

GEC

'RED SPOT'

HRC FUSE HOLDERS



GEC INSTALLATION EQUIPMENT LTD

'RED SPOT' fuse holders to BS88: Part 2: 1975

660 Volts AC

Safety features

- Full Shrouding for personnel safety and complete compliance with the direct contact electric shock requirements of the 15th Edition of the IEE Wiring Regulations
- Insulating sleeves are fitted to front connected fuse bases to provide increased protection at the cable entry point
- Separate base contact insulating shrouds of great strength and flexibility ensure that no 'live' metal is dangerously exposed when the fuse carrier is removed – this enables an outgoing circuit to be cabled with complete safety to personnel and with continuity of supply to other circuits.
- Anti-vibration features protect against release of a fuse-carrier due to vibration in service. In the 400 amp size this includes a safety catch which automatically locks on the insertion of the fuse carrier

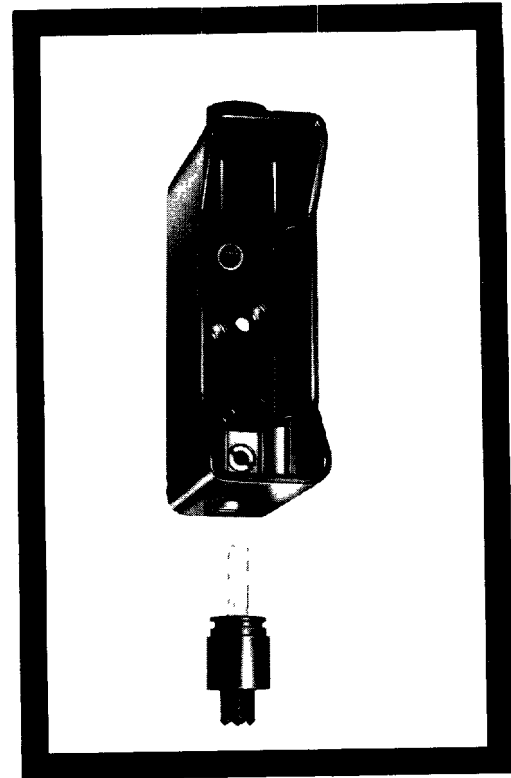
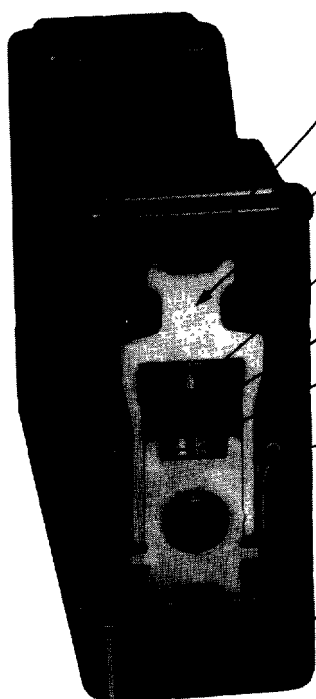


FIG 1 Front connected fuse base with terminal shroud removed for cabling

'RED SPOT' 20, 32, 63 & 100 amp fuse holders



- Perfect alignment of contacts with single-screw fixing achieved by registration on facets in moulding
- Large contact area and anti-vibration feature incorporated in brass contacts of accurate dimensions
- Tapered shank of fuse link fixing screw ensures easy re-entry
- Safety shroud (cut-away to show base contact) made from moulded red nylon of great strength and flexibility
- Patented non-twist cable clamping screw of large diameter complying with CEEB requirements for Category II duty
- Lasting contact pressure ensured by backing stirrups which are located by the shape of the base contact and the moulding
- Carrier and base moulded from flame retardant, non-hygroscopic phenolic

FIG 2 Cut-away view of 63 amp front connected contact assembly.

