

1500 Standard & 1300 Hi Inrush Switches 150A to IEC65 and 16A 250Vac



1500 Series 16(4)A 250Vac T125



UL CSA 16A Non Ind 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, (3 posn) 250Vac 1/2hp, 125Vac 1/4hp UL 85°C, file E45221, CSA file LR10990



Inrush 36A to EN61058-1 & 20A 28Vdc



1300 series 16(6)A 250Vac T125 5E4 (50,000 Ops.) Ⓢ150A Inrush to IEC 65,

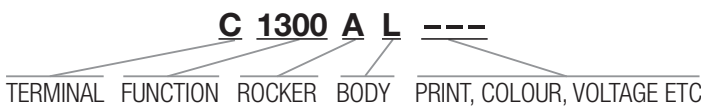


UL CSA 20A 250Vac 1hp, 125Vac 1/2hp UL 85°C, file E45221, CSA file LR10990



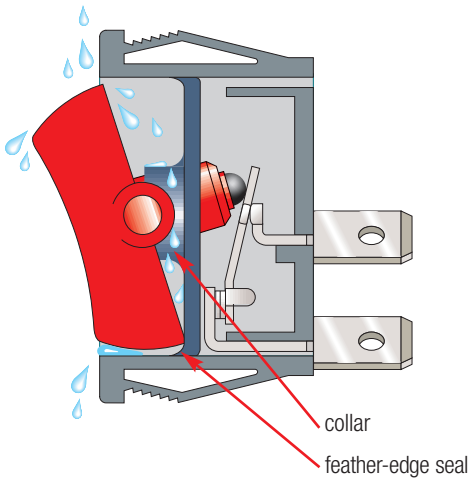
20A 28Vdc

3mm contact gap except if marked μ . Technical data on pages 4 & 5 (switches), 66 (indicators)



| TERMINAL | FUNCTION | | ROCKER |
|---|--|---|--|
| C 6.3 x 0.8 9.1 | Approvals & ratings vary with function On Off Switches - ON when pressed over terminal 1 | | A Softline Matt |
| H 4.8 x 0.8* 9.1 | Standard 1500 \blacklozenge | Hi Inrush 1300 \blacklozenge <small>Approvals apply to C & T terminals only</small> | B Splashproof (with Arcshield) Matt |
| K 2.8 x 0.8* 9.1 2.0 1.2 | 1501 <small>HP rating N/A</small> | ON - OFF (momentary ON) | H Slotted (for custom Adaptors) not momentary |
| T 2.8 x 0.8* 7.0 0.21 Solder | 1502 <small>HP rating N/A</small> | ON - OFF (momentary OFF) | V Curved Matt or gloss |
| U 3.2 0.21 Right angle "T" solder terminal | 1510 \blacklozenge μ <small>HP rating N/A</small> | ON - ON | W Splashproof (with Arcshield) Matt |
| X 4.0 9.1 PCB 0.8Sq* <small>*N/A for 1300 series</small> | 1511 μ <small>HP rating N/A</small> | ON - ON (momentary 1 side) | X Two colour Matt ON - OFF only (not momentary) |
| | 1520 \blacklozenge μ <small>125V & 250V 1/2HP H terminal rated T100 only</small> | ON - OFF - ON | F Flat lens Gloss (0430 only) |
| | 1521 μ <small>HP rating N/A H terminal rated T100 only</small> | ON - OFF - ON (momentary 1 side) | A Softline lens Matt (0430 only) as F but with raised profile |
| | 1522 μ <small>HP rating N/A H terminal rated T100 only</small> | ON - OFF - ON (momentary 2 sides) | |
| | 0430 <small>X terminal N/A</small> | Indicator Technical data on page 66 | |

Enhanced Splashproofing



1500 W and B splashproof options

Feather edge seals and a close fitting collar protect current carrying parts from moisture.

B option has Hytrel collar/seals for enhanced protection.



C1500AR ---
T1500AR ---



C1500AL ---
T1500AL ---



C1500XL ---
T1500XL ---



C1510AL ---
T1510AL ---



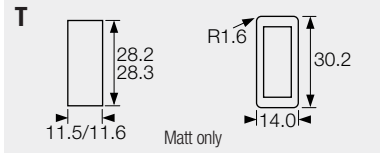
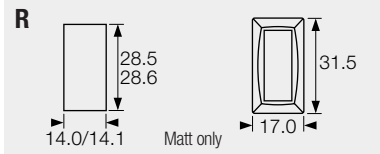
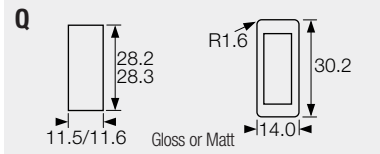
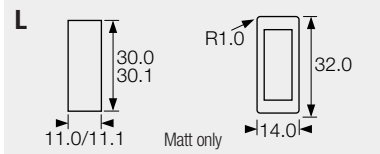
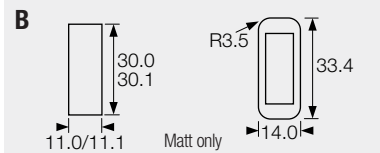
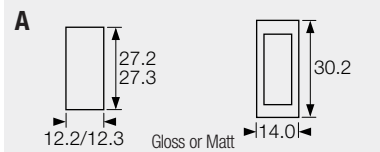
C1520AL ---
T1520AL ---



