

LAWSON FUSES

Lawson Fuses offer an extensive range of fuse-holder and fuse-link designs. Lawson fuse-holders and fuse-banks are approved to major standards and designed to meet a wide range of applications: power distribution, motor protection, electronic, railway, shipping and street lighting.

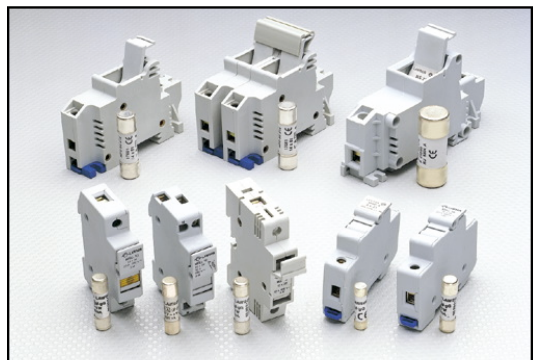
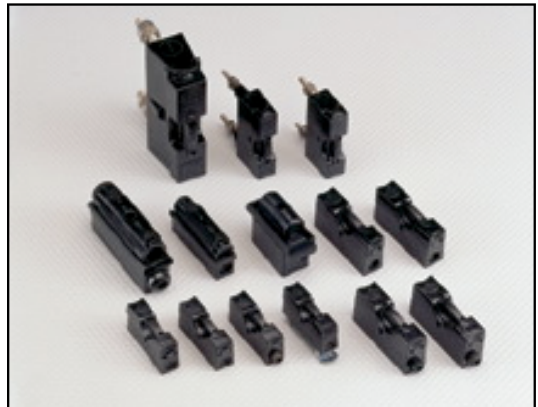
Two distinct designs of British Standard fuse-holders are available. The BOLTIN range accommodates bolted tag fuse-links to BS 88: Part 2, in ratings of 20, 32, 63, 100, and 200 Amps. The CLIPFIT range accommodates compact dimensioned fuse-links to BS88: Part 6 and is available in ratings of 20, 32, and 63 Amps. Both ranges are available in a variety of colours and terminal configurations.



Both the BOLTIN and CLIPFIT fuse-holders are also available as factory built fuse-bank assemblies. The fuse-banks comprise single-phase assemblies of busbar connected fuse-holders mounted on a back rail, for incorporation in distribution fuse panels.

Lawson fuse-holders also include the well established ranges of PULLCAP and SLYDLOK products. The PULLCAP 240/415V a.c. modular fuse-holders incorporate Types MD and L cylindrical fuse-links to BS88:Part 1 and BS1361. The SLYDLOK range offers a wide variety of panel mounted applications. The range includes miniature fuse-holders for 5 x 20mm and 6.3 x 32mm fuse-links, compact fuse-holders rated up to 60 Amps at 240V a.c., and the W/X fuse-holder series, which accommodates either fuse-links or fuse-wire.

Cylindrical fuse-holders are a versatile option, offering fuse protection in four popular sizes up to a maximum fuse-link rating of 125 Amps. These fuse-holders accept cylindrical fuse-links to IEC60269 with principal dimensions of 8 x 31mm, 10 x 38mm, 14 x 51mm and 22 x 58mm.





Introduction

Boltin

Clipfit

Fuse-Banks

Pullcap

Slydlok Products

Modular Fuse-Holders

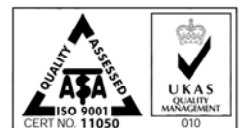
Double pole Cut-Out

Comparison Charts

Quality

Lawson Fuses operates a Quality Management System which has been independently assessed and approved by ASTA Certification Services as complying with ISO 9001 and is supported by the issue of Certificate No. 11050. Lawson manufactured fuse-links have been independently certified by ASTA and where appropriate comply with the the rules of the latest ASTA 20 Scheme, which authorises Lawson Fuses to endorse those products "ASTA 20 CERT"

For details of products other than Fuse-Holders, please ask for other publications.



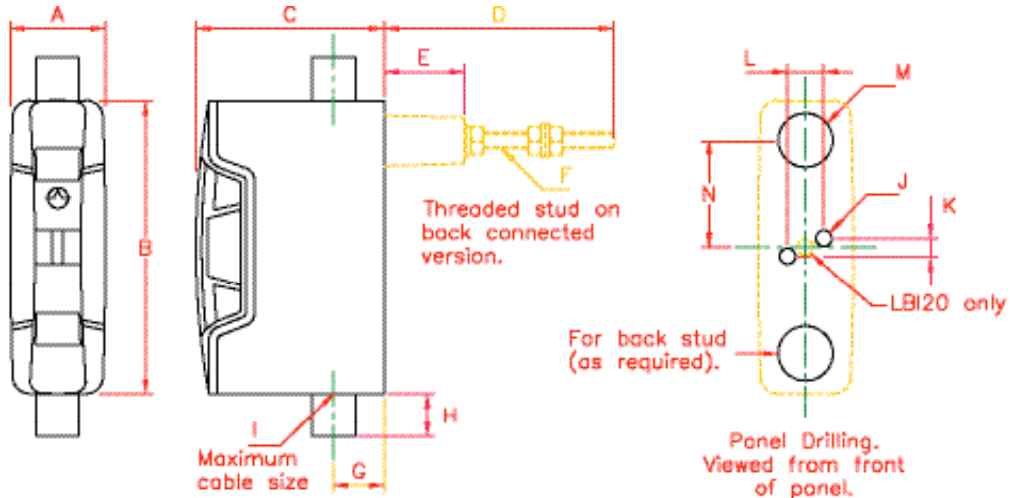
BOLTIN 660/690V a.c. Fuse-Holders for Fuse-Links to BS88: Part 2 & IEC 60269-2 TYPE LBI



For white fuse-holders substitute WH for BK in list references. Green fuse-holders are available, details on request.

