

Pushbutton

Types Compact 2 Micro - US89, US90, US90-15, US91 and US91-15

Publication Number PB124/0508

Application

Dewhurst illuminated legend pushbuttons ensure a bright wide angle view in all lighting conditions and includes in the range tactile and Braille buttons to aid the visually impaired. Compact 2 Micro is ideal for use in all types of lifts and similar installations including those which may be exposed to heavy duty or vandalism.

Dewhurst supplies elongated versions of the US91 pushbutton which are designed for lift applications which require thicker faceplates of up to 14mm.

Operation

Operation of the pressel activates a patented switch technology called PushGate™, a revolutionary magnet switch, having no parts that can fatigue. Illumination of the LED illuminator produces a halo of light between the pressel and its bezel via the patented hidden recess that encircles the pressel and illuminates the legend. Standard illumination is by 12V or 24V LED illumination. Single and dual illumination options are available - Single = full brightness, Dual = dim brightness and full brightness.

Installation

The pushbutton is securely held to the back of the faceplate by 2 off M4 x 16LG weldstuds, washers and nuts.

Compact 2 Micro Pushbuttons can be supplied loose, or incorporated into stations with 1.5mm or 2.5mm stainless steel faceplates, with a vertical pitch of 50mm** or 57mm** and horizontal pitch of 60mm. If pushbuttons are supplied loose, spacers are provided to accommodate the differing faceplate thickness.

**Dependant on connector orientation.

Technical details

| | |
|---|---|
| Weight | 60grms |
| Moulded in | high grade polycarbonate |
| Environmental protection | IP54 (frontal presentation) |
| Pressel plate | brushed 304 stainless steel (standard) |
| LED Current | 20mA (typically) |
| LED Colours | Single & dual - red, green, blue, white, yellow. Bi-colour - white/blue & white/red |
| LED Voltage | 12/24V a.c./d.c. ±15% |
| Various connector options available (AMP-HE14 & MTA100, JST-XH, Camden Screw) | |

Standards and Codes

Designed to meet the requirements of BS CECC 96400:Pushbutton switches where relevant EN81-1/2.

Rating

30V d.c. at 50mA max. resistive loads - min. no. of operations : 5 x 10⁶

24V d.c. at 20mA max. resistive loads - min. no. of operations : 5 x 10⁶

12V d.c. at 5mA max. resistive loads - min. no. of operations : 5 x 10⁶

Power 2.5 watts (max.)

Contact arrangements 1 N/O***

***For other contact arrangements or higher ratings, use either a Compact 2 Pushbutton or a Compact 2 Micro Relay Board (e.g. Alarm, Door Open, Door Closed, etc.). Please refer to PB111/PB137 for Compact 2 and PB140 for the Relay Board.

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Contact your local sales office:

| | | | | | |
|------------------|-------------------------------------|-----------------|-----------------|-----------------------|----------------------|
| Australia | D Australian lift components | t 02 9603 0200 | f 02 9603 2700 | info@alc.au.com | www.alc.au.com |
| | D lift material | t 02 9310 4288 | f 02 9698 4990 | info@liftmaterial.com | www.liftmaterial.com |
| Canada | D dupar controls | t 519 624 2510 | f 519 624 2524 | info@dupar.com | www.dupar.com |
| UK | D LiftStore | t 020 8538 1770 | f 020 8538 1771 | info@liftstore.com | www.liftstore.com |
| USA | D the fixture company | t 847 214 3100 | f 847 214 2771 | info@thefixtureco.com | www.thefixtureco.com |

Marking

A large range of legends in Helvetica Medium characters and symbols are available, please refer to our website.

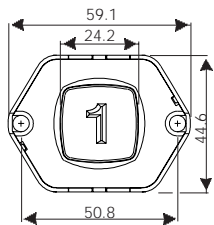
Tactile legends are formed during the moulding of the pressel body and are in opal 13mm high characters.

Flush legends are formed during the moulding of the pressel body and are in opal 13mm high characters.

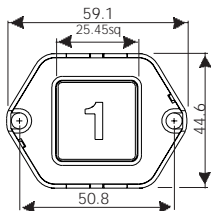
The Braille style legends are 15mm high and protruding by 1mm characters, with pressel body moulded in opal.

