



Distribución de componentes eléctricos y electrónicos

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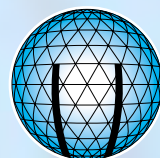
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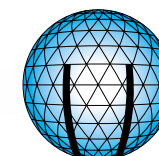
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a world of switching capabilities

# STAINLESS STEEL KEYBOARDS

## FOR HARSH ENVIRONMENTS



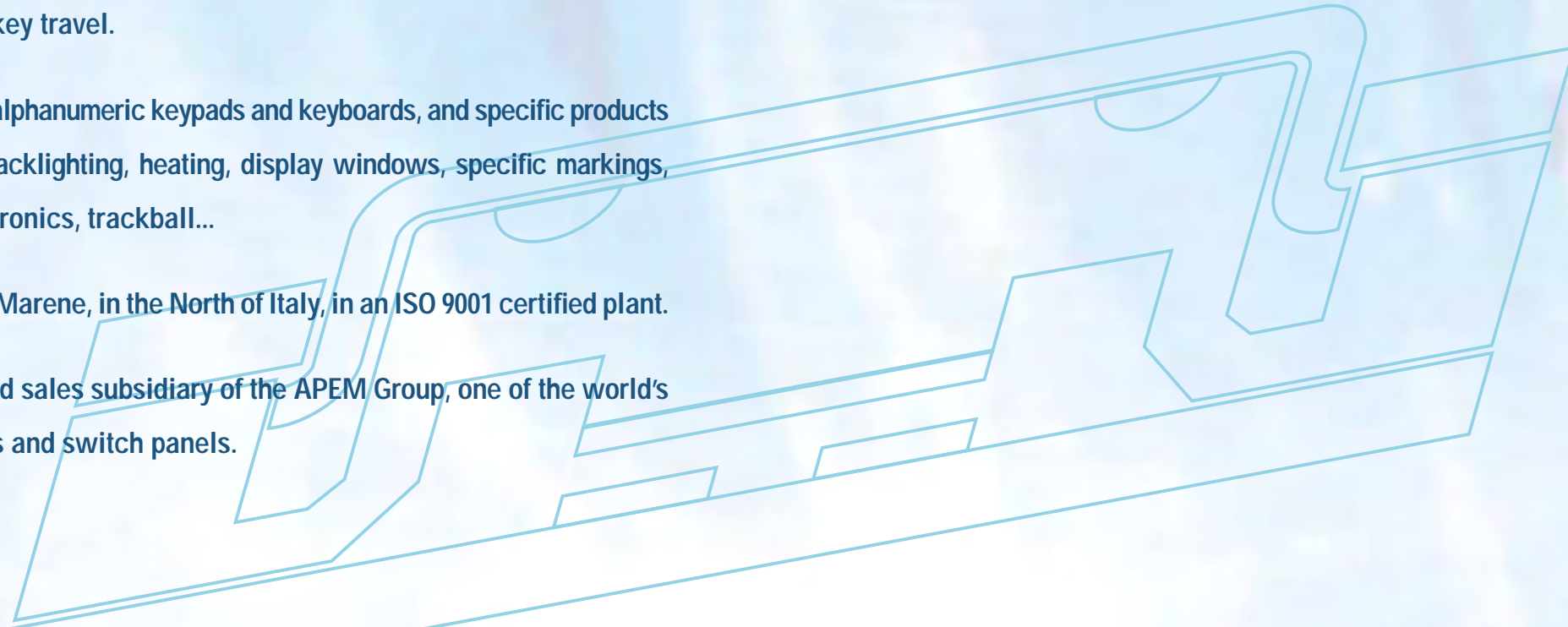
**APEM ITALIA**

APEM Italia offers a range of security keyboards mounted on printed circuits, equipped with stainless steel front face and keys. This range consists of three product series featuring different security levels and key travel.

The Company proposes numeric or alphanumeric keypads and keyboards, and specific products with a large choice of options : backlighting, heating, display windows, specific markings, Braille alphabet, associated electronics, trackball...

The products are manufactured at Marene, in the North of Italy, in an ISO 9001 certified plant.

APEM Italia is a manufacturing and sales subsidiary of the APEM Group, one of the world's largest manufacturers of switches and switch panels.



## STAINLESS STEEL KEYBOARDS FOR HARSH ENVIRONMENTS

These keyboards are suitable for applications in harsh environments. Their construction and the materials used allow them to withstand extreme climatic conditions or vandalism. Moreover, chemical or laser engraving of characters provide excellent resistance to wearing off.

All the keyboards of the range feature tactile feedback and IP 65 front panel sealing.

### recommended applications



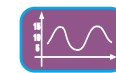
#### Access control

For resistance to vandalism: residential controllers, car park entries, tolls, securitized rooms, lifts...