List Numbers for ordering purposes

| Rating amp | Alternative type of connection | | | *Also available with CEGB Cat 1 terminations (List No RST20H) †Also available for flush mounting with sealing facility (List No. RS20F) |
|------------|--------------------------------|--------|------------|--|
| | FRONT | BACK | FRONT/BACK | |
| 20 | *RS20H | †RS20P | RS20PH | |
| 32 | RS32H | RS32P | RS32PH | |
| 63 | RS63H | RS63P | RS63PH | |
| 100 | RS100H | RS100P | RS100PH | |
| 200 | RS200H | RS200P | RS200PH | |
| 400 | RS400H | RS400P | RS400PH | |

Illustrations & dimensions shown on pages 5,6, & 7

'RED SPOT' 200 & 400 amp fuse holders

High quality mouldings, safety shrouds and precision made copper contacts ensure reliable operation

Additional special features

- Through grip handle for maximum control
- Silver plated contacts with generous cross section
- Guides to ensure parallel action on insertion or withdrawal of fuse carrier
- Patented non-twist cable clamping screws of large diameter on the 200 amp and cable clamping plate on the 400 amp fuse holders prevent damage to cables
- Terminal screw locking device, incorporating the principle used in the twelve sided spanner, can be fitted to the hexagon head of the terminal screw, whatever its' position when fully tightened, by using one of the two positions provided for locating the captive screw (arrowed in FIG 3)

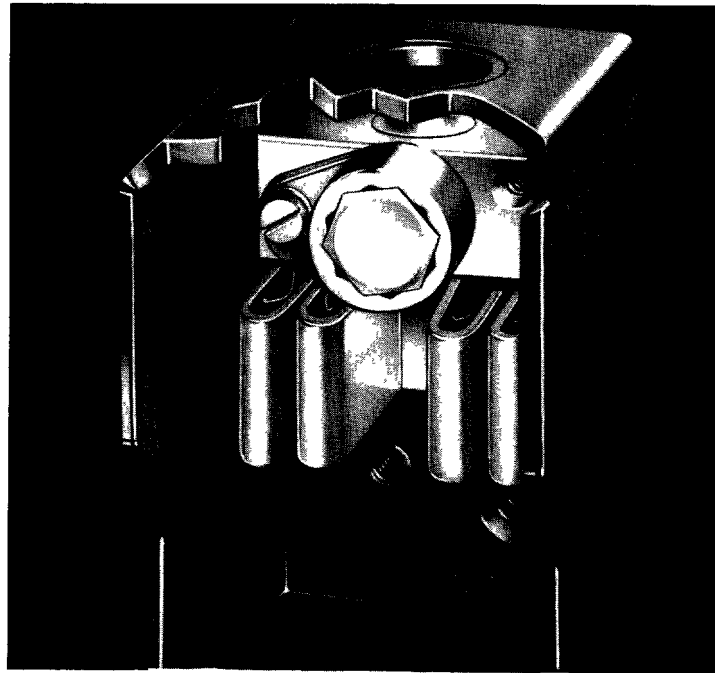


FIG 3 Front connected 200 amp 'Red Spot' fuse base with shroud removed and with moulding partly cut-away to show silver plated base contact and terminal screw locking device

