



## **FEATURES**

- Vandal-proof protection of switching element by mechanical end stop of metal actuator
- Functional principle protected by utility model
- Long lifetime due to high mechanical load capacity
- Pleasant tactile feedback
- Wide range of possible designs

| Туре                                   |             | Metallic Panel PCB | Metallic Panel flex | Metallic Trackball |
|----------------------------------------|-------------|--------------------|---------------------|--------------------|
| Electrical Data                        |             |                    |                     |                    |
| Switching Voltage min.                 | [VDC]       | 20                 | 20                  |                    |
| Switching Voltage max.                 | [VDC]       | 30 / 42            | 30 / 42             |                    |
| Operating Voltage of Interface         | [VDC]       |                    |                     | 5                  |
| Switching Current min.                 | [mA]        | 0.1                | 1                   |                    |
| Switching Current max.                 | [mA]        | 100                | 50                  | 12                 |
| Lifetime electrical                    | [mill.]     | 2                  | 1                   | 2                  |
| Rated Breaking Capacity                | [W]         | 1                  | 0.6                 |                    |
| Insulation Resistance                  | <b>[MΩ]</b> | > 100              | > 100               |                    |
| Dielectric Strength                    | [V]         | 500                | 500                 |                    |
| Duration of Bounce                     | [ms]        | < 5                | < 5                 |                    |
| Mechanical Data                        |             |                    |                     |                    |
| Actuating Force                        | [N]         | 3                  | 3                   |                    |
| Actuating Travel                       | [mm]        | 0.45               | 0.45                |                    |
| Lifetime mechanical                    | [mill.]     | 2                  | 2                   | 2                  |
| IK Protection Class (Shock Protection) | [IK]        | IK 07              | IK 07               |                    |
| Climatical Data                        |             |                    |                     |                    |
| Operating Temperature                  | [°C]        | -25 to +85         | -25 to +85          | -10 to +55         |
| Storage Temperature                    | [°C]        | -40 to +85         | -40 to +85          | -20 to +80         |
| IP Protection Class Front Side         | [IP]        | IP 40              | IP 40               | IP 65 static       |
| IP Protection Class Contact Area       | [IP]        | IP 65              | IP 65               |                    |
| Other Data                             |             |                    |                     |                    |
| Lettering                              |             | Laser Lettered     | Laser Lettered      |                    |



In addition to the standard types, additional versions as well as laser lettering are available on request. Starting with catalogue page 36 you will find an overview of the various designs.







**Trackball Unit** 

12 key keypad

16 key keypad

| Characteristics            |                                                      |                                |                                |
|----------------------------|------------------------------------------------------|--------------------------------|--------------------------------|
| Mounting Dimensions [mm]   | 80.5 x 95.5                                          | 67.2 x 100.5                   | 100.5 x 100.5                  |
| Type Metallic Panel        | Metallic Trackball                                   | Metallic Panel flex            | Metallic Panel flex            |
| Mounting Style             | Rear Mounting                                        | Front Mounting                 | Front Mounting                 |
| Material Front Panel, Keys | Stainless Steel                                      | Stainless Steel                | Stainless Steel                |
| Material Contacts          |                                                      | Silver + Carbon                | Silver + Carbon                |
| Trackball / Touchpad       | Ball Diameter 38 mm,<br>Colour black, IP 65          |                                |                                |
| Terminal                   | Mini DIN for PS/2 Interface<br>or JST Connector      | AMP Jack Contacts<br>R-2.54 mm | AMP Jack Contacts<br>R-2.54 mm |
| Lettering                  | Standard Lettering / Customized Lettering on request |                                |                                |

| Order Number          |               |           |           |  |  |
|-----------------------|---------------|-----------|-----------|--|--|
| Interface / Lettering |               |           |           |  |  |
| PS/2                  | 1041.5000.500 |           |           |  |  |
| USB                   | 1041.5000.501 |           |           |  |  |
| Numeric Keypad        |               | 1041.3500 |           |  |  |
| German                |               |           | 1041.3000 |  |  |
| English               |               |           | 1041.3100 |  |  |

## Drawing

A Mounting Frame B Trackball C Touchpad





