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21

Fuses, Circuit Breakers & Consumer Units

Fuse Characteristics

Each fuselink is categorised according to its blowing characteristic.

(FF) - Super Quick Acting (Ultra Rapid). These fuselinks have very low fusing factors and are designed to blow under low current overloads.
(F) - Quick Acting (Quick Blow). For use when a fast blowing time is required under relatively low overloads and when a long and reliable usage is required under full rated conditions.
(M) -Medium Time Lag (Semi-Delay). Fairly rapid blowing under moderate current overloads, combined with some tolerance of moderate transient current surges.
(T) -Time Lag (Antisurge). Capable of withstanding short duration transient currents of considerable magnitude, whilst blowing rapidly under sustained overload conditions.
Breaking Capacity (Interrupting Rating)
This is the maximum short circuit current that the fuselink can safely interrupt under prescribed conditions, usually at rated voltage.
HRC (High Rupture Capacity). Designed with a high current breaking, or rupture, capacity. Usually manufactured with ceramic fuse bodies.
Fuse Sizes
1¼" x ¼" Fuses are normally used in North American markets, and are generally manufactured to UL and CSA standards.
20 x 5mm Fuses are normally used in European markets and are usually manufactured to IEC 127.

Apart from the physical size differences, the current / time characteristics of these fuses are different, and are therefore not interchangeable.

213844

21

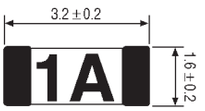
Fuses, Circuit Breakers & Consumer Units

Surface Mount Fuses

Fast Acting - 3216CP Series

1206 Case Size

Bussmann



- Fast acting protection from excess-current
- Rugged ceramic and glass construction
- Compatible with Reflow and Wave-soldering
- UL Recognised and CSA approved

Voltage rating 24V dc
Time/current characteristics 10 s max @ 250% rated current
1ms Typ @ 600% rated current
Breaking capacity 35A dc

Mftrs. List No. 3216CP + Rating

FUS318/204517

Rating	Order Code	Price Each 10+	50+	100+	250+	+	+
250mA	**968-833**	0.93	0.84	0.78	0.75	– –	– –
375mA	**968-845**	0.60	0.54	0.52	0.49	– –	– –
500mA	**968-857**	0.60	0.54	0.52	0.49	– –	– –
750mA	**968-869**	0.60	0.54	0.52	0.49	– –	– –
1A	**968-870**	0.60	0.54	0.52	0.49	– –	– –
1.5A	**968-882**	0.76	– –	– –	– –	– –	– –
2A	**968-894**	0.60	0.54	0.52	0.49	– –	– –
2.5A	**968-900**	0.60	0.54	0.52	0.49	– –	– –
3A	**968-912**	0.60	0.54	0.52	0.49	– –	– –
4A	**968-924**	0.60	0.54	0.52	0.49	– –	– –
5A	**968-948**	0.60	0.54	0.52	0.49	– –	– –

Very Fast Acting FF

USF 0603 - 32V ac/dc

SCHURTER ELECTRONIC COMPONENTS

- **Lead Free**
- High breaking capacity
- Small loss, low voltage drop - 60mV typical
- **UL** Recognised and **CSA** Approved; File No. E41599

H = 0.6, W = 1.6, D = 0.8mm

Breaking capacity 50A @ 32V ac/dc
Materials: Terminals - Copper, tin plated
Operating temperature -55 to 90°C
Socket and Cap - Temperature resistant plastic, UL 94V-0

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
3412.0113.22	116-2758	3412.0119.22	116-2762
3412.0115.22	116-2759	3412.0120.22	116-2763
3412.0117.22	116-2760	3412.0121.22	116-2764

336050

Order Multiple=10

Rating	Order Code	Price Each 10+	50+	100+	500+	+	+
0.5A	SMD **116-2758** ●	0.82	0.72	0.64	0.57	– –	– –
1.0A	SMD **116-2759** ●	0.82	0.72	0.64	0.57	– –	– –
1.5A	SMD **116-2760** ●	0.82	0.72	0.64	0.57	– –	– –
2.0A	SMD **116-2762** ●	0.82	0.72	0.64	0.57	– –	– –
2.5A	SMD **116-2763** ●	0.82	0.72	0.64	0.57	– –	– –
3.0A	SMD **116-2764** ●	0.82	0.72	0.64	0.57	– –	– –

Super Quick Acting

USF 1206 - 32V ac, 63V dc

SCHURTER ELECTRONIC COMPONENTS

- **Lead Free**
- High breaking capacity
- Small loss, low voltage drop - 100mV typical
- **UL** Recognised

H = 0.6, W = 3.2, D = 1.6mm

Breaking capacity 50A @ 32V ac/dc
Materials: Terminals - Copper, tin plated
Operating temperature -55 to 90°C
Housing - Glass epoxy

Mftrs. List No.	Order Code	Mftrs. List No.	Order Code
3413.0113.22	778-5712	3413.0119.22	778-5763
3413.0114.22	778-5720	3413.0120.22	778-5771
3413.0115.22	778-5739	3413.0121.22	778-5780
3413.0116.22	778-5747	3413.0123.22	778-5798
3413.0117.22	778-5755		

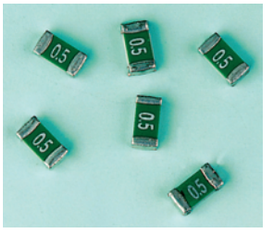
347695

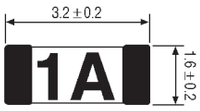
Rating	Order Code	Price Each 10+	50+	100+	500+	+
500mA	SMD **778-5712** ●	1.42	1.25	1.11	1.00	– –
750mA	SMD **778-5720** ●	1.42	1.25	1.11	1.00	– –
1A	SMD **778-5739** ●	1.42	1.25	1.11	1.00	– –
1.25A	SMD **778-5747** ●	1.42	1.25	1.11	1.00	– –
1.5A	SMD **778-5755** ●	1.42	1.25	1.11	1.00	– –
2A	SMD **778-5763** ●	1.42	1.25	1.11	1.00	– –
2.5A	SMD **778-5771** ●	1.42	1.25	1.11	1.00	– –
3.0A	SMD **778-5780** ●	1.42	1.25	1.11	1.00	– –
4A	SMD **778-5798** ●	1.42	1.25	1.11	1.00	– –

Fast Acting - 3216FF

1206 Case Size

Bussmann





- Metal film and ultrasonic wire bond technologies for high reliability fusing
- Fuse element encapsulated with glass
- UL Recognised and CSA approved

Voltage rating 32V ac/63V dc
Time/current characteristics 100% rated current for 4 hours min.
250% rated current for 5 seconds Max
4A and 5A fuses open within
1s @ 350% rated current
Breaking capacity 50A ac/dc

Rating (A)	Device Marking	TYP. Resistance @ 10% rated current (Ω)	Typ voltage Drop @ Rated Current (V)	Mftrs. List No.	Order Code
250mA	.25	4.5	1.4	3216FF250-R	112-3250
375mA	White dot	1.8	0.73	3216FF375-R	112-3251
500mA	.5	1.15	0.66	3216FF500-R	112-3252
750mA	.75	0.75	0.63	3216FF750-R	112-3253
1A	1	0.168	0.2	3216FF1-R	112-3254
1.5A	1.5	0.098	0.18	3216FF1.5-R	112-3255
2A	2	0.063	0.16	3216FF2-R	112-3256
2.5A	2.5	0.046	0.14	3216FF2.5-R	112-3258
3A	3	0.037	0.13	3216FF3-R	112-3259
4A	4	0.019	0.11	3216FF4-R	112-3260
4.5A	4.5	0.014	0.1	3216FF4.5-R	112-3261
5A	5	0.013	0.09	3216FF5-R	112-3262

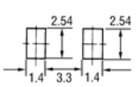
204520

Rating (A)	Order Code	Price Each 10+	50+	100+	250+	+	+
250mA	**112-3250** ●	1.08	0.96	0.93	0.87	– –	– –
375mA	**112-3251** ●	0.90	0.60	0.58	0.55	– –	– –
500mA	**112-3252** ●	0.90	0.60	0.58	0.55	– –	– –
750mA	**112-3253** ●	0.90	0.60	0.58	0.55	– –	– –
1A	**112-3254** ●	0.90	0.60	0.58	0.55	– –	– –
1.5A	**112-3255** ●	0.90	0.76	– –	– –	– –	– –
2A	**112-3256** ●	0.66	0.59	0.56	0.53	– –	– –
2.5A	**112-3258** ●	0.66	0.59	0.56	0.53	– –	– –
3A	**112-3259** ●	0.66	0.59	0.56	0.53	– –	– –
4A	**112-3260** ●	0.66	0.59	0.56	0.53	– –	– –
4.5A	**112-3261** ●	0.66	0.59	0.56	0.53	– –	– –
5A	**112-3262** ●	0.66	0.59	0.56	0.53	– –	– –

Very Fast Acting - 451 series

Nanofuse - 125V ac/dc

Littelfuse



PCB layout

L=6.10, W=2.54, H=2.54Supplied on 12mm embossed tape (reel=1K pcs)

- Compact high speed ceramic chip fuses.
- **UL** Recognised and **CSA** approved.

Breaking capacity 100A @ 125V ac, 300A @ 125V dc
Operating temperature -55°C to +125°C
Mftrs. List No. 451 + Value

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

Order Multiple=10		Price Each				
Rating	Order Code	10+	100+	250+	500+	+
62mA	SMD 508-652▲‡	1.77	– –	– –	– –	– –
125mA	SMD 508-664▲‡	1.83	1.77	– –	– –	– –
250mA	SMD 508-676▲‡	1.64	1.51	1.45	1.32	– –
500mA	SMD 508-688▲‡	1.04	1.01	0.94	0.85	– –
1A	SMD 508-690▲‡	1.04	1.01	0.94	0.82	– –
2A	SMD 508-706▲‡	1.01	0.98	0.91	0.82	– –
3A	SMD 508-718▲‡	0.98	0.94	0.88	0.79	– –
5A	SMD 508-720▲‡	1.04	1.01	0.98	0.85	– –
10A	SMD 508-731▲‡	1.01	0.94	0.91	0.79	– –

FUS243/204438

Order Multiple=10		Price Each				
Rating	Order Code	10+	100+	250+	500+	+
62mA	SMD 992-2121●	1.77	– –	– –	– –	– –
125mA	SMD 992-2130●	1.83	1.77	– –	– –	– –
250mA	SMD 992-2148●	1.64	1.51	1.45	1.32	– –
500mA	SMD 992-2156●	1.04	1.01	0.94	0.85	– –
1A	SMD 992-2164●	1.04	1.01	0.94	0.82	– –
2A	SMD 992-2172●	1.01	0.98	0.91	0.82	– –
3A	SMD 992-2180●	0.98	0.94	0.88	0.79	– –
5A	SMD 992-2199●	1.04	1.01	0.98	0.85	– –
10A	SMD 992-2202●	1.01	0.94	0.91	0.79	– –

Quick Blow - 125V

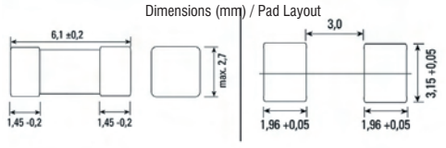
WICKMANN

Type 419

- Heat resistant ceramic housing
- **UL** Recognised and **CSA** approved
- Low voltage drop

Breaking capacity: 50A @ 125V ac/dc (≥7A), 35A @ 125V ac/dc (≤7A)
Operating temperature: -56°C to 125°C
Solderability: 235°C, 3 seconds

Dimensions (mm) / Pad Layout



Rated current (A)	Voltage (V)	Voltage drop (mV)	Mfrts. List No.	Order Code
1.00	125	210	419-11000-001	416-1555
1.50	125	250	419-11500-001	416-1567
2.00	125	180	419-12000-001	416-1579
2.50	125	220	419-12500-001	416-1580
3.00	125	160	419-13000-001	416-1592
4.00	125	140	419-14000-001	416-1609
5.00	125	130	419-15000-001	416-1610
7.00	125	130	419-17000-001	416-1622
10.00	125	100	419-21000-001	416-1634

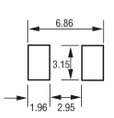
243433

Sold in Packs of 10		Price Each			
Mftrs. List No.	Order Code	10+	+	+	+
419-11000-001	SMD 416-1555	0.48	– –	– –	– –
419-11500-001	SMD 416-1567	0.48	– –	– –	– –
419-12000-001	SMD 416-1579	0.48	– –	– –	– –
419-12500-001	SMD 416-1580	0.48	– –	– –	– –
419-13000-001	SMD 416-1592	0.47	– –	– –	– –
419-14000-001	SMD 416-1609	0.83	– –	– –	– –
419-15000-001	SMD 416-1610	0.48	– –	– –	– –
419-17000-001	SMD 416-1622	0.59	– –	– –	– –
419-21000-001	SMD 416-1634	0.51	– –	– –	– –

Slow Blow

Littelfuse

Nanofuse - 125Vac/dc



L=6.10 B=2.54
H=2.54

SMD

Meets IEC 60127-4 standard for Universal Modular Fuse-links, UMF 125V.

Breaking Capacity 50A @ 125V ac or dc Operating Temperature -55°C to 125°C

Mftrs. List No. = 452 + Rating

Order Multiple=10		Price Each			
Rating	Order Code	10+	100+	250+	500+
375mA	SMD 664-698▲‡	1.20	1.13	1.04	0.85
500mA	SMD 664-704▲‡	1.23	1.17	1.07	0.88
750mA	SMD 664-716▲‡	1.13	1.01	0.98	0.79
1A	SMD 664-728▲‡	1.13	1.01	0.98	0.79
1.5A	SMD 664-730▲‡	1.13	1.01	0.98	0.79
2A	SMD 664-741▲‡	1.13	1.01	0.98	0.79
2.5A	SMD 664-753▲‡	1.13	1.01	0.98	0.79
3A	SMD 664-765▲‡	1.13	1.01	0.98	0.79
3.5A	SMD 664-777▲‡	1.13	1.01	0.98	0.79
4A	SMD 664-789▲‡	1.13	1.01	0.98	0.79
5A	SMD 664-790▲‡	1.13	1.01	0.98	0.79

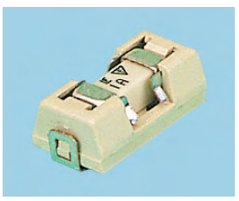
204461

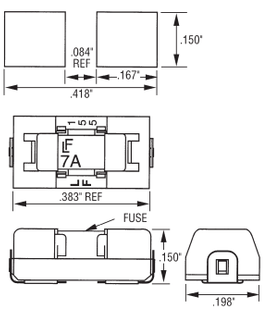
Order Multiple=10		Price Each			
Rating	Order Code	10+	100+	250+	500+
375mA	SMD 992-2318●	1.20	1.13	1.04	0.85
500mA	SMD 992-2326●	1.23	1.17	1.07	0.88
750mA	SMD 992-2334●	1.13	1.01	0.98	0.79
1A	SMD 992-2342●	1.13	1.01	0.98	0.79
1.5A	SMD 992-2350●	1.13	1.01	0.98	0.79
2A	SMD 992-2369●	1.13	1.01	0.98	0.79
2.5A	SMD 992-2377●	1.13	1.01	0.98	0.79
3A	SMD 992-2385●	1.13	1.01	0.98	0.79
3.5A	SMD 992-2393●	1.13	1.01	0.98	0.79
4A	SMD 992-2407●	1.13	1.01	0.98	0.79
5A	SMD 992-2415●	1.13	1.01	0.98	0.79

Fuse and Fuseholder Combinations

Littelfuse

Nanofuse - 125V ac/dc & Omni Block





The Omni Block fuseholder permits quick and easy replacement of nanofuses. The fuse holder is pre-installed with a nanofuse and can be placed on the PCB in one operation. The surface mount fuse can then be replaced without the normal problems of SMD rework. The supplied fuse has silver plated contacts to prevent it soldering into the holder when reflow soldered. **UL** Recognised and **CSA** approved.

Fuse holder rated at 7A Voltage rating 125V ac/dc
Fuse holder thermoplastic to UL94V-0 Operating temperature -55°C to +125°C
Mftrs. List No. 154 + Rating. Add suffix H for strip of 100 & T for antisurge

		Price Each			
Fuse Fitted	Order Code	10+	50+	100+	500+
Quick Blow (F)					
62mA	664-807▲‡	5.83	4.57	3.91	3.72
125mA	664-819▲‡	6.24	4.91	4.25	3.94
250mA	664-820▲‡	3.56	3.02	2.74	2.58
500mA	664-832▲‡	3.59	3.06	2.74	2.58
1A	664-844▲‡	3.56	3.02	2.74	2.58
2A	664-856▲‡	3.46	2.96	2.68	2.46
3A	664-868▲‡	3.46	2.96	2.68	2.46
5A	664-870▲‡	3.46	2.96	2.68	2.46
Antisurge (T)					
375mA	664-893▲‡	4.79	4.22	3.87	3.69
500mA	664-900▲‡	4.41	3.91	3.59	2.55
750mA	664-911▲‡	4.41	3.91	3.59	2.55
1A	664-923▲‡	4.95	4.35	3.97	2.80
1.5A	664-935▲‡	4.79	4.19	3.84	2.71
2A	664-947▲‡	4.41	3.91	3.59	2.55
2.5A	664-959▲‡	4.44	3.91	3.59	2.55
3A	664-960▲‡	4.44	3.91	3.59	2.55
3.5A	664-972▲‡	4.79	4.25	3.87	2.74
4A	664-984▲‡	4.57	4.06	3.72	2.61
5A	664-996▲‡	4.57	4.06	3.72	2.61

FUS264/220502

		Price Each			
Fuse Fitted	Order Code	10+	50+	100+	500+
Quick Blow (F)					
62mA	994-3595●	5.83	4.57	3.91	3.72
125mA	994-3609●	6.24	4.91	4.25	3.94
250mA	994-3617●	3.56	3.02	2.74	2.58
500mA	994-3625●	3.59	3.06	2.74	2.58
1A	994-3633●	3.56	3.02	2.74	2.58

RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

C = CYAN M = Magenta Y = Yellow B = Black/SING

Fuse Fitted	Order Code	Price Each 10+	50+	100+	500+
Quick Blow (F)					
2A	**994-3641●**	3.46	2.96	2.68	2.46
3A	**994-3650●**	3.46	2.96	2.68	2.46
5A	**994-3668●**	3.46	2.96	2.68	2.46
Antisurge (T)					
375mA	**994-3676●**	4.79	4.22	3.87	3.69
500mA	**994-3684●**	4.41	3.91	3.59	2.55
750mA	**994-3692●**	4.41	3.91	3.59	2.55
1A	**994-3706●**	4.95	4.35	3.97	2.80
1.5A	**994-3714●**	4.79	4.19	3.84	2.71
2A	**994-3722●**	4.41	3.91	3.59	2.55
2.5A	**994-3730●**	4.44	3.91	3.59	2.55
3A	**994-3749●**	4.44	3.91	3.59	2.55
3.5A	**994-3757●**	4.79	4.25	3.87	2.74
4A	**994-3765●**	4.57	4.06	3.72	2.61
5A	**994-3773●**	4.57	4.06	3.72	2.61

PICO SMF

Littelfuse

Slow Blow

L=7.2 W=4.3 H=3.0

- High performance
- **UL** recognised and **CSA** approved

Breaking capacity 50A @ 125V ac, 50A @ 125V dc
Operating temperature -55°C to +125°C
Mftrs. List No. R460 + Rating

FUS340/204533

Rating	Order Code	Price Each 10+	100+	250+	+
750mA	**302-9086▲**	2.43	2.08	1.72	– –
1.5A	**302-9104▲**	2.30	1.98	1.73	– –
3A	**302-9130▲**	2.30	1.98	1.73	– –
3.5A	**302-9141▲**	2.21	1.95	1.72	– –

Type FST 5 X 20 Time-lag

SCHURTER ELECTRONIC COMPONENTS

- Directly solderable onto printed circuit boards
- Withstands reflow and wave soldering temperatures to 260°C / 10s

- Low breaking capacity L
- Glass tube
- Non-resettable

Voltage rating (Vn) V
Breaking capacity 35A /
Ambient temperature -40°C to 125°C

Mftrs.List No.	Order Code	Mftrs.List No.	Order Code
0034.5610.11	444-8017	0034.5619.11	444-8108
0034.5611.11	444-8029	0034.5620.11	444-8110
0034.5612.11	444-8030	0034.5621.11	444-8121
0034.5613.11	444-8042	0034.5622.11	444-8133
0034.5614.11	444-8054	0034.5623.11	444-8145
0034.5615.11	444-8066	0034.5624.11	444-8157
0034.5616.11	444-8078	0034.5625.11	444-8169
0034.5617.11	444-8080	0034.5626.11	444-8170
0034.5618.11	444-8091	0034.5627.11	444-8182

311847

Rating	Order Code	Price Each 10+	50+	100+	1K+
0.2A	SMD **444-8017●**	0.84	0.72	0.66	0.60
0.25A	SMD **444-8029●**	0.84	0.72	0.66	0.60
0.315A	SMD **444-8030●**	0.81	0.69	0.63	0.57
0.4A	SMD **444-8042●**	0.81	0.69	0.63	0.57
0.5A	SMD **444-8054●**	0.84	0.72	0.66	0.60
0.63A	SMD **444-8066●**	0.81	0.69	0.63	0.57
0.8A	SMD **444-8078●**	0.81	0.69	0.63	0.57
1A	SMD **444-8080●**	0.84	0.72	0.66	0.60
1.25A	SMD **444-8091●**	0.84	0.72	0.66	0.60
1.6A	SMD **444-8108●**	0.81	0.69	0.63	0.57
2A	SMD **444-8110●**	0.84	0.72	0.66	0.60
2.5A	SMD **444-8121●**	0.81	0.69	0.63	0.57
3.15A	SMD **444-8133●**	0.84	0.72	0.66	0.60
4A	SMD **444-8145●**	0.84	0.72	0.66	0.60
5A	SMD **444-8157●**	0.84	0.72	0.66	0.60
6.3A	SMD **444-8169●**	0.84	0.72	0.66	0.60
8A	SMD **444-8170●**	0.88	0.72	0.65	0.62
10A	SMD **444-8182●**	0.84	0.72	0.66	0.60

20 x 5mm Fuses

Ultra Rapid (FF) Ceramic

SIBA

70-001-40 Series

Ceramic sand filled fuses with very short cut-off time, one tenth of a cycle at 10 times overload, designed to protect thyristors, rectifiers and any semiconductors sensitive to overload. **UL** recognised up to 5A

Voltage rating (Vn) 250V ac
Breaking capacity 1500A @ 6.3A & above 300kA up to 5A
Mftrs. List No. 70-001-40 + Rating

FUS2X/204497

Rating	Order Code	Price Each 10+	100+	500+	1K+
500mA	**117-5126●**	1.80	1.62	1.44	1.35
1A	**117-5127●**	1.80	1.62	1.44	1.35
1.6A	**117-5136●**	1.92	1.65	1.41	1.29
2A	**117-5128●**	1.80	1.62	1.44	1.35
2.5A	**117-5137●**	1.92	1.65	1.41	1.29
3.15A	**117-5131●**	1.80	1.62	1.44	1.35
4A	**117-5138●**	1.92	1.65	1.41	1.29
5A	**117-5132●**	1.80	1.62	1.44	1.35
6.3A	**117-5133●**	1.80	1.62	1.44	1.35
8A	**117-5134●**	1.80	1.62	1.44	1.35
10A	**117-5135●**	1.80	1.62	1.44	1.35

Quick Blow(F) Ceramic

multicomp

MCF04C Series

- Complies with **IEC 127, DIN41660** and **BS4265**

Voltage rating 250V Breaking capacity 1500A @ 250V
Mftrs. List No. MCF04C + Rating

FUS287/204484

Current Rating	Order Code	Price Each 10+	100+	500+	1K+	+
100mA	**112-3145●**	0.99	0.87	0.84	0.75	– –
125mA	**112-3147●**	0.99	0.87	0.84	0.75	– –
200mA	**112-3150●**	0.99	0.87	0.84	0.75	– –
250mA	**112-3151●**	0.99	0.87	0.84	0.75	– –
315mA	**112-3155●**	0.99	0.87	0.84	0.75	– –
400mA	**112-3156●**	0.99	0.87	0.84	0.75	– –
500mA	**112-3158●**	0.99	0.87	0.84	0.75	– –
630mA	**112-3161●**	0.99	0.87	0.84	0.75	– –
800mA	**112-3162●**	0.99	0.87	0.84	0.75	– –
1A	**112-3148●**	0.53	0.47	0.44	0.39	– –
1.25A	**112-3143●**	0.49	0.44	0.41	0.37	– –
1.6A	**112-3144●**	0.45	0.41	0.38	0.33	– –
2A	**112-3152●**	0.45	0.41	0.38	0.34	– –
2.5A	**112-3149●**	0.49	0.44	0.41	0.37	– –
3.15A	**112-3153●**	0.47	0.42	0.38	0.34	– –
4A	**112-3157●**	0.45	0.41	0.38	0.34	– –
5A	**112-3159●**	0.45	0.41	0.38	0.34	– –
6.3A	**112-3160●**	0.48	0.43	0.40	0.36	– –
8A	**112-3163●**	0.49	0.44	0.41	0.37	– –
10A	**112-3146●**	0.49	0.44	0.41	0.37	– –

Quick Blow (F) HRC Ceramic

Bussmann

20 x 5mm Fuses S501 Series

- Complies with **IEC127:Standard Sheet I**
- Approved to **SEMKO** (500mA to 5A)

Voltage rating (Vn) 250V ac
Breaking capacity 1500A @ Vn, Cos ∅ = 0.7 to 0.8

204522

Order Multiple=10

Rating	Order Code	Price Each 10+	250+	500+	1K+
100mA	**112-3097●**	1.30	1.17	1.11	1.07
250mA	**112-3101●**	1.17	1.04	1.01	0.98
500mA	**112-3106●**	0.42	0.38	0.35	0.33
630mA	**112-3109●**	0.42	0.38	0.35	0.33
800mA	**112-3110●**	0.42	0.38	0.35	0.33
1A	**112-3100●**	0.35	0.32	0.29	0.27
2A	**112-3102●**	0.35	0.32	0.29	0.27
3.15A	**112-3103●**	0.35	0.32	0.29	0.27
4A	**112-3104●**	0.35	0.32	0.29	0.27
5A	**112-3107●**	0.35	0.32	0.29	0.27
6.3A	**112-3108●**	0.35	0.32	0.29	0.27
8A	**112-3111●**	0.35	0.32	0.29	0.27
10A	**112-3098●**	0.35	0.32	0.29	0.27

Quick Blow (F) Glass

multicomp

20 x 5mm Fuses MCF05G

- Complies with **IEC127** Part 2 Sheet II, **DIN41661** and **BS4265**

Mftrs. List No. MCF05G + Rating

Voltage rating (Vn) 250V ac
Breaking capacity 100mA to 31.5A = 35A @ 250V, 4A to 10A = 10 X In @ 250V

204485

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

Current Rating	Order Code	Price Each 10+	100+	500+	1K+	+
100mA	112-3167●	0.60	0.56	0.53	0.49	– –
125mA	112-3169●	0.60	0.56	0.53	0.49	– –
160mA	112-3170●	0.60	0.56	0.53	0.49	– –
200mA	112-3173●	0.60	0.56	0.53	0.49	– –
250mA	112-3174●	0.60	0.56	0.53	0.49	– –
315mA	112-3177●	0.60	0.56	0.53	0.49	– –
400mA	112-3179●	0.24	0.22	0.19	0.13	– –
500mA	112-3182●	0.24	0.22	0.19	0.13	– –
630mA	112-3185●	0.24	0.22	0.19	0.13	– –
800mA	112-3186●	0.24	0.22	0.19	0.13	– –
1A	112-3171●	0.24	0.22	0.19	0.13	– –
1.25A	112-3164●	0.24	0.22	0.19	0.13	– –
1.6A	112-3165●	0.24	0.22	0.19	0.13	– –
2A	112-3175●	0.24	0.22	0.19	0.13	– –
2.5A	112-3172●	0.24	0.22	0.19	0.13	– –
3.15A	112-3176●	0.24	0.22	0.19	0.13	– –
4A	112-3181●	0.24	0.22	0.19	0.13	– –
5A	112-3183●	0.24	0.22	0.19	0.13	– –
6.3A	112-3184●	0.24	0.22	0.19	0.13	– –
8A	112-3187●	0.24	0.22	0.19	0.13	– –
10A	112-3168●	0.24	0.22	0.19	0.13	– –

Quick Blow (F) Glass

Bussmann

20 x 5mm Fuses S500 Series*

- Complies with **IEC127,BS4265, StandardSheet II**
- Approved to **SEMKO,BSI, VDE, IMQ**
- **UL** recognised* except 8A and 10A which are not approved

Voltage rating (Vn) 250V ac
Breaking capacity 35A@ Vn

Mftrs. List No.
50mA to 6.3A S500 + Rating,
8A, 10A* TDC641 + Rating

204592

Rating	Order Code	Price Each 10+	250+	500+	1K+
50mA	112-3089●	1.20	1.11	1.04	0.94
63mA	112-3093●	1.20	1.11	1.01	0.98
80mA	112-3095●	1.20	1.11	1.01	0.98
100mA	112-3074●	0.88	0.81	0.75	0.68
125mA	112-3077●	0.75	0.68	0.62	0.59
160mA	112-3078●	0.20	0.18	0.17	0.15
200mA	112-3081●	0.20	0.18	0.17	0.15
250mA	112-3082●	0.20	0.18	0.17	0.15
315mA	112-3085●	0.20	0.18	0.17	0.15
400mA	112-3086●	0.20	0.18	0.17	0.15
500mA	112-3088●	0.19	0.17	0.16	0.15
630mA	112-3092●	0.20	0.18	0.17	0.15
800mA	112-3094●	0.20	0.18	0.17	0.15
1A	112-3079●	0.20	0.18	0.17	0.15
1.25A	112-3072●	0.20	0.18	0.17	0.15
1.6A	112-3073●	0.20	0.18	0.17	0.15
2A	112-3083●	0.20	0.18	0.17	0.15
2.5A	112-3080●	0.20	0.18	0.17	0.15
3.15A	112-3084●	0.20	0.18	0.17	0.15
5A	112-3090●	0.20	0.18	0.17	0.15
6.3A	112-3091●	0.19	0.17	0.16	0.15
8A	112-3096●	0.16	0.14	0.13	0.12
10A	112-3076●	0.16	0.14	0.13	0.12

Quick Blow (F) Glass

Littelfuse

217 Series

- Complies with **IEC127, BS4265, Standard Sheet II**
- Approved to **SEMKO** and **VDE**

voltage rating (Vn) 250V ac
Breaking capacity 500mA to 31.5A 35A @Vn 4A to 6.3A 10 x In @ Vn

Mftrs. List No. 217 + Rating

FUS246/SI / 236545

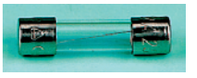
Order Multiple = 10

Rating	Order Code	Price Each 10+	50+	250+	500+
50mA	533-464▲	0.88	0.79	0.71	0.63
100mA	533-476▲	0.63	0.58	0.50	0.43
250mA	533-488▲	0.33	0.30	0.28	0.27
500mA	533-490▲	0.27	0.24	0.20	0.17
1A	533-506▲	0.30	0.27	0.23	0.20
2A	533-518▲	0.34	0.27	0.23	0.20
3.15A	533-520▲	0.30	0.27	0.23	0.20
4A	533-531▲	0.30	0.27	0.23	0.20
5A	533-543▲	0.34	0.27	0.23	0.20
6.3A	533-555▲	0.30	0.27	0.23	0.20

Medium Blow (M) Glass

Bussmann

TDC 210 Series



- Conforms to **DIN 41.75 T2**

Voltage rating 250V ac
Construction 1A - Glass tube
1.6A and above - glass tube with extinguishing agent

Breaking capacity @ 250V 1A = 80A
1.6A to 6.3A = 1000A
8A to 10A = 300A

Mftrs. List No. 210 + Rating

FUS312/204511

Rating	Order Code	Price Each 10+	50+	100+	250+	+	+
1A	120-2374●	0.27	0.25	0.23	0.22	– –	– –
1.6A	120-2375●	0.27	0.25	0.23	0.22	– –	– –
2A	120-2377●	0.27	0.25	0.23	0.22	– –	– –
2.5A	120-2378●	0.27	0.25	0.23	0.22	– –	– –
3.15A	120-2379●	0.27	0.25	0.23	0.22	– –	– –
4A	120-2380●	0.27	0.25	0.23	0.22	– –	– –
5A	120-2381●	0.27	0.25	0.23	0.22	– –	– –
6.3A	120-2382●	0.27	0.25	0.23	0.22	– –	– –
8A	120-2384●	0.27	0.25	0.23	– –	– –	– –
10A	120-2383●	0.27	0.25	0.23	– –	– –	– –

Antisurge(T) HRC Ceramic

Bussmann

S505 Series

- Complies with **IEC127, Standard Sheet V**
- Approved to **VDE** (2A to 5A), **SEMKO** (1.6A to 4A)

