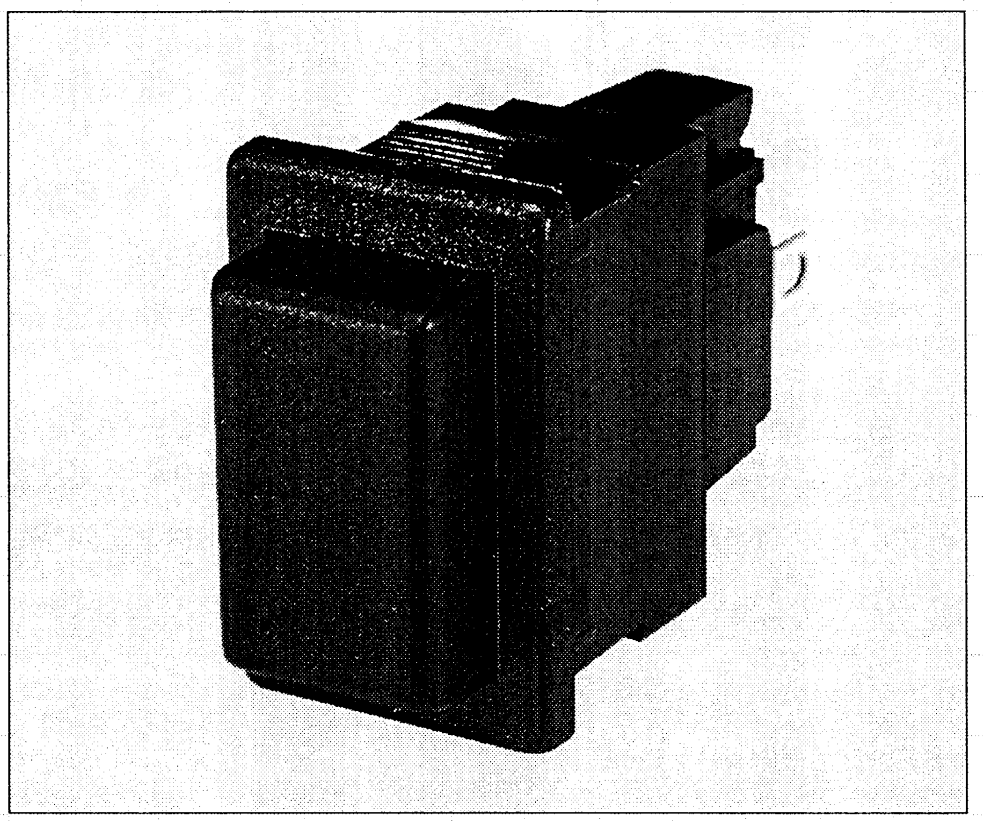
733878-70 921

# Push Button Switches



Push Button Switches - 1100 Series
0.125A 125Vac, 0.125A 45Vdc
0.5A 250Vac

A new range of push button switches offering latching or momentary single pole On/Off action and fitting an industry standard cut-out of 19 x 13mm.

Gold plated contacts make them ideally suited for low power switching.

Arcolectric
SWITCHES PLC

Publication 72

# Technical Information

| CATALOGUE NUMBER ▷ | 0055,0056 | 1100 | 1300,1350 & 1353 | 1584 -1589 | 1500,1550 & 1700 |
|---|---|---|---|---|---|
| **MATERIALS** | | | | | |
| Body and actuator (opaque) | Nylon 6.6 | Nylon 6.6 | Nylon 6.6 | Nylon 6.6 | Nylon 6.6 |
| Actuator (transparent) | - | - | Polycarbonate | Polycarbonate | - |
| Current carrying parts | Copper Alloy Silver Plated | Copper Alloy Gold Plated | Copper Alloy Silver Plated | Copper Alloy Silver Plated | Copper Alloy Silver Plated |
| Contact points | - | - | Silver Alloy | Silver Alloy | Silver Alloy |
| **PROPERTIES** | | | | | |
| **Electrical** | | | | | |
| Electrical Life (Operations) | >50K | >50K | >50K s | >10K | >10K |
| Contact Resistance in new condition (mΩ) | <10 | - | <10 | <10 | <10 |
| Insulation Resistance (MΩ) | >20 | >20 | >20 | >20 | >20 |
| Dielectric Strength: (kV) | | | | | |
| across open contacts | >1 | >1 | >1 | >1 | >1 |
| between poles | >3 | - | >3 | >3 | >3 |
| between live parts and accessible metal | >4 | >4 | >4 | >4 | >4 |
| Tracking Resistance | KB250 | KB250 | KB250 | KB250 | KB250 |
| **PROPERTIES** | | | | | |
| **Physical** | | | | | |
| Humidity Resistance at 91-95% relative humidity (hrs) | 48 | 48 | 48 | 48 | 48 |
| Impact Resistance (Nm) | >0.5 | >0.5 | >0.5 | >0.5 | >0.5 |
| Shock Resistance 3 shocks in each of 3 perpendicular axis (g) | >50 | - | >50 | >50 | >50 |
| Vibration Resistance .075mm displacement 10-500Hz(hrs) | >2 | - | >2 | >2 | >2 |
| Storage term 5 year period (°C) | <125 | <125 | <125 | <125 | <125 |
| Flame Retardancy: | | | | | |
| Standard | UL94V2 | UL94V2 | UL94V2 p | UL94V2 | UL94V2 |
| On Request | UL94V0/V1 | UL94V0/V1 | UL94V0/V1 | UL94V0/V1 | UL94V0/V1 |
| Solderability to BS 2011 pt.2.1T - | 6 secs at 350°C | 6 secs at 350°C | 6 secs at 350°C | 6 secs at 350°C | 6 secs at 350°C |
| Angular movement ± 2° overall | - | - | 38° | 38° | 38° |
| Force to operate (Kg). For details contact our Sales desk | 0.28 | 0.5 | 0.2 - 2.0 | 0.2 - 2.0 | 0.2 - 2.0 |
| Weight: | | | | | |
| Single Pole (g) | 6.2 | 2.2 | 8 | - | 6 |
| Double Pole (g) | - | - | 12 | 11 | 12 |
| Mechanical Life (Operations) | >50K | >50K | >50K f | >50K | >50K |