The BOLTIN fuse-holders are available in three versions, front connected, back connected, and front/back connected, in ratings of 20, 32, 63, 100, and 200 Amps. The range fully complies with BS88: Part 2 and is ASTA Certified to a test duty of 80kA at 660V and complies with the current edition of the IEE Wiring Regulations.

| List Reference | Current Rating (A) | Colour | Lawson Fuse-Link 415V 660V | Solid Link |
|--|---|-----------------------|-------------------------------|------------|
| LBI 20 FC/FC BK LBI 20 FC/BC BK LBI 20 BC/BC BK | 20 | Black | NIT SSA1 | SLA1 20 |
| LBI 32 FC/FC BK LBI 32 FC/BC BK LBI 32 BC/BC BK | 32 | | GTIA/TIA SSA2 | SLA2 32 |
| LBI 63 FC/FC BK LBI 63 FC/BC BK LBI 63 BC/BC BK | 63 | | TIS SSA3 | SLA3 63 |
| LBI 100 FC/FC BK LBI 100 FC/BC BK LBI 100 BC/BC BK | 100 | | TCP SSA4 | SLA4 100 |
| LBI 200 FC/FC BK LBI 200 FC/BC BK LBI 200 BC/BC BK | 200 | | CTF/TF SSB2 | SLB2 200 |
| Spare Carriers | Spare Cable Shrouds (Grey) | DIN-Rail Adaptor | | |
| LBI 20 CA BK LBI 32 CA BK LBI 63 CA BK LBI 100 CA BK LBI 200 CA BK | LBI 20 SH LBI 32 SH LBI 63 SH LBI 100 SH LBI 200 SH | LBI 20 DA | | |
| | | Busbar Stud Connector | | |
| | | LBI 32 LBI 63 | | |



| LAWSON REFERENCE | CURRENT RATING AMPS | GENERAL DIMENSIONS (mm) | | | | | | | | | | | | | |
|------------------|---------------------|-------------------------|-----|-----|----|------|-----|----|----|-----------------|-----|-----|------|----|----|
| | | A | B | C | D | E | F | G | H | I _{mm} | J | K | L | M | N |
| LBI20 | 20 | 27 | 80 | 48 | 60 | 28.5 | M6 | 16 | 14 | 10 | 5.5 | n/a | n/a | 15 | 29 |
| LBI32 | 32 | 33 | 102 | 65 | 78 | 28.5 | M6 | 16 | 14 | 16 | 5.5 | 6.3 | 12.7 | 19 | 37 |
| LBI63 | 63 | 36 | 112 | 72 | 84 | 28.5 | M8 | 19 | 14 | 25 | 5.5 | 6.3 | 12.7 | 19 | 39 |
| LBI100 | 100 | 53 | 144 | 90 | 85 | 32 | M10 | 24 | 14 | 70 | 6.5 | 22 | 19 | 23 | 48 |
| LBI200 | 200 | 60 | 171 | 143 | 95 | 32 | M12 | 30 | 21 | 120 | 6.5 | 57 | 38 | 28 | 61 |

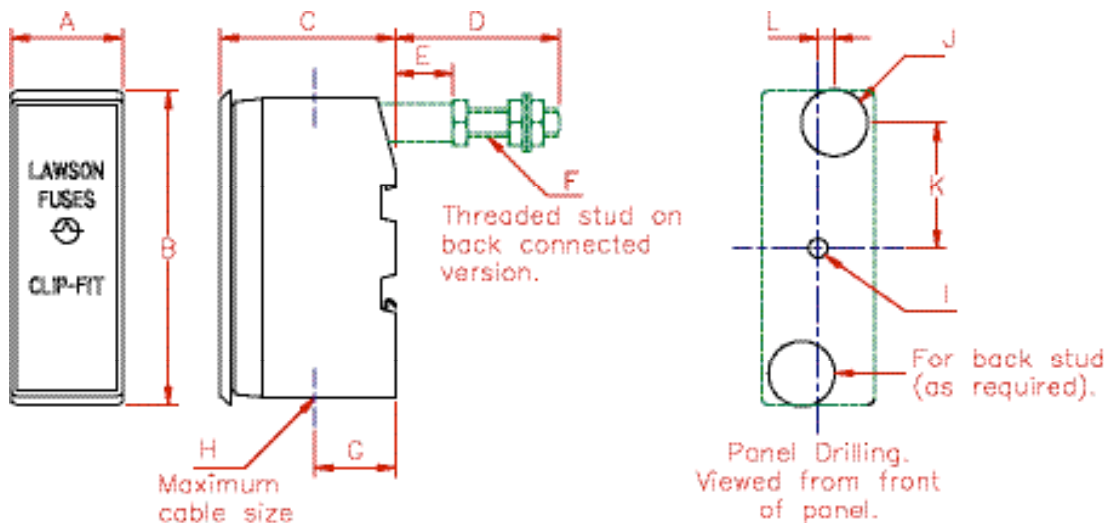
CLIPFIT 240/415V a.c. Fuse-Holders for Fuse-Links to BS88: Part 6 & IEC 60269-2 TYPE LCF



CLIPFIT fuse-holders provide a simple safe range designed to accommodate the compact dimension fuse-links to BS88: Part 6 and are ASTA certified to the required test duty. Breaking capacities are 50kA at 240V a.c. and 80kA at 415V a.c. CLIPFIT is available in 20, 32, and 63 Amp ratings, and incorporates an integral DIN rail mounting facility as well as single screw fixing. Front connected, back connected, front/busbar connected and front/back connected configurations are available in black or white as standard colours.

