

Manufacturing and sales

Via Marconi, 147G
12030 MARENE (CN) - ITALY
Tel: + 39 (0)172 74 31 70 - Fax: + 39 (0)172 74 31 71
www.apem.italia.it

Customer service in France

Tel: + 33 (0)2 32 34 22 72 - Fax: +33 (0)2 32 34 28 88

Corporate sales in France

Centre d'affaires Paris-Nord Tour Continental - BP 200
93153 LE BLANC MESNIL Cedex - FRANCE
Tel: + 33 (0)1 48 14 92 65 - Fax: + 33 (0)1 48 14 92 84
www.apem.fr



BENELUX

APEM BENELUX NV
Avenue Excelsiorlaan 27
1930 Zaventem - Belgium
Tel: (+32) 2 725 05 00 - Fax: (+32) 2 725 22 00
E-mail: sales@apemswitches.be
www.apemswitches.be

CHINA

APEM (WUJIN) ELECTRONIC CO.
Henglin Town, Wujin City
Jiansu Province, 21310 P.R. of China
Tel.: (+86) 519 878 1684 - Fax: (+86) 519 878 6883
E-mail: apem8116@pub.cz.jsinfo.net

GERMANY

APEM BAUELEMENTE GmbH
Postfach 80 13 29
81613 Munich
Tel: (+49) 89 45 99 110 - Fax: (+49) 89 48 10 39
E-mail: info@apem.de
www.apem.de



APEM ITALIA

SWEDEN

APEM SVENSKA AB
Ingenjörscentrum - 19278 Sollentuna
Tel: (+46) 8 626 38 00 - Fax: (+46) 8 626 82 49
E-mail: info@apem.se
www.apem.se

UNITED KINGDOM

APEM COMPONENTS Ltd
Drakes Drive
Long Crendon, Bucks HP18 9BA
Tel: (+44) 1844 202400 - Fax: (+44) 1844 202500
E-mail: sales@apem.co.uk
www.apem.co.uk

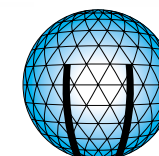
UNITED STATES

APEM COMPONENTS Inc.
Po Box 8288 - Haverhill, MA 01835-0788
Tel: (+1) 978 372 1602
Toll free sales (+1) 877 246 7890
Fax: (+1) 978 372 3534
E-mail: info@apem.com
www.apem.com

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...



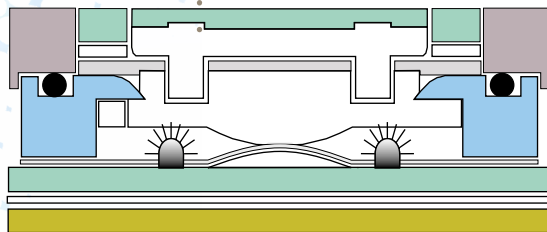
ATM's

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 ⁶
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

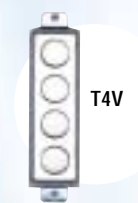
Operating temperature:	-20°C to +70°C
With standard interface:	0°C to +70°C
With specific interface:	-20°C to +70°C
Storage temperature:	-40°C to +85°C

STANDARD KEYPADS & KEYBOARDS

4 keys



T4VR



T4V

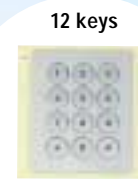


T4VQR



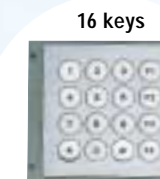
T4VQ

12 and 16 keys



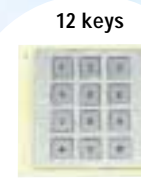
12 keys

T12VR



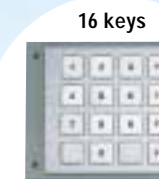
16 keys

T16VR



12 keys

T12VQR



16 keys

T16VQR

alphanumeric



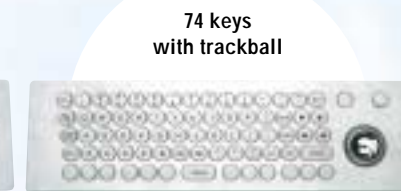
55 keys

T55VPC



55 keys
with trackball

T55VPCB



74 keys
with trackball

T74VPCB

Available in AZERTY, QWERTY or QWERTZ versions

SPECIFIC KEYBOARDS

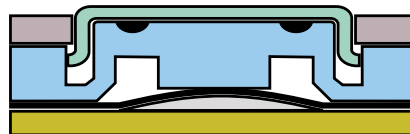
Specific customized keyboards can also be developed: with display windows, Braille alphabet, backlighting, heated for cold weather environment, color engraving...



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 ⁶
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

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 ⁶

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