Voltage rating (Vn) 250V ac
Breaking capacity 1500A @ Vn

Mftrs. List No.Single: S505 + Rating

204611

Order Multiple=10

Rating	Order Code	Price Each 10+	250+	500+	1K+
500mA	112-3121●	0.94	0.91	0.88	0.85
800mA	112-3124●	0.94	0.91	0.88	0.85
1A	112-3115●	0.37	0.33	0.31	0.29
1.25A	112-3112●	0.37	0.33	0.31	0.29
1.6A	112-3113●	0.37	0.33	0.31	0.29
2A	112-3118●	0.37	0.33	0.31	0.29
2.5A	112-3116●	0.37	0.33	0.31	0.29
3.15A	112-3119●	0.37	0.33	0.31	0.29
4A	112-3120●	0.37	0.33	0.31	0.29
5A	112-3122●	0.37	0.33	0.31	0.29
6.3A	112-3123●	0.37	0.33	0.31	0.29
8A	112-3125●	0.37	0.33	0.31	0.29
10A	112-3114●	0.37	0.33	0.31	0.29

Antisurge (T) HRC Ceramic

multicomp

20 x 5mm Fuses MCF03C Series

- Complies with **IEC127, DIN41662** and **BS4265**

Voltage rating 250V Breaking capacity 1500A @ 250V

Mftrs. List No. MCF03C + Rating

204487

Current Rating	Order Code	Price Each 10+	100+	500+	1K+	+
500mA	112-3136●	0.52	0.49	0.44	0.38	– –
630mA	112-3139●	0.63	0.57	0.53	0.47	– –
800mA	112-3140●	0.52	0.49	0.44	0.38	– –
1A	112-3131●	0.52	0.49	0.44	0.38	– –
1.25A	112-3126●	0.52	0.49	0.44	0.38	– –
1.6A	112-3127●	0.52	0.49	0.44	0.38	– –
2A	112-3133●	0.52	0.49	0.44	0.38	– –
2.5A	112-3132●	0.52	0.49	0.44	0.38	– –
3.15A	112-3134●	0.52	0.49	0.44	0.38	– –
4A	112-3135●	0.52	0.49	0.44	0.38	– –
5A	112-3137●	0.52	0.49	0.44	0.38	– –
6.3A	112-3138●	0.52	0.49	0.44	0.38	– –
8A	112-3141●	0.52	0.49	0.44	0.38	– –
10A	112-3128●	0.52	0.49	0.44	0.38	– –

Antisurge (T) Glass

multicomp

20 x 5mm Fuses MCF06G Series

- Complies with **IEC127, DIN41662** and **BS4265**

Mftrs. List No. MCF06G + rating

Voltage rating 250V
Breaking capacity 32MA to 3.15A,35A @ 250V, 4A to 6.3A 10 x IN @250V

RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

204488

Current Rating	Order Code	Price Each 10+	100+	500+	1K+	+
32mA	112-3202●	1.41	1.29	1.11	0.81	– –
40mA	112-3204●	1.41	1.29	1.11	0.81	– –
50mA	112-3207●	1.44	1.32	1.14	0.84	– –
63mA	112-3213●	1.44	1.32	1.14	0.84	– –
80mA	112-3215●	1.20	1.11	0.98	0.78	– –
100mA	112-3190●	1.44	1.32	1.14	0.84	– –
125mA	112-3193●	0.49	0.44	0.38	0.28	– –
160mA	112-3194●	0.52	0.47	0.41	0.31	– –
200mA	112-3197●	0.47	0.42	0.37	0.26	– –
250mA	112-3198●	0.33	0.29	0.26	0.18	– –
315mA	112-3201●	0.30	0.27	0.23	0.17	– –
400mA	112-3203●	0.30	0.27	0.23	0.17	– –
500mA	112-3206●	0.30	0.27	0.23	0.17	– –
630mA	112-3212●	0.30	0.27	0.23	0.17	– –
800mA	112-3214●	0.30	0.27	0.23	0.17	– –
1A	112-3195●	0.30	0.27	0.23	0.17	– –
1.25A	112-3188●	0.30	0.27	0.23	0.17	– –
1.6A	112-3189●	0.30	0.27	0.23	0.17	– –
2A	112-3199●	0.30	0.27	0.23	0.17	– –
2.5A	112-3196●	0.30	0.27	0.23	0.17	– –
3.15A	112-3200●	0.30	0.27	0.23	0.17	– –
4A	112-3205●	0.31	0.28	0.25	0.17	– –
5A	112-3209●	0.32	0.29	0.26	0.18	– –
6.3A	112-3211●	0.32	0.29	0.26	0.18	– –
10A	112-3192●	0.32	0.29	0.26	0.18	– –

Antisurge (T) Glass

Enhanced Breaking Capacity

Littelfuse

Designed to meet the new **IEC 127 Part 2, sheet 6** requirements for enhanced breaking capacity glass fuses. A cost effective alternative to ceramic fuses in applications that require a fuse with a breaking capacity of 150A

Voltage rating 250V ac Breaking capacity 150A @ 250V ac
Mftrs. List No. 219 + Rating

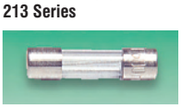
FUS268X/204463

Rating	Order Code	Price Each 10+	100+	500+	1K+
1A	665-060▲‡	0.38	0.34	0.30	0.23
1A	992-2458●	0.38	0.34	0.30	0.23
1.25A	665-071▲‡	0.38	0.34	0.30	0.23
1.25A	992-2466●	0.38	0.34	0.30	0.23
1.6A	665-083▲‡	0.38	0.34	0.30	0.23
1.6A	992-2474●	0.38	0.34	0.30	0.23
2A	665-095▲‡	0.38	0.34	0.30	0.23
2A	992-2482●	0.38	0.34	0.30	0.23
2.5A	665-101▲‡	0.38	0.34	0.30	0.23
2.5A	992-2490●	0.38	0.34	0.30	0.23
3.15A	665-113▲‡	0.38	0.34	0.30	0.23
3.15A	992-2504●	0.38	0.34	0.30	0.23
4A	665-125▲‡	0.38	0.34	0.30	0.23
4A	992-2512●	0.38	0.34	0.30	0.23
5A	665-137▲‡	0.38	0.34	0.30	0.23
5A	992-2520●	0.38	0.34	0.30	0.23
6.3A	665-149▲‡	0.38	0.34	0.30	0.23
6.3A	992-2539●	0.38	0.34	0.30	0.23

Antisurge (T) Glass - Spiral Element

213 Series

Littelfuse



- Complies with **IEC 127, BS4265, Standard Sheet III**
- Approved to **VDE, SEMKO,** and **BSI**

Voltage rating (Vn): 250Vac
Breaking Capacity: 250mA to 3.15A, 35A @ Vn, 40A @ Vn

Mftrs. List No.: 213 + Rating

FUS245/204439

Rating	Order Code	Price Each 10+	100+	500+	1K+
250mA	533-932▲‡	0.41	0.38	0.34	0.27
250mA	992-2210●	0.41	0.38	0.34	0.27
315mA	533-944▲‡	0.41	0.38	0.34	0.27
315mA	992-2229●	0.41	0.38	0.34	0.27
500mA	533-956▲‡	0.41	0.38	0.34	0.27
500mA	992-2237●	0.41	0.38	0.34	0.27
1A	533-968▲‡	0.41	0.38	0.34	0.27
1A	992-2245●	0.41	0.38	0.34	0.27
1.25A	533-970▲‡	0.41	0.38	0.34	0.27
1.25A	992-2253●	0.41	0.38	0.34	0.27
1.6A	533-981▲‡	0.41	0.38	0.34	0.27
1.6A	992-2261●	0.41	0.38	0.34	0.27
2A	533-993▲‡	0.41	0.38	0.34	0.27
2A	992-2270●	0.41	0.38	0.34	0.27
2.5A	534-006▲‡	0.41	0.38	0.34	0.27

Rating	Order Code	Price Each 10+	100+	500+	1K+
2.5A	992-2288●	0.41	0.38	0.34	0.27
3.15A	534-018▲‡	0.41	0.38	0.34	0.27
3.15A	992-2296●	0.41	0.38	0.34	0.27
4A	534-020▲‡	0.41	0.38	0.34	0.27
4A	992-2300●	0.41	0.38	0.34	0.27

Antisurge (T) Glass - Spiral Element

S504 Series

Bussmann

- Complies with **IEC127, BS4265, Standard Sheet III**
- Approved to **BSI, SIMKO, VDE** and **IMQ**

Voltage rating (Vn): 250V ac
Breaking capacity: 35A @ 250V ac, 50Hz, pf = 1.0
Mftrs. List No. Single: S504 + Rating

FUS10X/204368

Rating	Order Code	Price Each 10+	100+	500+	1K+
50mA	534-031▲	1.53	1.35	1.17	0.93
63mA	534-043▲	1.53	1.35	1.17	0.93
80mA	534-055▲	1.59	1.44	1.23	0.96
100mA	534-067▲	0.58	0.55	0.48	0.35
125mA	534-079▲	0.58	0.55	0.48	0.35
160mA	534-080▲	0.58	0.55	0.48	0.35
200mA	534-092▲	0.58	0.55	0.48	0.35
250mA	534-109▲	0.38	0.34	0.30	0.22
315mA	534-110▲	0.38	0.34	0.30	0.22
400mA	534-122▲	0.38	0.34	0.30	0.22
500mA	534-134▲	0.38	0.34	0.30	0.22
630mA	534-146▲	0.55	0.34	0.30	0.22
800mA	534-158▲	0.38	0.34	0.30	0.22
1A	534-160▲	0.38	0.34	0.30	0.22
1.25A	534-171▲	0.38	0.34	0.30	0.22
1.6A	534-183▲	0.38	0.34	0.30	0.22
2A	534-195▲	0.38	0.34	0.30	0.22
2.5A	534-201▲	0.38	0.34	0.30	0.22
3.15A	534-213▲	0.38	0.34	0.30	0.22
5A	534-225▲	0.38	0.34	0.30	0.22
6.3A	534-237▲	0.38	0.34	0.30	0.22

Antisurge (T) Glass - Plated Wire

20 x 5mm Fuses S506 Series

Bussmann

- Complies with **IEC127, BS4265, Standard Sheet III**
- Approved to **VDE, BSI, SEMKO** (not 5A) and **IMQ** (1A to 6.3A)

Voltage rating (Vn) 250V ac Mftrs. List No. Single: S506 + Rating
Breaking capacity 35A @ Vn

204379

Order Multiple=10

Rating	Order Code	Price Each 10+	250+	500+	1K+
500mA	112-3239●	0.23	0.21	0.19	0.18
630mA	112-3240●	0.23	0.21	0.19	0.18
1A	112-3241●	0.23	0.21	0.19	0.18
1.25A	112-3242●	0.19	0.17	0.16	0.15
1.6A	112-3243●	0.23	0.21	0.19	0.18
2A	112-3244●	0.23	0.21	0.19	0.18
2.5A	112-3246●	0.19	0.17	0.16	0.15
3.15A	112-3247●	0.23	0.21	0.19	0.18
5A	112-3248●	0.23	0.21	0.19	0.18
6.3A	112-3249●	0.23	0.21	0.19	0.18

20 x 5mm Fuse Kit

Bussmann

- A range of 18, 20 x 5mm quick blow and antisurge fuses supplied in a compartment storage box.
- The kit can be restocked when required.

H = 50, W = 260, D = 165

Kit contains 10 of each of the following:

Antisurge (ceramic)	S 505 Series	2A, 3.15A, 5A
Quick blow (glass)	S 500 Series	500mA, 1A, 2A, 3.15A, 5A, 6.3A
Antisurge (glass)	S 504 Series	315mA, 500mA, 630mA
Antisurge (glass)	S 506 Series	500mA, 1A, 1.25A, 1.6A, 2A, 3.15A

204398

	Order Code	Price Each 1+	5+	10+
20 x 5mm Kit	120-2373●	74.03	65.88	58.11

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

20 x 5mm Panel Mount Fuseholders

Bayonet Release

20 x 5mm Panel Mount

multicomp

- Moulded in black polycarbonate
- Features a nylon screwdriver release bayonet cap
- **UL** Recognised, **CSA** and **SEMKO** approved

Length 45.7, Dia (bezel) = 15.0
Depth behind panel = 40.2
Panel cut-out = 12.7 dia
Single flat = 12.0,
Panel thickness 0.8 to 6.5
Tabs = 4.8 x 0.51

Rating 6.3A, 250V ac
Operating temperature 65°C max
Mftrs. List No. MCHTC70M

204504

Order Code	Price Each 5+	25+	100+	250+	+	+
899-290●	2.62	2.22	1.92	1.65	– –	– –

Screw Cap/Finger Release

20 x 5mm Panel Mount

multicomp

Length=34.2, Dia (Bezel) =16.0,
Depth behind panel=23.2,
Panel cut-out=13 dia
Key Way=1.0 x 1.8,
Panel thickness 1 to 2.8

- Moulded in black polycarbonate
- Features a nylon finger release screw cap, with additional screwdriver slot

Rating 6.3A, 250Vac Mftrs. List No. MCHTC30M
Operating temperature 75°C max

204494

Order Code	Price Each 5+	25+	100+	250+	+	+
899-252●	2.03	1.62	1.35	1.08	– –	– –

Screw Cap

multicomp

Length=37.5, Dia (Bezel)=15.0
Depth behind panel=32.0
Panel cut-out=12.7
Single flat=12.0,
Panel thickness=0.8 to 6.5
Tabs=3.0 x 0.51

- Moulded in black polycarbonate
- Features a nylon screwdriver release screw cap

Rating 6.3A, 250Vac Operating temperature 75°C max
Mftrs. List No. MCHTC35M

204502

Order Code	Price Each 5+	25+	100+	250+	+	+
899-288●	2.50	2.01	1.65	1.35	– –	– –

Front Mount - Sealed Option

FPG-1 Series

SCHURTER ELECTRONIC COMPONENTS

Body L 41.5 (Finger release 46.5), Dia. Bezel=15, Depth behind panel=34.5
Panel hole dia=13, Panel hole - 1 flat=12.7 x 12, Panel hole - 2 flat=12.7 x 11.7
Panel thickness=6 max

- Available with screwdriver or finger release carriers
- **IP67** sealed option available
- Solder/quick connect terminals
- Bayonet cap carriers
- Compact design
- **UL** recognised, **VDE, SEV, SEMKO** and **CSA** approved
- Shocksafe category **PC2**

Rating 10A @ 250V - **VDE**, **SEMCO** and **SEV**
16A @ 250V - **UL** and **CSA**
Materials PBTP thermoplastic **UL94V-0**
Contact resistance ≤5mΩ @ 20mV
Operating temp. -40°C to +85°C
Contacts Copper alloy

Mftrs. List No: 3101.0010 = 113-4122, 3101.0110 = 108-1794
3101.0015 = 113-4123, 3101.0115 = 113-4124

204506

	Order Code	Price Each 5+	10+	50+
Unsealed (IP40)				
Screwdriver release	113-4122●	2.32	2.04	1.81
Finger release	113-4123●	2.65	2.33	2.07
Sealed (IP67)				
Screwdriver release	108-1794●	3.59	3.16	2.80
Finger release	113-4124●	3.99	3.51	3.11

Rear Mount

FPG2 Series

SCHURTER ELECTRONIC COMPONENTS

L.Overall=41.5 (Finger release 46.5), Dia Bezel=16.1, Depth behind panel=28
Panel hole dia=13, Panel hole - 1 flat=12.7 x 12
Panel hole - 2 flats=12.7 x 11.7, Panel thickness=8 max

- Panel rear mount - allows pre-wiring
- Available with screwdriver or finger release
- Solder/quick connect terminals 4.8 x 0.5
- Compact design
- Bayonet cap carriers
- Shocksafe category **PC2**
- **UL** recognised, **VDE, SEV, SEMKO** and **CSA** approved

Rating 10A @ 250V
Materials PBTP thermoplastic **UL94V-0**
Operating temperature -40°C to +85°C
Contact resistance ≤5mΩ @ 20mV
Contacts Copper alloy

Mftrs. List No:3101.0020= 113-4125,3101.0025= 108-1795

204507

	Order Code	Price Each 1+	50+	100+
Screwdriver release	113-4125●	2.47	2.18	1.93
Finger release	108-1795●	2.61	2.30	2.04

Finger Release/Screw Cap

Belling Lee

- Moulded in black phenolic with solder tab terminations

L (overall)=35.8
Dia (bezel)=15.2
Depth behind panel=26.5
Panel cutout=12.9
Panel keyway=1.7 x 1.1
Panel thickness=3.6 max

Rating 6.3A @ 250V ac Operating temperature -55°C to +70°C
Breakdown voltage ≥4kV (sea-level)

204525

Mftrs. List No.	Order Code	Price Each 1+	50+	+	+
E6011B	319-340●	5.65	5.05	– –	– –

Screw Cap

Belling Lee

- Moulded in black phenolic and designed to meet the safety requirements of **BS415, IEC257** approved, **UL** Recognised
- The cap with slot is easily removed using a small coin.
- Solder tab terminations.

L (overall)=34.1, Dia (bezel)=14.6, Depth behind panel=27.0
Panel cutout=12.9, Panel keyway=1.7 x 1.1, Panel thickness=3.6max

Rating 6.3A @ 250 V ac Operating temperature -55°C to +70°C
Breakdown voltage >4kV dc
Mftrs. List No. L2006A

204543

Order Code	Price Each 1+	50+	200+	+	+
319-363●	8.19	6.32	6.00	– –	– –

21

Fuses, Circuit Breakers & Consumer Units

● Compliant
◄ Non-compliant
‡ Limited stock - RoHS replacement available

RoHS

C = CYAN M = Magenta Y = Yellow B = Black/SING

Touchproof® - Screw Cap

BULGIN

High and Low Profile Styles

20 x 5mm Panel Mount

L (overall)=44.1 Dia. (bezel)=15.9
Depth behind panel=41.7
Panel cutout keyway=12.8 dia, 2.4 x 1.15
Panel cutout 'D' type (single flat) 12.0 x 12.8 dia
Panel thickness=8.7 max. Tabs=2.8

L (overall) = 44.1 Dia. (Bezel) = 15.9
Depth behind panel = 31.8
Panel cutout keyway = 12.8 dia, 2.4 x 1.15
Panel cutout 'D' type (single flat) 12.0 x 12.8 dia
Panel thickness=5.6 max Tabs=2.8

- Panel mounting fuseholder with polyester body
- Available in 'D' type or key-way fixing styles
- Approved to **VDE, SEMKO** and **CSA**, **UL** Recognised
- Designed to conform with **BT172D**

Rating 10A @ 250V ac Operating temperature -20°C to +100°C
Breakdown voltage 7kV ac @ 50Hz

Mftrs. List No. FX0454 = 248-447, FX0455 = 319-405, FX0454S = 248-459, FX0455S = 319-375

204555

Fixing	Order Code	Price Each 1+	100+	250+	500+	+
Low Profile						
D' type	**319-405**●	3.51	3.27	3.05	2.54	– –
Key-way	**248-447**●	3.51	3.27	3.05	2.54	– –
High Profile						
D' type	**319-375**●	3.51	3.27	3.05	2.54	– –
Key-way	**248-459**●	3.51	3.27	3.05	2.54	– –

IP66 Sealed - Screwdriver Slot or Finger Release

BULGIN

20 x 5mm Panel Mount

L (overall)=45.3
Dia. (bezel)=17.1
Depth behind panel=27.8
Panel cut-out (single flat)
=12.0 x 12.9 dia.
Panel thickness=7.1 max.
Tabs=2.8

L (overall) = 44.5
Dis. (bezel) = 20.6
Depth behind panel = 27.8
Panel cut-out (single flat) = 12.0
x 12.9 dia
Panel thickness = 7.1 max.
Tabs = 2.8

'D' type panel mounting fuseholder to **BS5490**, moulded from glass filled nylon. The **IP66** sealing is retained even with the cap removed since the fuseholder is both panel and barrier sealed.

Warning: Tab positions on fuseholder must not be adjusted.

Rating 6.3A @ 250V ac Operating temperature -20°C to +85°C
Breakdown voltage 3.5kV @ 50Hz Insertion resistance ≤10mΩmR
Insulation resistance ≥1000MΩ @ 500V dcMR

Mftrs. List No. FX0345 Screwdriver release, FX0365 Finger release

204580

	Order Code	Price Each 1+	100+	250+	500+	+
Screwdriver Release	**319-430**●	9.89	9.02	8.86	8.47	– –
Finger Release	**319-442**●	9.89	9.02	8.86	8.47	– –

20 x 5mm PCB Mount Fuseholders

Finger Release Bayonet Cap

multicomp

Horizontal and Vertical Styles

- Moulded in black polycarbonate
- Feature a nylon finger release bayonet cap with screwdriver slot
- **CSA, SETI and SEMKO** approved , **UL** Recognised.

Length (body and cap)=33.1,
Length (body only)=28.1
Diameter=12 with 11.7 flat, Cap diameter=10.0

Rating 6.3A @ 250V ac Operating temperature 218°C max.

Mftrs. List No. MCHTC45M (vertical), MCHTC50M (horizontal)

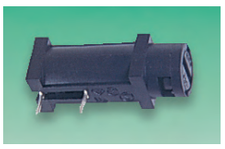
204503

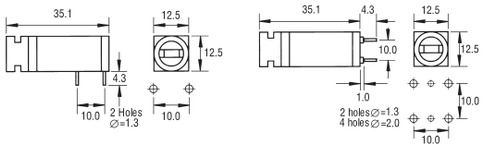
	Order Code	Price Each 5+	50+	100+	500+	+
Horizontal	**149-185**●	1.53	1.44	1.35	1.20	– –
Vertical	**149-187**●	2.00	1.74	1.47	1.20	– –

Touchproof® Bayonet Cap - Horizontal

BULGIN

20 x 5mm PCB Mount





Designed to **BS3042** for user safety with black polyester moulded body and nylon cap/end bung. Contacts are silver plated brass. Approved to **CSA, VDE, SEMKO**, **UL** Recognised and conforms to **IEC257**.

Rating 10A @ 250V ac Operating temperature -20°C to +100°C
Breakdown voltage 4kV @ 50Hz

Mftrs. List No. FX0457 = 149-920, FX0456 = 149-919

204583

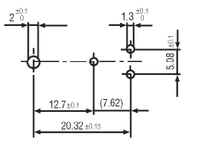
Order Code	Price Each 1+	100+	250+	500+	+
Horizontal					
149-920●	4.17	3.85	3.37	3.21	– –
Vertical					
149-919●	4.17	3.85	3.37	3.21	– –

Vertical and Horizontal Mount

SCHURTER ELECTRONIC COMPONENTS

EPG4 and FPG5 Series

Length overall = 32
(Finger release 37)
Height above PCB=12.7
Drilling plan



Height overall=37.8 (finger release 42.8)
Height above PCB=32.6 (Finger release 37.6)
Base 12.5 x 12.5, Drilling 4 holes 7.62 x 5.08 x 1.3 dia

- Vertical or horizontal pcb mount
- Available in screw driver or finger release
- Bayonet cap carriers
- Compact design
- Shock safe category **PC2**
- **UL** recognised, **VDE, SEV, SEMKO** and **CSA** approved

Rating 10A @ 250V - **VDE**, **SEMKO** and **SEV** Contact resistance ≤5mΩ @ 20mVmR
16A @ 250V - **UL** and **CSA** Max. power dissipation 2.5W @ 40°
Materials PBTP thermoplastic UL94V-0
Operating Temp. -40 to +85°C Contacts Copper alloy

Mftrs. List No. 3101.0040 = 122-2690 3101.0045 = 122-2691
3101.0050 = 122-2692 3101.0055 = 122-2693

204495

	Order Code	Price Each 5+	10+	50+
Vertical Mount (FPG4)				
Screwdriver release	**122-2690**●	2.57	2.26	2.01
Finger release	**122-2691**●	2.54	2.24	1.98
Horizontal Mount (FPG5)				
Screwdriver release	**122-2692**●	2.34	2.06	1.82
Finger release	**122-2693**●	2.54	2.24	1.98

Fuse Clips

Bussmann

PCB drilling plan

Hot tin dipped, hard brass fuse clips. Each clip has two mounting lugs suitable for 0.1" matrix board use.

Rating 6.3A (dependent on track size of PCB) Mftrs. List No. HTC210M.

204588

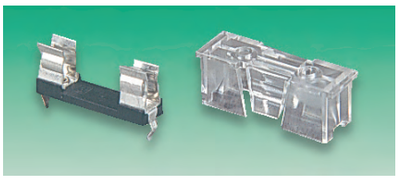
200 Per Pack Order Code	Price Per Pack 1+	50+	125+	250+	+	+
926-851●	12.02	10.88	9.76	8.28	– –	– –

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products,
prices are subject to change without notice.

Open

20 x 5mm PCB Mount

BULGIN



Fuse Holder
H=14.3, W=6.4, D=23.4
Fixing centres=22.9 x 2.0

Fuse Cover
H=10.9, W=9.6,
D=29.0

Open fuseholder with a glass filled nylon base and matching clear cover.

Rating 6.3A @ 250V ac
Operating temperature 0°C to +90°C
Mftrs. List No. FX0321 = 319-491
12760 = 471-677

204591

Order Multiple=5

	Order Code	Price Each 5+	100+	250+	500+	+
Fuse Holder	**319-491●**	1.57	1.44	1.35	1.19	– –
Fuse Cover	**471-677●**	0.54	0.47	0.44	0.36	– –

Open

Belling Lee

Open fuseholder with a synthetic resin bonded paper base.

H=9.5, W=6.4, D=23.8
Fixing centres=22.9 x 2.0

Rating 6.3A
Breakdown voltage >3kV
Operating temperature -40°C to +40°C

204593

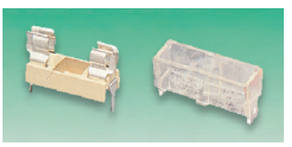
Mftrs. List No.	Order Code	Price Each 1+	125+	500+	1K2+
L1426	**319-508●**	4.01	3.21	2.70	2.46

Open with Cover

20 x 5mm PCB Mount

multicomp

146-123
Fuseholder
H=15, W=9.0, D=23
F.C.=22.3 x 1.5.
Fixing hole=2.9



146-124
Cover
H=15, W=9.0, D=26.5

Manufactured in a glass filled thermoplastic with central fixing hole. A plastic cover is available, transparent to allow visual inspection.

Rating 6.3A @ 250V
Breakdown voltage 2.5kV
Operating temperature 75°C max (holder)
75°C max (cover)
Mftrs. List No.
Holder MCHTE15M
Transparent cover MCHTC150M

204589

	Order Code	Price Each 10+	100+	500+	1K+
Holder	**146-123●**	0.30	0.20	0.16	0.15
Transparent cover	**146-124●**	0.13	0.10	0.09	0.09

Semi-Enclosed

20 x 5mm PCB Mount

multicomp

Moulded in black glass filled nylon with a small window which allows easy visual inspection of the fuse.

Rating 5A @ 250V
Operating temperature -40°C to +110°C

Mftrs. List No. MCHTC-100M

H=11.4, W=9.4, D=24.4,
F.C.=22.6 pins x 0.5 x 1.2

204590

Order Code	Price Each 10+	50+	100+	500+	+
976-120●	0.58	0.56	0.55	0.50	– –

20 x 5mm In-Line Fuseholders

Bayonet Fit

Arcolectric

Moulded from black nylon with a bayonet locking action.

L=43.2, Dia.=14.2
Wire dia=4.0 max.

Rating 5A @ 50V
Breakdown voltage 2kV
Operating temperature +85°C max.
Mftrs. List No. A003300

204586

Order Code	Price Each 5+	50+	100+	250+	+
152-233●	1.64	1.51	1.35	0.87	– –

Screw Fit

BULGIN

Standard
L=50.4, Dia.=15.9,
Wire dia.=4.0 max.

IP66 Sealed
L = 78.9, Dia. = 16.5
Wire dia. = 1.0 to 1.4mm, 1.5 to 1.9mm,
2.0 to 2.64mm dependent
where 3 section grommet is cut.

Moulded from clear polybutene with nickel plated brass grub screw terminations, available in either standard or **IP66** sealed versions.

Rating 10A @ 250V
Operating temperature -20°C to +70°C
Mfftrs. List No. FX0380 = 319-480
FX0385 = 272-176

Note: When assembled current must not flow through the spring 250V rated in equipment, otherwise 50V ac/dc

204432

	Order Code	Price Each 1+	50+	100+	250+	+	+
Standard	**319-480●**	3.18	2.86	2.70	2.57	– –	– –
IP66 Sealed	**272-176●**	4.65	4.24	3.85	3.49	– –	– –

Push on Fuse Caps

WICKMANN

Lead Length=40
Lead dia=0.65 (20mm x 5mm), 0.8 (1¼" x ¼")

Fuse caps which simply push onto standard 20mm x 5mm or 1¼" x ¼" cartridge fuses to convert them to axial leaded style for PCB mounting.

Maximum rating 8A

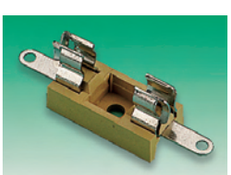
Mftrs. List No. 776-6980 = 268, 581-460 = 19266

204396

100 Per Pack	Order Code	Price Per Pack 1+	5+	10+	50+	+
20mm x 5mm	**776-6980●**	30.43	21.94	18.29	16.11	– –
1¼" x ¼"	**581-460**	44.74	32.26	26.39	20.91	– –

20 x 5mm Base Mount Fuseholders

multicomp



- Moulded in beige polyphenylene oxide
- Features a central countersunk fixing hole

Length (overall)=39.8
Length (Body)=22.0, Height=13.5, Width=10.3

Rating 6.3A @ 250V ac
Operating temperature 150°C max.

204501

Mftrs. List No.	Order Code	Price Each 5+	25+	100+	250+	+
MCHTC-10M	**899-240●**	1.26	0.81	0.63	0.47	– –

15.9 x 4.76mm Fuses (⅝" x 3⁄16"), Size '00'

Quick Blow Glass

L562 Series

Belling Lee

Voltage rating (Vn) up to 500mA 250V ac ac
1A, 2.5A 150V ac ac
4A - 7A 60V ac ac
Breaking capacity 35A @ Vn
Mftrs. List No. L562 + Rating

● Compliant
◄ Non-compliant
++ Limited stock - RoHS replacement available

RoHS

C = CYAN M = Magenta Y = Yellow B = Black/SING

204380

Rating	Order Code	Price Each 10+	100+	500+	1K+
50mA	968-7971●	3.96	3.15	2.82	2.70
100mA	968-7980●	4.11	2.67	2.52	2.19
250mA	968-7998●	3.69	3.24	2.94	2.88
500mA	968-8005●	2.40	2.00	– –	– –
1A	968-8013●	2.79	2.31	2.01	2.00
2.5A	968-8021●	2.79	2.31	2.01	2.00
2.5A	968-8021●	2.79	2.31	2.01	2.00
4A	968-8030●	2.40	2.00	– –	– –
5A	968-8048●	2.52	2.07	2.00	– –
7A	968-8056●	3.18	2.55	2.19	2.00

Minature, Size 00 Glass

5/8" x 3/16" (15.9 x 4.7mm)

Belling Lee

NEW

Dia. = 4.7, L = 15.9mm

Current Rating (I_n)	Rated Voltage V dc	V ac	Time to blow	Mftrs List No.	Order Code
50mA	900	250	10 sec @ 3 x I_n	L562 50MA	968-7971
100mA	900	250	10 sec @ 3 x I_n	L562 100MA	968-7980
250mA	600	250	10 sec @ 2 x I_n	L562 250MA	968-7998
500mA	300	250	10 sec @ 2 x I_n	L562 500MA	968-8005
1A	200	150	10 sec @ 2 x I_n	L562 1A	968-8013
2.5A	150	150	10 sec @ 2 x I_n	L562 2.5A	968-8021
4A	60	60	10 sec @ 2 x I_n	L562 4A	968-8030
5A	60	60	10 sec @ 2 x I_n	L562 5A	968-8048
7A	60	60	10 sec @ 2 x I_n	L562 7A	968-8056

412860

Current Rating	Order Code	Price Each 10+	100+	500+	1K+
100mA	968-7980●	4.11	2.67	2.52	2.19
250mA	968-7998●	3.69	3.24	2.94	2.88
500mA	968-8005●	2.40	2.00	– –	– –
1A	968-8013●	2.79	2.31	2.01	2.00
2.5A	968-8021●	2.79	2.31	2.01	2.00
4A	968-8030●	2.40	2.00	– –	– –
5A	968-8048●	2.52	2.07	2.00	– –
7A	968-8056●	3.18	2.55	2.19	2.00

25 x 5mm Fuses

Quick Blow (F) HRC Ceramic

70-010-04 Series

SIBA

- Conforms to **DIN 41 572 Part 1**
- Colour coded

Voltage Rating 250V Breaking capacity 1500A @ 250V

Mftrs. List No. 70-010-04 + Rating

204544

Rating	Colour Code	Order Code	Price Each 1+	5+	10+	50+
1.6A	Orange	117-5156●	6.00	5.67	5.40	4.98
2A	Blue	117-5157●	6.00	5.67	5.40	4.98
3.15A	Black	117-5158●	6.00	5.67	5.40	4.98
4A	Brown	117-5159●	6.00	5.67	5.40	4.98
5A	White	117-5160●	6.00	5.67	5.40	4.98
6.3A	Green	117-5161●	6.00	5.67	5.40	4.98
8A	Grey	117-5162●	6.00	5.67	5.40	4.98
10A	Red	117-5163●	6.00	5.67	5.40	4.98

Medium Blow (M) HRC Ceramic

70-010-05 Series

SIBA

- Conforms to **DIN 41 576 Part 2** except 10A
- Colour coded

Voltage Rating 250V Breaking capacity 1500A @ 250V

Mftrs. List No. 70-010-05 + Rating

204545

Rating	Colour Code	Order Code	Price Each 1+	5+	10+	50+
500mA	White	117-5164●	6.48	6.27	6.00	5.82
1A	Red	117-5165●	6.99	6.78	6.36	6.18
1.6A	Orange	302-8549	5.64	5.52	5.25	5.01
2A	Blue	117-5167●	5.51	– –	– –	– –
3.15A	Black	302-8562	5.64	5.52	5.25	5.01
4A	Brown	117-5168●	5.64	5.52	5.25	5.01
5A	White	117-5169●	5.64	5.52	5.25	5.01
6.3A	Green	117-5170●	5.64	5.52	5.25	5.01
10A	Red	117-5171●	5.22	5.11	4.95	4.74

25.4 x 6.35mm Fuses (1" x ¼")

Mains Quick Blow Ceramic

TDC180 Series

Bussmann

Bulk Pack Available

- Available in bulk pack of 1000 fuses

Voltage Rating (Vn) 250V ac
Breaking capacity 6000A @ Vn

Mftrs. List No. Single: TDC180 + Rating
Bulk: BK/TDC180 + Rating

Complies with **BS1362: 1973 ASTA Certified - 2A to 13A.**

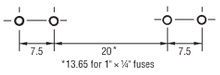
204381

Rating	Order Code	Price Each 10+	250+	500+	1K+
1A	112-3029●	0.45	0.40	0.37	0.35
2A	112-3032●	0.41	0.37	0.34	0.32
3A	112-3033●	0.41	0.37	0.34	0.32
5A	112-3034●	0.41	0.37	0.34	0.32
7A	112-3035●	0.41	0.37	0.34	0.32
10A	112-3030●	0.41	0.37	0.34	0.32
13A	112-3031●	0.41	0.37	0.34	0.32

Bulk Packs Rating		Price Per Pack 1+	2+	3+
1A	112-3021●	249.98	238.27	234.52
2A	112-3024●	249.98	238.27	234.52
3A	112-3025●	249.98	238.27	234.52
5A	112-3027●	249.98	238.27	234.52
7A	112-3028●	249.98	238.27	234.52
10A	112-3022●	249.98	238.27	234.52
13A	112-3023●	249.98	238.27	234.52

25.4 x 6.35mm Fuses (1" x ¼") 31.5 x 6.35mm Fuses (1¼") PCB Fuseholder

Fuse Clips



PCB drilling plan
Hole dia = 1.6

Tin plated phosphor bronze fuse clips. Each clip has two mounting lugs and ear stops.