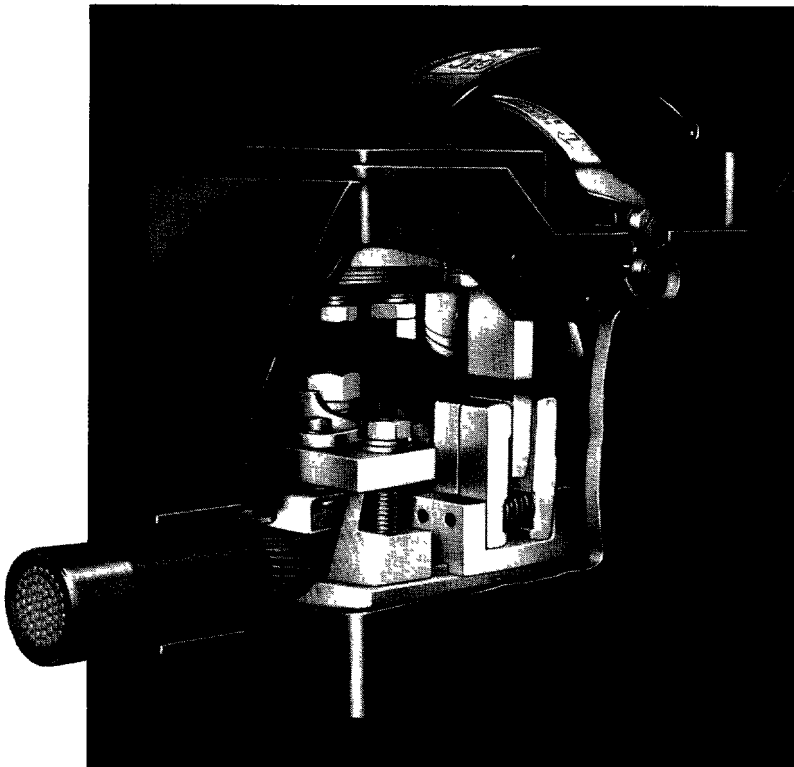


FIG 4 Front connected 400 amp 'Red Spot' fuse holder with moulding partly cut-away to show silver plated contacts, red nylon shroud and cable clamping device

Approvals

Approved by leading Authorities including CEGB * (Approval No 29) and used in equipment approved by Lloyds

† Back connected types approved for Categories of duty I & II Front connected types approved for Category of duty II

RST20H (see list numbers) front connected type approved for Category of duty I

H.R.C. Fuse links accommodated

| Fuse holder rating amp | Type 'T' to BS 88 Part 2 1975 660 volts a c | Extended range of Type 'T' to BS 88 Part 2 1975 for motor circuit protection (660 volts a c) | | |
|------------------------|---|--|--------------------|-------------------------------|
| | | List No | Current rating amp | Rating for motor starting amp |
| 20 | NIT2-20A (550 volts a c) | NIT20M25 | 20 | 25 |
| | | NIT20M32 (415 volts a c) | 20 | 32 |
| 32 | TIA2-32A | TIA32M35 | 32 | 35 |
| | | TIA32M40 | 32 | 40 |
| | | TIA32M50 | 32 | 50 |
| | | TIA32M63 | 32 | 63 |
| 63 | TIA2-32A TIS35-63A | TIS63M80 | 63 | 80 |
| | | TIS63M100 | 63 | 100 |
| 100 | †TIA2-32A †TIS35-63A TCP80 & 100A | TCP100M125 | 100 | 125 |
| | | TCP100M160 | 100 | 160 |
| | | TCP100M200 | 100 | 200 |
| 200 | TBC2-63A TC80 & 100A TF125-200A | TF200M250 | 200 | 250 |
| | | *TF200M315 | 200 | 315 |
| 400 | TKM 250 & 315A TM355 & 400A | TM400M450 | 400 | 450 |

† Adaptor plate required List No P5372/10
* 550 volts a c

Note For full details on Type 'T' fuse links, including d c performance, please refer to Publication IEF/401

Coloured Fuse holders

The standard finish is black, but fuse holders moulded in white, grey or green CEGB approved colours, can be supplied For ratings and types available see Price list FG/127

Method of cabling

Front connected fuse holders

- 1) Remove red nylon insulating shroud to release cable sleeve
- 2) Remove cable sleeve
- 3) Fit cable sleeve over cable.
- 4) Fit conductor into fuse base terminal and tighten cable clamping screw to secure. If flexible cables are used, their relatively fine strands may be given increased protection by the use of thin wall copper ferrules over the conductor ends The following should be taken into account
 - a) The inside diameter of the thin wall copper ferrule should match that of the bared conductor end as closely as possible
 - b) The length of the thin wall copper ferrule should match that of the tunnel in the fuse base terminal
 - c) The wall thickness of the ferrule should be thin enough for the ferrule to be compressed by the tightening of the cable clamping screw The flexible conductors will then be consolidated within the deformed ferrule
- 5) Replace red nylon shroud taking care that it holds the cable sleeve in position by locating the shroud in the groove provided in the sleeves

