



For other options or further information please contact your local sales office.

## Product Profile

The W.series mechanical tactile keyboards are designed to operate in hostile environments, making them ideal for applications in industrial and public areas.

Technical data see page 118

Technical drawings see pages 119-120

- All metal construction (chromed Zamak keys and brushed stainless steel for the front plate)
- Laser engraving ensuring good and long term legibility
- High resistance to vandalism: up to 10J
- Anti pull-off keys
- Sealed against liquid penetration to IP67
- Top or back mounting
- PS2 or USB connection
- Environment: PS2, Win NT4, 98 SE, ME, 2000 PRO Pack II, XP
- With or without pointing device: Standard or optical trackball and touchpad
- Available in different language layouts with standard or customised markings

## Rugged mechanical keyboard



Alphanumeric keyboard, back mounting, 63 keys, layouts in English, German, French and US English

Part No.	Language	Output type
W.630KW.S10	English	PS2
W.630DW.S10	German	PS2
W.630FW.S10	French	PS2
W.630UW.S10	US English	PS2
W.630KW.U10	English	USB
W.630DW.U10	German	USB
W.630FW.U10	French	USB
W.630UW.U10	US English	USB



Alphanumeric keyboard, top mounting, 63 keys, layouts in English, German, French and US English

Part No.	Language	Output type
W.630KW.S11	English	PS2
W.630DW.S11	German	PS2
W.630FW.S11	French	PS2
W.630UW.S11	US English	PS2
W.630KW.U11	English	USB
W.630DW.U11	German	USB
W.630FW.U11	French	USB
W.630UW.U11	US English	USB

## Rugged mechanical keyboard



Alphanumeric keyboard, stainless steel trackball, 2 clicks, back mounting, 65 keys, layouts English, German, French and US English

Part No.	Language	Output type
W.65BKW.S10	English	PS2
W.65BDW.S10	German	PS2
W.65BFW.S10	French	PS2
W.65BUW.S10	US English	PS2
W.65BKW.U10	English	USB
W.65BDW.U10	German	USB
W.65BFW.U10	French	USB
W.65BUW.U10	US English	USB



Alphanumeric keyboard, stainless steel trackball, 2 clicks, top mounting, 65 keys, layouts English, German, French and US English

Part No.	Language	Output type
W.65BKW.S11	English	PS2
W.65BDW.S11	German	PS2
W.65BFW.S11	French	PS2
W.65BUW.S11	US English	PS2
W.65BKW.U11	English	USB
W.65BDW.U11	German	USB
W.65BFW.U11	French	USB
W.65BUW.U11	US English	USB

For other options or further information please contact your local sales office.



Product Profile

The W.series is a high quality, vandal resistant keypad range especially designed to meet the needs of banking markets, public environment applications and other industrial -applications.

Technical data see page 118  
 Technical drawings see pages 119-120

- High impact resistance up to 10J
- All metal construction (chromed Zamak keys and brushed stainless steel for the front plate)
- Anti pull-off keys
- IP67 sealing when mounted
- 4 or 16 or 20 key versions
- Illuminated versions available

Rugged keypad



Keypad with 4 blank keys



Keypad, 4 keys engraved with black paint in-fill

Part No.	Contact terminals	Part No.	Contact terminals
W.04000.P01	Pin Header	W.0400X.038	Pin Header

Rugged keypad



Keypad, 4 yellow illuminated keys



Customised keypad capabilities

Part No.	Contact terminals	
W.0400X.016	Pin Header	

Customisation possible for layouts and key markings.  
 For further details please contact your local sales office.

## All in series

### Material

#### Front plate

Brushed stainless steel 304 L, brushed grain 220 grade 2B

#### Keys

Zamak 5 with matt chrome finish

#### Printed circuit board

Epoxy resin (FR4), as per UL 94 V0

#### Contacts

Carbon pill

Carbon on Cu tracks

#### Trackball

Ball diameter 1.5"

Resolution : 800 edges per revolution

Standard (opto-mechanical) : Stainless steel

#### Housing - 4 key keyboard

Acryl nitril - Butadier - Styrol (ABS) as per UL94V0

### Mechanical characteristics

#### Tightening torque

50 Ncm for studs, front- and back mounting

#### Actuating force

1 N ... 3 N for single key 12 x 12 mm

3 N ... 4 N for double key 12 x 31 mm

#### Actuating travel

1.5 mm ±0.3 mm - Keyboards

1.3 mm ±0.3 mm - 4 and 16 key keyboards

#### Mechanical lifetime (keys)

4 Million cycles of operation per key

### Electrical characteristics - keyboards

#### Operating voltage/-current

Operating voltage : 5 VDC ±5 %

Current rating : 20 mA

#### Interface

	PS/2	USB
Windows :	Win NT4	
	98SE   ME	98SE   ME
	2000 Pack II	2000 Pack II
	XP Pro	XP Pro

Note : EAO cannot guarantee a full compatibility with every computer configuration. It is therefore recommended that prior investigation is carried out.