## GENERAL INFORMATION

**All switches**
Insulation Class II.
Heat and Fire resistance Category D.
Ingress Protection without cover IP40.

**Spring return rocker switches**
Are not suitable for safety sensitive applications

**Flame retardancy**
**p** Polycarbonate rockers - V2 only.

**Life and Temperature ratings**
**f** Illuminated types 10K ops.

**t** 1553 is T85°C

**s** 1350 & 1353 are 10k

| 1501-1502<br>1551-1553 | 1510-1525<br>1560-1572 | 2000 | 5500 | 5550 | 7000 | 8500/8550<br>1250 & 8800 | 8600/8650 |
|---|---|---|---|---|---|---|---|
| Nylon 6.6 | Nylon 6.6 | Nylon 6.6 | Nylon 6.6 | Nylon 6.6 | Nylon 6.6 | Nylon 6.6 | Nylon 6.6 |
| Polycarbonate | - | - | Polycarbonate | Polycarbonate | Polycarbonate | Polycarbonate | Polycarbonate |
| Copper Alloy | Copper Alloy | Copper Alloy | Copper Alloy | Copper Alloy | Copper Alloy | Copper Alloy | Copper Alloy |
| Silver Plated | Silver Plated | Silver Plated | Silver Plated | Silver Plated | Silver Plated | Silver Plated | Silver Plated |
| Silver Alloy | Silver Alloy | - | Silver Alloy | Silver Alloy | Silver | Silver Alloy | Silver |
| >10K | >10K | >10K | >10K | >10K | 10K | 10K | 10K |
| <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| >20 | >20 | >20 | >20 | >20 | >20 | >20 | >20 |
| >1 | >1 | >1 | >1 | >1 | >1 | >1 | >1 |
| >3 | >3 | >3 | >3 | >3 | >3 | >3 | >3 |
| >4 | >4 | >4 | >4 | >4 | >4 | >4 | >4 |
| KB250 | KB250 | KB250 | KB250 | KB250 | KB175 | KB250 | KB250 |
| 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| >0.5 | >0.5 | >0.5 | >0.5 | >0.5 | >0.5 | >0.5 | >0.5 |
| >50 | >50 | >50 | >50 | >50 | >50 | >50 | >50 |
| >2 | >2 | >2 | >2 | >2 | >2 | >2 | >2 |
| <125 | <125 | <125 | <125 | <125 | <125 | <125 | <125 |
| UL94V2 p | UL94V2 | UL94V2 | UL94V2 p | UL94V2 p | UL94V2 p | UL94V2 p | UL94V2 p |
| UL94V0/V1 | UL94V0/V1 | UL94V0/V1 | UL94V0/V1 | UL94V0/V1 | UL94V0/V1 | UL94V0/V1 | UL94V0/V1 |
| 6 secs at 350°C | 6 secs at 350°C | 6 secs at 350°C | 6 secs at 350°C | 6 secs at 350°C | 6 secs at 350°C | 6 secs at 350°C | 6 secs at 350°C |
| 38° | 35° | - | 35° | 35° | - | 26° | 27° |
| 0.2 - 2.0 | 0.2 - 2.0 | 0.2 - 2.0 | 0.2 - 2.0 | 0.2 - 2.0 | 0.2 - 2.0 | 0.2 - 2.0 | 0.2 - 2.0 |
| 8 | 8 | 2 pos A body 3.9 | 8 | - | 25 | <4 | 4.0 |
| 12 | 12 | 5 pos A body 7.7 | - | 12 | 25 | <5.0 | 6.0 |
| >50K f | >50K | >50K | >50K | >50K | >50K | >50K | >50K |

**Illuminated rockers and indicators**

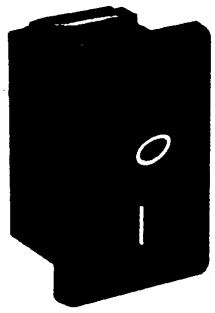
Transparent lenses on signal lamps, neon indicators and illuminated switches are moulded in polycarbonate, a material which is attacked by hydrocarbons. Alternative materials available on request.