Rating 15A (dependent on track size of PCB)

204416

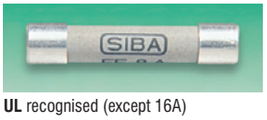
100 Per Pack Order Code	Price Per Pack 1+	25+	100+	250+
117-5125●	12.79	12.43	11.98	11.65

31.75 x 6.35mm Fuses (1¼" x ¼"), Size '0'

Ultra Rapid (FF) Ceramic

70-125-40 Series

SIBA



Ceramic **sand filled** fuses with very short cut-off time, one tenth of a cycle at 10 times overload, designed to protect thyristors, rectifiers and any semiconductors sensitive from overload.

UL recognised (except 16A)

Voltage Rating (Vn) 700V ac up to 2A
Breaking capacity 500V ac 2.5A & above

Mftrs. List No. 70-125-40 + Rating

204383

Rating	Order Code	Price Each 10+	100+	500+	1K+
1A	117-5102●	3.30	2.88	2.37	2.28
1.6A	117-5112●	2.99	2.73	2.38	2.25
2A	117-5103●	2.76	2.46	2.16	2.04
2.5A	117-5113●	2.99	2.73	2.38	2.25
3.15A	117-5104●	2.76	2.46	2.16	2.04
4A	117-5114●	2.99	2.73	2.38	2.25
5A	117-5106●	2.76	2.46	2.16	2.04
6.3A	117-5107●	2.76	2.46	2.28	– –
8A	117-5108●	2.76	2.46	2.28	– –
10A	117-5109●	2.76	2.46	2.28	– –
12.5A	117-5110●	2.76	2.46	2.28	– –
16A	117-5111●	2.76	2.46	2.28	– –

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

C = CYAN M = Magenta Y = Yellow B = Black/SING

Quick Blow (F) Ceramic

MCF07C Series

multicomp

- Manufactured to meet UL and CSA time/current characteristics
- **CSA** approved up to 15A

Voltage rating 250V ac Breaking capacity @ 250V ac
Up to 500mA = 35A 750mA to 3A = 100A
4A to 7A = 200A 8A to 15A = 750A
20A = 1000A

Mftrs. List No. MCF07C + Rating

204513

Rating	Order Code	Price Each 10+	100+	500+	1K+	+
125mA	119-0663●	0.91	0.84	0.74	0.60	– –
500mA	119-0664●	0.79	0.76	0.69	0.52	– –
1A	119-0665●	0.79	0.75	0.69	0.51	– –
2A	119-0666●	0.79	0.75	0.69	0.51	– –
3A	119-0667●	0.79	0.75	0.69	0.51	– –
5A	119-0668●	0.79	0.75	0.69	0.51	– –
6A	119-0669●	0.79	0.75	0.69	0.51	– –
8A	119-0670●	0.79	0.75	0.69	0.51	– –
10A	119-0671●	0.79	0.75	0.69	0.51	– –
12A	119-0673●	0.79	0.75	0.69	0.51	– –
15A	119-0674●	0.79	0.75	0.69	0.51	– –
20A	119-0675●	0.92	0.85	0.75	0.61	– –

Quick Blow (F) HRC Ceramic

70-065-63 Series

SIBA

UL Recognised (up to 6.3A)

Voltage Rating (Vn) 500V ac
Breaking capacity 1500A @ Vn
Mftrs. List No. 70-065-63 + rating

204388

Rating	Order Code	Price Each 10+	100+	500+	1K+
500mA	117-5115●	0.72	0.66	0.60	0.57
1A	117-5116●	0.72	0.66	0.60	0.57
2A	117-5118●	0.72	0.66	0.60	0.57
3A	117-5119●	0.72	0.66	0.60	0.57
5A	117-5120●	0.72	0.66	0.60	0.57
6.3A	117-5124●	0.69	0.63	0.57	0.54
7A	117-5121●	0.72	0.66	0.60	0.57
10A	117-5122●	0.72	0.66	0.60	0.57
16A	117-5123●	0.81	0.72	0.60	0.54

Quick Blow (F) Ceramic

L693 Series

Belling Lee

Complies with **DEF-59-96**

Voltage Rating 440V ac ac230V dc dc
Breaking capacity 33000A @ Vn cos ∅ = 0.3
Mftrs. List No. L693 + rating

204389

Rating	Order Code	Price Each 10+	100+	500+	1K+
250mA	968-8064●	4.14	3.15	2.74	– –
500mA	968-8072●	4.62	3.54	2.97	2.74
1A	968-8080●	4.62	3.54	2.97	2.74
2A	968-8099●	4.14	3.15	2.74	– –
3A	968-8102●	4.14	3.15	2.74	– –
5A	968-8110●	3.87	3.09	2.74	– –
7A	968-8129●	4.14	3.15	2.74	– –
10A	968-8137●	4.62	3.54	2.97	2.74

Quick Blow (F) Glass

MCF01G Series

multicomp

- **CSA** approved

Voltage rating 250V Breaking capacity 250mA to 1A 35A @ 250V ac
1.25 to 3A 100A @ 250V ac
4A to 10A 200A @ 250V ac

Mftrs. List No. MCF01G + Rating

204486

Rating	Order Code	Price Each 10+	100+	500+	1K+	+
500mA	119-0653●	0.33	0.29	0.26	0.24	– –
1A	119-0654●	0.31	0.28	0.26	0.24	– –
2A	119-0655●	0.33	0.30	0.27	0.24	– –
3A	119-0656●	0.31	0.28	0.26	0.24	– –
4A	119-0657●	0.31	0.28	0.26	0.24	– –
5A	119-0658●	0.31	0.28	0.26	0.24	– –
6A	119-0661●	0.31	0.28	0.26	0.24	– –
10A	119-0662●	0.31	0.28	0.26	0.24	– –

Quick Blow (F) Glass

TDC10 Series

Bussmann

Complies with **BS2950A**

Voltage rating (Vn):				
	60mA - 250mA	1000V ac	1.5A - 5A	250V ac
	500mA	750V ac	7.5A	150V ac
	750mA	500V ac	10A	100V ac
	1A - 1.25A	350V ac	12A - 25A	32V ac
Breaking capacity	10 x In @ Vn		Mftrs. List No.	TDC10 + Rating

204395

Rating	Order Code	Price Each 10+	100+	500+	1K+
60mA	534-869	1.20	1.08	0.99	0.96
100mA	534-870	1.56	1.38	1.26	1.20
150mA	534-882	1.20	1.08	0.99	0.96
250mA	534-894	0.36	0.32	0.30	0.28
500mA	534-900	0.37	0.33	0.31	0.29
750mA	534-912	0.36	0.32	0.30	0.28
1A	534-924	0.28	0.26	0.24	0.23
1.25A	534-936	0.28	0.26	0.24	0.23
1.5A	534-948	0.28	0.26	0.24	0.23
2A	534-950	0.28	0.26	0.24	0.23
2.5A	534-961	0.28	0.26	0.24	0.23
3A	534-973	0.28	0.26	0.24	0.23
5A	534-985	0.28	0.26	0.24	0.23
7.5A	534-997	0.28	0.26	0.24	0.23
10A	535-000	0.30	0.28	0.26	0.24
12A	535-011	0.38	0.33	0.29	0.27
15A	535-023	0.30	0.28	0.26	0.24
20A	535-035	0.38	0.33	0.29	0.27
25A	535-047	0.38	0.33	0.29	0.27

Antisurge (T), Ceramic

70-065-65 Series

SIBA

- **UL** Recognised up to 16A

Voltage Rating (V) 500V ac (up to 10A)
440V ac (12.5A-25A)
250V ac (32A)
Breaking capacity 1500A @ V (up to 25A)
1000A @ V (32A)
Maximum voltage drop 800-150mV

Please note that when using 8A or over, consideration should be given to heat dissipation

Mftrs. List No. 70-065-65 + Rating

204524

Rating	Order Code	Price Each 10+	100+	500+	1K+	+
500mA	117-5139●	0.96	0.84	0.78	0.69	– –
1A	117-5140●	0.96	0.84	0.78	0.69	– –
2A	117-5141●	0.96	0.84	0.78	0.69	– –
2.5A	117-5143●	0.96	0.84	0.78	0.69	– –
3.15A	117-5144●	0.96	0.84	0.78	0.69	– –
4A	117-5145●	0.96	0.84	0.78	0.69	– –
5A	117-5146●	0.96	0.84	0.78	0.69	– –
6.3A	117-5147●	0.96	0.84	0.78	0.69	– –
8A	117-5148●	0.96	0.84	0.78	0.69	– –
10A	117-5149●	0.96	0.84	0.78	0.69	– –
12.5A	117-5150●	0.91	0.85	0.75	0.72	– –
16A	117-5151●	0.91	0.85	0.75	0.72	– –
20A	117-5152●	1.68	1.50	1.38	1.23	– –
25A	117-5153●	2.07	1.89	1.71	1.53	– –
32A	117-5155●	2.97	2.55	2.31	2.07	– –

Antisurge (T) Ceramic

MCF08C Series

multicomp

- Manufactured to meet UL and CSA time/current characteristics
- **CSA** approved up to 10A

Voltage rating 250V ac Breaking capacity @ 250V ac
Up to 3A = 100A 4A to 20A = 400A

Mftrs. List No. MCF08C + Rating

204512

Rating	Order Code	Price Each 10+	100+	500+	1K+	+
100mA	119-0676●	4.06	3.42	2.94	2.30	– –
1A	119-0677●	1.02	0.93	0.77	0.60	– –
2A	119-0678●	1.02	0.93	0.77	0.60	– –
4A	119-0679●	1.05	0.96	0.89	0.70	– –
5A	119-0680●	1.05	0.96	0.89	0.70	– –
6.25A	119-0681●	1.05	0.96	0.89	0.70	– –
7A	119-0682●	1.05	0.96	0.89	0.70	– –
10A	119-0683●	1.02	0.93	0.77	0.60	– –
15A	119-0685●	1.02	0.93	0.77	0.60	– –
20A	119-0686●	1.02	0.93	0.77	0.60	– –

RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

C = CYAN M = Magenta Y = Yellow B = Black/SING

Antisurge (T) Glass - Spring Element

TDC11 Series

Bussmann

Voltage Rating (Vn)	250V ac
Breaking capacity	10 x In @ Vn
Mftrs. List No.	TDC11 + rating

204415

Rating	Order Code	Price Each 10+	100+	500+	1K+
150mA	**539-971**	2.85	2.58	2.37	2.22
250mA	**539-983**	1.29	1.17	1.08	1.02
500mA	**539-995**	1.29	1.17	1.08	1.02
600mA	**540-006**	1.32	1.20	1.11	1.02
750mA	**540-018**	1.23	1.11	1.02	0.96
1A	**540-031**	1.23	1.11	1.02	0.96
1.25A	**540-043**	1.35	1.20	1.11	1.05
1.5A	**540-055**	2.04	1.86	1.71	1.59
2A	**540-067**	2.04	1.86	1.71	1.59
2.5A	**540-079**	2.04	1.86	1.71	1.59
3A	**540-080**	2.01	1.80	1.68	1.59
5A	**540-092**	2.01	1.80	1.68	1.59

Antisurge (T) Glass

MCF02G Series

multicomp

- **CSA** Approved (up to 6.5A)

Voltage Rating	250V to >6.25A = 32V	
Breaking capacity	125mA to 500mA	35A @ 250V
	750mA to 3A	100A @ 250V
	4A to 6.25A	200A @ 250V
	8A to 10A	300A @ 32V
Mftrs. List No.	MCF02G + Rating	

204489

Rating	Order Code	Price Each 10+	100+	500+	1K+	+
125mA	**119-0642●**	3.01	2.74	2.45	1.88	– –
500mA	**119-0643●**	0.60	0.53	0.46	0.39	– –
1A	**119-0644●**	0.60	0.53	0.46	0.39	– –
2A	**119-0645●**	0.60	0.53	0.46	0.39	– –
3A	**119-0646●**	0.60	0.53	0.46	0.39	– –
4A	**119-0648●**	0.57	0.51	0.44	0.37	– –
5A	**119-0649●**	0.57	0.51	0.44	0.37	– –
6.25A	**119-0650●**	0.57	0.51	0.44	0.37	– –
8A	**119-0651●**	0.57	0.51	0.44	0.37	– –
10A	**119-0652●**	0.59	0.55	0.52	0.49	– –

Antisurge (T) Glass - Plated Wire

TDC436 Series

Bussmann

Voltage Rating (Vn)	250V ac
Breaking capacity	50A @ Vn
Mftrs. List No.	TDC436 + rating

204424

Rating	Order Code	Price Each 10+	100+	500+	1K+
1A	**540-110**	0.99	0.75	0.63	0.57
1.6A	**540-134**	0.99	0.75	0.66	0.57
2A	**540-146**	0.99	0.75	0.66	0.57
2.5A	**540-158**	0.99	0.75	0.66	0.57
3.15A	**540-160**	0.99	0.75	0.66	0.57
4A	**540-171**	0.99	0.75	0.66	0.57
5A	**540-183**	0.99	0.75	0.66	0.57
6.3A	**540-195**	0.99	0.75	0.66	0.57

31.75 x 6.35mm (1¼" x ¼"), Size '0' Panel Fuseholders

20A - Touchproof™

BULGIN

- Low profile panel mounting Touchproof™ fuseholder to **IEC 127/6** category **PC2**
- Screw cap, screwdriver release
- 6.3mm fast-on tags

L (overall) = 58, Dia. (Bezel) = 19.1
Depth behind panel = 54.9, Panel cut-out = 16
Panel thickness = 1 to 8

Rating @ 250V	16A SEMKO, VDE 20A UL, CSA	Breakdown voltage Max power dissipation	>2kV 2.5W

Mftrs. List No. FX0417

204509

	Order Code	Price Each 1+	50+	100+	250+	+
Screwdriver release	**535-953●**	8.85	6.64	5.78	4.74	– –

Touchproof™ - Screw Cap

BULGIN

L (overall) = 65.9, Dia. (Bezel) = 19.1
Depth behind panel = 54.4
Panel cut-out = 16
Panel keyway = 2.5 x 1.2
Panel thickness = 0.8 to 5.5, Tabs = 4.8

L (overall) = 60.4, Dia. (Bezel) = 19.1
Depth behind panel = 54.4
Panel cut-out = 16
Panel keyway = 2.54 x 1.3
Panel thickness = 0.8 to 5.5, Tabs = 4.8

Moulded in glass filled nylon, **UL** Recognised, and conforming to **IEC257**.

Rating	13A @ 250V ac	Operating temperature	-20°C to +100°C
Breakdown voltage	4kV ac @ 50Hz		

Mftrs. List No.FX0415 = 319-570 FX0415/S = 319-582

204599

Order Code	Price Each 1+	100+	250+	500+	+
319-570●	6.64	5.71	5.62	5.33	– –
319-582●	6.44	5.71	5.62	5.30	– –

Touchproof® Screw Cap

Panel Mount, IP67

BULGIN

6.3 x 32mm

5 x 20mm

NEW

Designed for user safety, touchproof category PC2 with polyester moulded body and nylon cap/end bung. The screw cap can be either screwdriver or hand released. Contacts are silver plated brass.
Approved to **CSA, VDE, SEMKO**. **UL** Recognised

	963-0180	963-0198
Fuse Size		
Terminations	6.3 series tab	2.8 series tab
Max. Rating:	16A @ 250V ac 20A @ 250V UL	10A @ 250V ac 16A @ 250V UL & CSA
Max. Power Dissipation	4W @ 23°C	2.5W @ 23°C
Operating Temperature	-20 to 85°C	-20 to 85°C

Mftrs. List No. FX0419=963-0180 FX0462=963-0198

411159

Fuse Type	Order Code	Price Each 1+	25+	100+	250+
	963-0180●	7.75	6.93	6.51	6.15
	963-0198●	3.65	3.26	3.06	2.86

31.75 x 6.35mm (1¼" x ¼"), Size '0' In-Line Fuseholders

Bayonet Fit

Arcolectric

Moulded from natural colour nylon, conforming to **UL94V-2**.

L = 58.2
Dia = 15.2
Wire dia. = 4.0 max.

Rating 5A @ 50V Mftrs List No. A003500AAB

204602

Order Code	Price Each 5+	50+	100+	250+	+	+
149-866●	1.28	1.19	1.12	0.93	– –	– –

Screw Fit

BULGIN

Standard
L = 61.9, Dia. = 15.9,
Wire dia. = 4.0 max.

IP66 Sealed
L = 90.6, Dia = 15.5
Wire dia. = 1.0 to 1.4mm, 1.5 to 1.9mm,
Wire dia. = 2.0 to 2.64mm dependent
where grommet is cut.

Moulded from clear polybutene with nickel plated brass grub screw terminations and available in either standard or **IP66** sealed versions.

Rating	10A @ 250V ac	Mftrs. List No.
Operating temperature	-20°C to +70°C (319-612)	FX0180 = (319-612)
Operating temperature	-20°C to +70°C (272-188)	FX0185 = (272-188)

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products,
prices are subject to change without notice.

Note: When assembled current must not flow through the spring
250V rating in equipment, otherwise 50V ac/dc

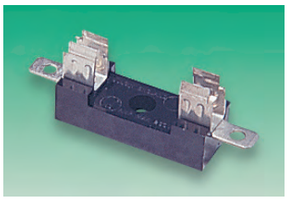
204431

	Order Code	Price Each 1+	50+	100+	250+	+
Standard	319-612●	3.40	3.08	2.89	2.73	– –
IP66 Sealed	272-188●	4.98	4.49	4.14	3.63	– –

31.75 x 6.35mm (1¼" x ¼"), Size '0' Panel Mount

Open

BULGIN



Manufactured from black phenolic with tin plated phosphor bronze contact clips.

Drilling Plan

Centre fixing hole = 3.2 dia.
Outer pin locating holes = 3.5 dia. Tabs = 6.35

Rating	13A @ 250V ac	Operating temperature	-40°C to +70°C
Breakdown voltage	>5kV @ 50Hz	Mftrs List No.	FX0326

204605

Order Code	Price Each 1+	100+	250+	500+	+
149-918●	3.27	2.15	1.96	1.77	– –

Fuse Boxes

Belling Lee

L1045C3
H = 34.2, W = 61.9, D = 20.6
Fixing centres = 9.5 x 4.0 dia.

L1033C4
H = 35.7, W = 35.7, D = 63.5
Fixing centres = 13.5 x 4 dia.

Moulded in black phenolic, the fuses are held in the lid and automatically isolated from the circuit when the lid is raised. Screw terminations.

Rating		10A
Breakdown voltage		4kV dc (to chassis)
Operating temperature		-40°C to +85°C
Mftrs. List No.	L1045/C3 = 319-650	L1033/C4 = 319-661

204607

	Order Code	Price Each 1+	25+	100+	250+
Single fuse box	319-650●	34.56	27.75	24.22	20.13
Double fuse box	319-661●	44.74	35.02	28.86	28.54

Fuse Kit

20 x 5mm Fuse Kit

Bussmann

- A range of 18, 20 x 5mm quick blow and antisurge fuses supplied in a compartment storage box.
- The kit can be restocked when required.

H = 50, W = 260, D = 165

Kit contains 10 of each of the following:

Antisurge (ceramic)	S 505 Series	2A, 3.15A, 5A
Quick blow (glass)	S 500 Series	500mA, 1A, 2A, 3.15A, 5A, 6.3A
Antisurge (glass)	S 504 Series	315mA, 500mA, 630mA
Antisurge (glass)	S 506 Series	500mA, 1A, 1.25A, 1.6A, 2A, 3.15A

204398

	Order Code	Price Each 1+	5+	10+
20 x 5mm Kit	120-2373●	74.03	65.88	58.11

Assorted Fuse Kit

Bussmann

A range of 18 quick blow, antisurge and mains fuses in 20mm, 1" and 1¼" lengths supplied in an 18 compartment storage box. The kit can be restocked when required.

H = 50, W = 260, D = 165

Kit contains 10 each of the following:
20 x 5mm quick blow fuses (glass) - 1A, 2A, 3.15A, 5A.
20 x 5mm antisurge fuses (glass) - 1A, 2A, 3.15A.
1" mains quick blow fuses (ceramic) - 1A, 2A, 3A, 5A, 13A.
1¼" x ¼" quick blow fuses (glass) - 1A, 2A, 5A, 10A, 15A.
1¼" x ¼" antisurge fuses (ceramic) - 10A.

Mftrs. List No. FUSEKIT E

204403

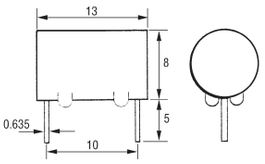
	Order Code	Price Each 1+	5+	10+
Assorted Fuse Kit	151-655	74.67	68.19	62.79

Hazardous Environment Fuses

Sub-Miniature - BASEEFA Approved

Littelfuse

Quick Blow (F)



Hermetically sealed within a nylon body, this range of quick blow fuses are approved to **BASEEFA BS5501** and **EN50014-39**.

Voltage Rating (Vn)	125Vac/dc	Breaking Capacity	50A@125V ac 300A@125V dc

Mftrs. List No. 259 + Rating

204458

Rating	Order Code	Price Each 10+	50+	100+	250+
62mA	664-625▲‡	6.14	5.42	5.01	4.66
125mA	664-637▲‡	5.86	5.13	4.76	4.35
250mA	664-649▲‡	5.70	4.98	4.63	4.22
375mA	664-650▲‡	5.70	5.01	4.60	4.22
500mA	664-662▲‡	5.10	4.63	4.25	4.06
750mA	664-674▲‡	4.69	4.25	3.91	3.75
1A	664-686▲‡	5.17	4.69	4.32	4.10

Order Multiple=10

Rating	Order Code	Price Each 10+	50+	100+	250+
62mA	994-3528●	6.14	5.42	5.01	4.66
125mA	994-3536●	5.86	5.13	4.76	4.35
250mA	994-3544●	5.70	4.98	4.63	4.22
375mA	994-3552●	5.70	5.01	4.60	4.22
500mA	994-3560●	5.10	4.63	4.25	4.06
750mA	994-3579●	4.69	4.25	3.91	3.75
1A	994-3587●	5.17	4.69	4.32	4.10

Barrier Network Fuses

Littelfuse

L=8.4, Dia=3.02 Lead dia.=0.6

Axial barrier network fuses featuring high break capacity in a compact size. Designed for industrial applications in barrier circuits.

Voltage rating (Vn)	250Vac/dc	Breaking Capacity	4000A

RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

C = CYAN M = Magenta Y = Yellow B = Black/SING

Mftrs. List No. 242 + Rating

204462

Rating	Order Code	Price Each 5+	25+	50+	100+	+
50mA	118-3970●	6.62	5.61	4.76	3.59	– –
80mA	118-3971●	7.06	5.92	4.91	3.56	– –
100mA	118-3972●	6.24	5.20	4.32	3.15	– –
160mA	992-2423●	6.24	5.20	4.32	3.15	– –
200mA	992-2431●	6.24	5.20	4.32	3.15	– –
250mA	992-2440●	6.24	5.20	4.32	3.15	– –

Wire Ended Circuit Protectors

Fast Acting 491 Series

Littelfuse

Lead dia = 0.64 L = 7.62 Dia = 2.62

- Fast acting protection from excess current
- Designed for protection of circuits on the secondary side of the transformer

Voltage Rating 60V Mftrs. List No. 491 + Rating

Rating	Order Code	Price Each 10+	50+	100+	250+	+	+
250mA	975-795▲‡	0.94	0.91	0.82	0.76	– –	– –
315mA	975-801▲‡	0.98	0.94	0.88	0.79	– –	– –
400mA	975-813▲‡	0.98	0.94	0.91	0.79	– –	– –
500mA	975-825▲‡	1.01	0.98	0.94	0.79	– –	– –
630mA	975-837▲‡	0.98	0.94	0.88	0.79	– –	– –
750mA	975-849▲‡	0.98	0.94	0.88	0.79	– –	– –
1A	975-862▲‡	0.98	0.94	0.91	0.79	– –	– –
1.25A	975-874▲	0.94	0.91	0.88	0.76	– –	– –
1.6A	975-886▲	0.98	0.94	0.91	0.79	– –	– –
2A	975-898▲‡	1.01	0.94	0.91	0.79	– –	– –
2.5A	975-904▲‡	0.81	0.78	0.75	0.75	– –	– –
3A	975-916▲‡	1.01	0.94	0.91	0.79	– –	– –
3.15A	975-928▲‡	1.01	0.94	0.91	0.79	– –	– –
4A	975-930▲‡	1.01	0.94	0.91	0.79	– –	– –
5A	975-941▲‡	1.01	0.94	0.91	0.79	– –	– –

204518

Rating	Order Code	Price Each 10+	50+	100+	250+	+	+
250mA	994-3919●	0.94	0.91	0.82	0.76	– –	– –
315mA	994-3927●	0.98	0.94	0.88	0.79	– –	– –
400mA	994-3935●	0.98	0.94	0.91	0.79	– –	– –
500mA	994-3943●	1.01	0.98	0.94	0.79	– –	– –
630mA	994-3951●	0.98	0.94	0.88	0.79	– –	– –
750mA	994-3960●	0.98	0.94	0.88	0.79	– –	– –
1A	994-3986●	0.98	0.94	0.91	0.79	– –	– –
2A	994-3994●	1.01	0.94	0.91	0.79	– –	– –
2.5A	994-4001●	0.81	0.78	0.75	0.75	– –	– –
3A	994-4010●	1.01	0.94	0.91	0.79	– –	– –
3.15A	994-4028●	1.01	0.94	0.91	0.79	– –	– –
4A	994-4036●	1.01	0.94	0.91	0.79	– –	– –
5A	994-4044●	1.01	0.94	0.91	0.79	– –	– –

Wire Ended Fuses

Subminature - Axial Lead

Bussmann

Fast Acting, Washable - 125V ac/dc

Length: Body = 7.1mm, Lead = 38mm Dia: Body = 3.18mm

NEW

- Hermetically sealed
- Manufactured from high temperature epoxy plastic
- Tin-lead plated copper lead wires
- Interrupt 50A at 125V ac/dc
- Flammability rated to **UL94V-0**
- **CSA** approved and **UL** Recognised.

Voltage Rating 125V ac/dc Interrupt rating -dc 300A
Interrupt rating - ac 50A Mftrs. List No. BK1/MCRW + rating

407009

Rating	Order Code	Price Each 1+	100+	500+
100mA	120-2387●	2.51	2.28	1.95
125mA	120-2389●	1.82	1.66	1.40
150mA	120-2391●	1.82	1.66	1.40
200mA	120-2392●	1.82	1.66	1.40
250mA	120-2393●	1.82	1.66	1.40
375mA	120-2394●	1.82	1.66	1.40
500mA	120-2395●	1.82	1.66	1.40
750mA	120-2396●	1.82	1.66	1.40
1A	120-2397●	1.82	1.66	1.40
1.5A	120-2398●	1.82	1.66	1.40
2A	120-2399●	1.82	1.66	1.40
2.5A	120-2400●	1.82	1.66	1.40
3A	120-2401●	1.82	1.66	1.40
4A	120-2402●	1.82	1.66	1.40
5A	120-2403●	1.82	1.66	1.40
7A	120-2404●	1.82	1.66	1.40
10A	120-2405●	1.82	1.66	1.40
12A	120-2407●	1.82	1.66	1.40
15A	120-2408●	1.82	1.66	1.40

Axial Lead

Littelfuse

PicoFuse - 125V ac/dc

L = 7.1, Dia. = 2.4 (446-932 to 446-981 = 3.2), Lead dia. = 0.64 (446-920 = 0.81)
Supplied bandoliered on tape (reel = 1K pcs)

Quick blow and antisurge fuses with solder coated axial leads.
UL Recognised and **CSA** approved.

Breaking capacity 300A @ 125V dc, 50A @ 125V ac (446-804 to 446-919)
300A @ 32V dc, 50A @ 32V ac (446-920)
50A @ 125V ac/dc (446-932 to 446-981)
Operating temperature -55°C to +125°C
Mftrs. List No. Quick Blow: 251 + Rating Antisurge: 473 + Rating

204433

Rating	Order Code	Price Each 10+	50+	100+	500+	+
Quick Blow (F)						
62mA	446-804▲‡	1.83	1.73	1.64	1.32	– –
62mA	992-1931●	1.83	1.73	1.64	1.32	– –
125mA	446-816▲‡	3.28	3.12	2.93	2.36	– –
125mA	992-1940●	3.28	3.12	2.93	2.36	– –
250mA	446-828▲‡	3.72	3.53	3.37	2.65	– –
250mA	992-1958●	3.72	3.53	3.37	2.65	– –
500mA	446-830▲‡	3.12	2.96	2.77	2.20	– –
500mA	992-1966●	3.12	2.96	2.77	2.20	– –
1A	446-841▲‡	3.24	3.06	2.90	2.30	– –
1A	992-1974●	3.24	3.06	2.90	2.30	– –
1.5A	446-853▲‡	2.96	2.80	2.65	2.11	– –
1.5A	992-1982●	2.96	2.80	2.65	2.11	– –
2A	446-865▲‡	3.15	2.99	2.84	2.27	– –
2A	992-1990●	3.15	2.99	2.84	2.27	– –
3A	446-877▲‡	2.99	2.87	2.68	2.17	– –
3A	992-2008●	2.99	2.87	2.68	2.17	– –
4A	446-889▲‡	3.46	3.31	3.12	2.49	– –
4A	992-2016●	3.46	3.31	3.12	2.49	– –
5A	446-890▲‡	3.06	2.90	2.74	2.20	– –
5A	992-2024●	3.06	2.90	2.74	2.20	– –
7A	446-907▲‡	3.46	3.31	3.12	2.49	– –
7A	992-2032●	3.46	3.31	3.12	2.49	– –
10A	446-919▲‡	3.34	3.15	2.99	2.39	– –
10A	992-2040●	3.34	3.15	2.99	2.39	– –
15A	446-920▲‡◆	3.69	3.50	3.28	2.61	– –
15A	992-2059●◆	3.69	3.50	3.28	2.61	– –
Antisurge (T)						
500mA	446-932▲‡	2.43	2.30	2.20	1.95	– –
500mA	992-2067●	2.43	2.30	2.20	1.95	– –
1A	446-944▲‡	2.36	2.27	2.14	1.92	– –
1A	992-2075●	2.36	2.27	2.14	1.92	– –
2A	446-956▲‡	2.55	2.46	2.30	2.11	– –
2A	992-2083●	2.55	2.46	2.30	2.11	– –
3A	446-968▲‡	2.55	2.46	2.30	2.11	– –
3A	992-2091●	2.55	2.46	2.30	2.11	– –
4A	446-970▲‡	2.90	2.74	2.55	2.11	– –
4A	992-2105●	2.90	2.74	2.55	2.11	– –
5A	446-981▲‡	2.58	2.49	2.33	2.11	– –
5A	992-2113●	2.58	2.49	2.33	2.11	– –

◆ = 32V ac/dc working voltage only

Axial Lead, Very Fast Acting

Littelfuse

PicoFuse - 250V ac

L = 7.6, Dia. = 3.7, Lead dia. = 0.64 Supplied in Ammo pack (pack = 100)

- Solder coated axial leads
- **UL** recognised and **CSA** approved

Breaking capacity 50A @ 250V ac Mftrs. List No. 263 + Rating
Operating temperature -55°C to +125°C

204552

Rating	Order Code	Price Each 10+	100+	500+	1K+
62mA	305-7306▲‡	2.90	2.24	1.92	1.67
125mA	305-7318▲‡	2.90	2.24	1.92	1.67
250mA	305-7320▲‡	2.90	2.24	1.92	1.67
375mA	305-7331▲‡	2.90	2.24	1.92	1.67
500mA	305-7343▲‡	2.90	2.24	1.92	1.67

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products,
prices are subject to change without notice.

