

### Technical Specifications

## HP USB Business Slim Smartcard Keyboard

### Models

HP USB Business Slim Smartcard Keyboard

Z9H48AA

### Compatibility

The HP USB Business Slim Smartcard Keyboard is compatible with HP ProDesk 400 G4 SFF, HP ProDesk 400 G4 MT, HP ProDesk 400 G3 DM (Mini), HP ProOne 400 G3 AIO Touch, HP ProOne 400 G3 AIO Non-Touch, HP ProDesk 600 G3 MT, HP ProDesk 600 G3 SFF, HP ProDesk 600 G3 Desktop Mini, HP ProOne 600 G3 AIO 21.5" Non-Touch, HP EliteDesk 800 G3 TWR, HP EliteDesk 800 G3 SFF, HP EliteDesk 800 G3 35W Desktop Mini, and HP EliteDesk 800 G3 65W Desktop Mini.

**NOTE:** Not all models are available in all regions.

### Service and Support

Your Option Limited Warranty is a one (1) year (HP Option Limited Warranty Period) parts replacement warranty on any HP-branded or Compaq-branded options (HP Options). If your HP Option is installed in an HP Hardware Product, HP may provide warranty service either for the HP Option Limited Warranty Period or the remaining Limited Warranty Period of the HP Hardware Product in which the HP Option is being installed, whichever period is the longer but not to exceed three (3) years from the date you purchased the HP Option.

|                                 |                           |                                                      |
|---------------------------------|---------------------------|------------------------------------------------------|
| <b>Physical Characteristics</b> | Keys                      | 104, 105, 109 layout<br>(depending upon country)     |
|                                 | Dimensions<br>(H x W x D) | 17.34 x 5.68 x 0.78 in (440.6 x 14.45 x 1.98 cm)     |
|                                 | Weight                    | 1.32 lb (0.6± 0.1 kg)                                |
| <b>Electrical</b>               | Operating voltage         | 5V                                                   |
|                                 | Power consumption         | 200 mA                                               |
|                                 | System interface          | USB Interface                                        |
|                                 | ESD                       | Air 12.5kV / Contact 8kV                             |
| <b>Mechanical</b>               | EMI - RFI                 | under 3dB                                            |
|                                 | Microsoft PC 99 - 2001    | Conforms to FCC rules for a Class B computing device |
|                                 | Keycaps                   | Low-profile design                                   |
|                                 | Switch actuation          | 60±15g nominal peak force with tactile feedback      |
|                                 | Switch life               | 10 million keystrokes (Life tester)                  |
|                                 | Switch type               | Contamination-resistant switch membrane              |
| <b>Environmental</b>            | Key-leveling mechanisms   | For all double-wide and greater-length keys          |
|                                 | Cable length              | 6 ft (1.8 m)                                         |
|                                 | Acoustics                 | 43-dBA maximum sound pressure level                  |
|                                 | Operating temperature     | 50° to 122° F (10° to 50° C)                         |
|                                 | Non-operating temperature | -22° to 140° F (-30° to 60° C)                       |
|                                 | Operating humidity        | 10% to 90% (non-condensing at ambient)               |
|                                 | Non-operating humidity    | 20% to 80% (non-condensing at ambient)               |
|                                 | Operating shock           | 40 g, six surfaces                                   |
|                                 | Non-operating shock       | 80 g, six surfaces                                   |
|                                 | Operating vibration       | 2-g peak acceleration                                |
| Non-operating vibration         | 4-g peak acceleration     |                                                      |

### Technical Specifications

|                              |                                                                    |                                                                                                                                                               |                                |
|------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
|                              | Drop (out of box)                                                  | 26 in (66 cm) on carpet, six-drop sequence                                                                                                                    |                                |
|                              | Drop (in box)                                                      | 30 in (76.2 cm) on concrete, 16-drop sequence                                                                                                                 |                                |
| <b>SmartCard Function</b>    | Support Interface                                                  | All ISO 7816 smart cards<br>Reads from and writes to all ISO7816-1, 2, 3, 4 memory and microprocessor smart cards (T=0, T=1)                                  |                                |
|                              | Chipset                                                            | IDENTIVE CLOUD 2190 F                                                                                                                                         |                                |
|                              | Standard APIs supported                                            | PC/SC, EMV2000, CT-API                                                                                                                                        |                                |
|                              | Power                                                              | USB Port<br>Short circuit detection (protects smart card and reader)<br>Power supply compliant with ISO7816 and EMV (5V, 60 mA)<br>Supports 3-V and 5-V cards |                                |
|                              | Power consumption                                                  | 100-mA maximum draw                                                                                                                                           |                                |
|                              | Communication                                                      | From card                                                                                                                                                     | 9600 bps to 330,000 bps        |
|                              |                                                                    | From computer                                                                                                                                                 | 12 Mbps (USB transfer speed)   |
|                              | Landing mechanism                                                  | Contact device                                                                                                                                                | Friction contact               |
|                              |                                                                    | Card insertions rating                                                                                                                                        | Up to 100,000 insertion cycles |
|                              | Interface modes                                                    | CCID protocol                                                                                                                                                 |                                |
| Reader performance interface | USB connection                                                     |                                                                                                                                                               |                                |
| Electro-magnetic standards   | Europe                                                             | 2004/108/EC                                                                                                                                                   |                                |
|                              | USA                                                                | USAFCC part 15                                                                                                                                                |                                |
| <b>Approvals</b>             | CE Marking; TUV; EAC; FCC; cULus/CSAus; ICES; RCM; VCCI; KCC; BSMI |                                                                                                                                                               |                                |
| <b>Ergonomic Compliance</b>  | ISO 9241-410, TUV GS                                               |                                                                                                                                                               |                                |
| <b>Kit Contents</b>          | Keyboard, I/O Security and Documentation CD, warranty card         |                                                                                                                                                               |                                |

© Copyright 2017 HP Development Company, L.P. All rights reserved.

The information contained herein is subject to change without notice. The only warranties for HP products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

### *Technical Specifications*

| <b>Date of change:</b> | <b>Version History:</b> |  | <b>Description of change:</b> |
|------------------------|-------------------------|--|-------------------------------|
|                        |                         |  |                               |
|                        |                         |  |                               |
|                        |                         |  |                               |