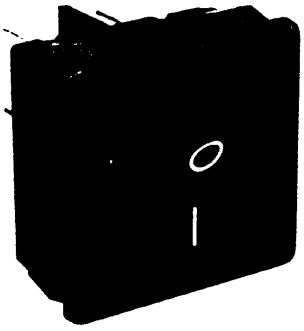
**Weights**

Products not specifically shown above:

T2225B 5g. T8550VB 5g

# Rocker Switches-Miniature *10A 250Vac Single & Double Pole*





**To create a 7 digit catalogue number:**
Refer to the 4 columns below, shaded in grey, starting with "Terminal Code"

**Examples** of products with their 10 digit numbers are illustrated opposite.
For other versions state the first 7 digits, then describe in words:
Rocker colour, Body colour, Rocker printing,
Voltage (for illuminated units, 100/125V marked 110V, or 200/250V marked 230V)

Indicators are available with red, amber, green or clear lenses.

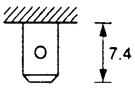
All switches have 3mm contact gap.
All switches suitable for class II appliances.

♦ = Automatically assembled.
Additional technical data for this product range will be found on pages 2 and 3

10(4)A 250Vac T90
Inrush 25A to EN61058-1
10A 28Vdc
UL CSA 10A 250Vac
UL CSA 250Vac ½hp, 125Vac ¼hp
UL file no. E45221

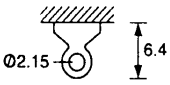
## ▷ TERMINAL CODE

**H**



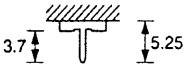

4.8 x 0.8

**T**




Solder tag

**X**




PCB terminal
0.8Sq.

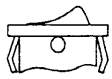
## ▷ SWITCH FUNCTION CODE

*Approvals & ratings vary with function*

| | Single Pole | Double Pole |
|---|---|---|
| ON/OFF | **8600** ♦ | **8650** ♦ |
| ON/OFF momen on | **8601** 6(1)A only | **8651** 6(1)A only |
| ON/OFF momen off | **8602** 6(1)A only | **8652** 6(1)A only |
| ON/OFF illuminated | | **8653** ♦ 6(1)A only |
| 2 position change-over | **8610** ♦ 6(1)A only | **8660** ♦ 6(1)A only |
| 2 position change-over momentary | **8611** 6(1)A only | **8661** 6(1)A only |
| 3 position change-over centre off | **8620** | NEW |
| Single indicator light | **8630** | |

## ▷ ROCKER CODE

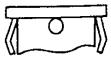
**V**
Curved

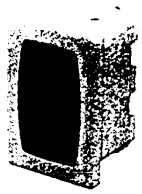


Curved Illuminated

## LENS CODE

**F**
Flat (Single pole size only)



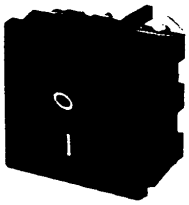


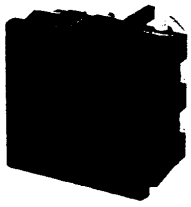
230V

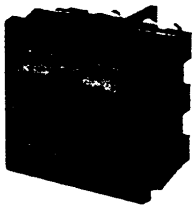
H8600VB ACN
T8600VB AAB

H8600VB AAA
T8600VB AAA

H8630FB NBO
T8630FB NAE







230V

H8650VB AAG
T8650VB AAA

H8660VB AAA
T8660VB AAC

H8653VB NAI
T8653VB NAG

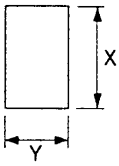
Stock product. See pages 46 & 47.

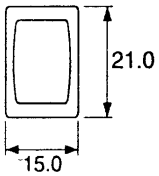
## BODY CODE

Panel cut-outs

Flange

**B** (Single Pole)

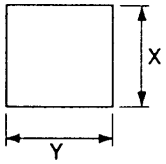


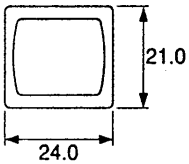




Single Pole dimensions for snap-in fixing

| Panel thickness | Dim. X | Dim. Y |
|---|---|---|
| 0.75-1.25 | 19.1/19.2 | 12.9/13.0 |
| 1.25-2.0 | 19.3/19.4 | 12.9/13.0 |
| 2.0-3.0 | 19.7/19.8 | 12.9/13.0 |

**B** (Double Pole)



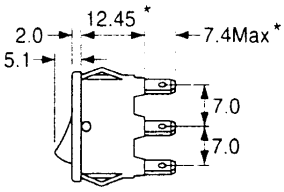

Double Pole dimensions for snap-in fixing

| Panel thickness | Dim. X | Dim. Y |
|---|---|---|
| 0.75-1.25 | 19.1/19.2 | 21.9/22.0 |
| 1.25-2.0 | 19.3/19.4 | 21.9/22.0 |
| 2.0-3.0 | 19.7/19.8 | 21.9/22.0 |

For snap-in fixing, panel holes must be punched in the same direction as the unit is to be fitted.