Rating	Order Code	Price Each 10+	100+	500+	1K+
750mA	**305-7355▲‡**	2.18	1.73	1.53	1.30
1A	**305-7367▲‡**	2.90	2.24	1.92	1.67
1.5A	**305-7379▲‡**	2.90	2.24	1.92	1.67
2A	**305-7380▲‡**	2.90	2.24	1.92	1.67
2.5A	**305-7392▲‡**	2.18	1.73	1.53	1.30
3A	**305-7409▲‡**	2.90	2.24	1.92	1.67
3.5A	**305-7410▲‡**	2.31	1.82	1.59	1.37
4A	**305-7422▲‡**	2.90	2.24	1.92	1.67
5A	**305-7434▲‡**	2.90	2.24	1.92	1.67

Rating	Order Code	Price Each 10+	100+	500+	1K+
62mA	**992-1630●**	2.90	2.24	1.92	1.67
125mA	**992-1648●**	2.90	2.24	1.92	1.67
250mA	**992-1656●**	2.90	2.24	1.92	1.67
375mA	**992-1664●**	2.90	2.24	1.92	1.67
500mA	**992-1672●**	2.90	2.24	1.92	1.67
750mA	**992-1680●**	2.18	1.73	1.53	1.30
1A	**992-1699●**	2.90	2.24	1.92	1.67
1.5A	**992-1702●**	2.90	2.24	1.92	1.67
2A	**992-1710●**	2.90	2.24	1.92	1.67
2.5A	**992-1729●**	2.18	1.73	1.53	1.30
3A	**992-1737●**	2.90	2.24	1.92	1.67
3.5A	**992-1745●**	2.31	1.82	1.59	1.37
4A	**992-1753●**	2.90	2.24	1.92	1.67
5A	**992-1761●**	2.90	2.24	1.92	1.67

Radial Lead, Ultra Rapid (FF)

PC-Tron™ - 125/250V ac

Bussmann

H = 8.89, W = 8.89, D = 4.67,
Lead pitch = 5.1, Lead dia. = 0.38
Lead length 19

Supplied bandoliered on tape (reel of 500 pieces) or bulk packed with lead length of 2.54.

The PC-Tron™ high speed subminiature fuse offers excellent short circuit performance, the I^2t energy let-through being a fraction of that of a typical glass fuse. The fuse may be directly soldered to a printed circuit or alternatively plugged into a two pin socket and is fully board washable. **UL** Recognised and **CSA** approved.

Voltage rating 250V ac (149-125 = 250V ac) Interrupt rating 50A @ 250V ac, 10000A @ 125V ac

Lead Length 19

Fuse Rating	Cold Resistance Ω 10% Rated Current Nominal Value	Order Code	Fuse Rating	Cold Resistance Ω 10% Rated Current Nominal Value	Order Code
500mA	1.65	**112-3055**	2A	0.15	**112-3059**
750mA	0.735	**112-3060**	2.5A	0.1	**112-3058**
1A	0.518	**112-3057**	3A	0.071	**112-3061**
1.5A	0.248	**112-3056**	5A	0.02	**112-3070**

Lead Length 2.54

		Order Code			Order Code
500mA	1.65	**112-3064**	2A	0.15	**112-3067**
750mA	0.735	**112-3068**	2.5A	0.1	**112-3066**
1A	0.518	**112-3065**	3A	0.071	**112-3069**
1.5A	0.248	**112-3062**	5A	0.02	**112-3071**

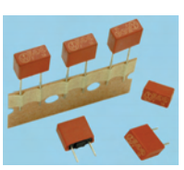
Mftrs. List No. Lead Length 19 = TR/PCB + Rating Lead Length 2.54 = PCC + Rating

204444

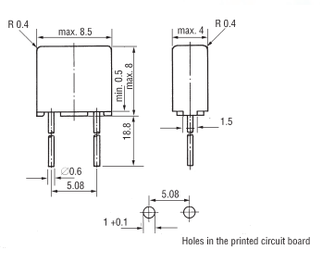
Order Code	Price Each 10+	50+	100+	500+
All Values	2.85	2.73	2.55	2.37

TE5 Fuses

WICKMANN



Supplied on tape, concertina folded into 1250 pcs per box



Available in quick blow (F) or antisurge (T), this range of sub miniature fuses can be mounted into a 2 pin socket or soldered into a PCB. Thermoplastic fuse body is flame retardant to **UL94V-0. CSA** and **MITI** approved, **UL** Recognised except antisurge 1A and the quick blow range, where approvals are pending.

Voltage Rating 125V Breaking capacity 100A 125V ac

FOR SUITABLE SOCKET SEE ORDER CODE **108-7070**

N.B. Leads will need to be cut down to fit into socket

204460

Rating	Order Code	Price Each 5+	50+	100+	500+	+
Quick Blow (F)						
50mA	**529-310**	2.84	2.20	2.19	– –	– –
100mA	**529-321**	1.73	1.35	1.20	0.98	– –
125mA	**529-333**	1.29	1.04	0.91	0.74	– –
160mA	**529-345**	1.29	1.04	0.91	0.75	– –
200mA	**951-6212●**	1.29	1.04	0.91	0.72	– –
250mA	**529-369**	1.29	1.04	0.91	0.78	– –
315mA	**529-370**	1.29	1.04	0.91	0.74	– –
500mA	**529-382**	0.74	– –	– –	– –	– –
1A	**529-394**	1.29	1.04	0.91	0.74	– –
1.6A	**529-412**	1.29	1.04	0.91	0.66	– –
2A	**529-424**	1.29	1.04	0.91	0.75	– –
3.15A	**529-436**	1.29	1.04	0.91	0.72	– –
4A	**951-6220●**	1.29	1.04	0.91	0.72	– –
Antisurge (T)						
50mA	**951-6239●**	2.08	1.64	1.32	– –	– –
100mA	**951-6247●**	1.42	1.17	1.07	– –	– –
125mA	**529-473**	1.42	1.17	1.01	0.91	– –
160mA	**951-6255●**	1.42	1.17	1.01	0.87	– –
200mA	**951-6263●**	1.42	1.17	1.01	0.72	– –
250mA	**951-6271●**	1.42	1.17	1.01	0.79	– –
315mA	**529-515**	1.35	1.10	0.94	0.80	– –
500mA	**529-527**	1.35	1.10	0.99	– –	– –
630mA	**529-539**	1.35	1.10	0.94	0.81	– –
800mA	**529-540**	1.35	1.10	0.94	0.75	– –
1A	**951-6280●**	1.35	1.10	0.94	0.77	– –
1.25A	**951-6298●**	1.35	1.10	0.94	0.75	– –
1.6A	**951-6301●**	1.35	1.10	0.94	0.79	– –
2A	**951-6310●**	1.35	1.10	0.94	0.78	– –
2.5A	**951-6328●**	1.35	1.10	0.94	0.81	– –
3.15A	**951-6336●**	1.35	1.10	0.94	0.80	– –
4A	**951-6344●**	1.35	1.10	0.94	0.80	– –
5A	**951-6352●**	1.35	1.10	0.94	0.74	– –

European Subminiature Fuses & Accessories

TR5 Fuses

WICKMANN

- European TR5 fuse is available with either quick blow (F) or anti-surge (T) characteristics.
- The fuses can be either soldered directly into a printed circuit board or alternatively plugged into a two pin socket (951-6360).
- This socket can in turn be soldered into a printed circuit board.
- A panel mounting and PCB fuseholder with clear plastic cover is also available (951-6387, 951-6379).

H = 8, Dia = 8.5
Lead pitch = 5
Lead length = 4.3
Lead dia = 0.6

Complies with **IEC127-3**.
Approved to **VDE** and **SEMKO**. **UL** Recognised

Rated Voltage 250V ac
Breaking capacity 35A @ Vn or 10 X In @ Vn, whichever is greater.

Mftrs. List No. Quick blow = 19370K + rating
Antisurge = 19372K + rating

204382

Rating	Order Code	Price Each 10+	50+	100+	500+
Quick Blow (F)					
50mA	**951-5887●**	3.02	– –	– –	– –
100mA	**951-5895●**	1.61	1.26	1.10	0.94
125mA	**951-5909●**	1.73	1.39	1.20	0.98
160mA	**951-5917●**	1.73	1.39	1.20	0.98
200mA	**951-5925●**	1.61	1.26	1.10	0.94
250mA	**951-5933●**	1.61	1.26	1.10	0.94
315mA	**951-5941●**	1.51	1.20	1.04	0.88
500mA	**951-5950●**	1.51	1.20	1.04	0.88
1A	**951-5968●**	1.39	1.13	0.98	0.82
1.25A	**951-5976●**	1.39	1.13	0.98	0.82
1.6A	**951-5984●**	1.39	1.13	0.98	0.82
2A	**951-5992●**	1.39	1.13	0.98	0.82
2.5A	**951-6000●**	1.39	1.13	0.98	0.82
3.15A	**951-6018●**	1.39	1.13	0.98	0.82
4A	**951-6026●**	1.39	1.13	0.98	0.82
Antisurge (T)					
50mA	**951-6034●**	2.08	1.58	1.26	1.07
100mA	**951-6042●**	1.70	1.35	1.17	1.01
125mA	**951-6050●**	1.70	1.35	1.17	1.01
160mA	**951-6069●**	1.86	1.51	1.26	1.04
200mA	**951-6077●**	1.70	1.35	1.17	1.01
250mA	**951-6085●**	1.61	1.29	1.10	0.94
315mA	**951-6093●**	1.51	1.20	1.04	0.88
500mA	**951-6107●**	1.51	1.20	1.04	0.88
630mA	**951-6115●**	1.51	1.20	1.04	0.88
800mA	**951-6123●**	1.51	1.20	1.04	0.88
1A	**951-6131●**	1.51	1.20	1.04	0.88
1.25A	**951-6140●**	1.51	1.20	1.04	0.88
1.6A	**951-6158●**	1.51	1.20	1.04	0.88
2A	**951-6166●**	1.51	1.20	1.04	0.88

RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

C = CYAN M = Magenta Y = Yellow B = Black/SING

Rating	Order Code	Price Each 10+	50+	100+	500+
Antisurge (T)					
2.5A	**951-6174●**	1.51	1.20	1.04	0.88
3.15A	**951-6182●**	1.51	1.20	1.04	0.88
4A	**951-6190●**	1.58	1.26	1.07	0.94
5A	**951-6204●**	1.70	1.35	1.17	0.91
	118-5363●	1.06	0.90	0.80	0.71

Radial Lead Micro Fuse

Bussmann

- Fast acting or time delay versions available
- Can be soldered directly into a print circuit board or plugged into a fuseholder (303-1780)
- **SEMKO** and **VDE** approved except for 5A
- **UL** recognised and **CSA** approved
- Complies with **IEC60127-3**

H = 7.7 Dia. = 8.4 Lead pitch = 5
Lead length = 4.3 Lead dia. = 0.6

Voltage rating 250V ac
Breaking capacity 35A or 10 times rated current (whichever is the greater)
Mftrs. List No. Fast Acting = BK/EFF + rating
Time Delay = BK/ETF + rating

204549

Rating	Order Code	Price Each 10+	50+	100+	500+
Fast Acting					
250mA	**303-0015●**	1.56	1.23	1.05	0.87
315mA	**303-0027**	1.56	1.23	1.05	0.87
400mA	**303-0039**	1.56	1.23	1.05	0.87
500mA	**303-0040●**	1.56	1.23	1.05	0.87
630mA	**303-0052**	1.56	1.23	1.05	0.87
800mA	**303-0064**	1.56	1.23	1.05	0.87
1A	**303-0076●**	1.32	1.08	0.93	0.78
1.25A	**303-0088**	1.32	1.08	0.93	0.78
1.6A	**303-0090**	1.32	1.08	0.93	0.78
2A	**303-0106●**	1.32	1.08	0.93	0.78
2.5A	**303-0118**	1.32	1.08	0.93	0.78
3.15A	**303-0120**	1.32	1.08	0.93	0.78
4A	**303-0131**	1.32	1.08	0.93	0.78
5A	**303-0143●**	1.32	1.08	0.93	0.78
Time Delay					
80mA	**302-9864●**	1.86	1.47	1.17	0.99
100mA	**302-9876●**	1.65	1.32	1.14	0.93
160mA	**302-9888**	1.65	1.32	1.14	0.93
250mA	**302-9890●**	1.65	1.32	1.14	0.93
315mA	**302-9906●**	1.65	1.32	1.14	0.93
400mA	**302-9918**	1.65	1.32	1.14	0.93
500mA	**302-9920●**	1.56	1.23	1.05	0.87
800mA	**302-9931●**	1.32	1.08	0.93	0.79
1A	**302-9943●**	1.32	1.08	0.93	0.78
1.25A	**302-9955**	1.32	1.08	0.93	0.78
1.6A	**302-9967**	1.32	1.08	0.93	0.78
2A	**302-9979●**	1.32	1.08	0.93	0.78
2.5A	**302-9980●**	1.32	1.08	0.93	0.78
3.15A	**302-9992●**	1.32	1.08	0.93	0.78
4A	**303-0003●**	1.32	1.08	0.93	0.78

Automotive Fuses & Accessories

Mini Blade - Fast Acting (F)

Littelfuse

- Miniature blade style fuse
- Popular in automotive applications and compact portable equipment
- Colour coded for easy identification of value

Voltage rating 32V dc
Mftrs. List No. 297 + rating
Breaking capacity 1000A @ 32V dc

H = 8.75 W = 10.92 D = 3.81 Blade L = 7.5

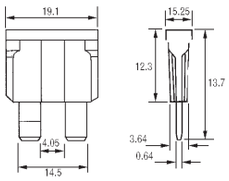
Rating	Colour Code	Order Code	Price Each 5+	25+	50+	100+	+
2A	Grey	**975-369▲‡**	1.26	1.20	1.10	0.72	– –
3A	Violet	**975-370▲‡**	1.26	1.20	1.10	0.72	– –
4A	Pink	**975-382▲‡**	1.01	0.98	0.94	0.85	– –
5A	Tan	**975-394▲‡**	1.26	1.20	1.10	0.72	– –
7.5A	Brown	**975-400▲‡**	1.26	1.20	1.10	0.72	– –
10A	Red	**975-412▲‡**	1.26	1.20	1.10	0.72	– –
15A	Blue	**975-424▲‡**	1.26	1.20	1.10	0.72	– –
20A	Yellow	**975-436▲‡**	1.26	1.20	1.10	0.72	– –
25A	Natural	**975-448▲‡**	1.26	1.20	1.10	0.72	– –
30A	Green	**975-450▲‡**	1.26	1.20	1.10	0.72	– –

204516

Rating	Colour Code	Order Code	Price Each 5+	25+	50+	100+	+
2A	Grey	**994-3811●**	1.26	1.20	1.10	0.72	– –
3A	Violet	**994-3820●**	1.26	1.20	1.10	0.72	– –
4A	Pink	**994-3838●**	1.01	0.98	0.94	0.85	– –
5A	Tan	**994-3846●**	1.26	1.20	1.10	0.72	– –
7.5A	Brown	**994-3854●**	1.26	1.20	1.10	0.72	– –
10A	Red	**994-3862●**	1.26	1.20	1.10	0.72	– –
15A	Blue	**994-3870●**	1.26	1.20	1.10	0.72	– –
20A	Yellow	**994-3889●**	1.26	1.20	1.10	0.72	– –
25A	Natural	**994-3897●**	1.26	1.20	1.10	0.72	– –
30A	Green	**994-3900●**	1.26	1.20	1.10	0.72	– –

ATO Series - Fast Acting (F)

Littelfuse



Blade type fuses designed specifically for use in automotive applications although now particularly common in portable electronics. Fuses are colour coded for ease of identification.

Voltage rating 32V Breaking capacity 1000A Mftrs. List No. 257 + rating

204435

Current Rating	Colour	Order Code	Price Each 10+	50+	100+	250+	+
1A	Black	**581-483▲‡**	0.50	0.44	0.44	0.41	– –
1A	Black	**994-3471●**	0.50	0.44	0.44	0.41	– –
2A	Grey	**581-495▲‡**	0.46	0.43	0.38	0.30	– –
2A	Grey	**994-3480●**	0.46	0.43	0.38	0.30	– –
3A	Violet	**540-286▲‡**	0.69	0.66	0.57	0.46	– –
3A	Violet	**994-3390●**	0.69	0.66	0.57	0.46	– –
4A	Pink	**581-501▲‡**	0.91	0.82	0.72	0.62	– –
4A	Pink	**994-3498●**	0.91	0.82	0.72	0.62	– –
5A	Tan	**540-298▲‡**	0.61	0.55	0.50	0.40	– –
5A	Tan	**994-3404●**	0.61	0.55	0.50	0.40	– –
7.5A	Brown	**540-304▲‡**	0.55	0.51	0.43	0.36	– –
7.5A	Brown	**994-3412●**	0.55	0.51	0.43	0.36	– –
10A	Red	**540-316▲‡**	0.69	0.61	0.57	0.43	– –
10A	Red	**994-3420●**	0.69	0.61	0.57	0.43	– –
15A	Blue	**540-328▲‡**	0.61	0.58	0.50	0.40	– –
15A	Blue	**994-3439●**	0.61	0.58	0.50	0.40	– –
20A	Yellow	**540-330▲‡**	0.43	0.38	0.36	0.32	– –
20A	Yellow	**994-3447●**	0.43	0.38	0.36	0.32	– –
25A	Clear	**540-341▲‡**	0.43	0.38	0.36	0.32	– –
25A	Clear	**994-3455●**	0.43	0.38	0.36	0.32	– –
30A	Green	**540-353▲‡**	0.39	0.35	0.33	0.29	– –
30A	Green	**994-3463●**	0.39	0.35	0.33	0.29	– –
40A	Amber	**581-513▲‡**	0.36	0.33	0.29	0.26	– –
40A	Amber	**994-3501●**	0.36	0.33	0.29	0.26	– –

Resettable Thermal Overcurrent

E-T-A

1610-H2

1610-21
H = 28.8, W = 20.3, D = 6

- Automotive press to reset circuit breaker
- Colour coded
- Suitable for standard fuse mounting block
- Miniaturised design allows interchangeability with existing automotive blade fuses with improved electrical protection
- Typical applications: low voltage wiring systems on all types of vehicles and marine craft

Maximum voltage rating 28V dc
Typical voltage drop ≤200mV
Service short circuit breaking capacity 300 operations at 50A
Operating temperature -30°C to +60°C

Mftrs. List No.
1610-21-6A = 597-697
1610-21-15A = 597-727
1610-21-8A = 597-703
1610-21-20A = 597-739
1610-21-10A = 597-715
1610-21-25A = 597-740
1610-21 30A = 856-7336
1610-H2 6A = 856-7204
1610-H2 8A = 856-7212
1610-H2 10A = 856-7220
1610-H2 15A = 856-7239
1610-H2 20A = 856-7247
1610-H2 25A = 856-7255
1610-H2 30A = 856-7263
1610-8-WAY BASE & LID = 856-7344

204616/406026

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

Current Rating	Actuator Colour	Order Code	Price Each 1+	10+	25+	50+
1610-21						
6A	Moss Green	**597-697**●	18.39	16.74	15.84	15.21
8A	Honey	**597-703**●	18.39	16.74	15.84	14.74
10A	Red	**597-715**●	18.39	16.74	15.84	15.21
15A	Blue	**597-727**●	18.39	16.74	15.84	15.21
20A	Yellow	**597-739**●	18.39	16.74	15.84	14.64
25A	Pearl	**597-740**●	18.39	16.74	15.84	14.64
30A	Light-Green	**856-7336**●	25.52	19.76	17.64	– –
1610-H2, With Manual Release						
6A	Mossy-Green	**856-7204**●	26.17	20.25	18.07	– –
8A	Honey	**856-7212**●	26.17	20.25	18.07	– –
10A	Red	**856-7220**●	26.17	20.25	18.07	– –
15A	Blue	**856-7239**●	26.17	20.25	18.07	– –
20A	Yellow	**856-7247**●	26.17	20.25	18.07	– –
25A	Pearl	**856-7255**●	26.17	20.25	18.07	– –
30A	Light-Green	**856-7263**●	26.17	20.25	18.07	– –
Mounting Base (with lid)						
8 way		**856-7344**●	34.70	26.85	23.92	– –

Resettable Thermal Circuit Breaker

E-T-A

- Combine full feature circuit breaker protection and convenience with low cost ownership benefit
- Blade terminals suitable on all types of vehicles and marine craft with plug-in mounting
- Trip free, tease free and snap action mechanism
- Colour coded
- Manual trip/release

H = 45, W = 22, D = 9.8

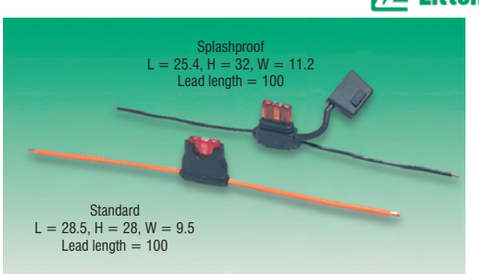
Maximum voltage rating	28V dc	Typical life	6000 ops at I_N 3000 ops at 2 x I_N: 20A 1000 ops at 2 x I_N: 25A
Operating temperature	-30°C to +60°C	Interruption capacity	200A, for 5-15A 400A, for 20-25A
Voltage drop	<150mV		

204372/406027

Mftrs. List No.	Current Rating	Order Code	Price Each 1+	10+	100+	+
1170-01-6A	6A	**188-748**●	19.56	18.88	– –	– –
1170-01-10A S	10A	**188-761**●	20.94	18.88	– –	– –
1170-01-15A	15A	**188-773**●	19.56	18.83	– –	– –
1170-01-20A	20A	**188-785**●	19.56	18.88	– –	– –
1170-01-25A	25A	**188-797**●	19.56	18.88	– –	– –
Mounting Base (with lid)						
1170-6-WAY BASE & LID		NEW **856-7352**●	87.43	67.64	60.35	– –

Fuseholder

Littelfuse



In-line fuseholders suitable for use with automotive blade type fuses.

Maximum voltage rating 30A @ 32V, 20A @ 32V
Operating temperature -35°C to +100°C

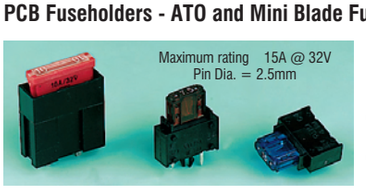
Mftrs. List No. 01500260LXN = 994-3099 0FHAC0001LXN = 994-3382 0FHA0001LXN = 994-3110

204434

Standard	Order Code	Price Each 1+	25+	50+	100+	+
20A	**994-3110**●	3.73	3.53	3.37	3.05	– –
30A	**994-3099**●	3.17	3.02	2.82	2.66	– –
Splashproof						
20A	**994-3382**●	5.67	5.52	5.04	4.62	– –

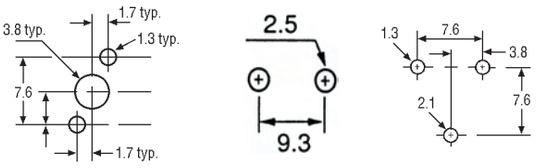
PCB Fuseholders - ATO and Mini Blade Fuses

Littelfuse



H = 22.0 W = 21.8, D = 9.0 Lead Pitch = 9.3

Interlocking PCB Mount ATO Fuseholder which can be stacked end on or side on. Horizontal and vertical mounting Mini Blade PCB fuseholders



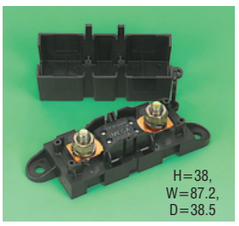
PCB Drilling

204407

	Order Code	Price Each 1+	25+	50+	100+	+
ATO Fuseholder						
Vertical	**994-3510**●	3.54	3.37	2.95	2.34	– –
Mini Blade Fuseholder						
Vertical	**994-3790**●	3.34	3.24	2.82	2.27	– –
Horizontal	**994-3803**●	3.94	3.85	3.37	2.70	– –

MEGA Fuseholder

Littelfuse



- Glass filled thermoplastic body with tethered cover
- Choice of 6 cable entry locations

Fixing centres 101.6 @ 6.35 Dia.
Note: Dimensions include cover

Maximum ratings	250A @ 32V
Operating temperature	-40°C to +125°C

204537

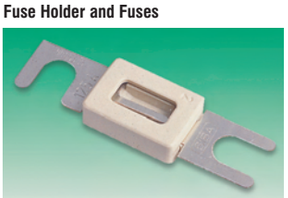
Mftrs. List No.	Order Code	Price Each 1+	25+	50+	100+
02981001Z.	**302-9323**▲‡	16.86	14.44	12.04	9.66

Mftrs. List No.	Order Code	Price Each 1+	25+	50+	100+
02981001Z	**994-3200**●	16.86	14.44	12.04	9.66

Fork Lift Truck

SIBA

Fuse Holder and Fuses



L (overall)=82, L (body)=32, W=22, H=10, Fixing centres=60, Lug spacing=11

H = 54, W = 85, D = 24, Terminal Pitch = 62mmmm

A range of heavy duty 80V fuses to **DIN43560/1** specially designed for battery powered industrial trucks, fork lift etc. strong ceramic case incorporates shatterproof glass inspection window and 60mm spacing integral lugs for direct stud mounting.

Max. Working voltage 80Vdc

	Time current Characteristics			
In	1.5In	1.8In	2.5In	4In
All	≥1hr	≥1hr	0.8-10s	0.2-2s

Mftrs. List No. 90-058-05 + Rating

204409

Rating	Order Code	Price Each 1+	20+	100+
Fuses				
50A	**607-654**	8.28	6.87	6.03
80A	**607-666**	8.28	6.87	6.03
100A	**607-678**	8.28	6.87	6.03
160A	**607-680**	8.67	7.20	6.36
200A	**607-691**	8.67	7.20	6.36
250A	**607-708**	9.90	8.19	7.08
325A	**607-710**	10.38	8.55	7.08
355A	**607-721**	10.38	8.55	7.08
500A	**607-733**	10.38	8.55	7.08
Fuse Holder		**Price Each**		
Maximum Current Rating		**1+**	**10+**	**25+**
425A	**307-282**	41.61	39.99	37.80

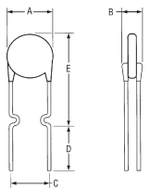
RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

C = CYAN M = Magenta Y = Yellow B = Black/SING

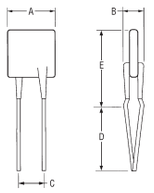
Resettable Fuses

Multifuse - MF-R Series

- Resettable overcurrent circuit protection
- Reset by removing the fault condition and supply voltage
- Flame retardant epoxy polymer encapsulation meets the requirements of **UL94V-O**



Style 1



Style 2

Operating temperature -40°C to +85°C Voltage rating 60V and 30V

(A) * I Hold	(A) ** I Trip	A Max.	B Max.	C Min.	C Max.	D Min.	E Max.	Lead Dia	Case Style	Mftrs. List No.	Order Code
				Dimensions							
60V											
0.1	0.15	7.4	3.1	4.3	5.8	7.6	12.7	0.51	1	MF-R010	772-252
0.17	0.34	7.4	3.1	4.3	5.8	7.6	12.7	0.51	1	MF-R017	369-5992
0.2	0.3	7.4	3.1	4.3	5.8	7.6	12.7	0.51	1	MF-R020	772-264
0.25	0.38	7.4	3.1	4.3	5.8	7.6	12.7	0.51	1	MF-R025	772-276
0.3	0.45	7.4	3.1	4.3	5.8	7.6	13.0	0.51	1	MF-R030	772-288
0.4	0.6	7.4	3.1	4.3	5.8	7.6	13.5	0.51	1	MF-R040	772-290
0.5	0.75	7.9	3.1	4.3	5.8	7.6	13.7	0.51	1	MF-R050	772-306
0.65	0.98	9.7	3.1	4.3	5.8	7.6	14.5	0.51	1	MF-R065	772-318
0.75	1.13	10.4	3.1	4.3	5.8	7.6	15.2	0.51	1	MF-R075	772-320
0.9	1.35	11.7	3.1	4.3	5.8	7.6	15.8	0.51	1	MF-R090	772-331
30V											
1.1	2.2	8.9	3.0	4.3	5.8	7.6	14.0	0.51	1	MF-R110	772-343
1.35	2.7	8.9	3.0	4.3	5.8	7.6	18.9	0.51	1	MF-R135	772-355
1.6	3.2	10.2	3.0	4.3	5.8	7.6	16.8	0.51	1	MF-R160	772-367
1.85	3.7	12.0	3.0	4.3	5.8	7.6	18.4	0.51	1	MF-R185	772-379
2.5	5	12.0	3.0	4.3	5.8	7.6	18.3	0.81	1	MF-R250	772-380
3	6	12.0	3.0	4.3	5.9	7.6	18.3	0.81	2	MF-R300	772-392
4	8	14.4	3.0	4.3	5.9	7.6	24.8	0.81	2	MF-R400	772-409
5	10	17.4	3.0	9.4	10.9	7.6	24.9	0.81	2	MF-R500	772-410
6	12	19.3	3.0	9.4	10.9	7.6	31.9	0.81	2	MF-R600	772-422
7	14	21.1	3.0	9.4	10.9	7.6	29.8	0.81	2	MF-R700	772-434
8	16	24.2	3.0	9.4	10.9	7.6	32.9	0.81	2	MF-R800	772-446
9	18	24.2	3.0	9.4	10.9	7.6	32.9	0.81	2	MF-R900	369-6716

* I Hold - Current at which Multifuse will not trip
** I Trip - Current at which Multifuse will trip

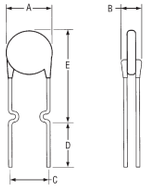
204492

Hold Current (A)	Order Code	Price Each 5+	50+	100+	250+	+
0.1	**772-252▲‡**	1.78	1.62	1.50	0.69	– –
0.17	**369-5992▲‡**	1.65	1.50	1.41	0.66	– –
0.2	**772-264▲‡**	2.00	1.80	1.68	0.78	– –
0.25	**772-276▲‡**	2.00	1.80	1.68	0.78	– –
0.3	**772-288▲‡**	2.00	1.80	1.68	0.78	– –
0.4	**772-290▲‡**	2.09	1.89	1.77	0.81	– –
0.5	**772-306▲‡**	2.09	1.89	1.77	0.81	– –
0.65	**772-318▲‡**	2.09	1.89	1.77	0.81	– –
0.75	**772-320▲‡**	2.09	1.89	1.77	0.81	– –
0.9	**772-331▲‡**	2.09	1.89	1.77	0.81	– –
1.1	**772-343▲‡**	1.97	1.77	1.68	0.78	– –
1.35	**772-355▲‡**	1.97	1.77	1.68	0.78	– –
1.6	**772-367▲‡**	2.90	1.98	1.86	0.87	– –
1.85	**772-379▲‡**	2.90	1.98	1.86	0.87	– –
2.5	**772-380▲‡**	2.75	2.16	2.04	0.99	– –
3	**772-392▲‡**	2.90	2.25	2.13	1.02	– –
4	**772-409▲‡**	3.06	2.34	2.22	1.05	– –
5	**772-410▲‡**	3.09	2.40	2.28	1.08	– –
6	**772-422▲‡**	3.40	2.58	2.46	1.17	– –
7	**772-434▲‡**	3.49	2.67	2.55	1.23	– –
8	**772-446▲‡**	3.65	2.79	2.64	1.26	– –
9	**369-6716▲‡**	3.12	2.85	2.61	1.20	– –

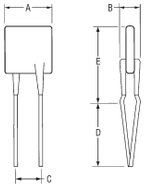
Multifuse - MF-R Series

- Resettable overcurrent circuit protection
- Reset by removing the fault condition and supply voltage
- Flame retardant epoxy polymer encapsulation meets the requirements of **UL94V-O**