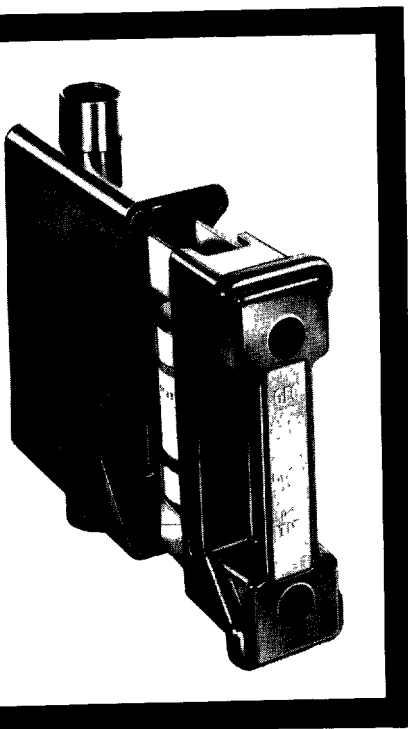


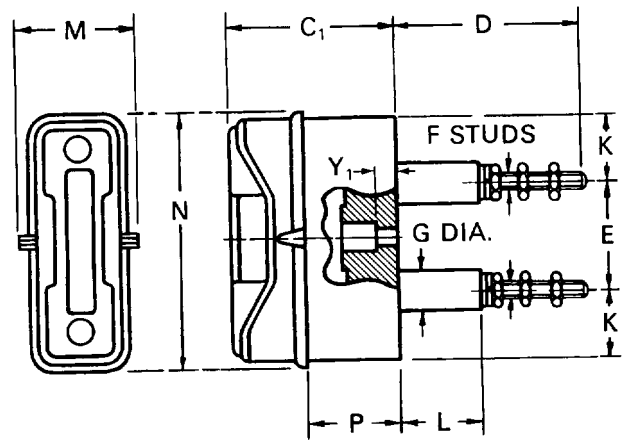
FIG 5 Front connected 63 amp fuse holder