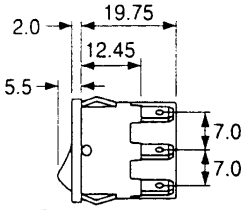
## DIMENSIONS

### Single pole



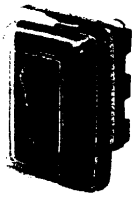

* For 8620 overall depth from bezel 23.5

### Double pole

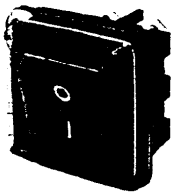



Terminal spacing-
Poles 10.2 btwn ctrs.

**Protective covers for single & double pole**
(not for momentary types)



**F0167LO**



**F0180LO**

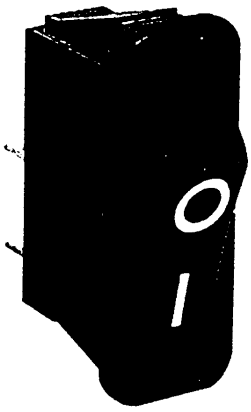
**An extensive range of legends are available.**
Some examples are illustrated here.

CL076

CL080

CL090A

# Rocker Switches-Single Pole *16A 250Vac*



**To create a 7 digit catalogue number:**
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**Examples** of products with their 10 digit numbers are illustrated opposite.
For other versions state the first 7 digits, then describe in words:
Rocker colour, Body colour, Matt or gloss finish, Rocker printing,
Voltage (for illuminated units,100/125V marked 110V, or 200/250V marked 23

Indicators are available with red, amber, green or clear lenses.

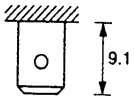
For high in-rush versions (1300 Series) see pages 20 and 21.

Switches have 3mm contact gap except where marked µ.
All switches suitable for class II appliances.

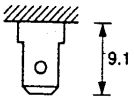
♦ = Automatically assembled.
Additional technical data for this product range will be found on pages 2 and 3

**16(4)A 250Vac T85** [10(3)A 250Vac T125 on application]
**20A 28Vdc**
UL CSA 16A 250Vac
UL CSA (2 position) 250Vac 1hp, 125Vac ½hp
UL CSA (3 position) 250Vac ½hp, 125Vac ½hp
UL file no. E45221

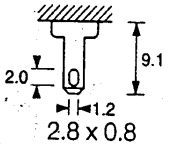
## TERMINAL CODE

**C**


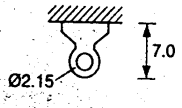
6.3 x 0.8

**H**


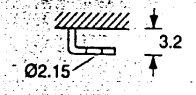
4.8 x 0.8

**K**


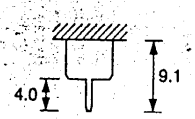
2.8 x 0.8

**T**


Solder tag

**U**


Solder tag

**X**


PCB terminal 0.8 Sq

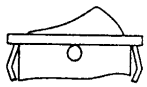
## SWITCH FUNCTION CODE

*Approvals & ratings vary with function*

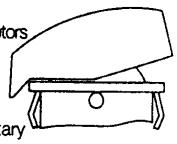
| | | |
|---|---|---|
| **1500** ♦ | | ON/OFF |
| **1501** | HP Rating N/A | ON/OFF momen on |
| **1502** | HP Rating N/A | ON/OFF momen off |
| **1510** ♦ µ | HP Rating N/A | 2 position change-over |
| **1511** µ | HP Rating N/A | 2 position change-over momentary |
| **1520** ♦ µ | 250V 1/2HP 125V 1/4HP | 3 position change-over centre off |
| **1521** µ | 13.5A ONLY<br>HP Rating N/A | 3 position change-over centre off momen 1 side |
| **1522** µ | 13.5A ONLY<br>HP Rating N/A | 3 position change-over centre off momen 2 sides |
| **0430** | X terminal N/A | Neon indicator |

## ROCKER CODE

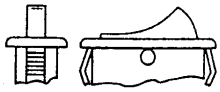
**A** Softline
Matt only



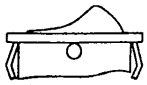
**H** Slotted
for Custom Adaptors
NEW
not for momentary



**N** Slimline sub-panel rocker
NEW


End view Matt only

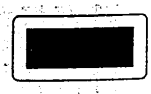
**V** Curved
Matt or gloss

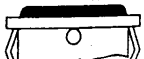


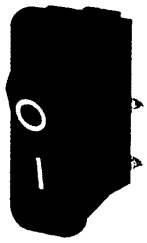
**X** 2 Colour rocker
Matt only
not for momentary

## LENS CODE

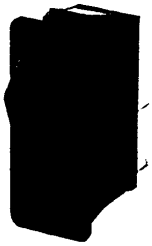
**A** Softline
Matt only







C1500AB AAY ●
T1500AB AAB



C1500XT AAA
T1500XT AAA

C1501AA AAA
T1501AA AAA

C1510AB AAK
T1510AB AAB

C1520AB AAF
T1520AB AAA

230V

C0430AB NAT
T0430AB NAB

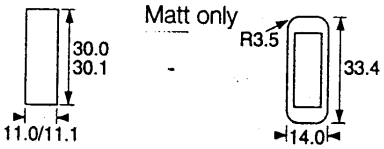
Stock product. See pages 46 & 47.