For white fuse-holders substitute WH for BK in list references.

| List Reference | Voltage Rating (V) | Current Rating (A) | Colour | Lawson Fuse-Link (BS Ref) | Solid Link |
|---|--------------------|--------------------|--------|----------------------------|------------|
| LCF 20 FC/FC BK LCF 20 FC/BBC BK LCF 20 FC/BC BK LCF 20 BC/BC BK | 240 | 20 | Black | SS (E1) | SLE1 20 |
| LCF 32 FC/FC BK LCF 32 FC/BBC BK LCF 32 FC/BC BK LCF 32 BC/BC BK | 415 | 32 | | NS (F1) | SLF1 32 |
| LCF 63 FC/FC BK LCF 63 FC/BBC BK LCF 63 FC/BC BK LCF 63 BC/BC BK | 415 | 63 | | MES (F2) | SLF2 63 |
| Spare Carriers | | | | Busbar Stud Connector | |
| LCF 20 CA BK LCF 32 CA BK LCF 63 CA BK | | | | LBC 20 LBC 32 LBC 63 | |



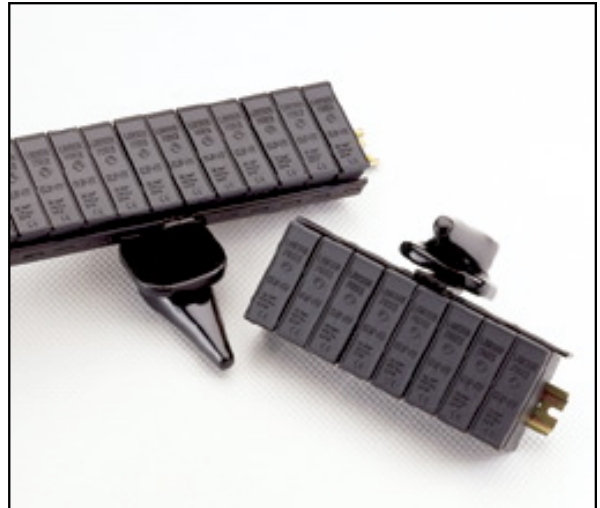
| LAWSON REFERENCE | CURRENT RATING (AMPS) | GENERAL DIMENSIONS (mm) | | | | | | | | | | | |
|------------------|-----------------------|-------------------------|----|----|----|----|----|----|-----------------|-----|----|----|-----|
| | | A | B | C | D | E | F | G | H _{mm} | I | J | K | L |
| LCF20 | 20 | 25 | 69 | 50 | 43 | 16 | M6 | 23 | 16 | 5.5 | 15 | 24 | 5.0 |
| LCF32 | 32 | 26 | 80 | 50 | 43 | 17 | M6 | 23 | 16 | 5.5 | 15 | 30 | 5.0 |
| LCF63 | 63 | 32 | 90 | 52 | 46 | 17 | M8 | 23 | 25 | 5.5 | 19 | 38 | 4.7 |

FUSE-BANKS

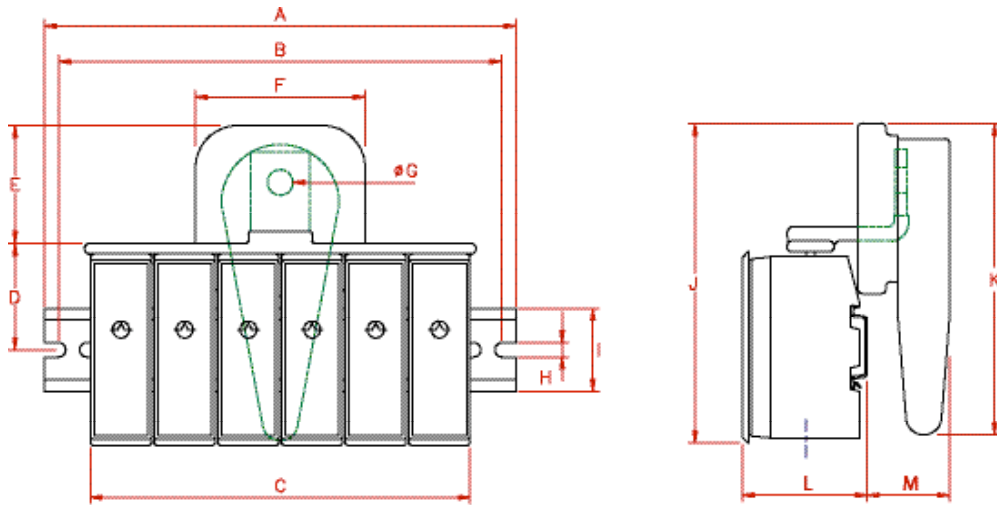
| Diversity Factor | BOLTIN | | | | CLIPFIT | | |
|------------------|---------------------|------|------|------|---------------|------|------|
| | 20A, 32A, 63A, 100A | | | | 20A, 32A, 63A | | |
| 4 Way | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 6 Way | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 8 Way | 0.8 | 0.8 | 0.8 | 0.66 | 0.8 | 0.8 | 0.8 |
| 12 Way | 0.66 | 0.66 | 0.66 | - | 0.66 | 0.66 | 0.66 |

| BOLTIN and CLIPFIT Terminal Bolt Size - Incoming Circuit | | |
|--|---------------------|--------|
| 20/32 Amp - | 4 / 6 / 8 / 12 Ways | 10.5mm |
| 63 Amp - | 4 / 6 / 8 / 12 Ways | 12.5mm |
| 100 Amp - | 4 / 6 / 8 Ways | 12.5mm |

| Maximum Cable Sizes - Outgoing Circuits | |
|---|----------------------------|
| BOLTIN | CLIPFIT |
| 20 Amp - 10mm ² | 20 Amp - 16mm ² |
| 32 Amp - 16mm ² | 32 Amp - 16mm ² |
| 63 Amp - 25mm ² | 63 Amp - 25mm ² |
| 100 Amp - 70mm ² | |