DIMENSIONS

in millimetres and inches

20 amp 'RED SPOT' FUSE HOLDERS

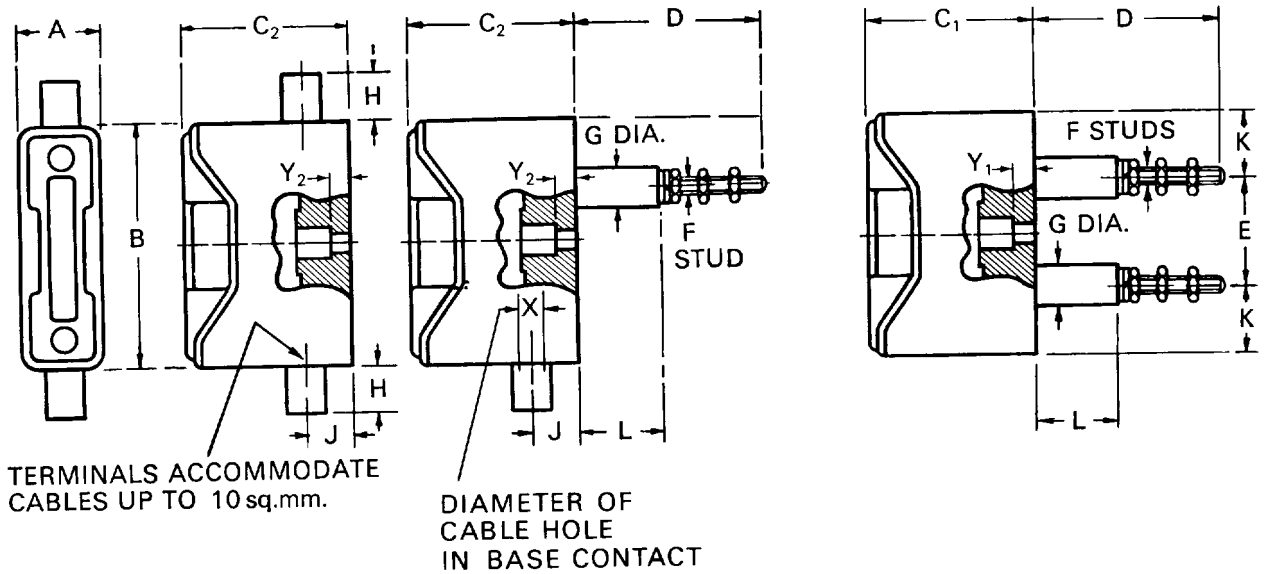
BACK CONNECTED - FLUSH



FRONT CONNECTED

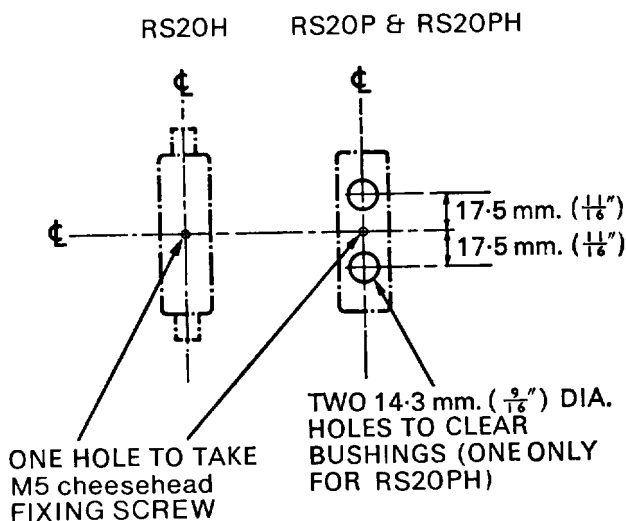
FRONT/BACK CONNECTED

BACK CONNECTED - SURFACE

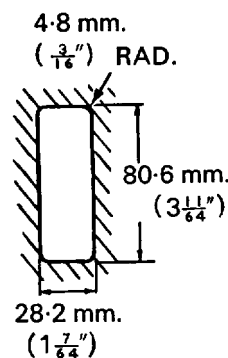


| | A | B | C | C ₂ | D | E | F | G | H | J | K | L | M | N | P | X | Y | Y ₂ |
|----|--------------------------------|-------------------------------|-------------------------------|--------------------------------|---------------------------------|-------------------------------|----|--------------------------------|--------------------------------|------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|-----|------|----------------|
| mm | 27.0 | 79.4 | 54.0 | 55.0 | 62.7 | 34.9 | M6 | 13.5 | 15.1 | 15.9 | 22.2 | 28.6 | 38.1 | 83.3 | 30.2 | 5.8 | 5.56 | 6.6 |
| in | 1 ¹ / ₁₆ | 3 ¹ / ₈ | 2 ¹ / ₈ | 2 ⁵ / ₃₂ | 2 ¹⁵ / ₃₂ | 1 ³ / ₈ | — | 1 ⁷ / ₃₂ | 1 ⁹ / ₃₂ | 5/8 | 4 ⁷ / ₈ | 1 ¹ / ₈ | 1 ¹ / ₂ | 3 ³ / ₃₂ | 1 ³ / ₁₆ | — | 7/32 | 1/4 |

PANEL DRILLING DIMENSIONS VIEWED FROM FRONT OF PANEL



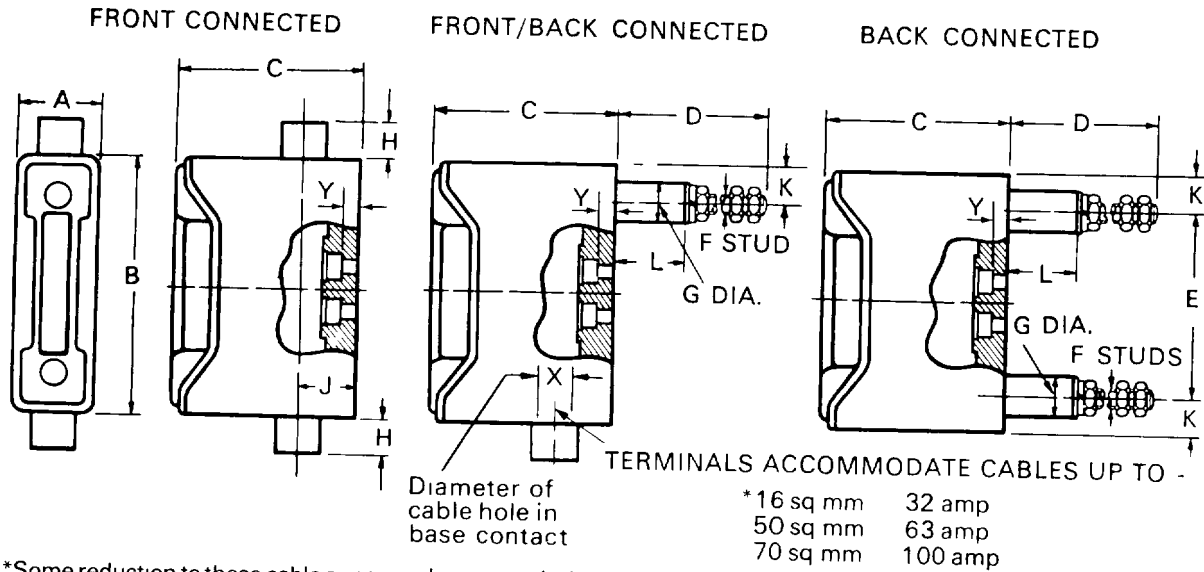
HOLE REQUIRED IN PANEL FOR FLUSH MOUNTING RS20F