## BODY CODE

Panel cut-outs | Flanges

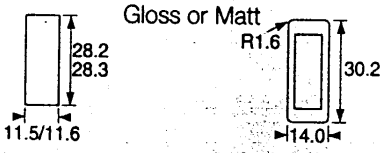
**A** Gloss or Matt

**B** Matt only



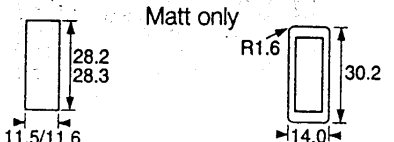

**M** Gloss or Matt

**Q** Gloss or Matt

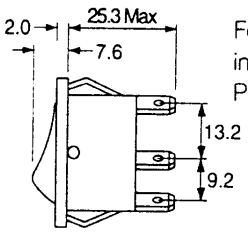



**R** Matt only

**T** Matt only

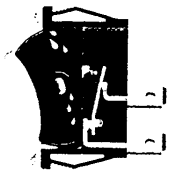



## DIMENSIONS

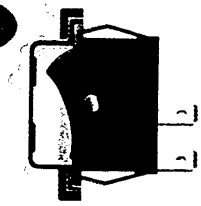



For snap-in fixing, panel holes must be punched in the same direction as the unit is to be fitted. Panel thickness between 0.75 and 2.5mm.

**Moisture resistant switches**
Certain switches can be assembled with an internal barrier for improved resistance against the ingress of water or dust.
Applications should be discussed with Arcolectric.



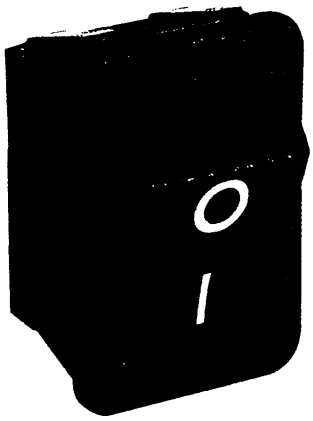
**Moisture resistant covers (IP65)** NEW
Snap on to A, Q, T and M bodies.
Add G after body code in catalogue number.
(not suitable for momentary types.)
Fitting these items reduces panel thickness range.



**An extensive range of legends are available.**
Some examples are illustrated here.

EN602A EN1091 EN822 EN695

# Rocker Switches-Double Pole *16A 250Vac*



**To create a 7 digit catalogue number:**
Refer to the 4 columns below, shaded in grey, starting with "Terminal Code".

**Examples** of products with their 10 digit numbers are illustrated opposite.
For other versions state the first 7 digits, then describe in words:
Rocker colour, Body colour, Matt or gloss finish, Rocker printing,
Voltage (for illuminated units, 100/125V marked 110V, or 200/250V marked 230).

Illuminated switches & indicators available with red, amber, green or clear lenses/rocks.

For High in-rush versions (1300 Series) see pages 20 and 21.

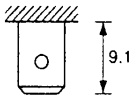
Switches have 3mm contact gap except where marked μ.
All switches suitable for class II appliances.
Most switches shown can be supplied with single pole switching in double pole bases.

♦ = Automatically assembled.
Additional technical data for this product range will be found on pages 2 and 3

16(4)A 250Vac T85 [10(3)A 250Vac T125 on application]
20A 28V dc
UL CSA 16A 250Vac
UL CSA (2 position) 250Vac 1hp, 125Vac ½hp
UL CSA (3 position) 250Vac ½hp, 125Vac ½hp
UL file no. E45221

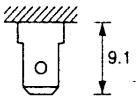
## ▷ TERMINAL CODE

**C**



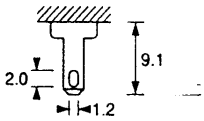

6.3 x 0.8

**H**



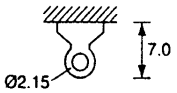

4.8 x 0.8

**K**



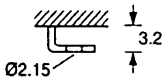

2.8 x 0.8

**T**



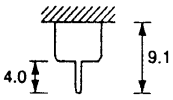

Solder tag

**U**




Solder tag

**X**




PCB terminal 0.8 Sq

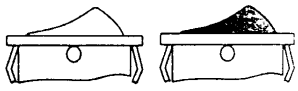
## ▷ SWITCH FUNCTION CODE

*Approvals and Ratings vary with function*

| | |
|---|---|
| **1550** ♦ | ON/OFF |
| **1551** HP Rating N/A | ON/OFF momen on |
| **1552** HP Rating N/A | ON/OFF momen off |
| **1553** ♦ | ON/OFF with light |
| **1560** ♦ μ | 2 position change-over |
| **1561** μ HP Rating N/A | 2 position change-over momentary |
| **1570** ♦ μ 250V 1/2HP 125V 1/4HP | 3 position change-over centre off |
| 13.5A ONLY **1571** μ HP Rating N/A | 3 position change-over centre off (momen 1 side) |
| 13.5A ONLY **1572** μ HP Rating N/A | 3 position change-over centre off (momen 2 sides) |
| 5A ONLY **1484** μ Further circuits available | 3 position selective OFF/A/A+B |
| **0480** X terminal N/A | Neon indicator |