CLIPFIT Dimensional Drawings



| LIST REFERENCE | CURRENT RATING (AMPS) | NUMBER OF WAYS | GENERAL DIMENSIONS (mm) | | | | | | | | | | | | |
|----------------|-----------------------|----------------|-------------------------|-----|-----|----|----|-----|------|---|----|-----|-----|----|----|
| | | | A | B | C | D | E | F | G | H | I | J | K | L | M |
| FZ04FB20 | 20 | 4 | 160 | 140 | 112 | 45 | 50 | 75 | 10.5 | 9 | 30 | 130 | 135 | 58 | 45 |
| FZ06FB20 | | 6 | 220 | 200 | 170 | | | | | | | | | | |
| FZ08FB20 | | 8 | 275 | 255 | 228 | | | | | | | | | | |
| FZ12FB20 | | 12 | 390 | 370 | 344 | | | | | | | | | | |
| FZ04FB32 | 32 | 4 | 160 | 140 | 113 | 50 | 50 | 75 | 10.5 | 9 | 30 | 140 | 135 | 58 | 45 |
| FZ06FB32 | | 6 | 220 | 200 | 171 | | | | | | | | | | |
| FZ08FB32 | | 8 | 275 | 255 | 229 | | | | | | | | | | |
| FZ12FB32 | | 12 | 390 | 370 | 345 | | | | | | | | | | |
| FZ04FB63 | 63 | 4 | 190 | 170 | 140 | 60 | 75 | 110 | 12.5 | 9 | 30 | 180 | 215 | 60 | 70 |
| FZ06FB63 | | 6 | 260 | 240 | 212 | | | | | | | | | | |
| FZ08FB63 | | 8 | 330 | 310 | 284 | | | | | | | | | | |
| FZ12FB63 | | 12 | 475 | 455 | 428 | | | | | | | | | | |

PULLCAP MODULAR FUSE-HOLDERS

TYPE LPC

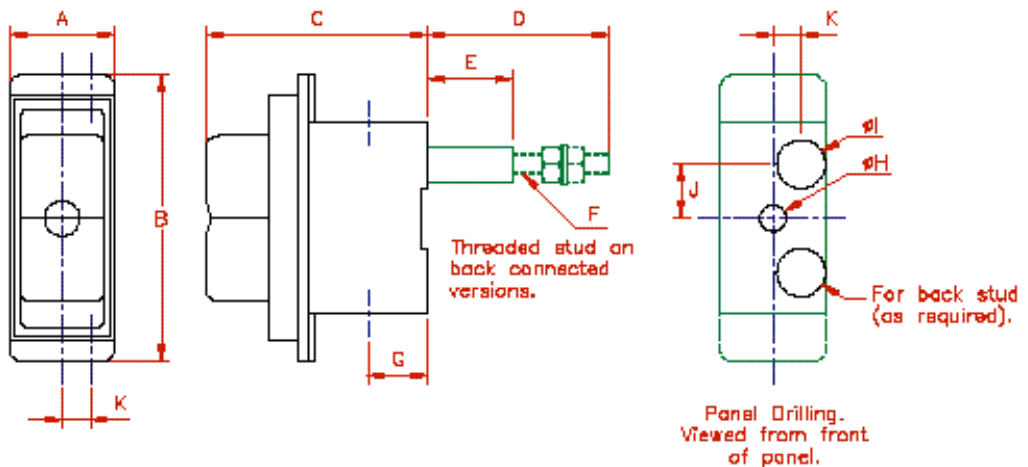


The PULLCAP 240/415 V a.c. modular fuse-holders incorporate fuse-links to BS88: Part 1 and BS1361.

| Component | Current Rating (A) | Colour | List Reference | Lawson Fuse-Link | Solid Link | |
|-------------|--------------------|--------|----------------|-------------------------------|------------|--|
| Carrier | 5 | White | LPC 5 CA WH | LA | SLPC5 | |
| | 5 | Black | LPC 5 CA BK | LA | SLPC5 | |
| | 20 | Blue | LPC 20 CA BL | LC | SLPC 20 | |
| | 20 | Green | LPC 20 CA GN | LC | SLPC 20 | |
| | 32 | Red | LPC 32 CA RD | LD | SLPC 32 | |
| | 32 | Black | LPC 32 CA BK | MD | SLPC 32 | |
| Cover Plate | 5 | White | LPC 5 CP WH | LA | | |
| | 5 | Black | LPC 5 CP BK | LA | | |
| | 20 | Blue | LPC 20 CP BL | LC | | |
| | 20 | Green | LPC 20 CP GN | LC | | |
| | 32 | Red | LPC 32 CP RD | LD | | |
| | 32 | Black | LPC 32 CP BK | MD | | |
| Base | 32 | Black | LPC 00 CP BK | - | | |
| | 63 | | LPC 63 CA BK | ME | | |
| | | | LPC 32 FC/FC | DIN rail adaptor LPC 32 DA | | |
| | | | LPC 32 FC/BBC | | | |
| | | | LPC 32 FC/BC | | | |
| | | | LPC 32 BC/BC | | | |
| | LPC 32 FC/FCL | | | | | |
| | LPC 32 FCL/FCL | | | | | |
| | 63 | Black | LPC 63 FC/FC | | | |
| | | | LPC 63 FC/BBC | | | |
| | | | LPC 63 FC/BC | | | |
| | | | LPC 63 BC/BC | | | |

Note: Individual components are available as fully assembled LPCU units rated at 5, 20, 32 & 63 Amps.