NEW



Style 1



Style 2

Operating temperature -40°C to +85°C Voltage rating 60 and 30 volts

(A) * I Hold	(A) ** I Trip	A Max.	B Max.	C Nom.	C ±	D Min.	E Max.	Lead Dia	Case Style	Mftrs. List No.	Order Code
				Dimensions (mm)							
V_{max} = 60V											
0.1	0.15	7.4	12.7	5.1	0.7	7.6	3.1	0.51	1	MF-R010-0-99	935-0365
0.17	0.34	7.4	12.7	5.1	0.7	7.6	3.1	0.51	1	MF-R017-0-99	935-0101
0.2	0.3	7.4	12.7	5.1	0.7	7.6	3.1	0.51	1	MF-R020-0-99	935-0373
0.25	0.38	7.4	12.7	5.1	0.7	7.6	3.1	0.51	1	MF-R025-0-99	935-0390
0.3	0.45	7.4	13	5.1	0.7	7.6	3.1	0.51	1	MF-R030-0-99	935-0403
0.4	0.6	7.4	13.5	5.1	0.7	7.6	3.1	0.51	1	MF-R040-0-99	935-0411
0.5	0.75	7.9	13.7	5.1	0.7	7.6	3.1	0.51	1	MF-R050-0-99	935-0420
0.65	0.98	9.7	14.5	5.1	0.7	7.6	3.1	0.51	1	MF-R065-0-99	935-0438
0.75	1.13	10.4	15.2	5.1	0.7	7.6	3.1	0.51	1	MF-R075-0-99	935-0446
0.9	1.35	11.7	15.8	5.1	0.7	7.6	3.1	0.51	1	MF-R090-0-99	935-0454
V_{max} = 30V											
1.1	2.2	8.9	14.2	5.1	0.7	7.6	3	0.51	1	MF-R110-0-99	935-0462
1.35	2.7	8.9	13.5	5.1	0.7	7.6	3	0.51	1	MF-R135-0-99	935-0470
1.6	3.2	10.2	15.2	5.1	0.7	7.6	3	0.51	1	MF-R160-0-99	935-0489
1.85	3.7	12.0	15.7	5.1	0.7	7.6	3	0.51	1	MF-R185-0-99	935-0497
2.5	5	12.0	18.3	5.1	0.7	7.6	3	0.81	2	MF-R250-0-99	935-0500
3	6	11.4	17.3	5.1	0.7	7.6	3	0.81	2	MF-R300-0-99	935-0519
4	8	14	20.1	5.1	0.7	7.6	3	0.81	2	MF-R400-0-99	935-0527
5	10	16.5	24.9	10.2	0.7	7.6	3	0.81	2	MF-R500-0-99	935-0535
6	12	16.5	24.9	10.2	0.7	7.6	3	0.81	2	MF-R600-0-99	935-0543
7	14	16.5	24.9	10.2	0.7	7.6	3	0.81	2	MF-R700-0-99	935-0551
8	16	24.1	29.7	10.2	0.7	7.6	3	0.81	2	MF-R800-0-99	935-0560
9	18	24.1	29.7	10.2	0.7	7.6	3	0.81	2	MF-R900-0-99	935-0110

* I Hold - Current at which Multifuse will not trip
** I Trip - Current at which Multifuse will trip

405969

Hold Current (A)	Order Code	Price Each 5+	50+	100+	250+	+
0.1	**935-0365●**	1.78	1.62	1.50	0.69	– –
0.17	**935-0101●**	1.65	1.50	1.41	0.66	– –
0.2	**935-0373●**	2.00	1.80	1.68	0.78	– –
0.25	**935-0390●**	2.00	1.80	1.68	0.78	– –
0.3	**935-0403●**	2.00	1.80	1.68	0.78	– –
0.4	**935-0411●**	2.09	1.89	1.77	0.81	– –
0.5	**935-0420●**	2.09	1.89	1.77	0.81	– –
0.65	**935-0438●**	2.09	1.89	1.77	0.81	– –
0.75	**935-0446●**	2.09	1.89	1.77	0.81	– –
0.9	**935-0454●**	2.09	1.89	1.77	0.81	– –
1.1	**935-0462●**	1.97	1.77	1.68	0.78	– –
1.35	**935-0470●**	1.97	1.77	1.68	0.78	– –
1.6	**935-0489●**	2.90	1.98	1.86	0.87	– –
1.85	**935-0497●**	2.90	1.98	1.86	0.87	– –
2.5	**935-0500●**	2.75	2.16	2.04	0.99	– –
3	**935-0519●**	2.90	2.25	2.13	1.02	– –
4	**935-0527●**	3.06	2.34	2.22	1.05	– –
5	**935-0535●**	3.09	2.40	2.28	1.08	– –
6	**935-0543●**	3.40	2.58	2.46	1.17	– –
7	**935-0551●**	3.49	2.67	2.55	1.23	– –
8	**935-0560●**	3.65	2.79	2.64	1.26	– –
9	**935-0110●**	3.12	2.85	2.61	1.20	– –

Multifuse MF - RX Series

PTC - Radial lead

- Radial Lead devices
- 72V rated
- Cured, flame retardant insulating material meets **UL 94V-0** requirements
- Reset by removing the fault condition and supply voltage
- **UL** Recognised

NEW

Operating temperature -40°C to +85°C
V_{max} 60V
I_{max} 40A

(A) * I Hold	(A) ** I Trip	A Max.	B Max.	C Nom.	C Tol. ±	D Min.	E Max.	Lead Dia	Mftrs. List No.	Order Code
				Dimensions						
1.1	2.2	10.84	12.7	5.1	0.7	7.6	3.1	0.81	MF-RX110/72-0	935-0128
1.35	2.7	12.26	12.7	5.1	0.7	7.6	3.1	0.51	MF-RX135/72-0	935-0136
1.6	3.2	13.94	12.7	5.1	0.7	7.6	3.1	0.51	MF-RX160/72-0	935-0144
1.85	3.7	15.18	12.7	5.1	0.7	7.6	3.1	0.51	MF-RX185/72-0	935-0152
2.5	5	17.84	12.7	10.2	0.7	7.6	3.1	0.51	MF-RX250/72-0	935-0160
3	6	20.67	12.7	10.2	0.7	7.6	3.1	0.51	MF-RX300/72-0	935-0179
3.75	7.5	23.51	12.7	10.2	0.7	7.6	3.1	0.51	MF-RX375/72-0	935-0187

* I Hold - Current at which Multifuse will not trip
** I Trip - Current at which Multifuse will trip

405888

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

Hold Current (A)	Order Code	Price Each 5+	50+	100+	250+	+
1.1	935-0128●	1.80	1.65	1.53	0.72	– –
1.35	935-0136●	1.98	1.77	1.65	0.78	– –
1.6	935-0144●	2.16	1.92	1.80	0.84	– –
1.85	935-0152●	2.16	1.92	1.80	0.84	– –
2.5	935-0160●	2.31	2.10	1.92	0.90	– –
3	935-0179●	2.31	2.10	1.92	0.90	– –
3.75	935-0187●	2.46	2.25	2.10	0.96	– –

Multifuse MF - MSMF Series

PTC - SMD 1812 Style

- Fast tripping resettable circuit protection
- Standard 4532mm (1812) footprint for automated assembly
- Reduced component size and resistance
- **CSA** and **TüV** Approved, **UL** Recognised

NEW

Operating temperature	-40°C to +85°C
Max Surface Temp. (Tripped)	125°C
Power Dissipation (Tripped)	0.8W

(A) * I Hold	(A) ** I Trip	Dimensions Height (mm)	Width (mm)	Depth (mm)	Mftrs. List No.	Order Code
V_{max} = 60V						
0.10	0.20	3.24	4.55	0.685	MF-MSMF010-2	935-0276
0.14	0.34	3.24	4.55	0.685	MF-MSMF014-2	935-0284
V_{max} = 30V						
0.20	0.40	3.24	4.55	0.685	MF-MSMF020-2	935-0292
0.35	0.75	3.2	3.2	0.665	MF-NSMF035-2	935-0306
V_{max} = 15V						
0.50	1.00	3.24	4.55	0.50	MF-MSMF050-2	935-0314
V_{max} = 13.2V						
0.75	1.50	3.24	4.55	0.5	MF-MSMF075-2	935-0322
V_{max} = 6V						
1.10	2.20	3.24	4.55	0.50	MF-MSMF110-2	935-0330
1.25	2.50	3.24	4.55	0.38	MF-MSMF125-2	935-0349
1.5	3.00	3.24	4.55	0.38	MF-MSMF150-2	935-0357

* I Hold - Current at which Multifuse will not trip
** I Trip - Current at which Multifuse will trip

405882

Hold Current (A)	Order Code	Price Each 5+	50+	100+	250+	+
0.10	SMD 935-0276●	1.80	1.65	1.53	0.72	– –
0.14	SMD 935-0284●	1.80	1.65	1.53	0.72	– –
0.20	SMD 935-0292●	1.65	1.50	1.41	0.66	– –
0.35 *	SMD 935-0306●	1.80	1.65	1.53	0.72	– –
0.50	SMD 935-0314●	1.65	1.50	1.41	0.66	– –
0.75	SMD 935-0322●	1.65	1.50	1.41	0.66	– –
1.10	SMD 935-0330●	1.65	1.50	1.41	0.66	– –
1.25	SMD 935-0349●	1.65	1.50	1.41	0.66	– –
1.5	SMD 935-0357●	1.65	1.50	1.41	0.66	– –

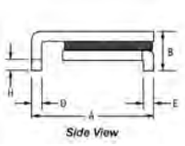
* 1206 Case Style

Multifuse MF - SM Series

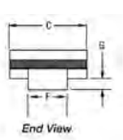
PTC - SMD EIA 481-2 Style

- Surface mount overcurrent devices
- Industry standard EIA 481-2 standard package
- **CSA** and **TüV** Approved, **UL** Recognised

NEW



Terminal material:
Tin-plated brass



Order Codes	9350195, 9350209	9350217, 9350225	9350233, 9350241	9350250, 9350268
V_{max} (V)	60	30	15	15
I_{max} (I)	40	80	100	100
Operating temperature (all Order Codes)	-40°C to +85°C			

(A) * I Hold	(A) ** I Trip	Dimensions (mm) A Max	B Max	C Max	D & E Max	F Max	G Max	H Min	Mftrs. List No.	Order Code
0.3	0.6	7.98	5.44	3.18	0.71	2.41	1.37	0.43	MF-SM030-2-99	935-0195
0.5	1	7.98	5.44	3.18	0.71	2.41	1.37	0.43	MF-SM050-2-99	935-0209
0.75	1.5	7.98	5.44	3.18	0.71	2.41	1.37	0.43	MF-SM075-2-99	935-0217
1.1	2.2	7.98	5.44	3.0	0.71	2.41	1.37	0.43	MF-SM100-2-99	935-0225
1.25	2.5	7.98	5.44	3.00	0.71	2.41	1.37	0.43	MF-SM125-2-99	935-0233
1.50	3.00	7.98	6.71	3.00	0.71	2.41	1.37	0.43	MF-SM150-2-99	935-0241
2.00	4.00	7.98	6.71	3.00	0.71	2.41	1.37	0.43	MF-SM200-2-99	935-0250
2.50	5.00	9.5	6.71	3.00	0.71	2.41	1.37	0.43	MF-SM250-2-99	935-0268

* I Hold - Current at which Multifuse will not trip
** I Trip - Current at which Multifuse will trip

405903

Hold Current (A)	Order Code	Price Each 5+	50+	100+	250+	+
0.3	SMD 935-0195●	2.16	1.92	1.80	0.84	– –
0.5	SMD 935-0209●	2.16	1.92	1.80	0.84	– –
0.75	SMD 935-0217●	2.16	1.92	1.80	0.84	– –
1.1	SMD 935-0225●	2.16	1.92	1.80	0.84	– –
1.25	SMD 935-0233●	2.16	1.92	1.80	0.84	– –
1.50	SMD 935-0241●	2.31	2.10	1.92	0.90	– –
2.00	SMD 935-0250●	2.31	2.10	1.92	0.90	– –
2.50	SMD 935-0268●	2.31	2.10	1.92	0.90	– –

POLYSWITCH™

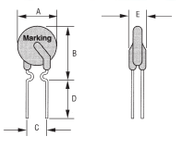
The PolySwitch resettable fuse is a positive temperature coefficient (PTC) resistor that undergoes a large and abrupt change in resistance when an overcurrent or high temperature heats it above a specific point.

Under normal operating conditions the device resistance is just tens of milli-ohms. In the overcurrent condition the resistance substantially increases, thus limiting the fault current to a safe level. The polyswitch is reset by removing the fault condition and the supply voltage.

Note: The PolySwitch device is not intended for continual and repeated tripping. They are designed for over current and over temperature protection only.

213849

PolySwitch - RXE Series



Lead dia.=0.51 (24 AWG).

RXE series of general purpose resettable fuses for applications with a maximum voltage of up to 60V

Maximum voltage	60V & 72V rms	Maximum interrupt current	40A
Operating temperature	-40°C to +85°C	Typical reset time	<20s
Case meets the requirements of **UL94V-0**		Max surface temperature	125°C in tripped state
Approved to **CSA** and **TUV**, **UL** Recognised			

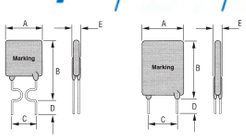
V max (V) rms	I_H (A)	I_T (A)	Dimensions A Max.	B Max.	C Typ	D Min.	E Max.	Mftrs. List No.	Order Code
60	0.1	0.2	7.4	12.7	5.1	7.6	3	RXEF010	117-5857
60	0.17	0.34	7.4	12.7	5.1	7.6	3	RXEF017	117-5858
72	0.2	0.4	7.4	12.2	5.1	7.6	3	RXEF020	117-5859
72	0.25	0.5	7.4	12.7	5.1	7.6	3	RXEF025	117-5860
72	0.3	0.6	7.4	13	5.1	7.6	3	RXEF030	117-5861
72	0.4	0.8	7.6	13.5	5.1	7.6	3	RXEF040	117-5862
72	0.5	1	7.9	13.7	5.1	7.6	3	RXEF050	117-5864
72	0.65	1.3	9.7	14.5	5.1	7.6	3	RXEF065	117-5867
72	0.75	1.5	10.4	15.2	5.1	7.6	3	RXEF075	117-5868
72	0.9	1.8	11.7	15.7	5.1	7.6	3	RXEF090	117-5869

I_H = Hold current. The maximum current at which the device will not trip at 20°C
I_T = Trip current. The minimum current at which the device will always trip at 20°C

204468

I Hold (A)	Order Code	Price Each 5+	50+	100+	250+	+	+
0.1	117-5857●	1.11	0.98	0.88	0.78	– –	– –
0.17	117-5858●	1.11	0.98	0.88	0.78	– –	– –
0.2	117-5859●	1.11	0.98	0.88	0.78	– –	– –
0.25	117-5860●	1.11	0.98	0.88	0.78	– –	– –
0.3	117-5861●	0.85	0.75	0.65	0.59	– –	– –
0.4	117-5862●	0.98	0.88	0.78	0.72	– –	– –
0.5	117-5864●	0.88	0.81	0.72	0.65	– –	– –
0.65	117-5867●	1.07	0.98	0.85	0.78	– –	– –
0.75	117-5868●	0.94	0.85	0.75	0.68	– –	– –
0.9	117-5869●	0.98	0.88	0.78	0.68	– –	– –

PolySwitch - RUE Series



Lead dia. 0.51 (24 AWG)

Lead dia. 0.81 (20 AWG)

RUE series of high current resettable fuses designed for applications that require a hold current between 0.9 and 9.0A, and a maximum voltage of 30V

21

Fuses, Circuit Breakers & Consumer Units

● Compliant
◄ Non-compliant
‡ Limited stock - RoHS replacement available

RoHS

Farnell Page 764 Date: 18-08-06 time: 17:35

Maximum voltage 30V
Operating temperature -40°C to +85°C
Case meets the requirements of **UL94V-0**
Approved to **CSA**, **TUV**, and **UL** Recognised
Maximum interrupt current 40A
Typical reset time <20s
Max surface temperature 125°C in tripped state

I_H (A)	I_T (A)	Dimensions A Max.	B Max.	C Typ	D Min.	E Max.	Mftrs. List No.	Order Code
0.9	1.8	7.4	12.2	5.1	7.6	3	RUEF090	117-5843
1.1	2.2	7.4	14.2	5.1	7.6	3	RUEF110	117-5844
1.35	2.7	8.9	13.5	5.1	7.6	3	RUEF135	117-5845
1.6	3.2	8.9	15.2	5.1	7.6	3	RUEF160	117-5846
1.85	3.7	10.2	15.7	5.1	7.6	3	RUEF185	117-5847
2.5	5	11.4	18.3	5.1	7.6	3	RUEF250	117-5848
3	6	11.4	17.3	5.1	7.6	3	RUEF300	117-5849
4	8	14	20.1	5.1	7.6	3	RUEF400	117-5850
5	10	14	24.9	10.2	7.6	3	RUEF500	117-5851
6	12	16.5	24.9	10.2	7.6	3	RUEF600	117-5852
7	14	19.1	26.7	10.2	7.6	3	RUEF700	117-5854
8	16	21.6	29.2	10.2	7.6	3	RUEF800	117-5855
9	18	24.1	29.7	10.2	7.6	3	RUEF900	117-5856

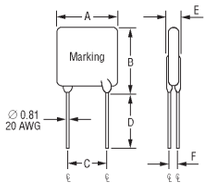
I_H = Hold current. The maximum current at which the device will not trip at 20°C
I_T = Trip current. The minimum current at which the device will always trip at 20°C

204467

I Hold (A)	Order Code	Price Each 5+	50+	100+	250+	+	+
0.9	**117-5843**	0.94	0.85	0.75	0.68	– –	– –
1.1	**117-5844**	0.94	0.85	0.75	0.68	– –	– –
1.35	**117-5845**	1.04	0.94	0.85	0.75	– –	– –
1.6	**117-5846**	1.07	0.98	0.85	0.78	– –	– –
1.85	**117-5847**	1.14	1.01	0.91	0.81	– –	– –
2.5	**117-5848**	1.20	1.07	0.94	0.85	– –	– –
3	**117-5849**	1.27	1.14	1.01	0.91	– –	– –
4	**117-5850**	1.37	1.24	1.11	0.98	– –	– –
5	**117-5851**	1.46	1.30	1.17	1.04	– –	– –
6	**117-5852**	1.63	1.43	1.27	1.14	– –	– –
7	**117-5854**	2.25	2.02	1.79	1.59	– –	– –
8	**117-5855**	1.76	1.56	1.40	1.27	– –	– –
9	**117-5856**	1.89	1.69	1.50	1.33	– –	– –

Polyswitch - RGE Series

tyco / Electronics / Raychem



- Designed for low voltage applications (<16V) but with high current
- Feature faster trip time, lower resistance and smaller dimensions than other series
- Wide range of computer, medical and automotive applications

Maximum voltage 16V
Operating temperature -40°C to +85°C
Approved to CSA, TUV, UL
Maximum interrupt current 100A
Max surface temperature 125°C in tripped state

I_H	I_T	Dimensions A	B	C	Pd (w)	Mftrs. List No.	Order Code
3	5.1	7.4	10.2	5.1	2.3	RGE300	136-724
4	6.8	8.9	12.8	5.1	2.4	RGE400	136-736
5	8.5	10.4	13.5	5.1	2.6	RGE500	136-748
7	11.9	11.2	18.8	5.1	3.0	RGE700	136-761
9	15.3	14.0	20.8	5.1	3.3	RGE900	136-773
11	18.7	17.5	25.1	5.1	3.7	RGE1100	136-785
12	20.4	17.5	28.0	10.2	4.2	RGE1200	136-797
14	23.8	27.9	27.9	10.2	4.6	RGE1400	136-803

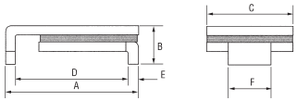
I_H = Hold current. The maximum current at which the device will not trip at 20°C
I_T = Trip current. The minimum current at which the device will always trip at 20°C

204523

I Hold (A)	Order Code	Price Each 5+	50+	100+	250+	+	+
3	**136-724**	2.37	2.10	1.95	1.65	– –	– –
4	**136-736**	1.14	0.94	0.85	0.78	– –	– –
5	**136-748**	1.14	0.94	0.85	0.78	– –	– –
7	**136-761**	1.30	1.07	0.94	0.88	– –	– –
9	**136-773**	1.53	1.27	1.14	1.02	– –	– –
11	**136-785**	1.89	1.53	1.37	1.25	– –	– –
12	**136-797**	2.02	1.66	1.46	1.34	– –	– –
14	**136-803**	2.21	1.79	1.59	1.46	– –	– –

Polyswitch - SMD Series

tyco / Electronics / Raychem



Surface mount series of resettable fuses. Suitable for all types of reflow soldering, but not suitable for wave soldering when fitted on the underside of the board.

Note: A device should not be reworked.

Operating temperature -40°C to +85°C
Max surface temperature in tripped state 125°C
Approved to **CSA** and **TUV**. **UL** Recognised
V_{max} (0.3, 0.5A) (0.75, 1.1A) (1.25, 2.5A)

I_H (A)	I_T (A)	V_{Max} (V)	I_{Max} (A)	Dimensions A Max	B Max	C Max	E Min	F Max	Mftrs. List No.	Order Code
0.3	0.6		10	7.98	3.2	5.44	0.56	2.41	SMD030F-2	117-5870
0.5	1		10	7.98	3.2	5.44	0.20	2.41	SMD050F-2	117-5871
0.75	1.5		40	7.98	3.2	5.44	0.56	2.41	SMD075F-2	117-5872
1.1	2.2		40	7.98	3	5.44	0.56	2.41	SMD100F-2	117-5873
1.25	2.5		40	7.98	3	5.44	0.56	2.41	SMD125F-2	117-5874
1.5	3		40	9.5	3	6.71	0.56	3.94	SMD150F-2	117-5875
2	4		40	9.5	3	6.71	0.56	3.94	SMD200F-2	117-5876
2.5	5		40	9.5	3	6.71	0.56	3.94	SMD250F-2	117-5878

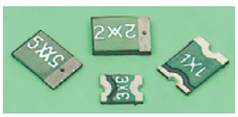
I_H = Hold current - maximum current device will pass without interruption in 20°C still air environment
I_T = Trip current - minimum current that will switch the device from low resistance to high resistance in 20°C still air
V max = Maximum voltage device can withstand without damage at rated hold current

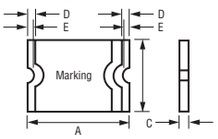
204466

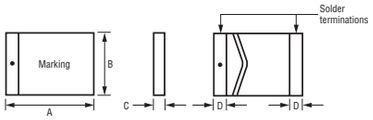
I Hold (A)	Order Code	Price Each 5+	50+	100+	250+	+
0.3	SMD **117-5870**	1.14	1.01	0.91	0.81	– –
0.5	SMD **117-5871**	1.14	1.01	0.91	0.81	– –
0.75	SMD **117-5872**	1.14	1.01	0.91	0.81	– –
1.1	SMD **117-5873**	1.14	1.01	0.91	0.81	– –
1.25	SMD **117-5874**	1.07	0.94	0.85	0.75	– –
1.5	SMD **117-5875**	1.14	1.01	0.91	0.81	– –
2	SMD **117-5876**	1.14	1.01	0.91	0.81	– –
2.5	SMD **117-5878**	1.14	1.01	0.91	0.81	– –

Polyswitch - miniSMD Series

tyco / Electronics / Raychem







- Designed for high density SMD applications
- Current range from 0.2A to 1.1A
- Typical applications include disk drives, palmtop computers and telecommunications products
- Approved to **CSA** and **TUV**, **UL** Recognised

Max. Interrupt current 40A (except 0.2A = 10A)
Approved to CSA, TUV
Operating temperature -40°C to +85°C
Max surface temperature 125°C in tripped state

I_H (A)	I_T (A)	Dimensions A max.	B max.	C max.	D max.	E max.	Pd (w)	Mftrs. List No.	Order Code
0.2	0.4	4.73	3.41	0.81	0.65	0.50	0.8	MINISMDC020F-2	117-5838
0.35	0.75	3.43	2.80	0.62	0.30	0.50	0.6	MICROSMD035F-2	117-5837
0.5	1	4.73	3.41	0.62	0.65	0.30	0.8	MINISMDC050F-2	117-5839
1.1	2.2	4.73	3.41	0.62	0.30	0.50	0.8	MINISMDC110F-2	117-5842

I_H = Hold current. The maximum current at which the device will not trip at 20°C
I_T = Trip current. The minimum current at which the device will always trip at 20°C

227524

I Hold (A)	Order Code	Price Each 5+	50+	100+	250+	+	+
0.2	SMD **117-5838**	1.50	1.37	1.20	1.07	– –	– –
0.35	SMD **117-5837**	0.91	0.81	0.72	0.65	– –	– –
0.5	SMD **117-5839**	1.11	0.98	0.88	0.78	– –	– –
1.1	SMD **117-5842**	1.11	0.98	0.88	0.78	– –	– –

Thermal Protection

Thermal Fuse - Microtemp

THERMODISC

Body: L=14.7, Dia=4.0 Lead dia.=1.0

- Highly reliable, low cost non-resettable axial fuses
- **VDE, CSA, FEMKO** approvals and **UL** Recognised
- The leads have a strain relief system to support a load of up to 1.35kgs (3lbs)
- For upper limit temperature protection

Rating 10A @ 250V ac
Break down (when open) 1200V ac
Operating temperature tolerance 0°C to -4°C
Max. rupture current: 20A inductive, 40A resistive

204508

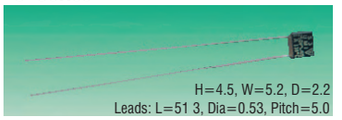
Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

C = CYAN M = Magenta Y = Yellow B = Black/SING

Opening Temperature	Mftrs. List No.	Order Code	Price Each 5+	50+	100+	500+
72°C	G4A01072C	476-560●	1.32	1.26	1.17	1.11
84°C	G4A01084C	476-572●	1.32	1.26	1.17	1.11
93°C	G4A01093C	187-008●	1.14	1.08	0.99	0.93
98°C	G4A01098C	476-584●	1.32	1.26	1.17	1.11
104°C	G4A01104C	187-010●	1.14	1.08	0.99	0.93
110°C	G4A01110C	187-021●	1.14	1.08	0.99	0.93
117°C	G4A01117C	187-033●	1.14	1.08	0.99	0.93
121°C	G4A01121C	476-596●	1.32	1.26	1.17	1.11
128°C	G4A01128C	187-045●	1.14	1.08	0.99	0.93
144°C	G4A01144C	187-057●	1.14	1.08	0.99	0.93
152°C	G4A01152C	187-069●	1.14	1.08	0.99	0.93
167°C	G4A01167C	476-602●	1.32	1.26	1.17	1.11
184°C	G4A01184C	476-614●	1.32	1.26	1.17	1.11
192°C	G4A01192C	187-070●	1.14	1.08	0.99	0.93
216°C	G4A01216C	187-082●	1.14	1.08	0.99	0.93
229°C	G4A01229C	760-961●	1.32	1.26	1.17	1.11
240°C	G4A01240C	187-094●	1.14	1.08	0.99	0.93

Thermal Fuse - 'S' Series

ELCUT



Sub-miniature non-resettable thermal fuses approved to **CSA** and **VDE**, **UL** Recognised. The case is completely isolated from either of the connecting leads. The compact size of the 'S' series cutoffs makes them ideal for todays high density mounting requirements.

Rating 1A @ 240V ac

204465/204465

Max. Rated Operating Temperature	Actual Opening Temperature	Order Code	Price Each 5+	50+	100+	500+
102°C	98°C±2°C	106-419	1.47	1.29	1.20	1.14
115°C	112°C±3°C	106-420	1.47	1.29	1.20	1.14
130°C	126°C±2°C	106-421	1.47	1.29	1.20	1.14
150°C	145°C±2°C	106-422	1.47	1.29	1.20	1.14

American Midget Fuses

A range of midget fuses manufactured in accordance with American standards suitable for use as replacement fuses in Fluke multimeters .

Fluke Multimeter Replacement Fuse Selection Guide

Fluke Model No.	440mA Fuse Order Code 944-3331	630mA Fuse Order Code 105-559	1A Fuse Order Code 944-3307	2A Fuse Order Code 105-558	3A Fuse Order Code 944-3315	15A Fuse Order Code 944-3277	11A Fuse Order Code 944-3340	20A Fuse Order Code 944-3285
21/23/27/75/77								
Series II		x			x	x		x
21-III/75-III 76/29/79 Series II		x					x	
83/85 87 (S/N 5650001)			x			x		
45						x		
25/27		x			x	x		x
73 Series II and 73-III						x		
863/865/867B 83/85/87 (S/N.6565001)								
83-III/85-III/ 87-III/87E-III								
23-III/ / 75-III 77-III/ /79-III	x					x	x	
8060A				x				

213851

High Performance Fast Acting - 10.3 x 35mm

Suitable For Multimeters

Littelfuse

- **UL** recognised

Voltage rating 1000V ac/dc
Breaking capacity 10000A @ 1000V ac/dc

204530

Rating	Mftrs. List No.	Order Code	Price Each 1+	5+	25+
440mA	0FLU.440T..TA000	305-7458▲‡	20.41	17.01	13.36

Rating	Mftrs. List No.	Order Code	Price Each 1+	5+	25+
440mA	0FLU.440T.TA000	994-3331●	20.41	17.01	13.36

High Performance Fast Acting - 10.3 x 35mm

BLS Series - Suitable For Multimeters

Littelfuse

- For high ac fault current circuitry
- **UL** recognised
- **CSA** approved

Voltage rating 600V ac
Breaking capacity 10000A @ 600V ac/dc

204531

Rating	Mftrs. List No.	Order Code	Price Each 1+	+	+
1A	BLS1	303-1792▲‡	5.30	– –	– –
3A	BLS3	303-1809▲‡	5.34	– –	– –

Rating	Mftrs. List No.	Order Code	Price Each 1+	+	+
1A	BLS1	994-3307●	5.30	– –	– –
3A	BLS3	994-3315●	5.34	– –	– –

High Performance Fast Acting - 10.3 x 38mm

Suitable For Multimeters

Littelfuse

- **UL** recognised

Voltage rating 1000V ac
Breaking capacity 17000A @ 250V ac/dc

204529

Rating	Mftrs. List No.	Order Code	Price Each 1+	5+	25+
11A	0FLU011.T..TA000	305-7460▲‡	20.41	17.01	13.36

Rating	Mftrs. List No.	Order Code	Price Each 1+	5+	25+
11A	0FLU011.T.TA000	994-3340●	20.41	17.01	13.36

High Performance Fast Acting - 10.3 x 38mm

BLN Series - Suitable For Multimeters

Littelfuse

- **UL** recognised
- **CSA** approved

Voltage rating 250V ac
Breaking capacity 100000A @ 250V ac

204528

Rating	Mftrs. List No.	Order Code	Price Each 1+	10+	25+
15A	BLN15	303-1822▲‡	5.10	4.41	3.24
15A	BLN15	994-3323●	5.10	4.41	3.24

High Performance Fast Acting - 10.3 x 38mm

KLK Series - Suitable For Multimeters

Littelfuse

- For high ac fault current circuitry
- **UL** recognised (to 3A)
- **CSA** approved

Voltage rating 600V ac
Breaking capacity 100000A @ 600V ac

Rating	Mftrs. List No.	Order Code	Price Each 1+	10+	25+
1A	0KLK001.T.	302-9335▲‡	10.08	8.82	6.11
2A	0KLK002.T.	302-9347▲‡	11.97	10.24	7.40
3A	0KLK003.T.	302-9359▲‡	10.90	9.51	5.45
4A	0KLK004.T.	302-9360▲‡	10.90	9.51	5.45
5A	0KLK005.T.	302-9372▲‡	10.90	9.51	5.45
10A	0KLK010.T.	302-9384▲‡	11.97	10.24	7.40
15A	0KLK015.T.	302-9396▲‡	10.08	8.82	5.13
20A	0KLK020.T.	302-9402▲‡	10.08	8.82	5.13
30A	0KLK030.VX832.	302-9414▲‡	10.08	8.82	5.13

204527

Rating	Mftrs. List No.	Order Code	Price Each 1+	10+	25+
1A	0KLK001.T	994-3218●	10.08	8.82	6.11
2A	0KLK002.T	994-3226●	11.97	10.24	7.40
3A	0KLK003.T	994-3234●	10.90	9.51	5.45
4A	0KLK004.T	994-3242●	10.90	9.51	5.45
5A	0KLK005.T	994-3250●	10.90	9.51	5.45
10A	0KLK010.T	994-3269●	11.97	10.24	7.40
15A	0KLK015.T	994-3277●	10.08	8.82	5.13
20A	0KLK020.T	994-3285●	10.08	8.82	5.13
30A	0KLK030.VX832	994-3293●	10.08	8.82	5.13

RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

C = CYAN M = Magenta Y = Yellow B = Black/SING

High Performance Fast Acting - 10.38 x 38

KTK Series Suitable for Multimeters

Bussmann

- For high ac fault current circuitry
- **UL** Recognised
- **CSA** certified

Voltage rating 600V
Breaking capacity 100000A @ 600V

227525

Rating	Mftrs. List No.	Order Code	Price Each 1+	10+	25+
0.1A	KTK-1/10	**348-2789**	9.60	9.30	8.88
0.25A	KTK-1/4	**348-2807**	9.33	8.85	8.31
0.5A	KTK-1/2	**348-2819**	9.33	8.85	8.31
1A	KTK-1	**348-2820**	7.77	7.29	6.90
1.5A	KTK-1-1/2	**348-2832**	7.77	7.29	6.90
2A	KTK-2	**348-2844**	7.77	7.29	6.90
3A	KTK-3	**348-2856**	7.77	7.29	6.90
4A	KTK-4	**348-2868**	7.77	7.29	6.90
5A	KTK-5	**348-2870**	7.77	7.29	6.90
6A	KTK-6	**348-2881**	7.77	7.29	6.90
8A	KTK-8	**348-2900**	9.84	9.21	8.64
9A	KTK-9	**348-2911**	7.77	7.29	6.90

High Performance Quick Blow (F) - 10.3 x 38

KTK-R Series

Bussmann

High performance, fast acting, single-element ceramic fuses for protection of branch circuits, motor control circuits, lighting ballasts and control transformers. A grooved ferrule permits mounting in rejection-type as well as standard fuseholders. **UL** Recognised and **CSA** approved.