ONE MOUNTING CLIP (LIST No P670/10) IS SUPPLIED WITH EACH FLUSH MOUNTING CARRIER & BASE TYPE RS20F

DIMENSIONS in millimetres and inches

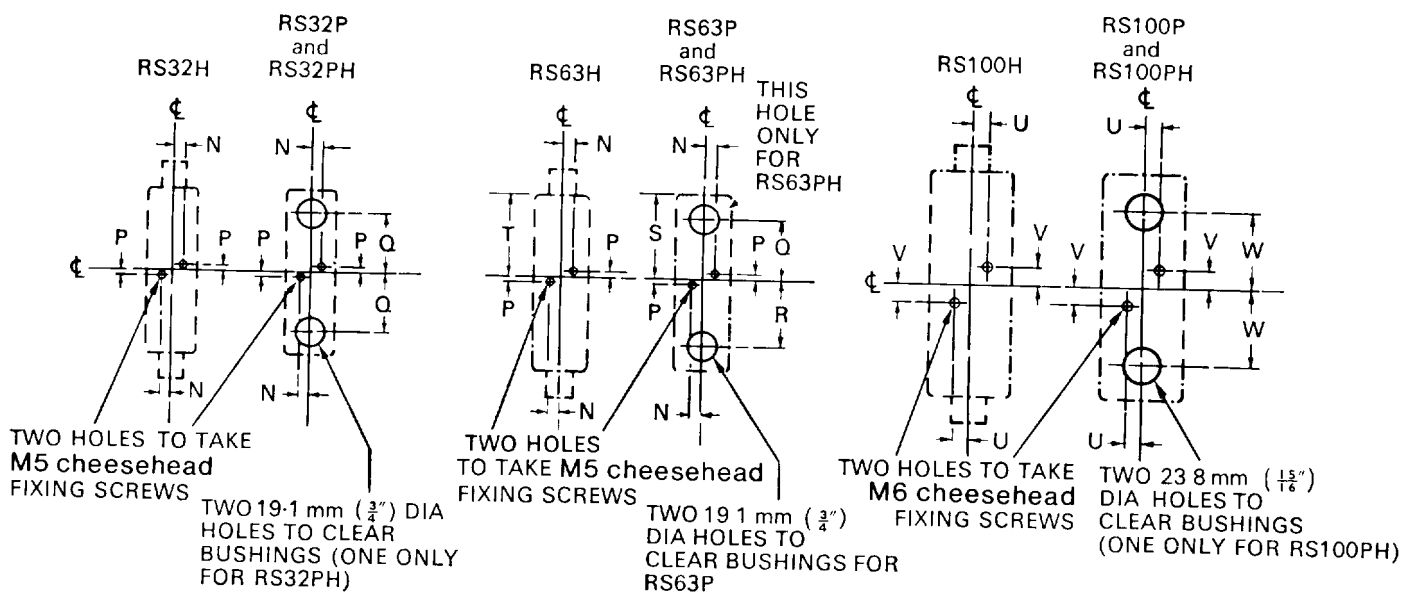
32, 63 & 100 amp 'RED SPOT' FUSE HOLDERS