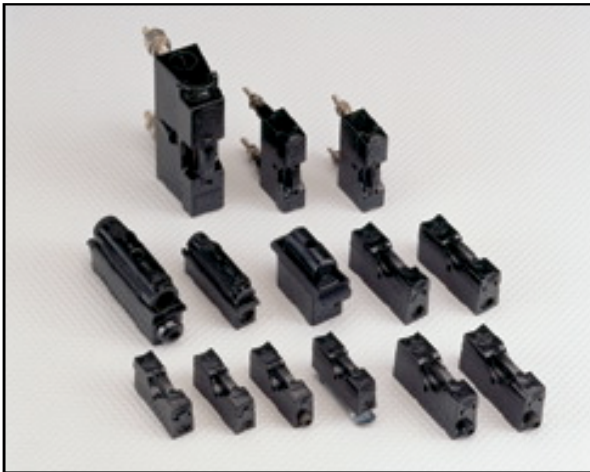
Dimensional Drawings Type LPCU



| LAWSON REFERENCE | CURRENT RATING (AMPS) | GENERAL DIMENSIONS (mm) | | | | | | | | | | |
|------------------|-----------------------|-------------------------|------|----|------|----|-----|------|---|----|------|------|
| | | A | B | C | D | E | F | G | H | I | J | K |
| LPCU5 | 5 | 23.8 | 65 | 44 | 41 | 19 | 28A | 13.5 | 8 | 11 | 13 | 8.35 |
| LPCU20 | 20 | 23.8 | 65 | 48 | 41 | 19 | 28A | 13.5 | 8 | 11 | 13 | 8.35 |
| LPCU32 | 32 | 23.8 | 65 | 50 | 41 | 19 | 28A | 13.5 | 8 | 11 | 13 | 8.35 |
| LPCU63 | 63 | 35 | 98.5 | 72 | 83.5 | 22 | 36W | 15 | 7 | 20 | 21.5 | 8.35 |

SLYDLOK FUSE-HOLDERS

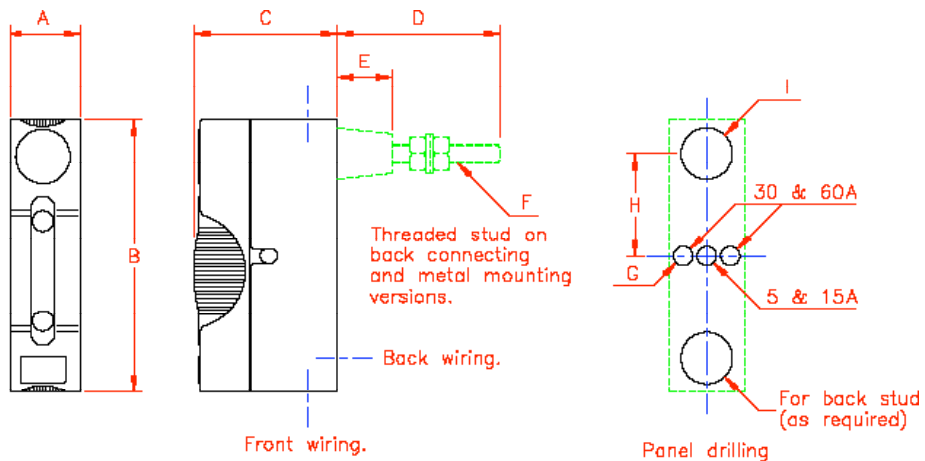
TYPE SLY



| List Reference | Current Rating (A) | Colour | Lawson Fuse-Link | Wiring Connections | DIN Rail Adaptor |
|--|--------------------|--------|------------------|------------------------------------|------------------|
| W 5341 FW W 5342 BC W 5344 MM W 5345 BW | 5 | Black | W534 | FW BC MM BW BCT BCB | SLYM 3 |
| W 15331 FW W 15332 BC W 15334 MM W 15335 BW | 15 | | W1533 | | - |
| W 30341 FW W 30342 BC W 30344 MM W 30345 BW | 30 | | W3034 | | - |
| W 60411 FW W 60412 BC W 60414 MM W 60415 BW | 60 | | W6041 | | - |

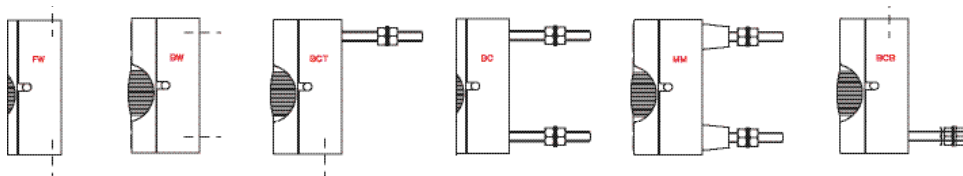
Notes:
Fuse-holders incorporating fuse-wire, substitute prefix 'W' with 'X'.
Details of H range are available on request.