Voltage rating 600V ac
Breaking capacity 200000A @ 600V ac
Mftrs. List No. KTK-R + Rating

204412

Rating	Order Code	Price Each 1+	10+	50+	100+
1A	**218-923**	13.26	11.49	10.50	9.78
2A	**218-935**	15.21	12.69	10.68	9.78
4A	**218-947**	14.37	– –	– –	– –
5A	**218-959**	15.21	12.69	10.68	9.78
10A	**218-960**	15.21	12.69	10.68	9.78
15A	**218-972**	15.21	12.69	10.68	9.78
20A	**218-984**	15.84	13.20	11.10	10.17
30A	**218-996**	15.84	13.20	11.10	10.17

10 x 38mm (1½") HRC Cartridge Fuses and Accessories

gR Ultra Rapid Semiconductor Fuses

SIBA

- European style industrial ceramic ultra rapid fuses for protection of thyristors, diodes etc.
- **UL** Recognised

Rating 600Vac

Current Rating	Voltage Power Dissipation (W)	Pre-arcing I^2t	Total I^2t @ 600V	Order Code
4A	1.1	1.1	6	607-745
6A	1.8	6	18	607-757
10A	1.7	9	28	607-769
16A	4.8	36	120	607-770
20A	5.8	60	200	607-782
25A	6.8	120	420	607-794
30A	7.8	195	650	607-800

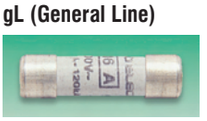
Mftrs. List No.60-033-05 + Rating

204397

Rating	Order Code	Price Each 1+	10+	100+	200+
4A	**607-745**	11.34	10.14	9.69	9.15
6A	**607-757**	11.34	10.14	9.69	9.15
10A	**607-769**	11.34	10.14	9.69	9.15
16A	**607-770**	11.34	10.14	9.69	9.15
20A	**607-782**	11.34	10.14	9.69	9.15
25A	**607-794**	11.34	10.14	9.69	9.15
30A	**607-800**	11.34	10.14	9.69	9.15

gL (General Line)

GOULD



European style industrial HRC ceramic fuses manufactured in accordance with **IEC269-2, NFC63-210** and **UNE21.103.** Suitable for cable protection and applications where there are no surges to be absorbed.

Voltage rating 500V (32A 499493 = 400V)
Breaking capacity 120000

204429

Rating	Order Code	Price Each 5+	50+	250+	500+
2A	**248-708**	1.32	1.19	1.06	0.94
4A	**248-710**	1.32	1.19	1.06	0.94
6A	**248-721**	1.32	1.19	1.06	0.94
10A	**248-733**	1.32	1.19	1.06	0.94
16A	**248-745**	1.32	1.19	1.06	0.94
20A	**499-470**	1.32	1.19	1.06	0.94
25A	**499-481**	1.32	1.19	1.06	0.94
32A	**499-493**	1.32	1.19	1.06	0.94

aM (Motor Rated)

GOULD

European style industrial HRC ceramic fuses manufactured in accordance with **IEC269-2, NFC63-210** and **UNE21.103.** Suitable for applications where an initial surge has to be absorbed (i.e. motor starts).

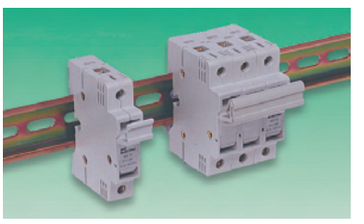
Voltage rating 500V ac (248-691 = 400V ac)
Breaking capacity 120000

204428

Rating	Order Code	Price Each 5+	25+	100+	250+
2A	**248-630**	1.62	1.47	1.41	1.38
4A	**248-642**	1.59	1.44	1.35	1.29
6A	**248-654**	1.59	1.44	1.35	1.29
10A	**248-666**	1.59	1.44	1.35	1.29
16A	**248-678**	1.59	1.44	1.35	1.29
20A	**248-680**	1.74	1.59	1.50	1.47
25A	**248-691**	2.04	1.86	1.74	1.71

Fuseholders, DIN Rail Mounting

GOULD



Single pole
H=78, W=17.5,
D (inc. lever)=73.5
D (excl. lever)=58
Terminal capacity=16mm²
Rating 32A @ 400V

Triple pole
H=78, W=52.5
D (inc. lever)=75.5
D (excl. lever)=52
Terminal capacity=16mm²
Rating 32A @ 400V

204427

	Order Code	Price Each 1+	10+	25+	50+
Single Pole	**248-757**	8.78	8.12	7.67	7.42
Triple Pole	**542-787**	32.99	30.56	28.86	27.86

14 x 51mm HRC Cartridge Fuses and Accessories

gR, gL and aM Lines

GOULD SIBA

gR Ultra Rapid Semiconductor Fuses

- European style industrial ceramic ultra rapid fuses for protection of thyrisors, diodes, small speed drives, etc.
- **UL** recognised
- Voltage rating 700Vac **(UL)**, 660Vac **(IEC)**
- Power dissipation: 6 to 10W

Mftrs. List No: 50-124-06+Rating

204376

Rating (A)	Pre-arcing I^2t	Total I^2t @660V	Order Code	Price Each 1+	10+	100+	250+
20	21	190	**187-161**	12.33	11.61	10.92	10.65
25	32	340	**187-173**	16.28	– –	– –	– –
32	63	620	**187-185**	12.69	11.91	11.22	10.98
40	140	1050	**187-197**	12.69	11.91	11.22	10.98

gL (General Line)

- European style industrial ceramic fuses for cable protection and applications where there are no surges to be absorbed
- Manufactured in accordance with **IEC 269-2, NFC60.200, 63.210, 63.211** and **UNE21.108**
- Approved by **Lloyds Register of Shipping** and **Bureau Veritas**

Voltage rating 690Vac (20A, 25A)
500Vac (32A, 40A)
400Vac (50A)
Breaking capacity 80kA (20A, 25A)
120kA (32A upwards)

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

Rating (A)	Order Code	Price Each 5+	25+	100+	250+
20	**187-306**	2.25	2.15	1.99	1.99
25	**187-203**	2.31	2.21	2.05	1.95
32	**187-215**	2.34	2.25	2.08	1.95
40	**187-227**	2.34	2.25	2.08	1.95
50	**187-239**	2.52	2.37	2.19	2.07

aM (Motor Rated)
- European style industrial HRC fuses for applications where an initial surge has to be absorbed (i.e motor start)
- Manufactured in accordance with **IEC 269-2, NFC60.200, 63.210, 63.211** and **UNE21.103**
- Appproved by **Lloyds Register of Shipping** and **Bureau Veritas**

Voltage rating: 690Vac (20A, 25A), 500Vac (32A, 40A), 400Vac (50A)
Breaking capacity: 80kA (20A, 25A), 120kA (32A upwards)

Rating (A)	Order Code	Price Each 5+	25+	100+	250+
20	**187-240**	2.70	2.52	2.37	2.31
25	**187-252**	2.70	2.52	2.37	2.31
32	**187-264**	2.64	2.57	2.34	2.21
40	**187-276**	2.64	2.57	2.38	2.34
50	**187-288**	2.70	2.60	2.44	2.38

Fuseholder for 14 x 51mm fuses
- Manufactured in accordance with **IEC 269-2, 947-3, NFC63.210-63001, VDE0636-1** and **UNE 20129-21103**
- Approved by **Lloyds Register of Shipping** and **Bureau Veritas**

Voltage rating: 690Vac (up to 25A), 500Vac (32A, 40A), 400Vac (50A)

H=106, W=26, D(inc. lever)=81, D(excl. lever)=61.6, Terminal capacity=16mm^2

	Order Code	Price Each 1+	5+	20+	50+
Single Pole Fuseholder	**187-290**	17.71	17.22	16.27	15.49

22 x 58mm HRC Cartridge Fuses and Accessories

gR, gL-gG and aM Lines

SIBA GOULD

gR Ultra Rapid Semiconductor Fuses
- European style industrial ceramic ultra rapid fuses for protection of thyristors, diodes, power transistors etc.
- Indicator striker pin option
- **UL** recognised

Voltage rating: 700V ac (UL), 600V ac **IEC**
Power dissipation: 9.6 to 19W
Breaking capacity: 200kA

Mftrs. List No. 50-140-06+Rating (standard), 50-142-06+Rating (with indicator pin)

Rating (A)	Pre-arcing I^2t	Total I^2t @ 660V	Order Code	Price Each 1+	10+	100+	200+
Standard							
32	63	315	**329-5497**	18.15	16.20	14.31	12.87
40	140	610	**329-5503**	25.11	22.53	19.86	17.97
50	210	910	**329-5515**	25.11	22.53	19.86	17.97
63	510	2260	**329-5527**	25.44	23.01	20.19	18.27
80	1000	4400	**329-5539**	25.44	23.01	20.19	18.27
100	2050	8900	**329-5540**	30.12	27.21	24.00	21.45

gL-gG (General Line)
- European style industrial HRC fuses for cable protection and applications where there are no surges to be absorbed
- Manufactured in accordance with **IEC 269-3-1, NFC61.201 and UNE21.103**
- Approved by **Lloyds Register of Shipping and Bureau Verit**

Voltage rating: 660Vac (up to 80A), 500Vac (100A), 400Vac (125A)
Breaking capacity: 80kA (up to 80A), 80kA (100, 125A)

Rating (A)	Order Code	Price Each 1+	10+	100+	200+
32	**329-5552**	4.38	3.99	3.51	3.15
40	**329-5564**	4.07	3.78	3.35	2.99
50	**329-5576**	4.13	3.84	3.39	3.03
63	**329-5588**	4.38	3.99	3.51	3.15
80	**329-5590**	4.69	4.33	3.78	3.42
100	**329-5606**	4.98	4.50	3.93	3.57
125	**329-5618**	5.40	4.86	4.29	3.87

aM (Motor Rated)
- European style industrial HRC fuses for applications where an initial surge has to be absorbed (e.g. motor start)
- Manufactured in accordance with **IEC 269-3-1, NFC61.201 and UNE21.103**
- Appproved by **Lloyds Register of Shipping and Bureau Veritas**

Voltage rating: 660Vac (up to 80A), 500Vac (100A), 400Vac (125A)
Breaking capacity: 80kA (up to 80A), 80kA (100, 125A)

Rating (A)	Order Code	Price Each 1+	10+	100+	200+
63	**329-5655**	4.50	4.02	3.57	3.21
80	**329-5667**	5.08	4.69	4.17	3.74
125	**329-5680**	5.27	4.88	4.33	3.97

Fuseholder for 22 x 58mm fuses
- Manufactured in accordance with **IEC 269-2-1, 947-3, NFC63210-63001, VDE0636-1 and UNE20129-21103**
- Approved by **Lloyds Register of Shipping and Bureau Veritas**

Voltage rating: 660V ac (up to 80A), 500V ac (100A), 400V ac (125A)
Breaking capacity: 80kA (up to 80A), 120kA (100, 125A)

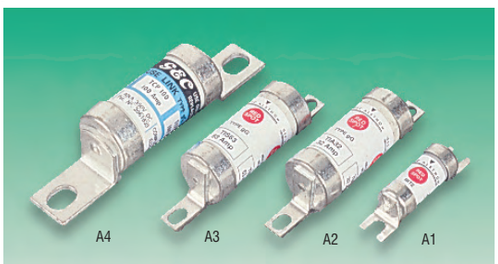
H = 140, W = 35, D (incl. lever) = 88, D (excl. lever) = 58, Terminal capacity = 16mm^2

227526

	Order Code	Price Each 1+	10+	25+	50+
Single Pole Fuseholder	**329-5692**	29.67	26.82	24.12	21.76

Industrial HRC Fuses

'Redspot'® Series — GECA LVE



Redspot range of HRC Fuselinks, **ASTA20** approved, complying with **BS88 Pt2 1988** at **80kA** and **40kA** dc (see table).

They have **Class 01** fusing factors to **BS88-2-1988** providing close access current protection of PVC insulated cables enabling compliance with the **16th Edition of the IEE wiring regulations for Electrical Installations**.

Suitable for use in motor circuits, use of the extended range for motor circuits enhances this capability. All fuselinks have power dissipation values well within the limits of **BS88 Pt2 1988** and are approved by most authorities, including **Lloyds and Ministry of Defence.**

Motor Circuit fuselinks are also listed where there is a requirement for a fuse to with stand the starting surge currents of the motor and be able to carry the **Full Load Current (FLC)** of the motor, e.g. 32M63, a motor current fuse able to withstand the starting surge current of the motor, but the FLC must not exceed the lesser of the two values, i.e. 32A.

Size	Max L	Max Dia.	Max Tag	Fixing Centres Nom.	Max Bolt Size
A1	55.6	14.3	11.1	44.5	M4
A2	85.8	23.8	8.7	73	M5
A3 (40-63)	85.8	23.8	8.7	73	M5
A3 (63M80, 63M100)	90.5	27.8	12.7	73	M5
A4	111	34.9	19.1	93.7	M8
B2 (125-200)	136.5	34.9	19.1	111	M8
B2 (200M250)	136.5	41.3	19.1	111	M8

Current Rating Amps	Max. Voltage Rating ac	dc	BS88-2 Reference	Mftrs List No.
2-20	550	250	A1	NIT
20M25, 20M32	415	—	A1	NIT
6-32	660	460	A2	TIA
32M40-32M50	660	460	A2	TIA
40-63	660	460	A3	TIS
63M80-63M100	660	460	A3	TIS
80, 100	660	460	A4	TCP
100M125, 100M160	660	—	A4	TCP
125-200	660	350	B2	TF
200M250	660	460	B2	TF

204618

Current Rating	Order Code	Price Each 1+	50+	100+
Size A1 — Open-ended Slotted Tag - NIT				
2A	**177-573**	5.43	4.89	4.56
4A	**177-574**	5.43	4.89	4.56
6A	**177-575**	5.43	4.89	4.56
10A	**177-576**	5.43	4.89	4.56
16A	**177-577**	5.70	5.13	4.74

RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

Farnell Page 768 Date: 18-08-06 time: 17:38

Current Rating	Order Code	Price Each 1+	50+	100+
Size A1 — Open-ended Slotted Tag - NIT				
20A	**177-578**	7.29	6.54	6.06
20M25A	**177-579**	8.34	7.47	6.93
20M32A	**177-580**	8.34	7.47	6.93
Size A2 — Bolted Tag - TIA				
6A	**177-581**	8.67	7.80	7.26
10A	**177-582**	8.67	7.80	7.26
16A	**177-583**	9.45	8.49	7.89
20A	**177-584**	9.45	8.49	7.89
25A	**177-585**	10.17	9.15	8.46
32A	**177-586**	10.17	9.15	8.46
32M40A	**177-588**	12.06	10.83	10.05
32M50A	**177-589**	12.06	10.83	10.05
Size A3 — Bolted Tag - TIS		**1+**	**10+**	**50+**
40A	**177-591**	17.16	15.51	14.40
63A	**177-593**	19.77	17.85	16.53
63M80A	**177-594**	24.96	22.53	20.85
63M100A	**177-595**	24.96	22.53	20.85
Size A4 — Bolted Tag - TCP				
80A	**177-596**	33.06	29.88	27.69
100A	**177-597**	33.06	29.88	27.69
100M125A	**177-598**	39.84	35.91	33.30
100M160A	**177-599**	40.17	34.89	32.34
Size B2 — Bolted Tag - TF				
125A	**178-451**	54.42	49.08	45.45
160A	**178-452**	58.65	52.89	48.96
200A	**178-453**	61.89	55.77	51.72
200M250A	**178-454**	69.66	62.70	58.17

Low Voltage Industrial HRC

Bussmann

Industrial HRC fuselinks to **BS88** and **IEC269 (parts 1 and 2)** available in general purpose and dual rated motor circuit styles.

Voltage rating 550V ac Breaking capacity 80kA

Size	Overall Length	Diameter	Fixing Centres	Suitable Fuseholder	Mftrs List No.
F1 (NS)	58.7	13.8	—	556-154	NSD
A1	54.5	13.8	44.5	556-361	NITD
A2	85	13.8	73	556-373	AAO
A3	87	21.4	73	556-385	BAO
A4	111	21.4	94	177-607	CEO

204453

Current Rating	Order Code	Price Each 1+	25+	50+	100+
Size F1 — Offset Blade Tag - NSD					
2A	**120-2348●**	3.62	3.30	3.08	2.90
4A	**120-2349●**	3.62	3.30	3.08	2.90
6A	**120-2350●**	3.62	3.30	3.08	2.90
10A	**120-2351●**	3.62	3.30	3.21	– –
16A	**120-2353●**	3.62	3.30	3.21	– –
20A	**120-2354●**	3.62	3.30	3.21	– –
25A	**120-2409●**	3.62	3.30	3.21	– –
32A	**120-2410●**	3.62	3.30	3.21	– –
Size A1 — Open Ended Slotted Tag - NITD					
2A	**120-2355●**	3.62	3.30	3.08	2.90
4A	**120-2356●**	3.62	3.30	3.08	2.90
6A	**120-2357●**	3.62	3.30	3.08	2.90
10A	**120-2358●**	3.62	3.30	3.08	2.90
16A	**120-2359●**	3.62	3.30	3.08	2.90
20A	**120-2360●**	4.78	4.35	4.23	– –
25A	**120-2409●**	3.62	3.30	3.21	– –
32A	**120-2410●**	3.62	3.30	3.21	– –
20M25A	**120-2413●**	3.99	3.63	3.39	3.19
20M32A	**120-2361●**	3.94	3.58	3.35	3.15
32M40A	**120-2414●**	6.56	5.97	5.81	– –
32M63A	**120-2415●**	6.62	6.02	5.86	– –
Size A2 — Offset Bolted Tag - AAO					
2A	**120-2416●**	6.58	6.38	5.92	5.76
4A	**120-2417●**	5.41	4.92	4.60	4.33
6A	**120-2362●**	5.72	5.21	4.86	4.58
10A	**120-2363●**	5.72	5.21	4.86	4.58
16A	**120-2365●**	6.30	5.73	5.36	5.04
20A	**120-2366●**	6.30	5.73	5.36	5.04

Current Rating	Order Code	Price Each 1+	25+	50+	100+
Size A2 — Offset Bolted Tag - AAO					
25A	**120-2367●**	6.62	6.02	5.62	5.29
32A	**120-2368●**	6.62	6.02	5.62	5.29
32M40A	**120-2419●**	5.99	5.45	5.09	4.79
32M50A	**120-2421●**	5.99	5.45	5.09	4.79
32M60A	**120-2422●**	6.14	5.59	5.22	4.91
Size A3 — Offset Bolted Tag - BAO					
40A	**120-2369●**	11.66	10.61	9.91	9.32
50A	**120-2370●**	11.66	10.61	9.91	9.32
63A	**120-2371●**	12.60	11.47	10.71	10.08
63M80A	**120-2423●**	12.23	11.13	10.40	9.79
63M100A	**120-2424●**	12.23	11.13	10.40	9.79
Size A3 - OSD					
80A	**120-2385●**	18.66	17.44	16.97	– –
100A	**120-2386●**	20.10	18.30	17.81	– –
Size A4 — Offset Bolted Tag - CEO					
100A	**120-2372●**	26.93	24.51	22.89	21.55
100M125A	**120-2425●**	28.30	25.75	24.05	22.64
100M160A	**120-2426●**	28.30	25.75	24.05	22.64
100M200A	**120-2427●**	28.30	25.75	24.05	22.64

"NS" Series - Size 'F1' GECA LVE

Industrial "NS" size HRC fuselinks having **Class Q1** fusing factors in accordance with the IEE Wiring Regulations.

L (overall)=61.7 max.
L (body)=35.6 max
Diameter=13.9
Tag width=11.0

Voltage rating 440V ac/250V dc

204617

Current Rating	Order Code	Price Each 1+	20+	50+
2A	**177-781**	5.34	4.20	4.14
4A	**177-782**	5.22	4.14	4.14
6A	**177-783**	4.98	4.14	– –
10A	**177-784**	5.94	4.62	4.14
16A	**177-785**	6.36	4.95	4.46
20A	**177-786**	8.34	6.48	5.81
25A	**177-787**	9.00	7.05	6.28
32A	**177-788**	9.00	7.05	6.28

High Speed HRC Fuses

BS88 Semiconductor Fuses

SIBA

Ultra Rapid Blowing Characteristic

LET Type

LMT Type

Microswitch

Trip indicator

- Fuses conform to BS88, Part 2, 1988
- Ultra rapid blowing characteristic
- Often referred to a rectifier fuse or semiconductor fuse
- Principle application is for thyristor protection

Dimensions (mm)	Tip to Tip	Fixing centres	Body length	Body diameter
LCT Type	46	38	27	8
LET Type	55	41.8	29.2	17.5
LMT Type	83	59	31	35
CT Type	73	64	54	8.4
ET Type	78.5	63.5	48	17.5
MT Type	113	85	52	35

Trip Indicator Kits: Kits are available for the LET, LMT, ET and MT range of fuses.
Each kit contains 2 clips and an indicator. The indicator is clipped to the fuse to provide local indication of the fuse condition.
Available to fit the indicator is a micro-switch. This enables remote fuse condition indication via 1 x NO and 1 x NC contacts rated at 5A@250V ac

311858

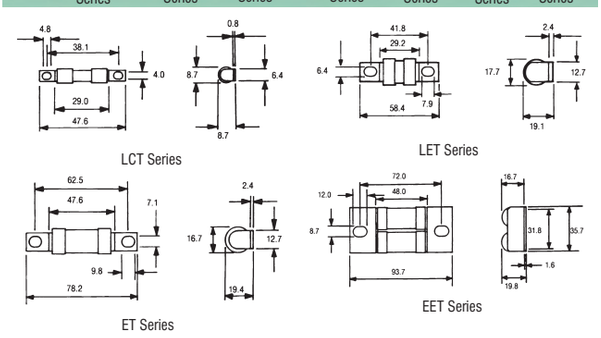
Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

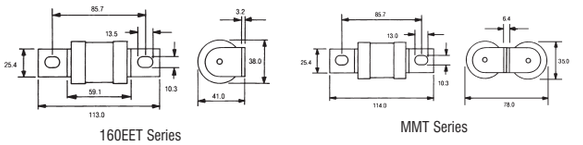
C = CYAN M = Magenta Y = Yellow B = Black/SING

Rating	Mftrs. List No.	Order Code	Price Each 1+	10+	50+	100+
LCT Type						
5A	50-076-06/5A	**444-0705**	6.87	6.48	6.21	5.94
10A	50-076-06/10A	**444-0717**	6.87	6.48	6.21	5.94
16A	50-076-06/16A	**444-0729**	6.87	6.48	6.21	5.94
20A	50-076-06/20A	**444-0730**	7.65	– –	– –	– –
LET Type						
10A	50-053-06/10A	**444-0742**	14.94	13.56	12.93	12.51
16A	50-053-06/16A	**444-0754**	13.35	– –	– –	– –
20A	50-053-06/20A	**444-0766**	15.99	14.28	12.93	12.51
25A	50-053-06/25A	**444-0778**	15.99	14.28	12.93	12.51
32A	50-053-06/32A	**444-0780**	15.99	14.28	12.93	12.51
35A	50-053-06/35A	**444-0791**	15.99	14.28	12.93	12.51
50A	50-053-06/50A	**444-0808**	15.99	14.28	12.93	12.51
63A	50-053-06/63A	**444-0810**	15.99	14.28	12.93	12.51
75A	50-053-06/75A	**444-0821**	15.99	14.28	12.93	12.51
80A	50-053-06/80A	**444-0833**	15.99	14.28	12.93	12.51
100A	50-053-06/100A	**444-0845**	18.21	15.96	14.31	13.53
125A	50-053-06/125A	**444-0857**	19.38	16.44	14.73	13.65
160A	50-053-06/160A	**444-0869**	20.70	17.01	14.88	13.56
180A	50-053-06/180A	**444-0870**	20.70	17.40	14.88	13.65
LMT Type						
160A	50-054-06/160A	**444-0882**	41.76	37.95	34.62	32.40
160A	50-054-06/200A	**444-0894**	41.73	38.34	34.68	33.27
250A	50-054-06/250A	**444-0900**	42.87	37.20	34.68	33.27
160A	50-054-06/315A	**444-0912**	46.80	43.59	40.65	39.03
350A	50-054-06/350A	**444-0924**	46.80	43.59	40.65	39.03
CT Type						
6A	50-077-06/6A	**444-0936**	9.03	8.76	8.31	8.16
10A	50-077-06/10A	**444-0948**	9.03	8.76	8.31	8.16
16A	50-077-06/16A	**444-0950**	9.03	8.76	8.31	8.16
20A	50-077-06/20A	**444-0961**	9.03	8.76	8.31	8.16
ET Type						
10A	50-073-06/10A	**444-0973**	19.47	15.06	12.87	12.09
16A	50-073-06/16A	**444-0985**	19.47	15.06	12.87	12.09
20A	50-073-06/20A	**444-0997**	19.47	15.06	12.87	12.09
25A	50-073-06/25A	**444-1000**	19.47	15.06	12.87	12.09
32A	50-073-06/32A	**444-1011**	19.47	15.06	12.87	12.09
35A	50-073-06/35A	**444-1023**	19.47	15.06	12.87	12.09
40A	50-073-06/40A	**444-1035**	19.47	15.06	12.87	12.09
45A	50-073-06/45A	**444-1047**	21.84	17.22	14.73	13.80
56A	50-073-06/56A	**444-1059**	21.84	17.22	14.73	13.80
63A	50-073-06/63A	**444-1060**	24.51	21.00	19.11	17.52
75A	50-073-06/75A	**444-1072**	24.66	24.15	21.99	20.97
80A	50-073-06/80A	**444-1084**	24.66	24.15	21.99	20.97
100A	50-073-06/100A	**444-1096**	32.10	25.38	23.64	22.95
MT Type						
100A	50-074-06/100A	**444-1102**	47.01	44.07	42.15	41.25
200A	50-074-06/200A	**444-1114**	45.90	44.58	42.72	41.67
250A	50-074-06/250A	**444-1126**	59.10	56.49	52.56	51.27
Accessories						
Trip Ind.	LET KIT	**444-1138**	12.15	11.61	10.71	10.11
Trip Ind.	LMT KIT	**444-1140**	12.45	11.91	10.95	10.38
Trip Ind.	ET KIT	**444-1151**	16.29	15.57	14.34	13.56
Trip Ind.	MT KIT	**444-1163**	16.59	15.87	14.61	13.83
Microswitch BS	58-053-05.1	**444-1175**	13.99	13.39	12.32	11.66

Semi-conductor Protection Fuses

Bussmann





Designed for semiconductor protection

240 Volt RMS Series

Rating (A)	Max Power Loss (Watts)	I^2 Rating (A^2S) Pre-Arcing (Min)	Max @ 120V	Max @ 240V	Former IR List No.	Bussmann List No.	Order Code
6	1	1.7	6	9	A350-6	6LCT	120-2308
10	2.5	3.8	12	22	A350-10	10LCT	120-2309
12	2.5	7	22	32	—	12LCT	120-2428
16	2.5	20	50	100	A350-16	16LCT	120-2310
20	4	25	80	160	A350-20	20LCT	120-2311
7	1.5	1.7	10	17	L350-7	7LET	120-2312
10	1.8	3.8	23	35	L350-10	10LET	120-2313
12	2	7	42	58	L350-12	12LET	120-2314
16	2.5	15	70	140	L350-16	16LET	120-2316
25	4	19	120	250	L350-25	25LET	120-2317
32	5	32	200	450	L350-32	32LET	120-2318
35	5	51	320	600	L350-35	35LET	120-2319
50	7	100	500	1400	—	50LET	120-2429
63	9	180	1100	2200	L350-63	63LET	120-2320
80	10	300	1900	3800	L350-80	80LET	120-2321
100	10	600	3800	7500	L350-100	100LET	120-2322
125	16	600	3800	7500	L350-125	125LET	120-2323
160	20	1100	7000	15000	L350-160	160LET	120-2324
160	17	1100	7000	15000	——	160LMT	120-2326
180	21	1800	12000	24000	L350-180	180LET	120-2325

660 Volt RMS Series

Rating (A)	Max Power Loss (Watts)	I^2t Rating (A^2S) Pre-Arcing (Min)	Max @ 415V	Max @ 660V	Former IR List No.	Bussmann List No.	Order Code
8	3.2	1.7	10	15	E1000-8	8ET	120-2328
12	3.7	7	38	55	E1000-12	12ET	120-2329
15	4.6	11	60	95	E1000-15	15ET	120-2330
20	7.5	18	100	180	E1000-20	20ET	120-2331
25	7	24	150	250	E1000-25	25ET	120-2332
32	11	32	190	350	E1000-32	32ET	120-2333
40	9	100	600	900	E1000-40	40ET	120-2334
56	14	160	950	1500	E1000-56	56ET	120-2335
80	18	410	2500	4000	E1000-80	80ET	120-2336
65	20	210	1100	1700	EE1000-65	65EET	120-2337
75	20	420	2000	3000	EE1000-75	75EET	120-2338
90	19	480	3000	4500	EE1000-90	90EET	120-2341
110	27	600	4000	6500	EE1000-110	110EET	120-2342
160	26	2400	15000	25000	M1000-160	160MT	120-2343
225	42	4600	25000	40000	MM1000-225	225MMT	120-2344
280	47	7400	45000	70000	MM1000-280	280MMT	120-2345
315	51	9600	60000	90000	MM1000-315	315MMT	120-2346
355	54	18000	100000	150000	MM1000-355	355MMT	120-2347

Former IR product List No. are electrically identical to Bussmann List No. IR's range of fuses were manufactured by Bussmann and then re-branded.