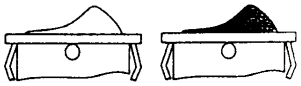
## ▷ ROCKER CODE

**A** Softline



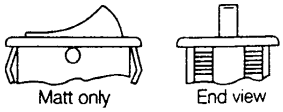
Matt only — Illuminated

**V** Curved



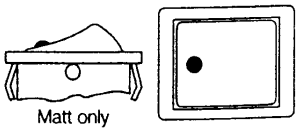
Matt or gloss — Illuminated Gloss only

**N** Slimline sub-panel rocker
(not for momentary)



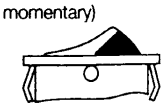
Matt only — End view

**P** Illuminated window



Matt only

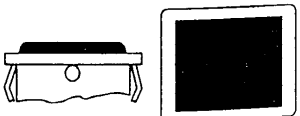
**X** Softline 2 Colour Rocker
(not for momentary)

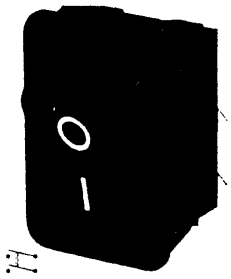


Matt only

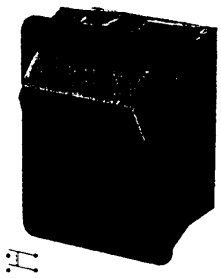
## LENS CODE

**A** Softline

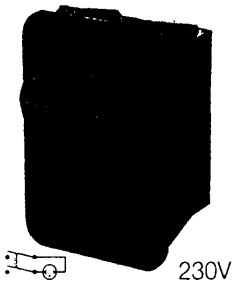




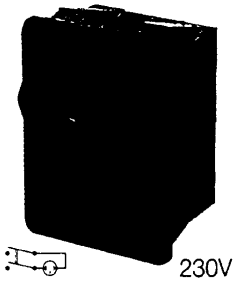
C1550AB AAF



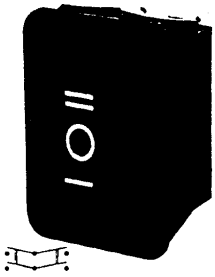
C1550XT AAA



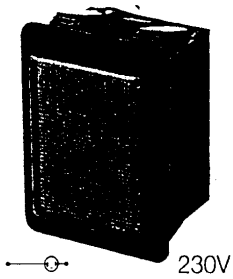

C1553AB NAE




C1553PT NAB



C1570AB AAH



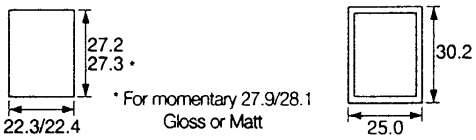

C0480AT NAE

Stock product. See pages 46 & 47.

## BODY CODE

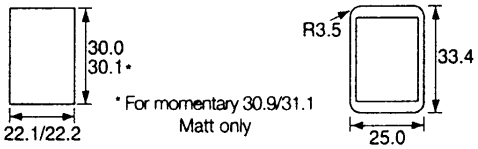
Panel cut-outs | Flanges

**A**



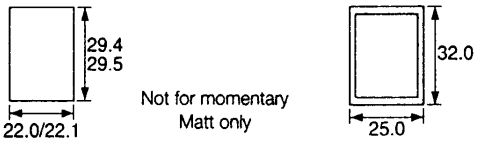

* For momentary 27.9/28.1 Gloss or Matt

**B**



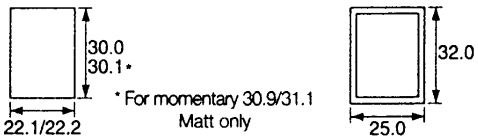

* For momentary 30.9/31.1 Matt only

**D**



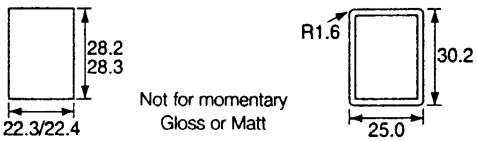

Not for momentary Matt only

**L**



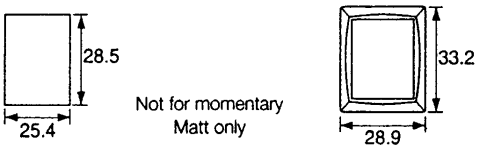

* For momentary 30.9/31.1 Matt only

**Q**



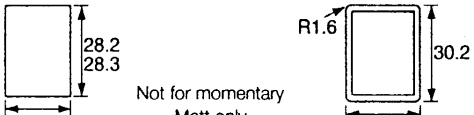

Not for momentary Gloss or Matt

**R**



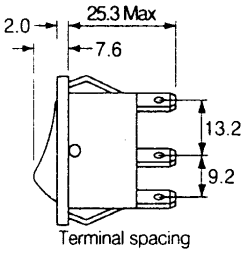

Not for momentary Matt only

**T**




Not for momentary

## DIMENSIONS




Terminal spacing
Poles 10.2 between centres

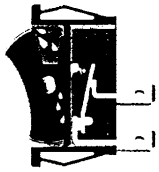
For snap-in fixing, panel holes must be punched in the same direction as the unit is to be fitted.