C0430AL ---
T0430AL ---

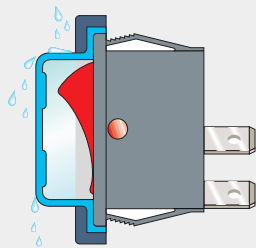
BODY

Panel cut-out * Flange
Cut-outs must be punched in the direction of insertion



OPTIONS

- Finish** Matt is standard
- Colour** Call factory for custom colours. A full range is available for large orders
- Legend printing** Select from the examples or call factory for custom legends
- Lamp voltage** Call factory for details
- Blanking plates A0434** - - Dummy units to fill unused panel holes
- Protective cover** (designed to IP65) Snaps on to A, L, Q or T bodies (add G after body in cat no). This reduces panel thickness by 1mm.

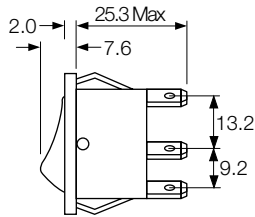


Panel sealing washer W46 is available for the same body sizes but reduces panel thickness by a further 0.8mm. Covers are not suitable for momentary types.

Arcshield
Hides switching arc

For all options call the factory

DIMENSIONS (mm)



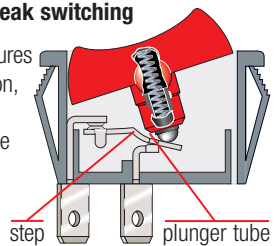
Panel thickness

- A,Q** 0.75 to 3.3mm
- L,B,T** 0.75 to 2.5mm
- R** 0.75 to 3.0mm

* For cut-out details on momentary switches call the factory

1300 High inrush, positive break switching

The 1300 series mechanism ensures contact welds formed at switch-on, are positively separated by the plunger tube acting directly on the step in the moving contact.



Examples of printing



EN602A



EN730



EN822

Technical Information - Switches and Fuseholders

Most major technical information is shown on each specific product page, other details are grouped here for easy reference. Details shown here apply to most switches and fuseholders.

Snap-action switches (pages 42, 45 and 48-51), indicators (pages 66-78) and connectors (pages 79-81) have product specific information within the section.

| MATERIALS | MOST PRODUCTS | EXCEPTIONS |
|----------------------------|---------------|--|
| Body and actuator (opaque) | Nylon 6.6 | 8300V, 1900V, 0916V & 0911V bezels & actuators are stainless steel 0600 and 3900 actuators are plated brass |
| Actuator (transparent) | Polycarbonate | |
| Current carrying parts | Copper Alloy | |
| Contact points | Silver Alloy | N/A for 0055/56, 0600/2, 0916-0920, 0017, 2000 & 3005/3006. Gold plated for 1100. |

PROPERTIES

Electrical

| | | |
|---|---|-------------------------------|
| Class II compliant | Confirmed | IEC Sockets |
| Electrical life (Operations) | >10k, many >50k | See relevant page for details |
| Contact resistance (switches) new condition | <100mΩ (at 12Vdc, 1A) | For 1100 & 2000 call factory |
| Contact resistance (fuseholders) new condition | .5mΩ (average) | |
| Insulation resistance | >20mΩ | |
| Dielectric strength: | | |
| across open contacts | >1kV | |
| between poles | >3kV | |
| between live parts and accessible metal | >4kV | |
| Comparative Tracking Index (CTI) | >250 | |
| Temperature rise (terminals) at end of rated life | max 30°K (UL 1054), max 55°K (EN 61058-1) | |

PROPERTIES

Physical

| | | |
|--|-------------------------|--|
| Humidity resistance at 91-95% relative humidity (to subsequently comply with requirements of the Dielectric strength test) | 48hrs | |
| Impact resistance | >0.5Nm | |
| Storage temp. (1 year period) | <125°C | Some discolouration of terminals may occur |
| Flame retardancy | UL94V2 | |
| Solderability to BS 2011 pt.2.1T - (with an iron) | .6 secs at 350°C | |
| Angular movement ± 4° overall (where applicable) | .38° | 1250, 6000, 8500, 8550, 8600, 8650, 8800 - 26° |
| Force to operate | 2.0N - 20.0N | Call factory for specific values |
| Fixing nut torque (where applicable) | 1.0Nm (8.91 lb/in) nom. | Call factory for specific values |

GENERAL INFORMATION

ALL SWITCHES

Heat and Fire resistance Category D.
Ingress Protection without cover is IP40.
Higher ratings where available will be shown on the relevant catalogue page.

ALL PRODUCTS

Solder terminals should not be fitted with "Push on", "QD" or "Fast on" type cable connectors.

Panel holes must be punched in the direction of insertion.

Items marked ♦ on the following pages are assembled automatically.
This ensures the highest attainable quality at a competitive price.