PushGate™ technology is a patented design of **DURASWITCH**

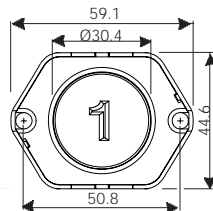
Patent Nos: US PAT nos. 5,523,730; 5,666,096; 5,867,082; 5,990,772; 6,130,593; 6,069,545; 6,023,213; 6,069,552; 6,137,387; 6,262,646 Chinese PAT no. ZL96110385.X
Taiwanese PAT No. NI090979 Australian PAT No. 727962 UK Patent Pending.



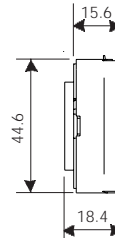
US89 (TACTILE)



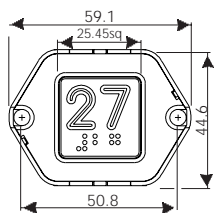
US90 (FLUSH)



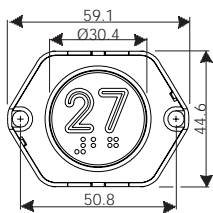
US91 (TACTILE)



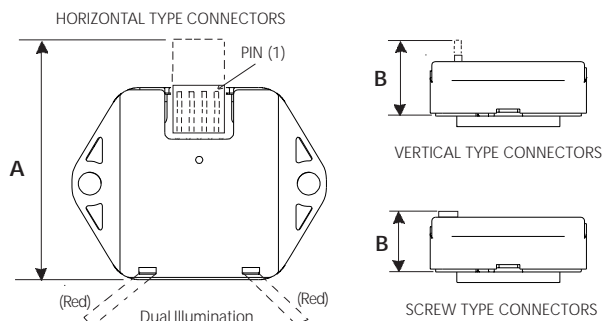
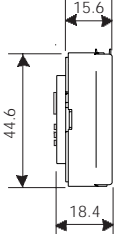
All dimensions in mm



US90-15 (BRAILLE)



US91-15 (BRAILLE)



CIRCUIT TYPE

| TYPE I | TYPE II | TYPE III | DUAL ILLUMINATION ** |
|---|---|---------------------|---|
| XH (3 WAY) [SCHINDLER] OR SCREW (3 WAY) | XH (4 WAY) OR SCREW (4 WAY) OR MTA100 (4 WAY) [THYSSEN] | HE14 (4 WAY) [OTIS] | For dual illumination, connect the two red leads from the body to a permanent power supply. Voltage same as full illumination (not polarity sensitive). |
| | | | |

| CONNECTOR OPTIONS (ON BUTTON PCB) | | | | | | CIRCUIT TYPE | DIMENSIONS | | RECOMMENDED FEMALE CONNECTOR* | |
|-----------------------------------|---|-------------|----------------|---------------|--------|--------------|------------|--|-------------------------------|--------|
| TYPE | ORIENTATION <small>Landing buttons have horizontal connectors All other buttons have vertical connectors</small> | NO. OF PINS | VENDOR PART N° | DEWHURST CODE | VENDOR | | A | B | VENDOR PART N° | VENDOR |
| XH | HORIZONTAL (90°) | 3 WAY | S 3B-XH-A | JST3 | JST | I | 53 | NR(O*NR-E6S) or HR(O*HR-65) or NRB(O*NR-D6S) * Insert 3 for 3-way or 4 for 4-way | JST | |
| | | 4 WAY | S 4B-XH-A | JST4 | | II | 53 | | | |
| | VERTICAL (0°) | 3 WAY | B 3B-XH-A | JST3 | | I | - | | | 23 |
| | | 4 WAY | B 4B-XH-A | JST4 | | II | - | | | 23 |
| HE14 | HORIZONTAL | 4 WAY | 0281695-4 | AMP4 | AMP | III | 55 | 0281786-4(180°) or 0281711-4(90°) | AMP | |
| | VERTICAL | | 0281698-4 | | | III | - | | | 32 |
| MTA100 | HORIZONTAL | 4 WAY | 640457-4 | MTA4 | AMP | II | 54 | 640442-4(END) or 640622-4 (THROUGH) | AMP | |
| | VERTICAL | | 640456-4 | | | II | - | | | 30 |
| SCREW | HORIZONTAL | 4 WAY | CBT0305/4 | SCR4 | CAMDEN | II | - | 18 | N/A | N/A |
| | | 3 WAY | CBT0305/3 | SCR3 | | I | | | | |

*Other connector part numbers are available for different arrangements and cable sizes.