Dimensional Drawings Type W and X



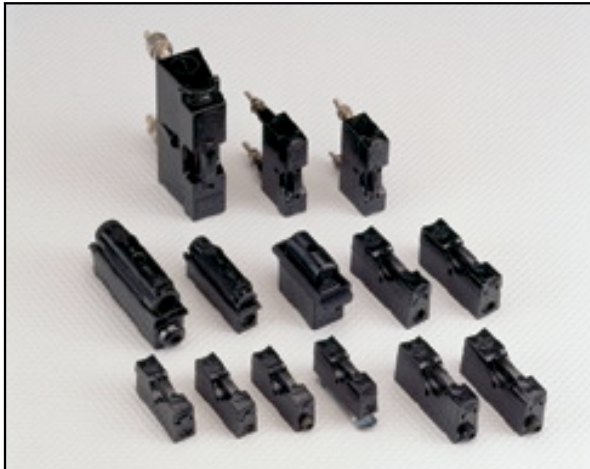
| LAWSON REFERENCE | | CURRENT RATING (AMPS) | GENERAL DIMENSIONS (mm) | | | | | | | | |
|------------------|--------|-----------------------|-------------------------|------|------|------|------|-------|-----|------|----|
| TYPE X | TYPE W | | A | B | C | D | E | F | G | H | I |
| X5-- | W5-- | 5 | 14.2 | 50.8 | 25.4 | 38.1 | 12.7 | 3BA | 4.5 | 19 | 11 |
| X15-- | W15-- | 15 | 17.5 | 63.5 | 33.5 | 38.1 | 12.7 | 2BA | 4.5 | 23.9 | 12 |
| X30-- | W30-- | 30 | 25.4 | 82.6 | 46.2 | 50.8 | 19.1 | 0BA | 4.5 | 28.6 | 17 |
| X60-- | W60-- | 60 | 31.8 | 108 | 51.6 | 76.2 | 25.4 | 5/16W | 5.5 | 38.1 | 20 |

Wiring Connections



SLYDLOK FUSE-HOLDERS

TYPE SLY



| List Reference | Current Rating (A) | Colour | Lawson Fuse-Link | Wiring Connections | DIN Rail Adaptor |
|----------------------------------|--------------------|--------|------------------|--------------------|------------------|
| K 511 FW K 522 BC K 533 MM | 5 | Black | KCC KDC | FW BC MM | - |
| K 1011 FW | 10 | | | | - |
| KP 1011 FW | 10 | | | | - |
| | | | PCC PDC | | - |

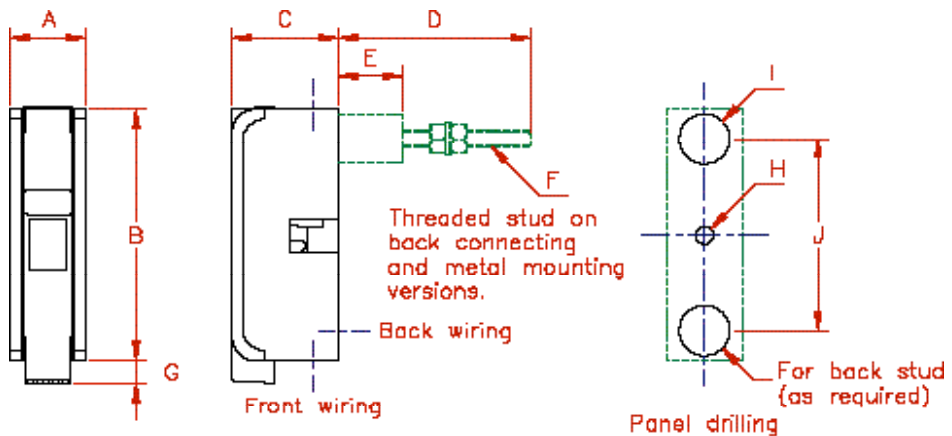
Notes:

Minature Fuse-Links are available to match this range of Fuse-Holders see publication:-

LFL/PUB/0502 Low Voltage Fuse-Links Page 21.

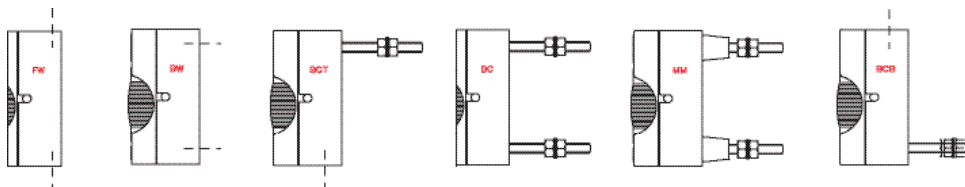
Dimensionally KCC/KDC are 6.3 x 32mm, whereas PCC/PDC are 5 x 20mm.