*Some reduction to these cable sizes may be required when using flexible stranded conductors due to their larger effective diameter

| Rating Amp | | A | B | C | D | E | F | G | H | J | K | L | X | Y |
|------------|----|-------|--------|---------|--------|---------|-----|--------|--------|--------|--------|-------|------|------|
| 32 | mm | 31.8 | 103.2 | 69.9 | 81.0 | 73.0 | M6 | 17.5 | 15.1 | 22.2 | 15.1 | 28.6 | 6.2 | 5.56 |
| | in | 1 1/4 | 4 1/16 | 2 3/4 | 3 3/16 | 2 7/8 | — | 1 1/16 | 1 9/32 | 7/8 | 1 1/32 | 1 1/8 | — | 7/32 |
| 63 | mm | 34.9 | 109.5 | 75.4 | 84.1 | 77.8 | M8 | 17.5 | 15.1 | 23.8 | 15.9 | 28.6 | 9.5 | 5.56 |
| | in | 1 3/8 | 4 5/16 | 2 31/32 | 3 5/16 | 3 1/8 | — | 1 1/16 | 1 9/32 | 1 5/16 | 5/8 | 1 1/8 | — | 7/32 |
| 100 | mm | 50.8 | 139.7 | 100.0 | 87.3 | 93.7 | M10 | 22.2 | 15.1 | 27.8 | 23.0 | 31.8 | 12.7 | 7.15 |
| | in | 2 | 5 1/2 | 3 15/16 | 3 7/16 | 3 11/16 | — | 7/8 | 1 9/32 | 1 1/2 | 2 9/32 | 1 1/4 | — | 9/32 |

PANEL DRILLING DIMENSIONS VIEWED FROM FRONT OF PANEL

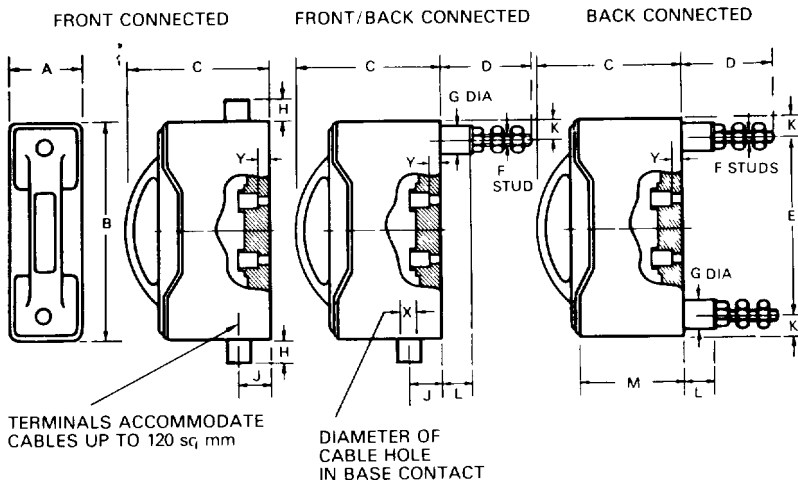


| | N | P | Q | R | S | T | U | V | W |
|----|-----|-----|--------|-------|--------|--------|-----|------|---------|
| mm | 64 | 32 | 36.5 | 41.3 | 52.4 | 51.6 | 9.5 | 11.1 | 46.8 |
| in | 1/4 | 1/8 | 1 1/16 | 1 5/8 | 2 1/16 | 2 1/32 | 3/8 | 7/16 | 1 27/32 |