Panel thickness between:

| | |
|---|---|
| **A,Q** | 0.75 and 3.3mm. |
| **L,B,T** | 0.75 and 2.5mm. |
| **D** | 0.75 and 1.2mm. |
| **R** | 0.75 and 3.0mm. |

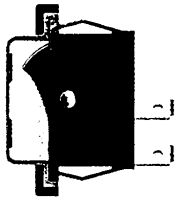
**Moisture resistant switches**

Certain switches can be assembled with an internal barrier for improved resistance to the ingress of water or dust. Applications should be discussed with Arcolectric.



**Moisture resistant covers (IP65)**

Snap on to A, L, Q or T bodies.
Add G after body code in catalogue number.
A panel sealing washer W42 is available.
Covers/washers reduce panel thickness range.
(not suitable for momentary types.)



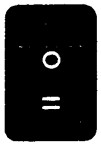
**An extensive range of legends are available.**

Some examples are illustrated here.

EN602A

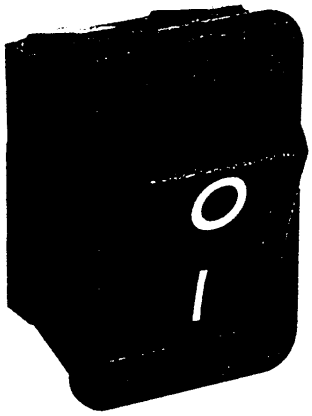
EN1091

EN822



EN695

# High Inrush Switches *150A to EN61058-1*



**To create a 7 digit catalogue number:**
Refer to the 4 columns below, shaded in grey, starting with "Terminal Code"

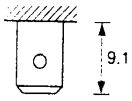
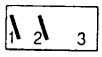
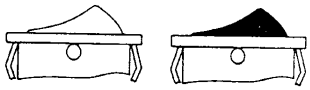
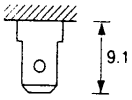
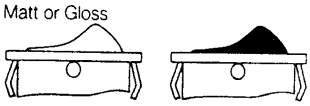
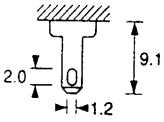
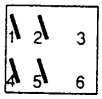
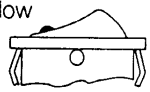
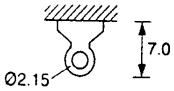
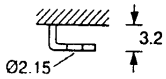
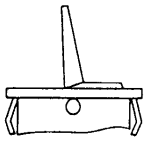
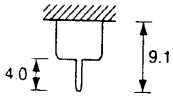
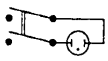
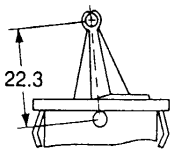
**Examples** of products with their 10 digit numbers are illustrated opposite.
For other versions state the first 7 digits, then describe in words:
Rocker colour, Body colour, Matt or gloss finish, Rocker printing,
Voltage (for illuminated units, 100/125V marked 110V, or 200/250V marked 230

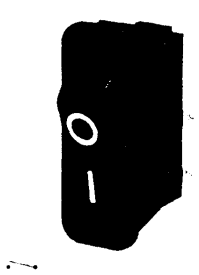
Illuminated switches are available with red, amber, green or clear lenses/rocker

All switches have 3mm contact gap.
All switches suitable for class II appliances.

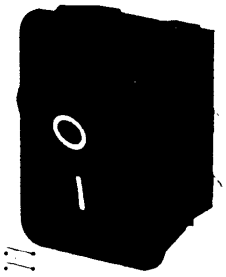
♦ = Automatically assembled.
Additional technical data for this product range will be found on page 2.

Ⓢ150A Inrush to EN61058-1
16(4)A 250Vac T85
20A 28Vdc
UL CSA 20A 250Vac
UL CSA 250Vac 1hp, 125Vac ½hp
UL file no. E45221

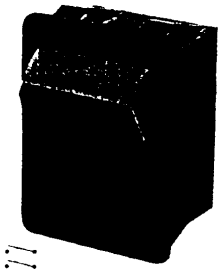
| TERMINAL CODE | SWITCH FUNCTION CODE | | | ROCKER CODE |
|---|---|---|---|---|
| **C**  6.3 x 0.8 | | *Approvals & ratings vary with function* |  | **A** Softline<br>Matt only<br>  <br>Illuminated DP only |
| **H**  4.8 x 0.8 | **1300 ♦**<br>16(6) T125+++ | Single pole<br>ON/OFF | | **V** Curved<br>Matt or Gloss<br>  <br>Illuminated DP only |
| **K**  2.8 x 0.8 | | *Approvals & ratings vary with function* |  | **P**<br>Illuminated window<br>Matt only<br>  |
| **T**  Solder tag | **1350 ♦**<br>16(4) T85* | Double pole<br>ON/OFF | | **X**<br>Softline<br>2 colour rocker<br>Matt only<br> |
| **U**  Solder tag | | *Rating 16(6) T125+++ is available on catalogue number C1350AL | | **J**<br>Lever<br>DP only Gloss only<br> <br>  |
| **X**  PCB terminal 0.8 Sq | **1353 ♦**<br>16(4) T85 | Double pole<br>ON/OFF<br>with light |  | **K**<br>Lever<br>DP only<br>Matt only<br>  |