#### EMC approved, as per

EN 50081-1 Emission (residential environment)

EN 50082-1 Immunity (residential environment)

FCC part 15, class B

EN 60950 Safety

#### Electric strength

500 VAC, 50 Hz, 1 min.

### Electrical characteristics - 4 key and 16 key keyboards

#### Operating voltage/-current

Nominal 5 V, 5 mA

Maximum voltage 24 V

Minimum voltage 0.5 V

Minimum current 0.1 mA

#### Illumination

Current consumption for single LED :

20 mA at 2.1 V (yellow and green)

20 mA at 1.9 V (red)

10 mA at 3.4 V (blue)

#### Isolation resistance

≥1000 MΩ at 100 VDC

#### Contact resistance

≤200Ω

#### Electrostatic breakdown value

5 kV

#### Electric strength

1500 V<sub>rms</sub>, 50 Hz, 1 min., as per EN IEC 60512-2

### Environmental conditions - keyboards only

#### Storage temperature

-40 °C ... +85 °C

#### Operating temperature

PS/2 : -20 °C ... +80 °C

USB : 0 °C ... +70 °C

#### Front protection

IP 67

### Environmental conditions - keyboard with trackball

#### Storage temperature

Standard Track ball

PS/2 | USB : -40 °C ... +85 °C

#### Operating temperature

Standard Track ball

PS/2 : -10 °C ... +70 °C

USB : 0 °C ... +70 °C

#### Front protection

Standard Track ball :

static      dynamic

IP 65      IP 54

### Environmental conditions - 4 key and 16 key keyboards

#### Storage temperature

-30 °C ... +85 °C

#### Operating temperature

-25°C ... +85°C

#### Impact resistance

IK09 (10 J)

#### Shock resistance

(semi-sinusoidal)

3 axis, 150 m/s<sup>2</sup>, pulse width 11 ms, as per EN IEC 60512-4

#### Vibration resistance

(sinusoidal)

5 Hz ... 200 Hz, as per EN IEC 60512-4

#### Climate resistance

as per EN IEC 60512-6

Damp heat : 21 days

Dry heat : 10 days, +85°C

Saline mist : 96 hours

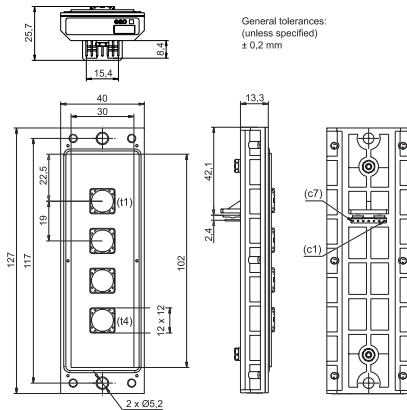
### Approvals

CE (Declaration of conformity)