Dimensional Drawings Type K and KP

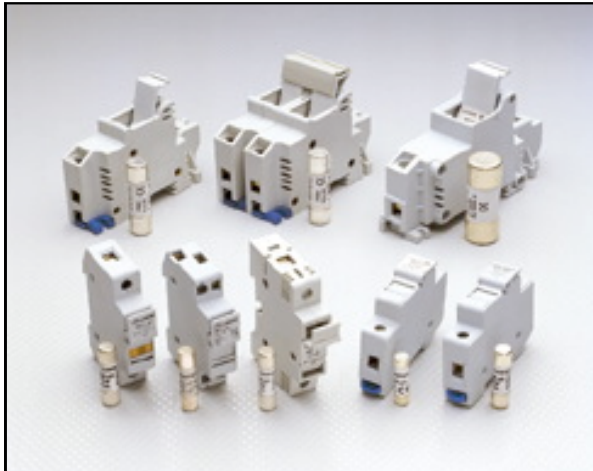


| LAWSON REFERENCE | CURRENT RATING (AMPS) | GENERAL DIMENSIONS (mm) | | | | | | | | | |
|------------------|-----------------------|-------------------------|------|------|------|------|-----|-----|-----|----|------|
| | | A | B | G | D | E | F | G | H | I | J |
| K5 | 5 | | | | | | | | | | |
| K10 | 10 | 15.7 | 50.8 | 22.4 | 38.1 | 12.7 | 4.8 | 4.8 | 3.5 | 10 | 38.1 |
| KP10 | 10 | | | | | | | | | | |

Wiring Connections



MODULAR FUSE-HOLDERS FOR FUSE-LINKS IN ACCORDANCE WITH IEC 60269 -2 TYPE MS

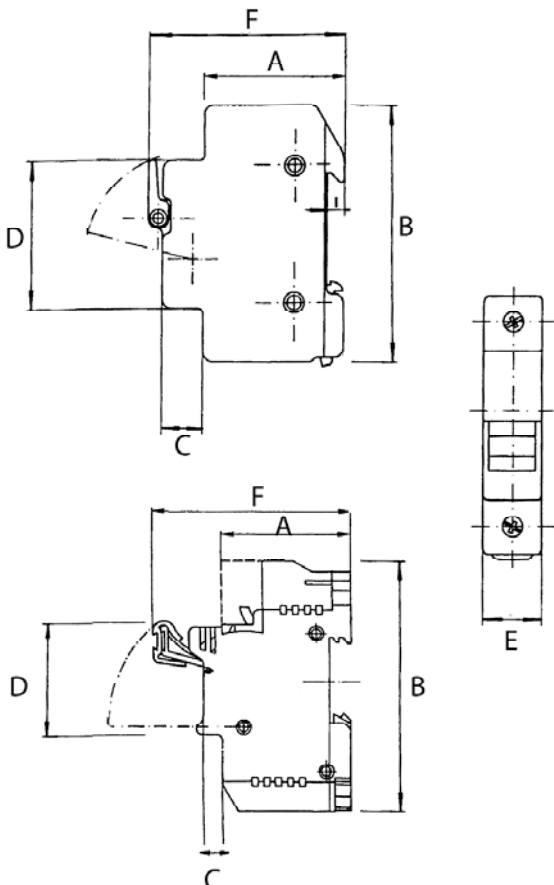


The MS range of modular fuse-holders offer fuse protection in four popular frame sizes in voltage ratings up to 660 Va.c. Modular fuse-holders accept cylindrical fuse-links up to a maximum rating of 125 Amps, with principle dimensions of 8.5 x 31.5, 10.3 x 38, 14 x 51 and 22 x 58mm. Conversion kits are available to assemble 2,3 or 4-pole units.

| List Reference | Current Rating (A) | Dimensions (mm) | Lawson Fuse-Link | Solid Link | Colour |
|-----------------------------------|--------------------|-----------------|--------------------|--------------|--------|
| MSC 81 MSC 81 N | 20 | 8.5x31.5 | LPVG 8 | SLLPV 820 | Grey |
| MSC 101 MSC 101 / MSC 101 N | 32 | 10.3x38 | LPVG 10 LPVM 10 | SLLPV 10 32 | |
| MS 101 MS 101 N | 50 | 14x51 | LPVG 14 LPVM 14 | SLLPV 14 50 | |
| MS 221 MS 221 N | 125 | 22x58 | LPVG 22 LPVM 22 | SLLPV 22 125 | |

I = Indicator, N= Integral Neutral link

Modular Fuse-Holder Dimensional Drawings



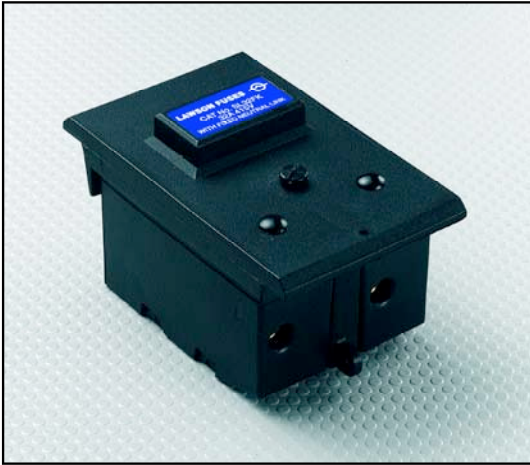
MSC 8 & 10
Dimensions mm

| MSC | A | B | C | D | E | F |
|---------|----|----|----|----|------|----|
| 8 10 | 42 | 77 | 12 | 45 | 17.5 | 59 |

MS 10, 14 & 22
Dimensions mm

| MS | A | B | C | D | E | F |
|----|----|-----|----|----|------|----|
| 10 | 43 | 77 | 14 | 45 | 17.5 | 64 |
| 14 | 52 | 110 | 11 | 45 | 25 | 81 |
| 22 | 52 | 140 | 14 | 45 | 35 | 89 |