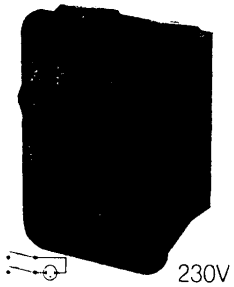
C1300AB AAA



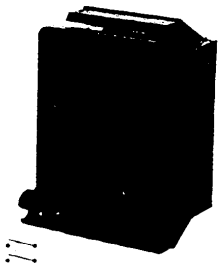
C1350AB AAB



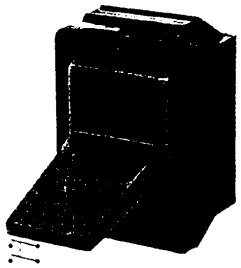
C1350XT AAA



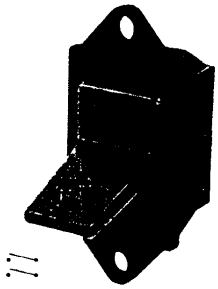

C1353AB NAI



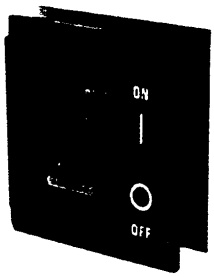
C1350KQ AAB



C1350JQ AAB



C1350JS AAA

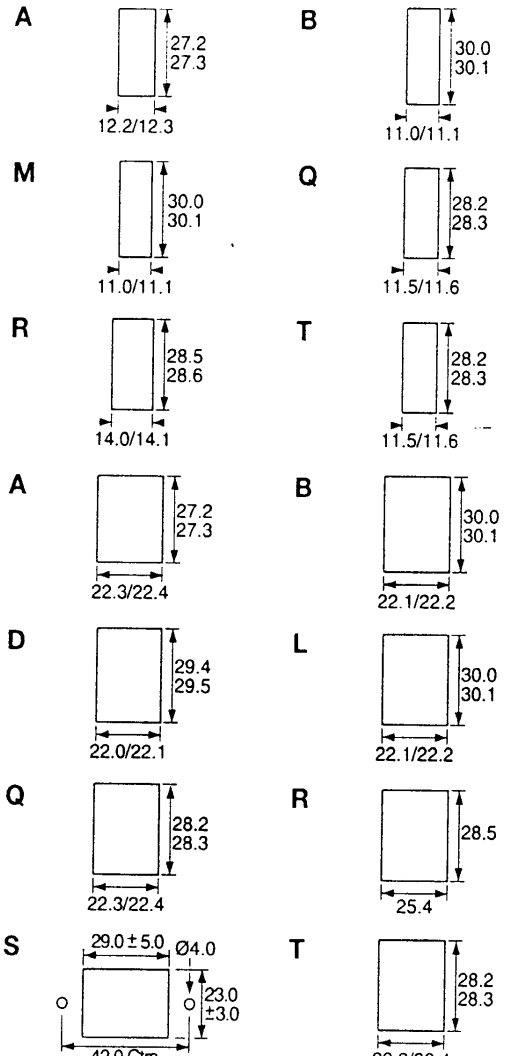



Example of possible J lever application

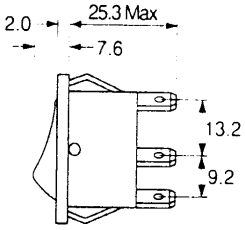
Stock product. See pages 46 & 47.

## BODY CODE

Single and Double Pole cut-outs




## DIMENSIONS



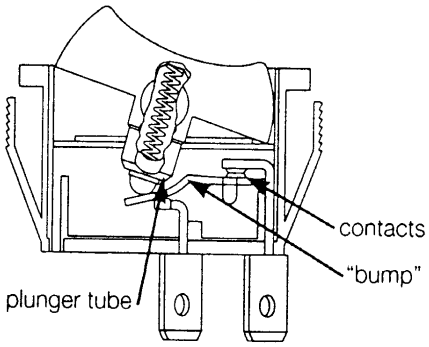

Terminal spacing
Poles 10.2 between centres

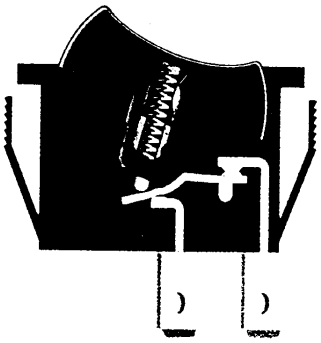
For snap-in fixing, panel holes must be punched in the same direction as the unit is to be fitted. Panel thickness between:

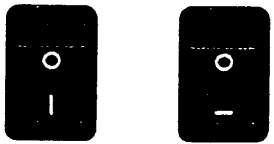
**Single Pole** 0.75 and 2.5mm.
**Double Pole A,Q** 0.75 and 3.3mm.
**B,T** 0.75 and 2.5mm.
**D** 0.75 and 1.2mm.
**R** 0.75 and 3.0mm.

### Positive Break Switching - 1300 and 1350 series

Is necessary to ensure reliable isolation when high inrush currents exist. This simple mechanical system ensures that contact welds formed when switching on, are positively separated by the plunger tube acting directly on the moving contact "bump".



**Moisture resistant covers**
To fit A, L, Q, and T bodies.
Details of these products can be found on pages 11, 15 & 17.

**Legends are available.**
Examples are illustrated here.