PART NUMBER ORDERING

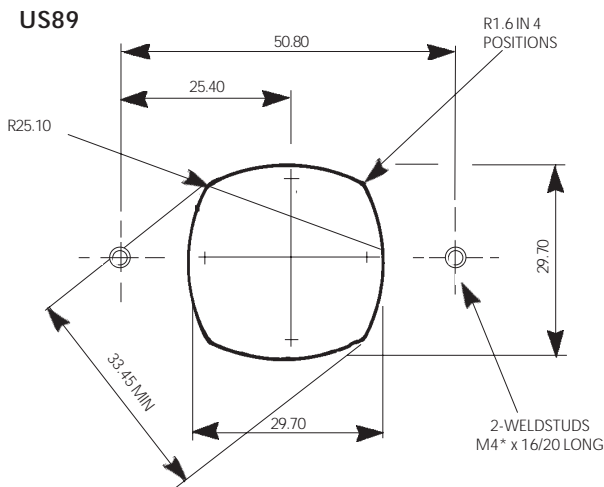
Example
US91-15C2M - SS / SCR4-R-24L =

STYLE = Round, tactile and Braille
FINISH = Stainless Steel finish
PCB = SCR4 connector 24V LED's Red Single illumination

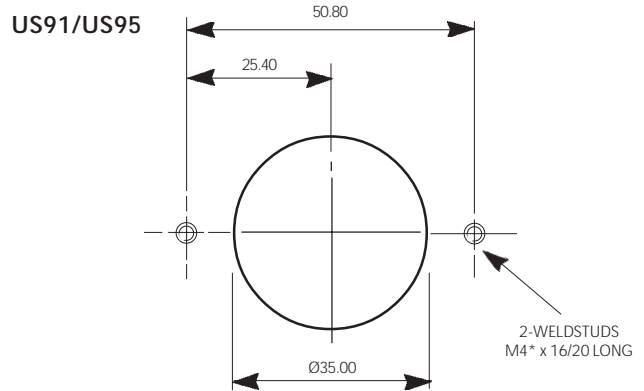
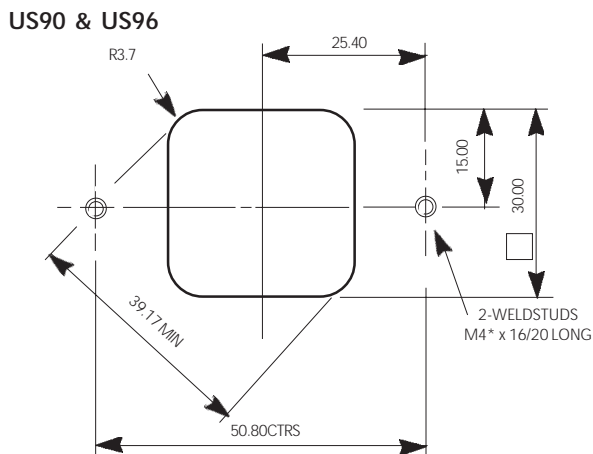
| PRESSEL | |
|-----------------------------------|----------------------|
| STYLE | FINISH |
| C2M | - |
| 89 = Barrel, tactile | SS = Stainless Steel |
| 90 = Square, flush | MS = Mirrored Steel |
| 90-15 = Square, tactile & Braille | SB = Standard Brass |
| 91 = Round, tactile | MB = Mirrored Brass |
| 91-15 = Round, tactile & Braille | |

| PCB | | |
|--|--|---|
| CONNECTOR TYPE | LEGEND COLOUR | INDICATION |
| SCR4 SCR3 JST4 JST3 AMP4 MTA4 | R = Red G = Green B = Blue W = white Y = Yellow W/B = White/Blue W/R = White/Red | 24L = 24V LED 12L = 12V LED 24D = 24V Dual 12D = 12V Dual 24I = 24V Bi-colour - (only avble screw) |

Cutouts and stud positions



* 2-WELDSTUDS
M4 X 16 LONG FOR COMPACT 2 MICRO
PUSHBUTTONS



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