All products should be applied, installed and maintained by the customer using competent persons in accordance with good electrical practice. Products should be tested by the customer in the application to ensure suitability. Special care should be taken not to expose switches to water, dust, corrosive chemicals, silicone, excessive solder flux, cyanoacrylate adhesives, severe impact, extremes of temperature, electrical supply voltage or load current in excess of the specified limits.

Transparent lenses on indicator lights and lit switches are moulded in polycarbonate, a material which is attacked by organic chemicals and animal or vegetable fats.

Please contact the factory for advice on these products.

For performance in accord with the stated ratings, switch actuators should be fully depressed and fully released during operation.

WEIGHTS OF OUR MOST FREQUENTLY SUPPLIED PRODUCTS, not including packaging.

| Product | gms | Product | gms | Product | gms | Product | gms | Product | gms |
|--------------|---------|---------|------|----------------|------|---------|-------|---------|------|
| 0055, 0056 | 5.7/6.8 | 1048 | 2.8 | 1570 | 12.7 | 5500 | 7.1 | 8353 | 5.9 |
| 0305 | 32.9 | 1091FH | 12.6 | 1584-1589 | 11.1 | 5503 | 7.8 | 8500 | 3.8 |
| 0333 | 4.5 | 1091FL | 52.8 | 1700H | 8.4 | 5567 | 14.3 | 8550 | 4.8 |
| 0345 | 8.9 | 1100 | 2.0 | 1750H | 13.2 | 6050 | 13.58 | 8553 | 5.2 |
| 0340 sw only | 7.12 | 1250SP | 5.9 | 17500 | 25.6 | 6053 | 14.15 | 8600 | 3.5 |
| 0340K/P | 25.0 | 1250DP | 7.0 | 2000 2pos C SP | 3.8 | 7000 | 10.4 | 8620 | 4.3 |
| 0430 | 5.5 | 1300 | 5.7 | 2000 2pos C DP | 4.5 | 7050 | 12.3 | 8650 | 6.3 |
| 0589 | 3.5 | 1350 | 11.2 | 2000 5pos A SP | 6.3 | 7053 | 12.9 | 8670 | 8.5 |
| 0711-1S | 16.6 | 1500 | 5.7 | 2000 5pos A DP | 7.3 | 8250 | 4.9 | 8800 | 2.9 |
| 0712-S | 27.8 | 1520 | 6.6 | T2225B | 5.0 | 8300 | 4.0 | 9100 | 20.0 |
| 0717-1S | 22.4 | 1550 | 11.2 | 2950 | 5.3 | 8350 | 5.0 | | |
| 0900S/L | 2.6/2.9 | 1553 | 11.8 | 3111 | 11.8 | 8350RP | 34.0 | | |

Technical Information - Indicators

The majority of Arcoelectric indicator lights can be supplied with alternative light sources:

Neon, Fluorescent, Filament lamp or LED.

NEON and FLUORESCENT LAMPS

Colours

Red, Amber and Clear neon, Green fluorescent.

Maximum striking voltages

Standard brightness types 65Vac 90Vdc,

High brightness types 85Vac 135Vdc.

High brightness types are usually fitted.

Life

Typically 25,000 hours (Green fluorescent lamps 20,000 hours).

(Measured to a point when the light output of the lamp is half its original level.)

The end of life for a neon lamp is not usually a sudden failure.

False signals due to long wiring

It is possible for neon or fluorescent tubes to glow when they should be off. The false signal is caused by the capacitance effect of fairly long wiring to the indicator being adjacent to other live cables.

This effect can be prevented in most cases by fitting a 100K resistor across the supply wires close to the indicator assembly.

MATERIALS

| | |
|--------------------------|--|
| Moulded bodies and bases | Nylon 6.6 |
| Metal bodies and bezels | Chrome plated brass (except #) |
| Lenses | Polycarbonate |
| Terminals (most types) | Brass (electro-tin plated) |
| Terminals (exceptions) | Brass (flash silver* or nickel** plated) |
| Threaded metal nuts | Brass (nickel plated on 0275/7) |
| Other fixings | Call factory for details |

* R9, 0061, 0062, 0430, 0480, 1090, 1091, 6030, 7030, 8630, 8580

** # 3130, 3160, 3161, 3221 have nickel plated terminals with steel screws and plated polyamide bezel trims

TEMPERATURE RATING

| Authority | with Terminals | with Wire leads | |
|-----------|----------------|-----------------|----------|
| | | PVC | SILICONE |
| European | T125°C | T105°C | T125°C |
| UL | T65/75°C | T65/75°C | |

SYMBOLS

 Terminals
C 6.3, H 4.8, K 2.8

 Wire leads
200mm long Standard

 Solid wires
LED only

 Panel hole size

 Panel thickness

 Temperature rating

FILAMENT LAMPS

Colours

Red, Amber, Green, (Clear and Blue - check availability)

LEDS

Colours

Red, Yellow and Green.

Voltage

Basic voltage 2.0/2.2V. Some items are available with integral resistors for 12V use. For details of resistors required for higher voltages, please call the factory.

Current

Maximum continuous forward current 35mA.

Life

>100,000hrs

Polarity

LED flat side is - negative, round side + positive.