204609

Current Rating	Order Code	Price Each 1+	20+	40+	100+
240 Volt RMS Series					
6A	**120-2308●**	6.93	6.21	5.97	5.94
10A	**120-2309●**	6.93	6.21	5.97	5.94
12A	**120-2428●**	7.59	6.96	6.30	6.00
16A	**120-2310●**	7.20	– –	– –	– –
20A	**120-2311●**	6.93	6.21	5.97	5.94
		1+	**10+**	**50+**	**100+**
7A	**120-2312●**	15.06	13.83	13.05	12.84
10A	**120-2313●**	15.06	13.83	13.05	12.84
12A	**120-2314●**	16.59	14.70	13.59	13.38
16A	**120-2316●**	16.59	14.70	13.59	13.38
25A	**120-2317●**	16.35	14.73	14.01	13.68
32A	**120-2318●**	16.35	14.73	14.01	13.68
35A	**120-2319●**	16.35	14.73	14.01	13.68
50A	**120-2429●**	16.35	14.73	14.01	13.68
63A	**120-2320●**	16.35	14.73	14.01	13.68
80A	**120-2321●**	16.35	14.73	14.01	13.68
100A	**120-2322●**	18.87	17.55	16.05	15.72
125A	**120-2323●**	20.13	17.70	16.62	16.29
160A	**120-2324●**	21.03	18.57	17.55	17.28
160A	**120-2326●**	38.88	34.53	32.37	31.74
180A	**120-2325●**	21.03	18.57	17.55	17.28
660 Volt RMS Series		**1+**	**10+**	**50+**	**100+**
8A	**120-2328●**	20.34	18.30	16.50	15.99
12A	**120-2329●**	20.34	18.30	16.50	15.99
15A	**120-2330●**	20.34	18.30	16.50	15.99
20A	**120-2331●**	20.34	18.30	16.50	15.99
25A	**120-2332●**	20.34	18.30	16.50	15.99
32A	**120-2333●**	20.34	18.30	16.50	15.99
40A	**120-2334●**	20.34	18.30	16.50	15.99
56A	**120-2335●**	20.34	18.30	16.50	15.99
80A	**120-2336●**	21.99	19.95	18.12	16.62
65A	**120-2337●**	44.19	39.78	37.44	35.91
75A	**120-2338●**	44.19	39.78	37.44	35.91

RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

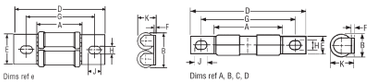
C = CYAN M = Magenta Y = Yellow B = Black/SING

Farnell Page 770 Date: 18-08-06 time: 17:41

660 Volt RMS Series	Order Code	Price Each 1+	10+	50+	100+
90A	**120-2341●**	44.19	39.78	37.44	35.91
110A	**120-2342●**	44.19	39.78	37.44	35.91
160A	**120-2343●**	45.75	42.75	40.71	40.08
		1+	**5+**	**10+**	**25+**
225A	**120-2344●**	96.03	85.29	81.21	78.99
280A	**120-2345●**	96.03	85.29	81.21	78.99
315A	**120-2346●**	96.03	85.29	81.21	78.99
355A	**120-2347●**	96.03	85.29	81.21	78.99

BS88 Semiconductor Fuse Links — GECA LVE

Trip Indication Available



Dims Ref: E

Dims Ref: F

Dims Ref: A, B, C, D

Dims Ref	A	B	D	E	F	G	H	J	K
A	28	8	47.6	6.4	0.8	38.1	3.8	5	8.7
B	29.2	17.3	58.4	12.7	1.6	41.8	6.4	7.9	18.2
C	55	8	74.6	6.4	0.8	65	3.8	5	8.7
D	50	17.3	79.5	12	1.6	61.8	6.4	7.9	18.2
E	48	35.7	95	31.8	1.6	72	8.3	13.4	19
F	55	34.6	107	25.4	6.4	81.7	10.3	15.5	77.6

- HRC fuse links for Semiconductor applications
- Fast acting fuse links are designed to disconnect failed semiconductor devices
- Ultra fast acting fuse links are designed to provide short circuit protection of semiconductors
- AC and DC ratings
- **ASTA** certified to **BS88**

GSA Series - Fast Acting

Voltage Rating 240V ac 200V dc

Current Rating (A)	Pre-Arcing I^2T (min)	Power Dissipation	Top Cap Temp rise @ 20°C Ambient	Dims Ref	Mftrs. List No.	Order Code
5	1.1	0.8	11	A	GSA5	870-420
10	4.3	1.6	18	A	GSA10	870-432
15	12	2.5	25	A	GSA15	870-444
20	17	3.5	33	A	GSA20	870-456
25	74	2.6	18	B	GSA25	870-468
35	150	4	27	B	GSA35	870-470
50	400	5.2	34	B	GSA50	870-481

Mftrs. List No. GS1PAS, Order Code 772-884

Rating	Order Code	Price Each 1+	20+	100+	250+	+
5A	**870-420**	8.55	7.68	7.11	– –	– –
10A	**870-432**	9.28	8.33	7.71	7.42	– –
15A	**870-444**	8.55	7.68	7.11	– –	– –
20A	**870-456**	8.55	7.68	7.11	– –	– –
25A	**870-468**	19.11	17.16	15.93	15.86	– –
35A	**870-470**	19.11	17.16	15.93	15.86	– –
50A	**870-481**	19.11	17.16	15.93	15.86	– –

GSB Series - Fast Acting

Voltage Rating 600V ac 400V dc

Current Rating (A)	Pre-Arcing I^2T (min)	Power Dissipation	Top Cap Temp rise @ 20°C Ambient	Dims Ref	Mftrs. List No.	Order Code
10	2.3	3.6	36	C	GSB10	870-500
15	11	3.9	33	C	GSB15	870-511
20	28	7.3	52	C	GSB20	870-523
25	40	6.7	44	D	GSB25	870-535

Rating	Order Code	Price Each 1+	20+	100+	250+	+
5A	**870-493**	9.57	8.58	7.95	7.90	– –
10A	**870-500**	9.57	8.58	7.95	7.90	– –
15A	**870-511**	9.57	8.58	7.95	7.90	– –
20A	**870-523**	9.57	8.58	7.95	7.90	– –
25A	**870-535**	22.86	20.55	19.05	18.97	– –

GSGB Series - Ultra Fast Acting

Voltage Rating 660Vac, 400Vdc (16-160A) 350Vdc (200-350A)

Current Rating (A)	Pre-Arcing I^2T (min)	Power Dissipation	Top Cap Temp rise @ 20°C Ambient	Dims Ref	Mftrs. List No.	Order Code
16	8	4.7	35	D	GSGB16	870-559
25	23	8.3	44	D	GSGB25	870-560
30	36	9.6	48	D	GSGB30	870-572
35	70	9.3	48	D	GSGB35	870-584
40	110	9.3	48	D	GSGB40	870-596
45	140	10.8	50	D	GSGB45	870-602
55	205	14.7	58	D	GSGB55	870-614
75	280	23	83	E	GSGB75	870-626
85	560	20	58	E	GSGB85	870-638
110	800	30	88	E	GSGB110	870-640
150	1800	39	87	E	GSGB150	870-651
200	3200	56	56	F	GSGB200	870-663
235	5700	54	54	F	GSGB235	870-675
300	10000	71	71	F	GSGB300	870-687
350	16500	68	68	F	GSGB350	870-705

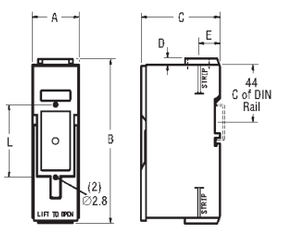
204496

Rating	Order Code	Price Each 1+	5+	20+	100+	+
16A	**870-559**	20.73	20.10	18.33	17.21	– –
25A	**870-560**	23.01	22.20	20.31	19.16	– –
30A	**870-572**	23.01	22.20	20.31	19.16	– –
35A	**870-584**	23.64	22.92	20.88	19.67	– –
40A	**870-596**	23.64	22.92	20.88	19.67	– –
45A	**870-602**	23.64	22.92	20.88	19.67	– –
55A	**870-614**	23.64	22.92	20.88	19.67	– –
75A	**870-626**	49.89	48.24	44.04	41.39	– –
85A	**870-638**	49.89	48.24	44.04	41.39	– –
110A	**870-640**	50.55	48.93	44.64	41.85	– –
150A	**870-651**	53.46	51.51	47.13	44.18	– –
200A	**870-663**	100.80	90.78	90.12	– –	– –
235A	**870-675**	100.80	90.78	90.12	– –	– –
300A	**870-687**	109.20	98.31	97.51	– –	– –
325A	**870-699**	110.70	99.69	99.09	– –	– –
350A	**870-705**	110.70	99.69	99.09	– –	– –

Fuse Carriers

Camaster

Bussmann



A range of fully shrouded HRC fuseholders designed to accommodate offset bolted tag HRC fuselinks to **BS88 (Parts 1 & 2)** and **IEC 269-1 & 2 1986.**

These fuseholders feature a lever operated cam for easy removal of the fuse carrier from the base. This allows increased pressure between fuse carrier and fuse base contacts thus enhancing the electrical performance. Fuselink fixing screws remain captive in the fuse carrier to prevent their loss when fuse changing. Suitable for DIN rail or panel mounting. Supplied as front connection.

Fuse Size	Rating Amps	Max. Cable mm^2	Fuse Type	Dimensions A	B	C	D	E	Mftrs List No.	Order Code
A1	32	16	NITD	25.4	93.7	60	3.2	17.5	CM32FC.	556-361
A2	32	16	AAO	31.8	117.5	60	3.2	17.5	CM32F.	556-373
A3	63	70	BAO	35.6	125	60	4.75	16.4	CM63F.	556-385
A3	100	70	OCD	35.6	125	60	4.75	16.4	CM100F.	968-766

204445

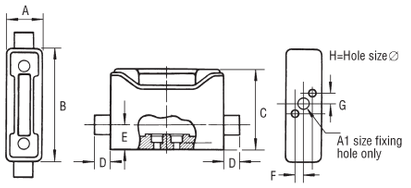
Fuse	Fuse Type	Order Code	Price Each 1+	10+	20+	50+
A1	NITD	**556-361**	16.49	15.79	14.96	14.16
A2	AAO	**556-373**	23.43	22.31	21.12	20.00
A3	BAO	**556-385**	28.50	27.16	25.78	24.33
A3	OCD	**968-766**	45.60	43.37	41.12	38.78

'Redspot'™ Series — GECA LVE

A1 to A4 and B2

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products,
prices are subject to change without notice.

C = CYAN M = Magenta Y = Yellow B = Black/SING



Fuse Carrier Size	Fuse Size	Max. Cable Size (mm²)	Max Current Rating	Dimensions A	B	C	D	E	F	G	H
A1	A1	10	20A	27	80	54	15	22	—	—	5.5
A2	A2	16	32A	32	104	70	15	22	6.4	3.2	5.5
A3	A3	50	63A	35	110	76	15	24	6.4	3.2	6.6
A4	A4	70	100A	51	140	100	15	28	9.5	11.1	6.6
B2	B2	120	200A	70	216	137	22	32	19	28.6	6.6

Notes: A1 size fuse carrier has one central fixing hole A2, A3, A4 and B2 sizes are two hole fixing (see diagram above). B2 size fuse carrier has a different style handle to that shown in the diagram above.

GEC 'Redspot'™ fuse carriers are widely accepted as an industry standard for use with BS88 fuses.

Moulded from a flame retardant non-hygroscopic phenolic resin to **BS771** they are available in black or white (B2 Black only).

The patented non-twist cable clamping screw of large diameter complies with **CEGB** requirements for **Class II duty,** whilst contacts are single screw fixing with large contact area and anti-vibration features.

Approved by Lloyds register for marine applications, **CEGB approval Nr.29** for **Category II duty.**

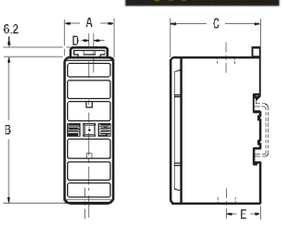
Size	Black Mftrs. List No.	Black Order Code	White Mftrs. List No.	White Order Code
A1	RS20H	177-604	RS20H WHITE	237-346
A2	RS32H	177-605	RS32H WHITE	237-358
A3	RS63H	177-606	RS63H WHITE	237-360
A4	RS100H	177-607	RS100H WHITE	237-371
B2	RS200H	177-608	—	—

204620

Size	Colour	Order Code	Price Each 1+	10+	50+	100+
A1	Black	**177-604**	17.70	16.44	15.99	15.57
A1	White	**237-346**	23.70	21.99	21.41	20.83
A2	Black	**177-605**	25.70	23.91	23.21	22.57
A2	White	**237-358**	33.05	30.66	29.79	29.02
A3	Black	**177-606**	31.38	29.11	28.34	27.57
A3	White	**237-360**	40.72	37.72	36.72	35.70
A4	Black	**177-607**	70.44	65.32	63.53	61.79
A4	White	**237-371**	88.30	83.78	79.80	76.14
B2	Black	**177-608**	261.29	241.75	235.20	228.68

Safeloc

Bussmann



Dimensions	A	B	C	D
	25.4	76.2	46.5	2.3

Designed to accommodate the F1 size of **BS88** offset blade fuselinks. Featuring a unique slide action carrier, which retains the fuselink for easy insertion to the base. The fuselink blades connect directly with the shrouded base contacts for improved reliability and lower losses. Terminal screws are semi-captive and are front connection. Suitable for 35mm DIN rail or single screw mounting.

Rating	32A	Fuse size	F1
Max. cable size	16mm²		
Mftrs. List No.	32NNSF		

204443

Fuse Size	Order Code	Price Each 1+	10+	25+	100+
F1 (NS)	**556-154**	9.72	9.21	8.73	8.31

1,000's of products added every month, check out the very latest products, news and information at:
www.farnell-newarkinone.com.sg

The very latest NEW products

European 'D' Fuses & Accessories

Ultra Rapid (gr).

SIBA

DII & DIII Series

- High breaking capacity, low power loss
- Class gR
- For protection of semiconductors and small drive units
- Conforms to **DIN49515** and **VDE0636-33**
- Suitable for 3-phase applications

Working voltage	500Vac	440Vdc
Breaking Capacity	50kA	

L DII=50, DIII=50
Dia DII=22, DIII=27

204481

Current Rating (A)	Dissipation (W)	Order Code	Price Each 1+	25+	100+	250+	+	+
Type D11								
2	1.8	**901-908**	6.18	5.28	4.86	4.50	– –	– –
4	3.1	**901-910**	6.18	5.28	4.86	4.50	– –	– –
6	4	**901-921**	5.55	4.74	4.35	4.02	– –	– –
10	6	**901-933**	5.55	4.74	4.35	4.02	– –	– –
16	7	**901-945**	5.55	4.74	4.35	4.02	– –	– –
20	8	**901-957**	5.55	4.74	4.35	4.02	– –	– –
25	10	**901-969**	5.85	4.98	4.59	4.23	– –	– –
30	12	**901-970**	5.85	4.98	4.59	4.23	– –	– –
Type D111								
35	13	**902-056**	7.83	6.66	6.15	5.67	– –	– –
50	16	**902-068**	7.83	6.66	6.15	5.67	– –	– –
63	19	**902-070**	7.83	6.66	6.15	5.67	– –	– –

General Line (gl)

CTI

D01/D02 Series

- Low power loss
- Conforms to **DIN 49-522, IEC269, VDE0636**
- Approved to **VDE, DEMKO (6-25A)**

Voltage rating	400Vac, 250Vdc
Breaking capacity	50kA (cos ∅=0.2)

Type D01 - L = 36, Dia = 11mm
Type D02 - L = 36, Dia = 15mm

204482

	Order Code	Price Each 5+	25+	100+	250+	+	+
Type D01							
2A	**901-805**	0.99	0.87	0.78	0.72	– –	– –
4A	**901-817**	0.99	0.87	0.78	0.72	– –	– –
6A	**901-829**	0.99	0.87	0.78	0.72	– –	– –
10A	**901-830**	0.90	0.78	0.69	0.63	– –	– –
16A	**901-842**	0.90	0.78	0.69	0.63	– –	– –
Type D02							
20A	**901-854**	0.99	0.87	0.78	0.72	– –	– –
25A	**901-866**	0.99	0.87	0.78	0.72	– –	– –
35A	**901-878**	1.17	0.96	0.93	0.84	– –	– –
50A	**901-880**	1.44	1.20	1.11	1.02	– –	– –
63A	**901-891**	1.44	1.20	1.11	1.02	– –	– –

gL (General Line)

MOELLER

gLD-II Series
2A to 25A

L=50, Dia=21.8
Thread=E27

gLD-III Series
35A to 63A

L=50, Dia=28
Thread=E33

D11 and D111 style delayed acting HRC fuses approved to **DIN49515, VDE0635** and **VDE0636.** They have a voltage rating of 500V ac or dc. The state of the fuse element is indicated by a coloured disc in the end cap. The fuses have low internal wattage and on continuous load capacity are non ageing. Suitable for cable protection and applications where there are no surges to be absorbed.

Mftrs. List No. gLDII + Rating or gLDIII + Rating.

RoHS ● Compliant ◄ Non-compliant ‡ Limited stock - RoHS replacement available

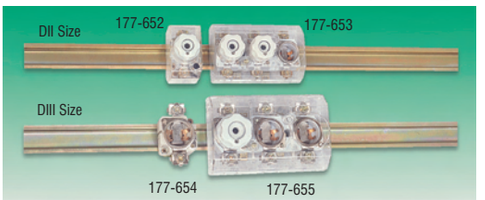
C = CYAN M = Magenta Y = Yellow B = Black/SING

204612

Current Rating	Order Code	Price Each 5+	25+	100+	250+
gLD-11 Series					
2A	**170-436**	2.10	1.89	1.71	1.56
4A	**170-437**	2.10	1.89	1.71	1.56
6A	**170-438**	2.10	1.89	1.71	1.56
10A	**170-439**	1.35	1.26	1.14	1.07
16A	**170-440**	1.50	1.38	1.26	1.17
20A	**170-441**	1.50	1.38	1.26	1.17
25A	**170-442**	1.50	1.38	1.26	1.17
gLD-111 Series					
35A	**170-443**	2.67	2.43	2.22	2.05
50A	**170-444**	2.67	2.43	2.22	2.05
63A	**170-445**	2.67	2.43	2.22	2.05

Fuse Bases

MOELLER



Wide range of ceramic European fuse bases, screw caps shrouds and gauge rings, approved to **VDE0636** excluding the gauge rings which are to **DIN49362, DIN49326, DIN49327** and **DIN49524.** All creepage and clearance paths are specified to **VDE0636 Pt. 41** with climatic tests complete to **IEC68** constant to **Parts 2 and 3** and cyclic **Parts 2 to 30.** Two sizes of fuse base and screw caps are available as follows:-

DII Range 2 - 25A 177-652, 177-653
Either single or triple pole fuse bases having snap-on fastening to top hat DIN rail. Single or triple pole shrouds are supplied with relevant fuse base. Each shroud has top and bottom knockouts to accommodate different cable sizes.

DIII Range 35A - 63A, 177-654, 177-655
Either single or triple pole fuse bases having snap-on fastening to top hat DIN rail. The single pole base does not have a shroud, but the triple pole base is supplied with a shroud which has top and bottom knockouts as above. Each fuse base is supplied as a separate item and does not include a screw cap which should be ordered separately. The single pole fuseholder (177-652) and triple pole fuseholders (177-653 and177-655) can be surface mounted, by removing the DIN rail attachment. The 177-654 is suitable for DIN rail mounting only.

	Dimensions H	W	D1★	D2★	Connections	Mftrs. List No.	Order Code
D11 Size 2A - 25A							
Single pole (with shroud)	74	45	53	80	M5	S27-1/C+H	177-652
Triple pole (with shroud)	76	123	53	80	M5	S27/C	177-653
D111 Size 35A - 63A							
Single pole (no shroud)	79	45	45	80	M6	S33-1/C	177-654
Triple pole (with shroud)	97	150	53	80	M6	S33/C	177-655

★D1=Without fuse fitted ★D2=With fuse fitted

Rated voltage	D11, 500V ac D111, 660V ac	Terminal capacities: D11 solid core	1 to 10mm^2
Creepage + clearance	VDE0636 Pt 41	D11 stranded flexible core with ferrules	0.75 to 10mm^2
Rated current	D11, 25A max. D111, 63A max.	D111 solid core	2.5 to 16mm^2
Heat loss/current path at uninterrupted current	D11, 2.5W D111, 5W	D111 stranded or flexible core with ferrules	1.5 to 25mm^2

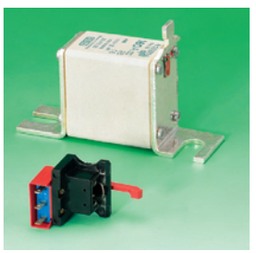
204613

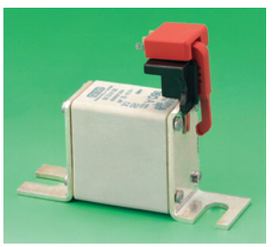
	Order Code	Price Each 1+	5+	15+
D11 single pole fuse base and shroud	**177-652**	22.60	19.45	17.08
D11 triple pole fuse base and shroud	**177-653**	43.37	37.88	33.29
D111 single pole fuse base (no shroud)	**177-654**	18.09	15.73	13.80
D111 triple pole fuse base and shroud	**177-655**	77.75	67.41	59.22

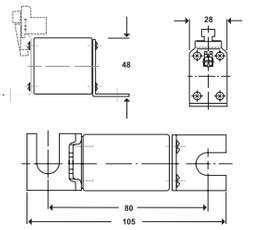
European DIN 80 Fuses

uR - 00 Size

SIBA







- European style 'OO' size ultra rapid industrial semiconductor fuses
- Suitable for thyristor control applications eg. high speed switching inverters, variable speed drives
- Trip indication microswitch option for fuse interruption signalling
- **UL** recognised

Voltage rating	600V rms
Breaking capacity	300kA @600V 200kA @ 700V

Current Rating (A)	Power Loss (W)	Pre-arcing I^2t A^2s	Total I^2t @660V A^2s	Mftrs List No.	Order Code
35	8	66	360	20-412-20 35A	329-5199
50	8	140	770	20-412-20 50A	329-5205
63	14	250	1400	20-412-20 63A	329-5217
80	17	470	2600	20-412-20 80A	329-5229
100	21	730	4000	20-412-20 100A	329-5230
125	25	1300	7200	20-412-20 125A	329-5242
160	31	2800	15400	20-412-20 160A	329-5254
200	37	5000	27500	20-412-20 200A	329-5266
315	53	15600	86000	20-412-20 315A	329-5278

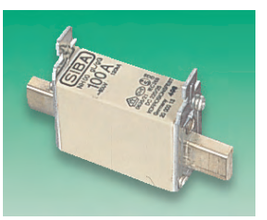
227528

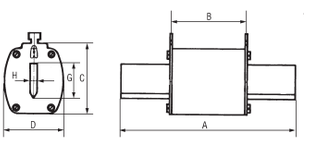
Rating	Order Code	Price Each 1+	5+	10+	20+	+
35A	**329-5199**	53.94	48.60	42.93	34.14	– –
50A	**329-5205**	53.94	48.60	42.93	34.14	– –
63A	**329-5217**	55.41	49.89	43.95	35.10	– –
80A	**329-5229**	55.41	49.89	43.95	35.10	– –
100A	**329-5230**	61.23	55.08	48.66	38.76	– –
125A	**329-5242**	62.41	– –	– –	– –	– –
160A	**329-5254**	64.14	57.84	51.03	41.62	– –
200A	**329-5266**	77.28	69.51	61.38	48.87	– –
315A	**329-5278**	90.90	81.90	73.65	59.67	– –
Trip Indication Microswitch	**329-5291**	48.98	43.25	38.90	30.96	– –

Industrial NH Fuses

NH Series

SIBA





		Dimensions A	B	C	D	G	H
gL (General Line)	Size C00	78	47	40.5	20.5	15	6
	Size 00	78	47	46	29.5	15	6
	Size 1	135	65	51.5	42	20	6
	Size 2	150	65	59	53	26	6
aM (Motor Rated) 63A to 125A	Size 00	78	50	44	28	15	6
UR (Ultra Rapid) 63A to 160A	Size 00	78	50	44	28	15	6

Industrial HRC low voltage fuses with a high breaking capacity, designed to give maximum protection against all faults, i.e. small overcurrents and short circuits. Status of operation of the fuse is shown by the visible leaf spring indicator. Construction from a corrosion resistant ceramic body with a high quality blade contact material. Manufactured in accordance with **DIN57636,** and **IEC269.**

gL (General Line)
Suitable for cable protection and applications where there are no surges to be absorbed. Approved to **VDE, SEV** and **OVE.**

Voltage Rating 500V ac

204430

	Current Rating	Order Code	Price Each 1+	25+	100+	250+
Size C00	16A	**248-538**	9.18	8.04	7.41	7.20
	20A	**248-540**	9.18	8.04	7.41	7.20
	25A	**248-551**	9.18	8.04	7.41	7.20
	35A	**248-563**	9.18	8.04	7.41	7.20
	50A	**248-575**	9.18	8.04	7.41	7.20
	63A	**248-587**	9.18	8.04	7.41	7.20
	80A	**248-599**	9.48	8.34	7.65	7.44
	100A	**248-605**	9.48	8.34	7.65	7.44
Size 00	125A	**248-617**	9.81	8.58	7.98	7.74
	160A	**248-629**	7.26	6.51	6.02	5.86
Size 1	160A	**975-953**	15.10	13.51	11.75	11.00
	200A	**975-965**	14.55	13.02	11.29	11.15
	250A	**975-977**	14.55	13.14	– –	– –
Size 2	315A	**975-989**	24.87	22.20	19.37	18.42
	400A	**975-990**	24.87	22.78	– –	– –

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

Ferraz Shawmut

aM (Motor Rated)
Suitable for applications where an initial surge has to be absorbed (i.e. motor starters).

Voltage rating 500V ac

	Current Rating	Order Code	Price Each 1+	25+	100+	250+
Size 00	63A	**499-535**	11.85	10.03	9.57	9.31
	80A	**499-547**	11.75	9.90	9.18	9.02
	100A	**499-559**	11.75	9.90	9.30	– –
	125A	**499-560**	15.81	13.02	12.03	11.73

SIBA

UR (Ultra Rapid)
Suitable for Thyristor control unit applications (eg. variable speed drives).

Voltage rating 500V ac

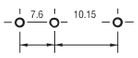
	Current Rating	Order Code	Price Each 1+	25+	100+	250+
Size 00	63A	**499-572**	37.17	32.49	29.13	27.39
	80A	**499-584**	37.17	32.49	29.13	27.39
	100A	**499-596**	41.43	36.27	32.49	30.57
	125A	**976-003**	51.78	42.66	39.39	36.48
	160A	**976-015**	54.00	44.55	41.13	38.62

Circuit Breakers for Equipment

Thermal PCB Mounting - Low Profile 1410 Series

E-T-A

L=28, W=9, H=10
Actuator L=4.5, W=3



PCB drilling plan

- Fast acting thermal circuit breaker for PCB mounting in a low profile housing with side fitted re-set slide
- Suitable for replacing fuses in many PCB applications
- Approved to **VDE, CSA** and Circuit Breaker for Equipment to **EN 60934** (CBE), **UL** Recognised.

Voltage rating	250Vac, 28Vdc	Maximum interrupt current	x In
Insulation resistance	100MΩ @ 500Vdc	Typical life	300 ops @ 2 x In

Current Rating	Internal Resistance	Mftrs. List No.	Order Code
1A	0.7Ω	1410-L210-L2F1-S02-1A	237-383
1.5A	0.5Ω	1410-L210-L2F1-S02-1.5A	237-395
2A	0.4Ω	1410-L210-L2F1-S02-2A	237-401
3.15A	0.06Ω	1410-L210-L2F1-S02-3.15A	237-425
5A	0.04Ω	1410-L210-L2F1-S02-5A	237-437
6.3A	0.03Ω	1410-L210-L2F1-S02-6.3A	237-449
8A	0.05Ω	1410-L210-L2F1-S02-8A	976-210

343246

Current Rating	Order Code	Price Each 1+	10+	25+	50+	+
1A	**237-383**●	13.18	11.36	10.97	10.58	– –
1.5A	**237-395**●	13.18	11.36	10.97	10.58	– –
2A	**237-401**●	14.49	12.75	11.46	10.79	– –
3.15A	**237-425**●	13.18	11.36	10.97	10.58	– –
5A	**237-437**●	13.18	11.36	10.97	10.70	– –
6.3A	**237-449**●	14.49	12.75	11.46	10.79	– –
8A	**976-210**●	14.49	12.75	11.46	10.79	– –

Thermal Panel Mounting

E-T-A

- Panel mounting single pole press to reset thermal circuit breaker with push-on connectors
- **VDE** and **CSA** approved, **UL** Recognised
- Typical applications: battery chargers, power supplies, motors, wheelchairs, stairlifts, etc.

H=32, W=14, D=27
Panel cut-out=9.5 dia
Tabs=6.3 x 0.8

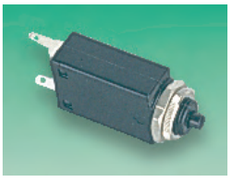
Voltage rating	250Vac or 28Vdc
Current rating	trip current is 125% of rated current
Tripping time in seconds at 21°C	100% - NO TRIP 200% - 5 to 25 300% - 1.5 to 8 400% - 1 to 5
Insulation resistance	100MΩ
Mftrs. List No.	1658-G21-02-P10-8A + Rating

204391

Current Rating	Order Code	Price Each 1+	10+	25+	50+	+
8A	**954-0636**●	15.60	13.73	12.34	11.63	– –
10A	**954-0644**●	15.60	13.73	12.34	11.63	– –
15A	**954-0660**●	15.60	13.73	12.34	11.63	– –
20A	**954-0679**●	15.60	13.73	12.34	11.63	– –
25A	**954-0687**●	15.60	13.73	12.34	11.63	– –

Thermal Panel Mounting-Subminiature

E-T-A



H=19, W=11, D=27.6,
Panel cut-out=9.5 dia.
Tabs=2.8 x 0.8, 446-786=6.3 x 0.8

- Miniature thermal circuit breakers moulded in flame-retardant plastic
- Approved by **VDE, SEMKO, NEMKO, CSA, SEV OVE,** and Circuit Breaker for Equipment to **EN60934**
- Single pole action is manually resettable, and has a release limit of 102/130% of the nominal current rating
- **IP54** translucent splashcover and press to reset disc indicator disc also available
- Typical applications: Battery chargers, power supplies, motors and consumer products

Voltage rating	250Vac, 48Vdc	Max. interrupt rating	6 x In (0.1A to 2A) 5 x In (3A to 10A)
Current derating	10% for rise of 10°C		
Test voltage	4000V for 1 minute	Calibration temperature	23°C
Insulation resistance	710MΩ (500V)	Operating temperature	-20°C to +60°C

Current Rating	Internal Resistance	Mftrs. List No.	Order Code
0.5A	3.3Ω ±5%	106-P30 0.5A	143-569
1A	0.9Ω ±5%	106-P30 1A	143-570
2A	0.25Ω ±20%	106-P30 2A	143-571
3A	0.11Ω ±20%	106-P30 3A	143-827
4A	0.07Ω	106-P30 4A	143-572
5A	0.05Ω	106-P30 5A	143-828
6A	0.05Ω	106-P30 6A	178-740
10A	0.05Ω	106-P10-10A	446-786
Splashproof cover		X201.285.01	178-741
Reset disc		Y301.059.01	178-742

204369

Current Rating	Order Code	Price Each 1+	10+	25+	50+	+
0.5A	**143-569**●	15.86	13.96	12.55	11.76	– –
1A	**143-570**●	15.86	13.96	12.55	11.67	– –
2A	**143-571**●	15.86	13.96	12.55	11.81	– –
3A	**143-827**●	15.86	13.96	12.55	11.81	– –
4A	**143-572**●	15.86	13.96	12.55	11.02	– –
5A	**143-828**●	15.86	13.96	12.55	11.76	– –
6A	**178-740**●	15.86	13.96	12.55	11.81	– –
10A	**446-786**●	15.86	13.96	12.55	11.76	– –
Splashproof cover	**178-741**	4.06	3.58	3.24	2.98	– –
Reset disc	**178-742**	1.18	1.04	0.96	0.88	– –

Thermal Circuit Breaker
Push to Reset - W28 Series

tyco / Electronics / P&B

NEW

- Single pole thermal circuit breaker
- Push to reset snap action mechanism
- Button extends for visual trip indication
- Approved by **CSA** and **VDE**, **UL** Recognised

Note: NOT **CSA, UL** on 20A, NOT **VDE** on 16A or 20A

H=19.31, W=19.31, D=38.99mm
Panel Cut-Out= 15.875-16.129mm Dia.

Max. Operating Voltage	250V ac, 32V dc, 50/60 Hz
Dielectric Strength	>1500V ac
Interrupting capacity	1000A @ 250V ac, 50/60 Hz and 32V dc
Resettable Overload Capacity	6 x rated current 2A, 10 x rated current 3A to 20A
Termination	6.35 x 0.813mm Quick Connect
Mounting	Snap-in (from panel front)

Current Rating	Internal Resistance (Ω) @ 25°C	Mftrs. List No.	Order Code
3A	0.069	W28-XQ1A-3	965-9072
5A	0.030	W28-XQ1A-5	965-9080
10A	0.011	W28-XQ1A-10	965-9099
15A	0.007	W28-XQ1A-15	965-9102
20A	0.006	W28-XQ1A-20	965-9110

411550

Current Rating	Order Code	Price Each 1+	25+	100+	250+	+
3A	**965-9072**●	8.92	7.91	7.10	6.28	– –
5A	**965-9080**●	8.92	7.91	7.10	6.28	– –
10A	**965-9099**●	8.92	7.91	7.10	6.28	– –
15A	**965-9102**●	8.92	7.91	7.10	6.28	– –
20A	**965-9110**●	8.92	7.91	7.10	6.28	– –

Thermal Circuit Breaker
Push to Reset - W54 Series

tyco / Electronics / P&B

NEW

- Push button to reset breaker
- Cannot be manually tripped
- Button extends for visual trip indication
- **UL** Recognised

H=35, W=14.6, D=31
Panel Cut-Out=11.2mm Dia.

● Compliant
◄ Non-compliant
++ Limited stock - RoHS replacement available
RoHS

Max. Operating Voltage	250V ac, 50V dc, 50/60 Hz
Dielectric Strength	>1500V ac
Interrupting capacity	1000A @ 250V ac, 50/60 Hz and 32V dc
Resettable Overload Capacity	10 x rated current
Termination	6.3 x 0.031mm Quick Connect
Mounting	9.8 x 12.6mm (from panel front)
Operating temperature	0 to 60°C

Current Rating	Internal Resistance (Ω) @ 25°C	Mftrs. List No.	Order Code
10A	0.025	W54-XB1A4A10-10	965-9137
15A	0.017	W54-XB1A4A10-15	965-9145
20A	0.012	W54-XB1A4A10-20	965-9153
30A	0.008	W54-XB1A4A10-30	965-9161

411558

Current Rating	Order Code	Price Each 1+	25+	100+	250+	+
10A	**965-9137**●	5.01	4.43	3.97	3.55	– –
15A	**965-9145**●	5.01	4.43	3.97	3.55	– –
20A	**965-9153**●	5.86	5.24	4.65	4.10	– –
30A	**965-9161**●	5.86	5.24	4.65	4.10	– –

Thermal Circuit Breaker

Compact Push to Reset - W57 Series

tyco / Electronics / P&B

NEW

- Compact design with plastic M11 thread
- Push button to reset breaker
- Cannot be manually tripped
- Button extends for visual trip indication
- **UL** Recognised

H=29.2, W=22.6, D=14.5
Panel Cut-Out=11.2mm Dia.

