

## → Modules with alphanumeric keys

# FREE

→ All modules have a combination of programmable and qwerty keys, each of which is programmable in four layers. The qwerty section is pre-programmed with qwerty content in two layers, but is changeable. The keyboard is available in different national layouts with printed covers for the qwerty section.



### → TM-KMQ-128A

Ordering code: TM-KMQ-128A

→ A module whose qwerty section occupies the lower 5 rows, and whose upper section of 3 rows comprises 48 keys with transparent covers.

: Connection:  
Two internal Tipro bus connectors (left and right side)

: Power consumption: 15 mA<sub>TYP</sub>  
: Dimensions:  
329 x 222 x 42 mm,  
weight 1200 g  
: Packaging dimensions:  
395 x 255 x 85 mm,  
weight 1520 g  
: Package content:  
keyboard, national cover set, transparent covers for single keys

### → Mini Touchpad & Smartcard Reader

#### → Mini Touchpad

The mini touchpad is a small touchpad with the size and shape of a quadruple key.  
: Factory built-in option  
: Replaces 2x2 keys  
: Left and right mouse buttons integrated  
: Plug and play  
: Extra features like scrolling when touchpad driver installed

#### → Smartcard Reader

The smartcard reader can be integrated in FREE keyboards with 128 or 96 keys.  
: Connection:  
USB (to the hub of the Tipro USB controller)  
: Card acceptor with landing contacts  
: Compliant with all major Smart Cards in the market  
: T=0, T=1 protocol support  
: Supports ISO 7816 Class A and AB smart cards  
: API: PC/SC, CT-API, OCF on request  
: WHQL and EMV Level 1 Certified  
: Factory built-in option (for 128 and 96 key modules)

### → Keyswitches

#### → Long travel keyswitches

: Type: Cherry MX  
: Key travel: 4<sup>+0,0/</sup><sub>-0,4</sub> mm  
: Lifetime: 1×10<sup>9</sup> operations (typical)  
: Actuating force: 60 ± 20 cN  
: Contact material: AuAg10