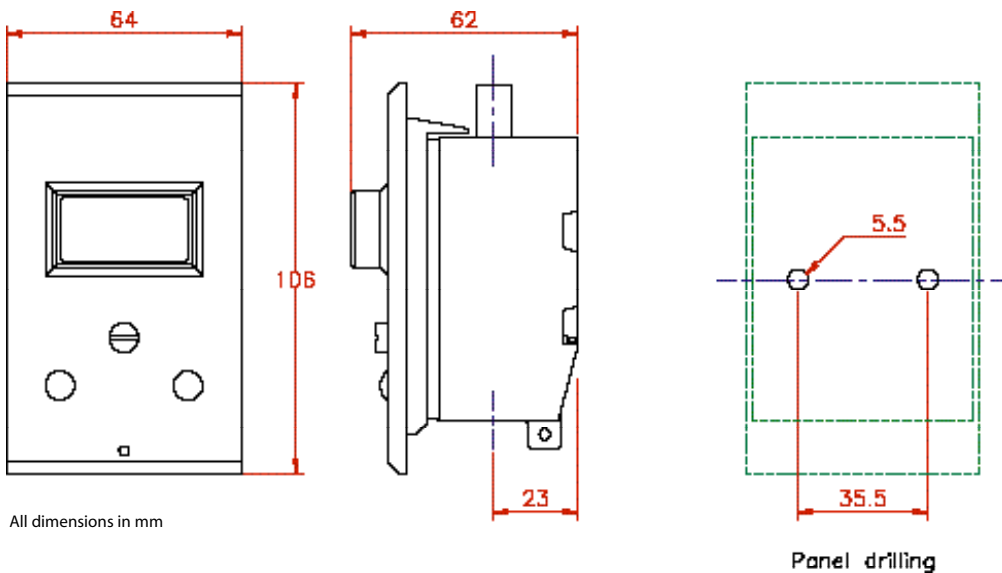
DOUBLE POLE CUT-OUT **TYPE SLFK**



This compact Cut-Out has been designed to comply with the latest requirements of the Wiring Regulations and the Electricity at Work Act. It has been rated at 32A, 415V a.c., incorporates fully shrouded top terminals and utilises fuse-links reference F1 to BS88:Part 6

| List Reference | Description | Max Cable | Max Fuse Rating (Amps) | Height (mm) | Width (mm) | Depth (mm) |
|----------------|---|-------------------|------------------------|-------------|------------|------------|
| SL 32 FK | Cut-Out unit complete with fixed neutral link | 16mm ² | 32 | 106 | 64 | 60 |

Dimensional Drawings



COMPARISON CHARTS

COMPARISON CHART FOR CLIPFIT FUSE-HOLDERS

| LAWSON REFERENCE | BUSSMANN HAWKER | GEC ALSTHOM | BILL |
|------------------|-----------------|---------------|--------|
| LCF32FC/FCBK | 32NNSF | SC32H-D | V32FF |
| LCF32FC/BBCBK | - | SC32BH | - |
| LCF32FC/BCBK | 32NNSFBS | - | V32FB |
| LCF32BC/BCBK | 32NNBSBS | SC32P | - |
| LCF32FC/FCWH | 32NNSF/W | SC32H-D WHITE | V32FFW |
| LCF32FC/BBCWH | - | - | - |
| LCF32FC/BCWH | 32NNSFBS/W | - | V32FBW |
| LCF32BC/BCWH | 32NNBSBS/W | SC32PWHITE | - |
| LCF63FC/FCBK | 63ENSF | SC63H-D | V63FF |
| LCF63FC/BBCBK | - | SC63BH | - |
| LCF63FC/BCBK | 63ENSFBS | - | V63FB |
| LCF63BC/BCBK | 63ENBSBS | SC63P | - |
| LCF63FC/FCWH | 63ENSF/W | SC63H-D WHITE | V63FFW |
| LCF63FC/BBCWH | - | - | - |
| LCF63FC/BCWH | 63ENSFBS/W | - | V63FBW |
| LCF63BC/BCWH | 63ENBSBS/W | - | - |

COMPARISON CHART FOR BOLTIN FUSE-HOLDERS

| LAWSON REFERENCE | BUSSMANN HAWKER | GEC ALSTHOM | BILL | MEM | DORMAN SMITH |
|------------------|-----------------|-------------|--------|--------|--------------|
| LBI20FC/FCBK | 32NF CM32FC | RS20H | | 20MFB | 32NNF |
| LBI20FC/BCBK | 32NFBS | RS20PH | | 20MFD | 32NNFB |
| LBI20BC/BCBK | 32NBS | RS20P | | 20MFC | 32NNBS |
| LBI32FC/FCBK | 32AF CM32F | RS32H | | 32MFB | 2AF |
| LBI32FC/BCBK | 32AFBS | RS32PH | | 32MFD | 32AFBS |
| LBI32BC/BCBK | 32ABS | RS32P | | 32MFC | 32ABS |
| LBI63FC/FCBK | 63BF CM63F | RS63H | | 63MFB | 63BF |
| LBI63FC/BCBK | 63BFBS | RS63PH | | 63MFD | 63BFBS |
| LBI63BC/BCBK | 63BBS | RS63P | | 63MFC | 63BBS |
| LBI100FC/FCBK | 100CF CM100F | RS100H | V100FF | 100MF | 100CF |
| LBI100FC/BCBK | 100CFBS | RS100PH | V100FB | 100CFB | 100CFBS |
| LBI100BC/BCBK | 100CBS | RS100P | V100BB | 100MFC | 100CBS |
| LBI200FC/FCBK | 200DF | RS200H | V200FF | 200MFB | 200DF |
| LBI200FC/BCBK | 200DFBS | RS200PH | V200BF | 200MFD | 200DFBS |
| LBI200BC/BCBK | 200DBS | RS200P | V200BB | 200MFC | 200DBS |