Max. Operating Voltage	250V ac, 50V dc, 50/60 Hz
Dielectric Strength	>1500V ac
Interrupting capacity	1000A @ 250V ac, 50/60 Hz and 32V dc
Resettable Overload Capacity	10 x rated current
Termination	6.3 x 0.031mm Quick Connect
Mounting	9.8 x 9.6mm (from panel front)
Operating temperature	0 to 60°C

Current Rating	Internal Resistance (Ω) @ 25°C	Mftrs. List No.	Order Code
10A	0.025	W57-XB1A4A10-10	965-9188
15A	0.017	W57-XB1A4A10-15	965-9196
20A	0.012	W57-XB1A4A10-20	965-9200

411559

Current Rating	Order Code	Price Each 1+	25+	100+	250+	+
10A	**965-9188**●	5.27	4.65	4.17	3.71	– –
15A	**965-9196**●	5.27	4.65	4.17	3.71	– –
20A	**965-9200**●	5.27	4.65	4.17	3.71	– –

Thermal Panel Mounting with Switch

E-T-A

L=66.6 (in OFF position)
Bezel=19 x 19
Depth behind panel=47.5

Panel cut-out (double flat)=13.8 x 16 dia
Panel thickness=0.8 to 1.6
Tabs=6.3 x 0.8

- Single pole 'fuseholder size' thermal circuit breaker featuring a unique latching push button operation which allows the breaker to be switched ON or OFF
- Two colour button also provides visual indication by showing a white band when the breaker is in the 'OFF' or 'tripped' position
- Approved to **VDE, CSA, LRoS, BV, SEMKO** and Circuit Breaker for Equipment to **EN60934**, **UL** Recognised.
- Typical applications: Motors, transformers, solenoids, office machines and instrumentation

Voltage rating	250Vac, 28Vdc	Typical life expectancy to 3A	10000 ops (0.5A to 3A)
	operating area 4000Vac		6000 ops (5A to 16A)
	mounting area 2000Vac	Max. interrupt current	8 In (0.5A to 3A)
Insulation resistance	>100MΩ		10 In (5A to 16A)
Tripping Time		Operating temperature	0°C to +55°C

@ 23°C

Rated Current	2 x In	3 x In	4 x In	5 x In	6 x In	8 x In	10 x In
0.5A to 5A	13-46s	5.8-13s	3.9-7.5s	3.0-5.5s	2.2-4.4s	1.3-3.3s	0.9-2.6s
10A to 16A	10-38s	4.3-7.5s	2.5-4.4s	1.3-3.2s	0.8-2.1s	0.56-1.0s	0.43-0.7s

Mftrs. List No. 110-F112-P1M1-xxA, where xx = current rating in amps.

204426

Current Rating	Internal Resistance Ω	Order Code	Price Each 1+	10+	25+	50+
0.5A	4.5	**100-3728**●	28.32	24.24	21.98	21.11
1A	1.1	**100-3729**●	28.32	24.24	21.98	21.11
2A	0.25	**100-3730**●	28.32	24.24	21.98	21.11
3A	0.13	**100-3731**●	28.32	24.24	21.98	21.11
5A	0.05	**100-3733**●	28.32	24.24	21.98	21.11
10A	0.02	**100-3734**●	28.32	24.24	21.98	21.11
16A	0.02	**100-3735**●	28.32	24.24	21.98	21.11

Hydraulic - Magnetic

E-T-A

- Single pole hydraulic, magnetic circuit breaker with toggle actuation
- Medium delay characteristics
- Industry standard panel mounting
- Push-on connectors.
- Approved to **VDE** Circuit Breaker for Equipment standard **EN60934, CSA, LRoS, BV** and **QPL**, **UL** Recognised
- Typical applications: Control equipment, communication systems, transportation and power supplies

H=50.8, W=15, D=50.8, Fitting Hole Pitch=42.15
Mounting Thread=M3, Max Depth=4.5

Voltage rating	240Vac, 80Vdc
Typical life	10000 operations at 1x1N inductive load
Temperature range	-40°C to +85°C
Dielectric strength	3000Vac
Insulation resistance	≥100mΩ @ 500Vdc
Max. interrupt rating	3500A
Shock	100g (11 ms) at 0.8xIN to **IEC68-2-27, test EA**

Current Rating	Internal Resistance (Ω)	Mftrs. List No.	Order Code
1A	0.9	8340-F410-P1M2-A2H0-1A	954-0709
2A	0.2	8340-F410-P1M2-A2H0-2A	954-0717
5A	0.04	8340-F410-P1M2-A2H0-5A	954-0725
10A	≤0.02	8340-F410-P1M2-A2H0-10A	954-0733
15A	≤0.02	8340-F410-P1M2-A2H0-15A	954-0741
20A	≤0.02	8340-F410-P1M2-A2H0-20A	954-0750
25A	≤0.02	8340-F410-P1M2-A2H0-25A	954-0768

204393

Current Rating	Order Code	Price Each 1+	25+	100+
1A	**954-0709**●	43.05	39.75	36.45
2A	**954-0717**●	43.05	39.75	36.45
5A	**954-0725**●	43.05	39.75	36.45
10A	**954-0733**●	43.05	39.75	36.45
15A	**954-0741**●	43.05	39.75	36.45
20A	**954-0750**●	43.05	39.75	36.45
25A	**954-0768**●	43.05	39.75	36.45

Thermal Rocker with Switch

E-T-A

- Versatile single & double pole rocker switches combined with a thermal circuit breaker
- Returns to 'OFF' position when put in overload conditions
- **UL** Recognised, **VDE, CSA** and **SEMKO** approved.

Panel cut-out: a=50.5 x 21.5,
b=44.5 x 22
Tabs=6.35 or 2 x 2.8
No volt release modules
H=33.5, W=22, D=21

Voltage rating	250Vac/50Vdc	Typical life expectancy @ In	>50000 ops
Dielectric strength	3000Vac	Max. interrupt rating	200A (single pole)
Insulation resistance	>100MΩ @ 500V		300A (double pole)
		Operating temperature	-30°C to +60°C

Current Rating	Internal Resistance (Ω)	Dimensions H	W	D	Cut-out	Mftrs. List No.	Order Code
5A	0.03	54	25	35	a	3120-F311-WOIX-5A	954-0601
10A	0.02	54	25	35	a	3120-F311-W01X-10A	954-0610
16A	0.02	54	25	35	a	3120-F311-W01X-16A	954-0628
3A	0.06	48	25	35	b	3120-F521-W01X-3A	954-0490
5A	0.03	48	25	35	b	3120-F521-W01X-5A	954-0504
10A	0.02	48	25	35	b	3120-F521-W01X-10A	954-0512
16A	0.02	48	25	35	b	3120-F521-W01X-16A	954-0520

Current Rating	Order Code	Price Each 1+	25+	100+
Single Pole				
5A	**954-0601**●	24.02	18.81	17.44
10A	**954-0610**●	25.89	20.28	18.09
16A	**954-0628**●	25.89	20.28	18.09
Double Pole				
3A	**954-0490**●	43.11	34.95	30.15
5A	**954-0504**●	37.38	32.16	30.24
10A	**954-0512**●	37.38	32.16	30.24
16A	**954-0520**●	37.38	32.16	30.24

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products,
prices are subject to change without notice.

Farnell Page 775 Date: 18-08-06 time: 17:45

Current Rating	Internal Resistance (Ω)	Dimensions H	W	D	Cut-out	Mftrs. List No.	Order Code
5A	0.03	54	25	35	a	3120-F311-WOIX-5A.	447-079
10A	0.02	54	25	35	a	3120-F311-W01X-10A.	447-080
16A	0.02	54	25	35	a	3120-F311-W01X-16A.	447-092
3A	0.06	48	25	35	b	3120-F521-W01X-3A.	147-785
5A	0.03	48	25	35	b	3120-F521-W01X-5A.	147-786
10A	0.02	48	25	35	b	3120-F521-W01X-10A.	147-787
16A	0.02	48	25	35	b	3120-F521-W01X-16A.	177-097

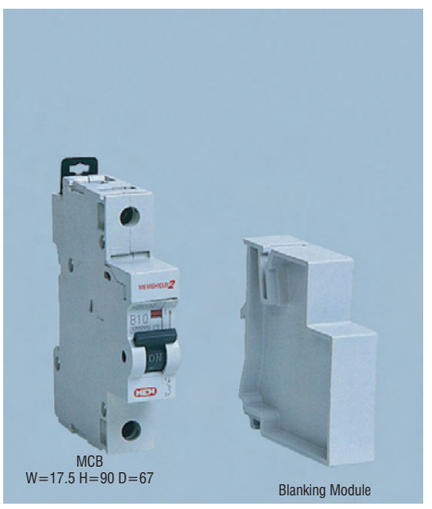
343231

Current Rating	Order Code	Price Each 1+	25+	100+
Single Pole				
5A	**447-079▲‡**	24.02	18.81	17.44
10A	**447-080▲‡**	25.89	20.28	17.34
16A	**447-092▲‡**	25.89	20.28	18.09
Double Pole				
3A	**147-785▲‡**	43.11	34.95	30.15
5A	**147-786▲‡**	37.38	32.16	30.24
10A	**147-787▲‡**	37.38	32.16	30.24
16A	**177-097▲‡**	37.38	32.16	30.24

Minature Circuit Breakers & Consumer Units

Memshield 2 MCB's

Outgoing Devices



MCB
W=17.5 H=90 D=67

Blanking Module

The Memshield 2 MCB is a current limiting device with the capability to disconnect short circuits up to 10kA to **BS EN 60898.** Positive contact indication by flag within window. Available with Type B and Type C trip characteristics.

All outgoing devices in the Memshield 2 range are suitable for use in MEM distribution boards, or for DIN rail mounting in **OEM applications.**

204457

MCB's	Mftrs. List No.	Order Code	Price Each 1+	5+	10+
Type B — Single Pole					
6A	MBH106	**665-277**	22.14	20.85	20.07
10A	MBH110	**665-289**	21.09	19.92	19.14
16A	MBH116	**665-290**	21.09	19.92	19.14
32A	MBH132	**665-319**	21.09	19.92	19.14
40A	MBH140	**665-320**	20.02	19.39	– –
50A	MBH150	**665-332**	22.14	20.85	20.07
63A	MBH163	**665-344**	20.02	19.07	– –
Type C — Single Pole					
6A	MCH106	**665-356**	20.02	18.85	18.69
10A	MCH110	**665-368**	19.11	18.07	17.81
16A	MCH116	**665-370**	21.09	19.92	19.14
20A	MCH120	**665-381**	21.09	19.92	19.14
32A	MCH132	**665-393**	19.07	18.03	17.81
Blanking Module	MBP	**665-551**	2.18	1.99	1.82

Product Watch
obsolescence notification

- FREE to all account holders
- Notification of obsolete, end of line and end of stock items
- Replacement or upgrade recommendations

Advanced warning of obsolete components

RCBO, Combined MCB/RCD

6kA

Merlin Gerin

- Provide protection against the effects of earth leakage. Overload and short circuit currents
- Symmetrical DIN Rail mounting for all commercial, industrial and domestic electrical distribution systems
- 30mA sensitivity, breaking capacity 6kA, 2 pole switching (phase and neutral)
- Integrated filter prevents unwanted tripping due to transient voltages
- Visual indication of trip due to earth faults
- Complies with **BSEN 60898** and **BS EN61009**

H=81, W=36, D=75

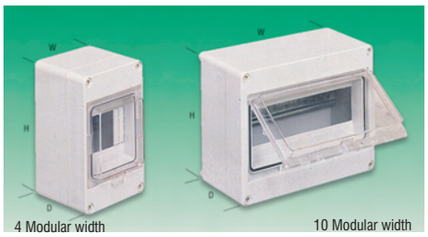
204521

MCB Rating	Mftrs. List No.	Order Code	Price Each 1+	5+	10+
6A	19661	**158-100**	172.52	– –	– –
10A	19663	**158-112**	167.63	– –	– –
16A	19665	**158-124**	167.63	– –	– –
20A	19666	**158-136**	167.59	– –	– –
25A	19667	**158-148**	159.45	152.70	142.50
32A	19668	**158-150**	167.59	– –	– –
40A	19669	**158-161**	172.56	– –	– –

Distribution

IP55 MCB/RCCB

SAREL



4 Modular width

10 Modular width

- Moulded in light grey polystyrene with transparent hinge cover
- Supplied with symmetrical DIN rail
- Optional plastic blanking plate with four full and two semi-cut modules
- Order Code 866-210 accepts 2 modules as standard or 3 modules with sides removed

Order Code	W	D	H
866-210	74	97	135
146-126	105	111	170
866-222	135	112	170
146-127	220	113	168
866-234	340	138	270

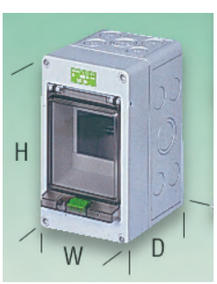
1 module=18mm

218854

No of Modules	Order Code	Price Each 1+	10+	50+
2/3	**866-210**	34.45	31.29	28.15
4	**146-126**	57.32	52.23	51.36
6	**866-222**	59.35	53.95	48.53
10	**146-127**	82.67	74.60	70.43
16	**866-234**	181.76	168.61	151.68
Module blanking plate	**146-128**	9.67	– –	– –

IP65 Sealed Distribution Boxes

spelsberg
Installationsmaterial mit Pfiff



Temperature resistant up to +70°C

- **IP54** (**IP65** when using a suitable cable gland) rated Distribution Boxes for housing DIN Rail Mounting Components such as MCBs, RCCBs, Timers and Fuses.
- Designed to incorporate multiples of 17.5mm modules mounted on the DIN rail.
- Includes an Earth and Neutral Terminal Block and Blanking Strip for unused ways.
- Cable entry glands and labelling strips supplied.
- Offers widths to accomodate 2, 4, 8 or 12 modules to **DIN43880**
- Impact resistant non-flammable thermoplastic construction.

224477

H	W	D	Order Code	Price Each 1+	10+	50+	+	+
130	94	81	**531-741●**	49.85	47.86	46.01	– –	– –
180	110	110	**531-753●**	68.19	64.05	62.13	– –	– –
180	182	110	**531-765●**	84.65	81.23	78.11	– –	– –
180	254	110	**531-777●**	118.51	112.08	108.43	– –	– –

RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

C = CYAN M = Magenta Y = Yellow B = Black/SING

Farnell Page 776 Date: 18-08-06 time: 17:46

Circuit Breakers for Distribution & Motors

C60H MCB Type B, C & D

Merlin Gerin

- Type B, C and D circuit breakers
- Single, 2, 3 and 4-pole versions in ratings from 1 to 63 amps
- Positive contact indication in accordance with **16th Edition (BS7671) IEE Wiring Regulations**
- Equipped with tunnel terminals for bare cable connection :- 1 to 25A - 25mm sq., 32 to 63A - 35mm sq.
- Magnetic tripping in accordance with **BSEN 60898**
- Suitable for direct panel or DIN rail mounting or for use with Merlin Gerin type A and B pan assemblies
- Full range of auxiliaries and accessories available

The Merlin Gerin, Multi 9, C60H range of miniature circuit breakers are suitable for interrupting fault currents up to 10kA 415 volts according to BSEN 60898.

C60H Type B - suitable for protection of circuits against overload and short circuits in commercial and industrial distribution and domestic applications. Tripping range 3 to 5 times rated current.

C60H Type C - suitable for protection of circuits against overload and short circuits in general commercial and industrial distribution and in applications with moderate inrush currents, such as certain lighting systems. Tripping range 5 to 10 times rated current.

C60H Type D - suitable for protection of circuits against overload and short circuits in general commercial and industrial distribution and in applications with high inrush currents, such as transformers, motors and certain lighting systems. Tripping range 10 to 14 times rated current.

Dimensions	H	W	D	Dimensions	H	W	D	Dimensions	H	W	D
1 pole	81	18	70	3 pole	81	54	70	4 pole	81	72	70
2 pole	81	36	70								

213859

Type B	Mftrs. List No.	Order Code	Price Each 1+	5+	10+
Single Pole					
1A	C60HB101	**716-2364**	27.06	– –	– –
2A	C60HB102	**716-2376**	26.18	– –	– –
4A	C60HB104	**716-2388**	25.34	– –	– –
6A	C60HB106	**716-2406**	23.62	– –	– –
10A	C60HB110	**716-2418**	22.60	– –	– –
16A	C60HB116	**716-2420**	22.65	– –	– –
20A	C60HB120	**716-2431**	22.65	– –	– –
25A	C60HB125	**716-2443**	22.65	– –	– –
32A	C60HB132	**716-2455**	22.65	– –	– –
40A	C60HB140	**716-2467**	24.74	– –	– –
50A	C60HB150	**716-2479**	25.95	– –	– –
63A	C60HB163	**716-2595**	26.23	– –	– –
Two Pole					
1A	C60HB201	**716-2601**	79.70	– –	– –
2A	C60HB202	**716-2613**	78.68	– –	– –
4A	C60HB204	**716-2625**	74.26	– –	– –
6A	C60HB206	**716-2637**	72.08	– –	– –
10A	C60HB210	**716-2686**	66.12	– –	– –
16A	C60HB216	**716-2698**	66.12	– –	– –
20A	C60HB220	**716-2704**	73.23	66.12	– –
25A	C60HB225	**716-2716**	73.23	66.12	– –
32A	C60HB232	**716-2728**	66.12	– –	– –
40A	C60HB240	**716-2730**	72.21	– –	– –
50A	C60HB250	**716-2741**	75.66	– –	– –
63A	C60HB263	**716-2753**	75.05	– –	– –
Three Pole					
1A	C60HB301	**716-2765**	116.99	– –	– –
2A	C60HB302	**716-2777**	113.69	– –	– –
4A	C60HB304	**716-2789**	109.65	– –	– –
6A	C60HB306	**716-2790**	103.79	– –	– –
10A	C60HB310	**716-2807**	98.30	– –	– –
16A	C60HB316	**716-2819**	98.30	– –	– –
20A	C60HB320	**716-2820**	98.30	– –	– –
25A	C60HB325	**716-2832**	98.30	– –	– –
32A	C60HB332	**716-2844**	98.30	– –	– –
40A	C60HB340	**716-2856**	104.95	– –	– –
50A	C60HB350	**716-2868**	110.21	– –	– –
63A	C60HB363	**716-2870**	111.32	– –	– –
Four Pole					
1A	C60HB401	**716-2881**	160.17	– –	– –
2A	C60HB402	**716-2893**	173.17	– –	– –
4A	C60HB404	**716-2900**	168.61	– –	– –
6A	C60HB406	**716-2911**	169.82	– –	– –
16A	C60HB416	**716-2935**	159.40	– –	– –
20A	C60HB420	**716-2947**	159.40	– –	– –
25A	C60HB425	**716-2959**	159.40	– –	– –
32A	C60HB432	**716-2960**	159.40	– –	– –

Type B	Mftrs. List No.	Order Code	Price Each 1+	5+	10+
Four Pole					
40A	C60HB440	**716-2972**	168.06	150.18	143.37
50A	C60HB450	**716-2984**	156.00	149.45	– –
63A	C60HB463	**716-2996**	180.05	– –	– –
Type C					
Single Pole					
1A	C60HC101	**716-4245**	28.36	– –	– –
2A	C60HC102	**716-4257**	27.20	– –	– –
4A	C60HC104	**716-4269**	25.58	– –	– –
6A	C60HC106	**716-4270**	24.74	– –	– –
10A	C60HC110	**716-4282**	22.65	– –	– –
16A	C60HC116	**716-4294**	22.60	– –	– –
20A	C60HC120	**716-4300**	22.65	– –	– –
25A	C60HC125	**716-4312**	22.65	– –	– –
32A	C60HC132	**716-4324**	22.65	– –	– –
40A	C60HC140	**716-4336**	24.74	– –	– –
50A	C60HC150	**716-4348**	25.95	– –	– –
63A	C60HC163	**716-4350**	26.92	– –	– –
Two Pole					
1A	C60HC201	**716-4361**	80.40	– –	– –
2A	C60HC202	**716-4373**	77.70	– –	– –
4A	C60HC204	**716-4385**	74.12	– –	– –
6A	C60HC206	**716-4397**	71.38	– –	– –
10A	C60HC210	**716-4403**	65.52	– –	– –
16A	C60HC216	**716-4415**	65.52	– –	– –
20A	C60HC220	**716-4427**	65.52	– –	– –
25A	C60HC225	**716-4439**	65.52	– –	– –
32A	C60HC232	**716-4440**	65.52	– –	– –
40A	C60HC240	**716-4452**	71.52	– –	– –
50A	C60HC250	**716-4464**	74.96	– –	– –
63A	C60HC263	**716-4476**	83.19	75.66	– –
Three Pole					
1A	C60HC301	**716-4488**	110.86	– –	– –
2A	C60HC302	**716-4490**	110.81	– –	– –
4A	C60HC304	**716-4506**	108.16	– –	– –
6A	C60HC306	**716-4518**	104.72	– –	– –
10A	C60HC310	**716-4520**	98.30	– –	– –
16A	C60HC316	**716-4531**	98.30	– –	– –
20A	C60HC320	**716-4543**	98.30	– –	– –
25A	C60HC325	**716-4555**	98.30	– –	– –
32A	C60HC332	**716-4567**	98.25	– –	– –
40A	C60HC340	**716-4579**	102.90	101.93	– –
50A	C60HC350	**716-4580**	110.16	– –	– –
63A	C60HC363	**716-4592**	111.69	– –	– –
Four Pole					
1A	24872	**434-5733**	178.17	172.26	164.07
2A	24873	**434-5745**	178.05	– –	– –
4A	24875	**434-5757**	168.06	162.45	154.74
6A	24876	**434-5769**	168.06	165.82	– –
10A	24877	**434-5770**	157.77	152.52	149.51
16A	24878	**434-5782**	157.96	– –	– –
20A	24879	**434-5794**	157.77	152.52	145.26
25A	24880	**434-5800**	157.96	– –	– –
32A	24881	**434-5812**	157.96	– –	– –
40A	24882	**434-5824**	168.28	– –	– –
50A	24883	**434-5836**	176.70	– –	– –
63A	24884	**434-5848**	180.51	– –	– –
Type D					
Single Pole					
1A	C60HD101	**434-5850**	28.18	– –	– –
2A	C60HD102	**434-5861**	27.53	– –	– –
4A	C60HD104	**434-5873**	26.10	26.04	– –
6A	C60HD106	**716-4701**	25.35	25.34	– –
10A	C60HD110	**434-5885**	23.67	23.67	– –
16A	C60HD116	**716-4713**	23.72	– –	– –
20A	C60HD120	**434-5897**	23.72	– –	– –
25A	C60HD125	**434-5903**	23.72	– –	– –
32A	C60HD132	**716-4725**	23.72	– –	– –
40A	C60HD140	**434-5915**	25.85	– –	– –
50A	C60HD150	**434-5927**	27.12	27.11	– –
63A	C60HD163	**716-4737**	27.30	– –	– –
Two Pole					
1A	C60HD201	**434-5939**	81.33	– –	– –
2A	C60HD202	**434-5940**	77.61	– –	– –
4A	C60HD204	**434-5952**	76.05	74.73	– –
6A	C60HD206	**716-4749**	73.89	72.54	– –
10A	C60HD210	**434-5964**	67.80	– –	– –
16A	C60HD216	**716-5067**	67.80	– –	– –
20A	C60HD220	**434-5976**	67.74	67.70	– –
25A	C60HD225	**434-5988**	69.70	– –	– –
32A	C60HD232	**716-5079**	69.70	– –	– –
40A	C60HD240	**434-4790**	73.98	– –	– –
50A	C60HD250	**434-4807**	77.66	– –	– –
63A	C60HD263	**716-5080**	78.35	– –	– –
Three Pole					
1A	C60HD301	**434-4819**	116.19	112.32	106.98
2A	C60HD302	**434-4820**	115.05	113.55	– –
4A	C60HD304	**434-4832**	112.89	110.90	– –
6A	C60HD306	**716-5092**	109.59	107.65	– –

Prices are in Singapore Dollars and exclusive of GST.
Due to the volatile nature of certain products, prices are subject to change without notice.

C = CYAN M = Magenta Y = Yellow B = Black/SING

Type B	Mftrs. List No.	Order Code	Price Each 1+	5+	10+
Three Pole					
10A	C60HD310	**434-4844**	102.72	100.90	– –
16A	C60HD316	**716-5109**	102.72	100.90	– –
20A	C60HD320	**434-4856**	102.72	100.90	– –
25A	C60HD325	**434-4868**	102.72	100.90	– –
32A	C60HD332	**716-5110**	102.72	100.90	– –
40A	C60HD340	**434-4870**	109.59	107.65	– –
50A	C60HD350	**434-4881**	115.05	113.00	– –
63A	C60HD363	**716-5122**	116.19	114.06	– –
Four Pole					
1A	25211	**434-4893**	190.11	183.75	175.02
2A	25212	**434-4900**	179.31	173.37	165.12
4A	25214	**434-4911**	179.31	173.37	169.35
6A	25215	**434-4923**	179.31	173.37	165.12
10A	25216	**434-4935**	168.33	162.72	158.98
16A	25217	**434-4947**	168.33	162.72	154.98
20A	25218	**434-4959**	168.33	162.72	154.98
25A	25219	**434-4960**	168.33	162.72	154.98
32A	25220	**434-4972**	168.33	162.72	154.98
40A	25221	**434-4984**	179.31	173.37	165.12
50A	25222	**434-4996**	188.31	182.07	177.86
63A	25223	**434-5009**	190.11	183.75	179.58

Accessories	Mftrs. List No.	Order Code	Price Each 1+	5+	10+
Al. sw. SD	26927	**717-1778**	38.87	– –	– –
MN Uv rel 220/240V ac	26960	**716-5663**	97.23	– –	– –
MX Uv rel. 48V ac	26961	**716-5675**	95.34	85.71	– –
Shield 1 Pole	26975.	**716-5699**	6.66	5.94	5.67
Shield 2 Pole	26976	**716-5705**	7.32	7.30	– –
Sealable Shield	26981	**716-5729**	5.16	– –	– –
Barrier	27001	**716-5742**	6.79	– –	– –
Lock C60H	20718	**716-5766**	14.32	– –	– –
Lock RMG	20719	**716-5778**	14.32	– –	– –

RMG Earth Leakage Protection RCDs

Merlin Gerin

- 2 and 4-pole versions in ratings from 16 to 100A
- Positive contact indication in accordance with **16th Edition of the IEE Wiring Regulations**
- Sensitivity 10, 30, 100 or 300mA
- Voltage rating 2 pole - 110/240V, 4 pole-240/415V
- Equipped with tunnel terminals for bare cable connection: 16-80A - 35mm^2, 100A - 50mm^2
- Suitable for use as an incoming device on Merlin Gerin type A pan assembly
- Complete range of accessories available

The Merlin Gerin, Multi 9, RMG range of residual current devices provides the functions of isolation, switching and earth leakage protection of electrical circuits. The time-delayed version provides the above features whilst enabling discrimination with downstream devices.

Rating(A)	Poles	Sensitivity (mA)	Mftrs. List No	Order Code
RCDs				
16	2	10	RMG160102	716-8172
25	2	10	RMG250102	716-8184
25	2	30	RMG250302	716-8196
25	4	30	RMG250304	716-8202
25	4	300	RMG253004	716-8214
40	2	30	RMG400302	716-8226
40	4	30	RMG400304	716-8238
40	2	300	RMG403002	716-8240
40	4	300	RMG403004	716-8251
63	2	30	RMG630302	716-8263
63	4	30	RMG630304	716-8275
63	2	100	RMG631002	716-8287
63	4	100	RMG631004	716-8299
63	4	300	RMG633004	716-8317
80	2	30	RMG800302	716-8329
100	2	30	RMG1000302	716-8354
Time Delayed				
63	-	300	23146	716-8494
Accessories			Mftrs. List No	Order Code
MX shunt trip release:				
110V dc or 220/415V ac			26946	716-8548
48V dc or 48-130V ac			26947	716-8550
MN undervoltage release:	220/240V ac		26960	716-5663
Aux sw.OFS	RCD Monitor		26923	716-8603
Aux sw. OF	RCD Monitor		26924	716-8615

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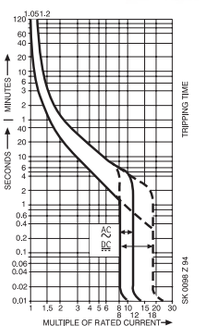
Rating (A)	Pole	Mftrs. List No.	Order Code	Price Each 1+	5+	+
RMG RCDs						
16	2-2	RMG160102	**716-8172**	184.74	– –	– –
25	2-2	RMG250102	**716-8184**	201.90	– –	– –
25	2-2	RMG250302	**716-8196**	134.85	134.66	– –
25	4-4	RMG250304	**716-8202**	174.10	– –	– –
25	4-4	RMG253004	**716-8214**	150.99	– –	– –
40	2-2	RMG400302	**716-8226**	142.20	– –	– –
40	4-4	RMG400304	**716-8238**	186.00	– –	– –
40	2-2	RMG403002	**716-8240**	129.22	– –	– –
40	4-4	RMG403004	**716-8251**	162.80	– –	– –
63	2-2	RMG630302	**716-8263**	170.98	– –	– –
63	4-4	RMG630304	**716-8275**	250.54	– –	– –
63	2-2	RMG631002	**716-8287**	157.12	– –	– –
63	4-4	RMG631004	**716-8299**	209.39	– –	– –
63	4-4	RMG633004	**716-8317**	184.98	– –	– –
80	2-2	RMG800302	**716-8329**	209.72	– –	– –
100	2-2	RMG1000302	**716-8354**	239.66	– –	– –
63		23146	**716-8494**	249.05	– –	– –
Accessories						
MX rel. 110 - 415V ac			**716-8548**	57.85	– –	– –
MX rel.48V ac/dc			**716-8550**	51.00	– –	– –
Aux sw.OFS			**716-8603**	44.53	– –	– –
Aux sw. OF			**716-8615**	38.10	37.64	– –
MN Uv rel 220/240V ac			**716-5663**	97.23	– –	– –

Type K Miniature Circuit Breakers

ABB Control Limited ABB



- Single, double and triple pole versions available
- Designed to offer optimal protection in one unit for both overload and short circuit conditions
- Allows for high inrush currents without nuisance tripping
- Thermal settings are identical to that of a conventional thermal overload with a maximum of 1.2 times the rated current
- Electromagnetic trip accepts inrush currents in excess of 8 times rated current without tripping (see tripping curve)
- MCB selected using the rated current of the motor and the selection table below
- Complies to **IEC947-4-1**
- Padlock accessories include adaptor and padlock with keys

Selection Table Standard Motor Range kW	Current @380VA	Nominal @15VA	Nominal 'K' Type MCB
0.06	0.22	0.2	0.2
0.09	0.33	0.3	0.3
0.12	0.42	0.4	0.3
0.18	0.64	0.6	0.5
0.25	0.88	0.74	0.75/0.5
0.37	1.22	1.1	1
0.55	1.5	1.4	1
0.75	2	2	1.6/2.0
1.1	2.6	2.5	2
1.5	3.5	3.5	3
2.2	5	5	4
3	6.6	6.5	6
4	8.5	8.1	8
5.5	11.5	11	10
7.5	15.5	14.5	16/10
11	22	21	20
15	30	28	25
18.5	37	35	32
22	44	40	40
30	60	55	50
37	72	66	63
Breaking capacity	6kA		
Voltage ratings	230/400V ac 60/110V dc		
Operating temperature	-25°C to 55°C		

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Rating	Mftrs. List No.	Order Code	Price Each 1+	5+	10+	25+
Single Pole						
1	S271K1	**717-5620**	28.44	26.61	25.38	24.51
2	S271K2	**717-5644**	28.44	26.61	25.38	24.51
3	S271K3	**717-5656**	28.44	26.61	25.38	24.51
4	S271K4	**717-5668**	28.44	26.61	25.38	23.95
6	S271K6	**717-5670**	28.44	26.61	25.38	24.25
8	S271K8	**717-5681**	28.44	26.61	25.38	24.51
10	S271K10	**717-5693**	25.89	24.18	23.10	22.21
16	S271K16	**717-5700**	25.89	24.18	23.10	22.25
20	S271K20	**717-5711**	28.44	26.61	25.38	24.51
25	S271K25	**717-5723**	29.46	27.51	26.28	25.34
32	S271K32	**717-5735**	29.46	27.51	26.28	25.34

RoHS ● Compliant ▲ Non-compliant ‡ Limited stock - RoHS replacement available

C = CYAN M = Magenta Y = Yellow B = Black/SING

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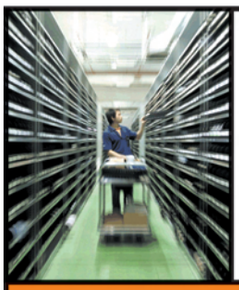
Rating	Mftrs. List No.	Order Code	Price Each 1+	5+	10+	25+
Double Pole						
0.5	S272K0.5	**717-5784**	78.96	73.80	70.44	67.98
2	S272K2	**717-6480**	78.96	73.80	70.44	67.98
4	S272K4	**717-6508**	78.96	73.80	70.44	67.98
6	S272K6	**717-6510**	78.96	73.80	70.44	67.98
10	S272K10	**717-6533**	68.49	64.02	61.08	58.96
16	S272K16	**717-6545**	68.49	64.02	61.08	58.96
20	S272K20	**717-6557**	75.63	70.65	67.44	65.10
Triple Pole						
8	S273K8	**717-6661**	110.70	105.42	102.95	– –
10	S273K10	**717-6673**	95.70	91.14	89.00	– –
16	S273K16	**717-6685**	95.70	91.14	89.00	– –
20	S273K20	**717-6697**	105.87	100.80	98.44	– –
32	S273K32	**717-6715**	109.35	104.13	101.70	– –
Padlock Accessories						
Adaptor	SA1	**717-6910**	5.28	5.04	4.93	– –
Padlock + 2 Keys	SA2	**717-6922**	14.61	13.89	13.58	– –



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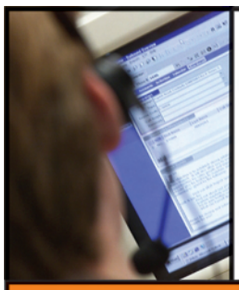

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