#### Interactive information kiosks

For resistance to intensive use in the street or in public places: internet kiosks, hotel reservation kiosks, train/planes schedule information kiosks...



#### Food, pharmaceutical and medical industry

For reliability and hygiene: medical equipment, instrumentation...



#### Harbor and marine equipment

For resistance to salt spray: harbor engines, boat control boards...



#### Military applications

For ruggedness and resistance to EMI: vehicles, communication interfaces...



#### ATM's

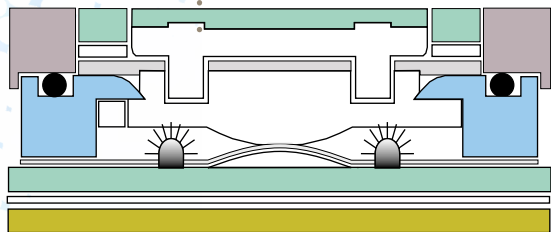
For resistance to vandalism and intensive use: ATM's for bank notes, transport tickets...



## 9 SERIES "HIGH SECURITY"

standard or specific models

- Vandal proof
- Chemical key engraving
- Excellent EMI resistance
- Intensive use: 3 million operations
- Stainless steel thickness: 2.5 mm to 4 mm
- IP 65 front of panel sealing (IEC 529)
- Interface on request, with or without encoding



### mechanical specifications

Contact force:	2.5 to 4 N
Contact travel:	0.5 mm
Number of operations:	3 x 10 <sup>6</sup>
Sealing:	IP 65
Trackball:	IP 65 static
Marking	chemical engraving

### electrical specifications

Nominal voltage:	24 V
Max. power:	2 W
Contact resistance:	< 10 ohms
Dielectric strength:	250 V
Insulation resistance:	> 100 M ohms

### climatic specifications

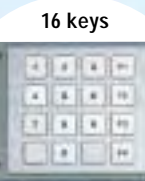
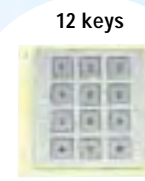
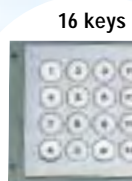
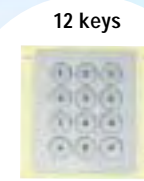
Operating temperature:	-20°C to +70°C
With standard interface:	0°C to +70°C
With specific interface:	-20°C to +70°C
Storage temperature:	-40°C to +85°C

## STANDARD KEYPADS & KEYBOARDS

4 keys



12 and 16 keys



alphanumeric

55 keys



T55VPC

55 keys  
with trackball



T55VPCB

74 keys  
with trackball



T74VPCB

Available in AZERTY, QWERTY or QWERTZ versions

## SPECIFIC KEYBOARDS

Specific customized keyboards can also be developed: with display windows, Braille alphabet, backlighting, heated for cold weather environment, color engraving...



## 7 SERIES "SECURITY"

standard or specific models

- Good security level
- Laser key engraving
- Flush keys
- IP 65 front of panel sealing
- Stainless steel thickness: 2 mm
- PS2 standard interface



### mechanical specifications

Contact force:	4 N +/- 0,5 N
Contact travel:	0.5 mm
Number of operations:	1 x 10 <sup>6</sup>
Sealing:	IP 65
Trackball:	IP 65 static
Marking:	laser

### electrical specifications

Nominal voltage:	24 V
Max. power:	2 W
Contact resistance:	< 10 ohms
Dielectric strength:	250 V
Insulation resistance:	> 100 M ohms

### climatic specifications

Operating temperature:	-20°C to +70°C
With standard interface:	0°C to +70°C
With specific interface:	-20°C to +70°C
Storage temperature:	-40°C to +85°C

standard alphanumeric keyboards

Available in AZERTY, QWERTY or QWERTZ versions

55 keys



T55VGPC

55 keys  
with trackball



T55VGPCB

74 keys  
with trackball



T74VGPCB

On specifications, APEM Italia also develops and produces specific models based on the technology of the 7 series.

## 70 SERIES

"SECURITY AND LONG TRAVEL"

particularly suitable for interactive kiosks

- Keyboards for rapid data entry
- Alphanumeric models
- Stainless steel thickness: 2 mm
- AZERTY, QWERTY or QWERTZ versions, with or without trackball
- Optional key customization
- PS2 standard interface

### specific mechanical specifications of the 70 series

Contact force:	1.5 N +/- 20%
Contact travel:	1.3 mm
Number of operations:	1 x 10 <sup>6</sup>

### specific electrical specifications of the 70 series

Nominal voltage:	12 V
Max. power:	1 W

The other specifications are the same  
as those of the 7 series