FCC certified - keyboards only

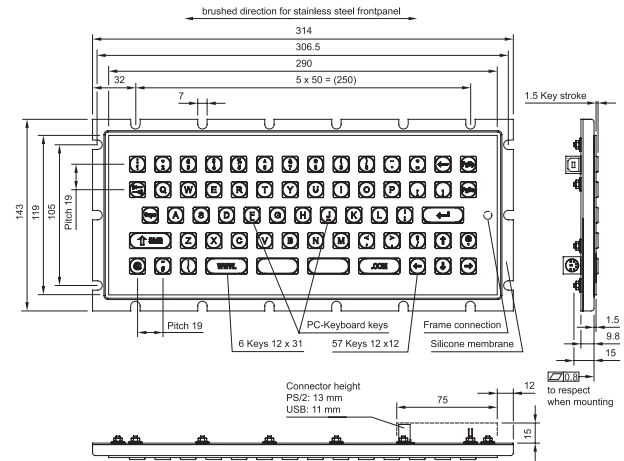
## W.series Keypad

Keypad 4 Keys Blank, 4 Keys Arrows, 4 Keys Illuminated A-D



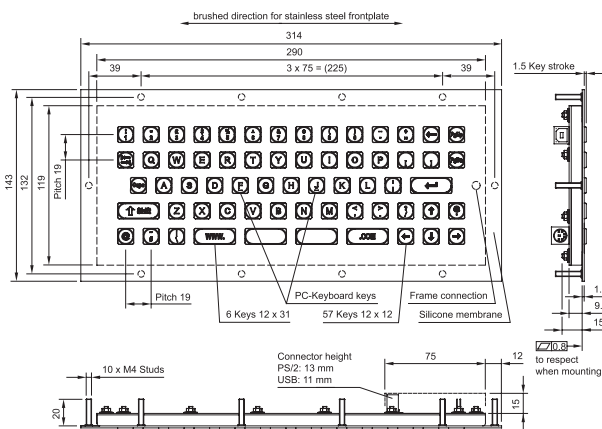
## W.series Keyboard

Alphanumeric Mechanical 63 Keys Back Mount



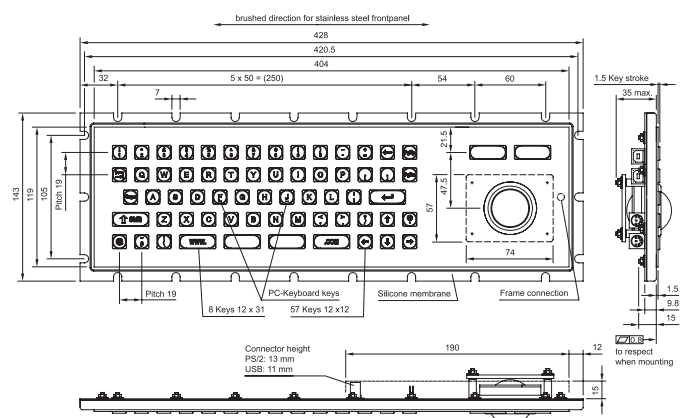
## W.series Keyboard

Alphanumeric Mechanical 63 Keys Top Mount



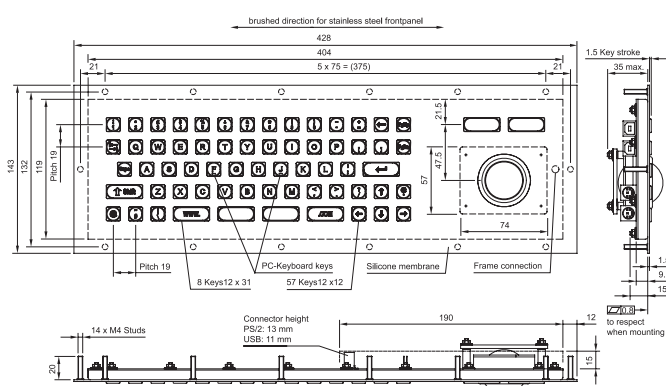
## W.series Keyboard

Alphanumeric Mechanical 65 Keys Back Mount



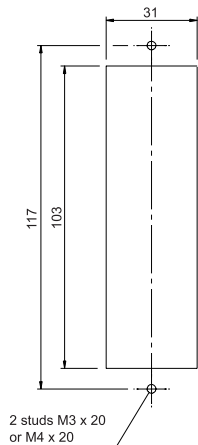
## W.series Keyboard

Alphanumeric Mechanical 65 Keys Top Mount



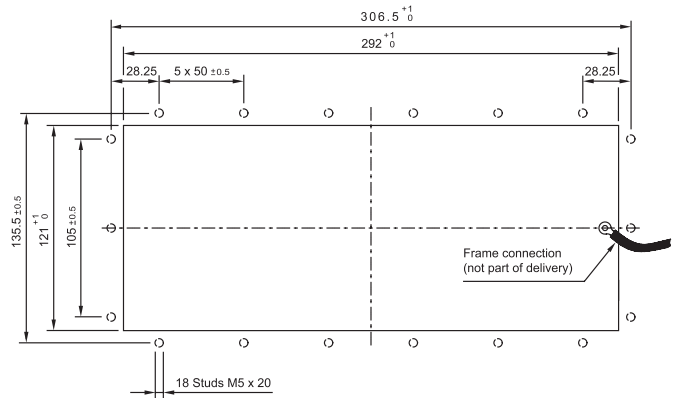
## W.series Keypad Cut-outs

1x4 keypad



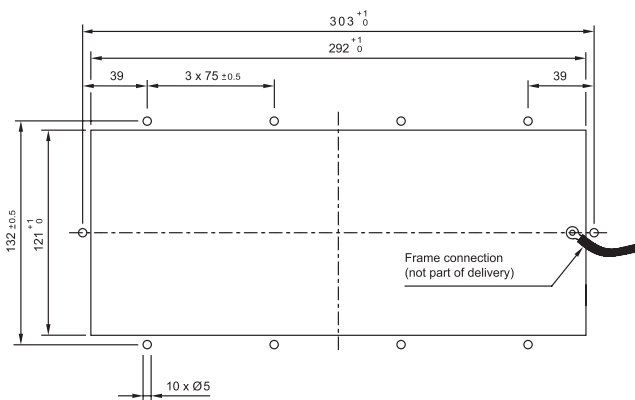
## W.series Keyboard Cut-outs

Alphanumeric Mechanical 63 Keys Back Mount



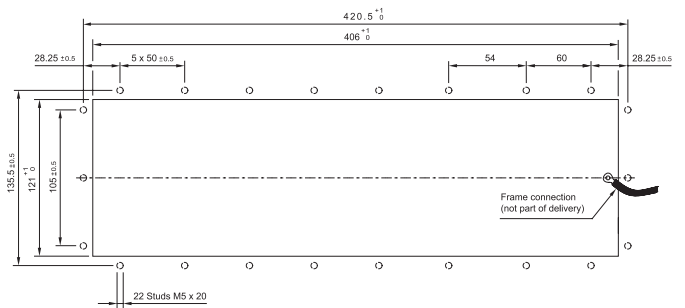
## W.series Keyboard Cut-outs

Alphanumeric Mechanical 63 Keys Top Mount



## W.series Keyboard Cut-outs

Alphanumeric Mechanical 65 keys Back Mount



## W.series Keyboard Cut-outs

Alphanumeric Mechanical 65 keys Top Mount

