

KEY TO ENCLOSURE CONSTRUCTION

- | | |
|--|--|
| <p>300. Standard (UL Listed for Indoor Use)
A. Back-Vent (Fig. 1)
B. Nonback-Vent (Fig. 1A)
C. NEMA 1</p> <p>301. Flush Mounted (Figure 2; not UL 30"x30" and over)</p> <p>302. NEMA 3R Panel (Water Resistant for Outdoor Use, Not UL)</p> <p>303. NEMA 4 Panel (Water Resistant for Outdoor Use, Not UL)</p> <p>304. NEMA 12 Panel (Dusttight for Indoor Use)</p> <p>305. Lifting Eyes</p> | <p>306. Floor Stands
A. Height F = 6"
B. Height F = 12"
C. Height F = 18"
D. Height F = 24"</p> <p>307. Ventilation Grilles</p> <p>308. Forced Ventilation (not UL)</p> <p>316. Non-UL Due to Special Construction</p> <p>317. Knockout Location
A. Top
B. Bottom
C. Right Side
D. Left Side</p> |
|--|--|

BRASCH

MANUFACTURING COMPANY, INC.

REMOTE CONTROL PANEL CONSTRUCTION DETAILS

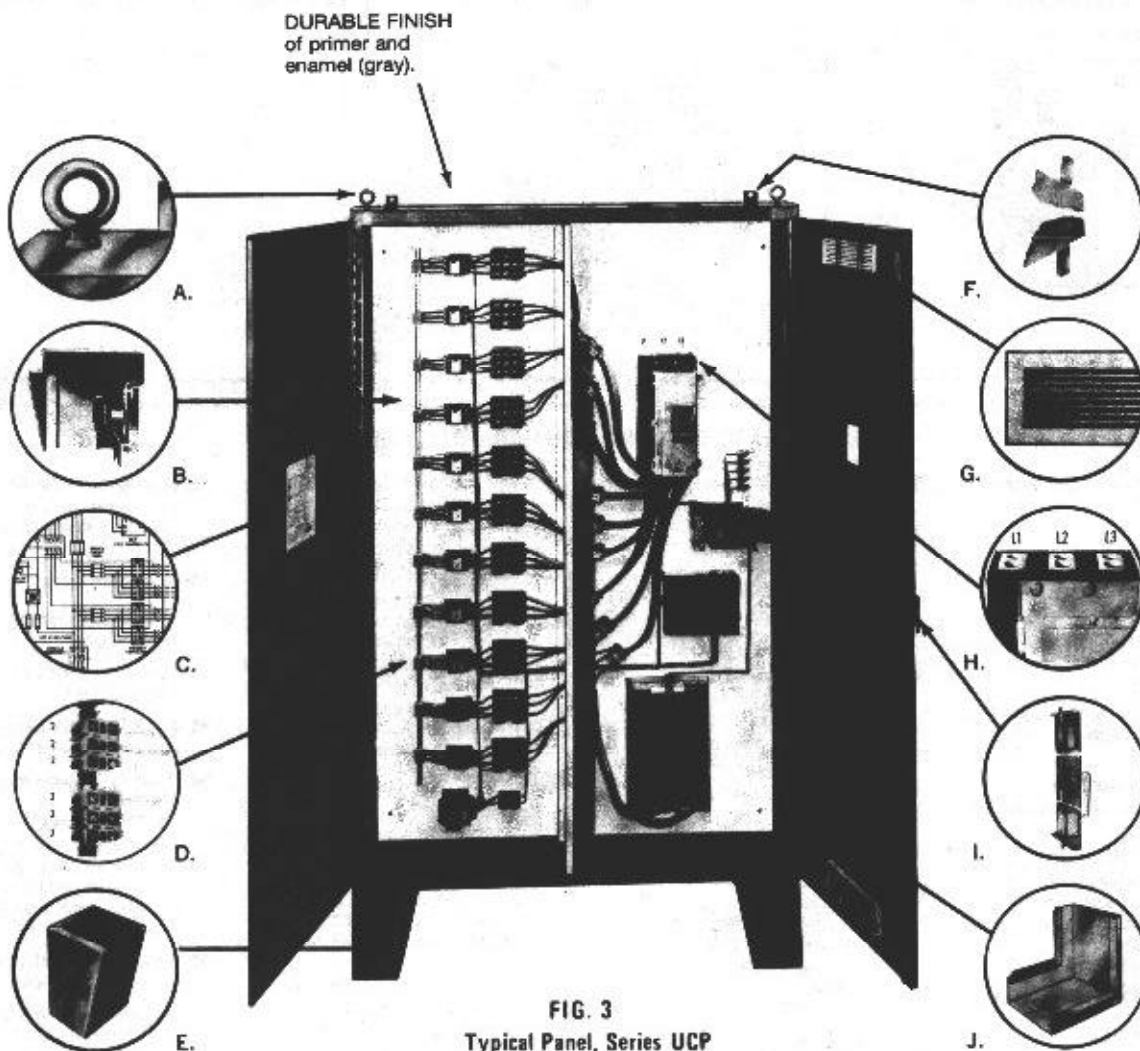


FIG. 3
Typical Panel, Series UCP

CONSTRUCTION DETAILS

All panels are UL Listed Under File No. E 46202 unless otherwise noted on Certified Print or Order Acknowledgment.

- | | |
|--|--|
| <p>A. Lifting Eyes are standard on panels exceeding 72" in width or height; optional on smaller sizes.</p> <p>B. Back-Vent Design (US Patent No. 3,681,663) allows air circulation between removable component panel board and frame channel.*</p> <p>C. Wiring Diagram shows detailed internal and external connections to panel and recommended supply wire gauges.</p> <p>D. Load Terminals, properly sized and clearly marked, are coordinated for connection to heater terminals.</p> <p>E. Floor Stands (optional) facilitate installation and allow panel to be free standing if desired.</p> | <p>F. Wall Mounting Brackets are offset to allow air to recirculate behind panel; not supplied on nonback-vent panels (Fig. 1A) which have internal mounting holes.</p> <p>G. Ventilation Grilles are standard on panels containing components requiring extra cooling.</p> <p>H. Line Terminals, properly sized and clearly marked. Wiring diagram indicates whether terminals are suitable for copper or aluminum wire.</p> <p>I. All panels have lock and key as standard; NEMA 3R and 4 panels have provisions for locking.</p> <p>J. Unique Frame Design using multiple angle forming produces exceptional rigidity.</p> <p>K. Hinged Doors are standard; one door furnished on panels up to 42" wide (hinged on the right-hand side). Two doors are furnished on all panels over 42" wide.</p> |
|--|--|

*Available only on Standard UL Listed panels per Fig. 1, Key No. 300A.

See reverse side for mounting information and Key to Built In Features.