DIMENSIONS in millimetres and inches

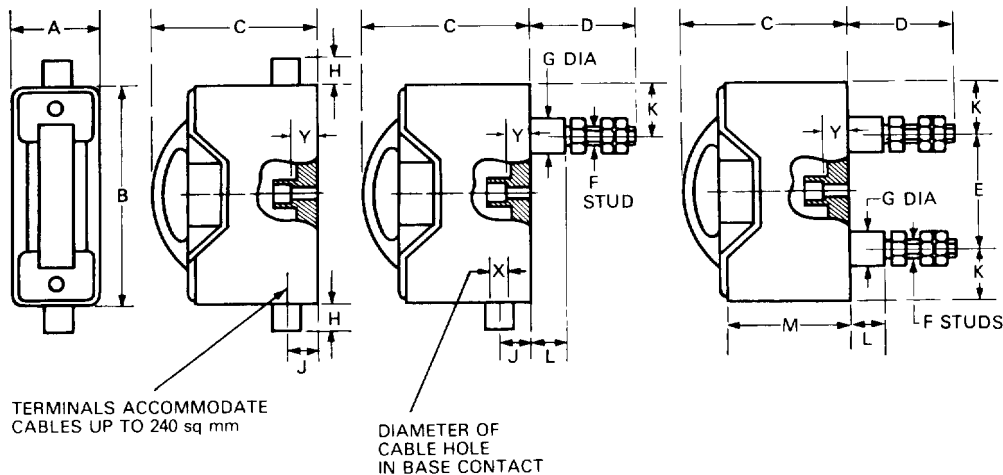
'RED SPOT' FUSE HOLDERS

200 amp

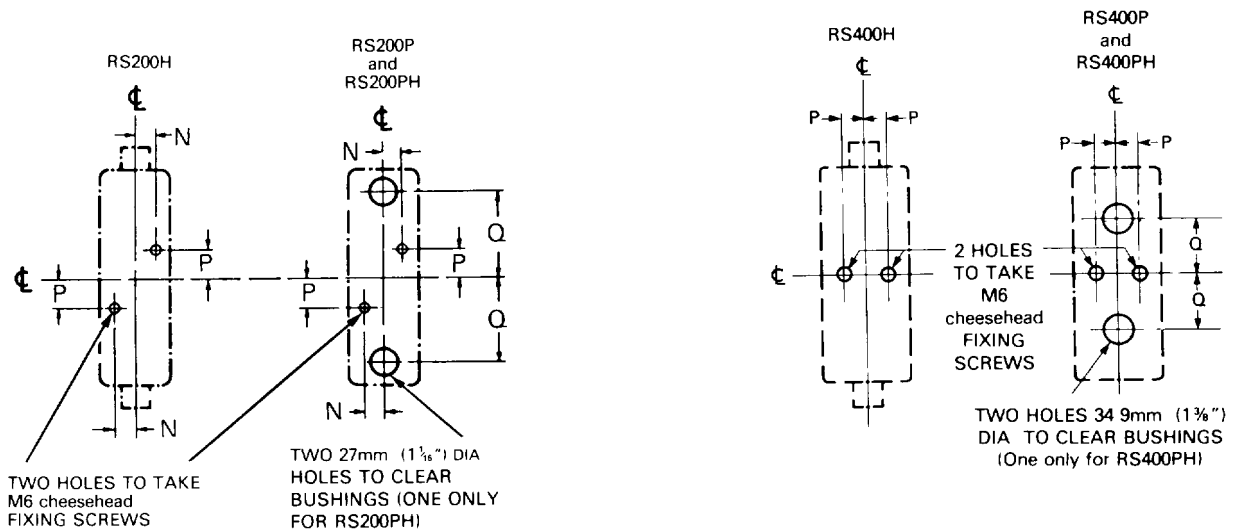


| | 200 amp | | 400 amp | |
|---|---------|---------|---------|---------|
| | mm | in | mm | in |
| A | 69.9 | 2 3/4 | 98.4 | 3 7/8 |
| B | 215.9 | 8 1/2 | 254.0 | 10 |
| C | 136.5 | 5 3/8 | 192.1 | 7 9/16 |
| D | 95.3 | 3 3/4 | 114.3 | 4 1/2 |
| E | 171.5 | 6 3/4 | 139.7 | 5 1/2 |
| F | M12 | — | M16 | — |
| G | 25.4 | 1 | 31.8 | 1 1/4 |
| H | 22.2 | 7/8 | 31.8 | 1 1/4 |
| J | 31.8 | 1 1/4 | 36.5 | 1 7/16 |
| K | 22.2 | 7/8 | 57.2 | 2 1/4 |
| L | 31.8 | 1 1/4 | 38.1 | 1 1/2 |
| M | 100.0 | 3 15/16 | 150.8 | 5 15/16 |
| X | 16.3 | — | 20.6 | — |
| Y | 9.53 | 3/8 | 31.8 | 1 1/4 |

400 amp



PANEL DRILLING DIMENSIONS VIEWED FROM FRONT OF PANEL



| | N | P | Q |
|----|------|-------|-------|
| mm | 19.1 | 28.6 | 85.7 |
| in | 3/4 | 1 1/8 | 3 3/8 |

| | P | Q |
|----|-------|-------|
| mm | 27.0 | 69.9 |
| in | 1 1/8 | 2 3/4 |