

# ACTIVE METAL™ KEYPADS

*BEYOND DURABLE.™*

## RAISED PROFILE Keypads

**WORRY-FREE ACCESS CONTROL WITH VANDAL-RESISTANT SOLID METAL KEYPADS FEATURING ITW ACTIVE TOUCH™ TOUCH THRU METAL TECHNOLOGY.**



### *Packed with Features other Keypads Can't Match:*

- Vandal-resistant, Solid Metal construction
- Weather, Water, Dust Resistant: one-piece, seamless construction — no moving keys
- Touch-Sensitive Activation: Selectable sensitivity and audio settings
- Output Options: Matrix, RS-232, Wiegand
- Solid-State Circuitry
- Washable / Submersible
- Customer Controlled LEDs (x2)
- Aesthetics: Raised Sculpted Keys, with permanent markings
- Auxiliary Output: Camera or Lighting activation
- Diagnostic and Real-time feedback
- Box or Panel / Under-panel mounting
- Limited Lifetime Product Warranty

### *Applications:*

- Indoor / Outdoor Access Control
- Kiosks / Point of Sale
- Security / Alarm systems
- Keyless Entry Points
- Industrial / Commercial
- Gas Pumps
- ATM Machines
- Medical / Clean Rooms
- Prisons / Secured Facilities

# PART NUMBER INFORMATION

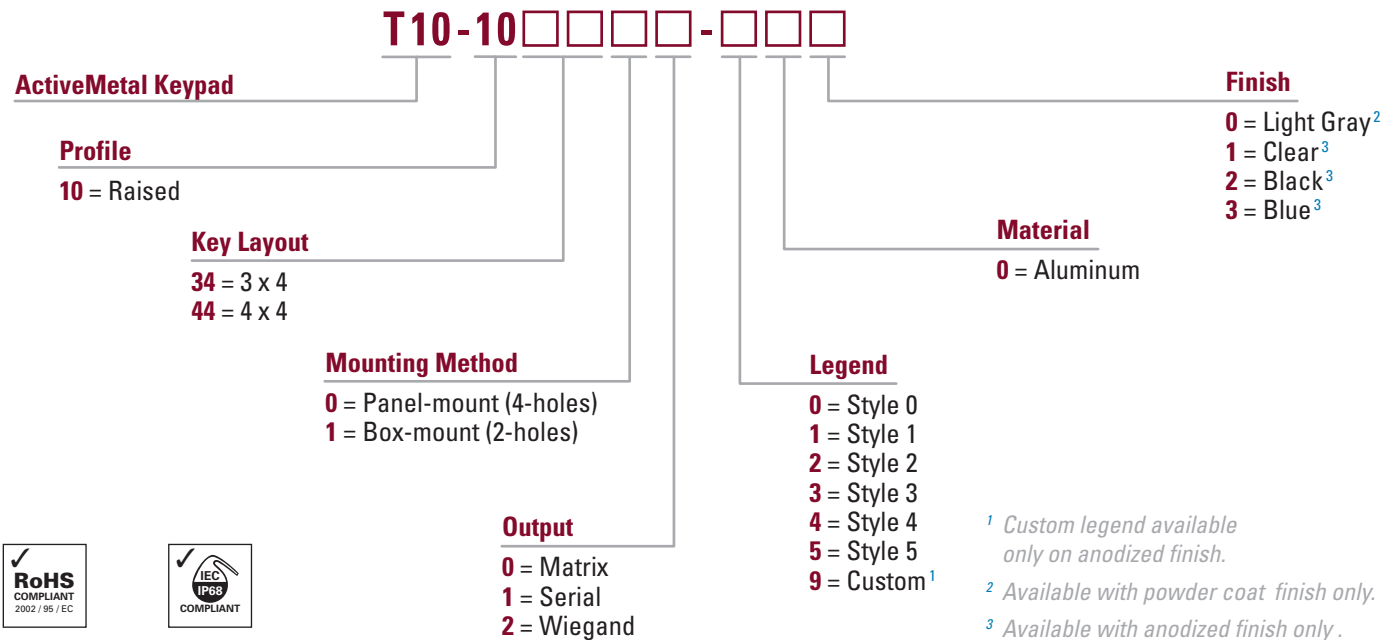
## Raised Profile Keypads

ACTIVE METAL™ KEYPADS

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The ActiveMetal keypads have many configurable options and over 280 part numbers. Please use the Matrix below to configure the keypad that is right for your application. Not all options and configurations are possible, please contact an authorized distributor or the factory for help configuring your part.

### PART NUMBER MATRIX



<sup>1</sup> Custom legend available only on anodized finish.

<sup>2</sup> Available with powder coat finish only.

<sup>3</sup> Available with anodized finish only.

### Standard Legends:



### Additional Information:

Design and specifications subject to change without notice due to continuing product improvements.

**Number of Keys** — 12-keys, 3 across by 4 down.  
or 16-keys, 4 across by 4 down

**Box Mount** — Mounts with 2 screws to a standard single gang electrical box.

**Panel Mount** — Mounts using 4 screws to a flat surface or can be under-panel mounted for a flush low profile look. (Under-panel mounting requires separate gasket, not included).

**Matrix Output** — Standard row and column switch outputs, plus an auxiliary output and two customer controlled LED inputs.

**Serial Output** — 3-wire connection for RS-232 serial protocol, plus an auxiliary output and two customer controlled LED inputs.

**Wiegand Output** — 4-wire connection for standard Wiegand protocol, plus an auxiliary output and two customer controlled LED inputs.

**Legends** — 6 options available: ascending numbers (telephone) descending numbers (calculator), with or without lettering, and positive or negative images. (see pictures above for examples).

**Material** — Aluminum with Light Gray powder coat finish or Aluminum with anodized finish.

800.544.3354

www.itwactivetouch.com

Contact an Authorized Distributor or Factory for Pricing

# SPECIFICATIONS

## Raised Profile



### Electrical:

- Voltage: +9 VDC to +24 VDC
- Current Consumption: 50 mA (Max)
- ESD: meets IEC61004 spec to Level 4 Immunity
- Output: Matrix, RS-232 & Wiegand
- Auxiliary Output: 30 VDC (Max), 100mA (Max)
- LEDs: 2 (customer controlled, 1 Green, 1 Red)  
Pull to ground
- Molex® 16-pin locking male connector  
(mates with Molex® 16-pin female connector  
part number 90142-0016, not included)

# ACTIVEMETAL™ KEYPADS

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### Mechanical:

- Maximum Actuation Force: Level 2 Sensitivity,  
< 1.1 lbs. (5 N) ADA Compliant
- Materials: Powder Coated or Anodized  
Aluminum
- Mechanism: 100% Solid-state, No moving parts
- Operational Life: +20 million cycles
- Panel Mounting 0.50" screw penetration depth  
or through hole
- Torque: Panel mount 8-32 screw  
(17 Inch Pounds — max),  
Box mount 6-32 screw  
(8.5 Inch Pounds — max)  
Mounting fasteners NOT included.
- Sealing Washers and Gasket (included)

### Environmental:

- Operating Temperature Range: -40° C to +85° C  
(Typical)
- Storage Temperature Range: -40° C to +125° C  
(Typical)
- Ingress Protection: IP68  
(submerged in 3 meters for  
30 minutes, when mounted)
- Shock: Drop test from 1.5m to concrete
- Vibration: Tested at 3 hours at 10g each Axis  
(no false actuations) MIL\_STD-202G
- Impact: 2 ft-lb impact from a distance of 1.7 ft  
(per UL 294)
- Corrosion: 96 hours ASTM B117 Salt Fog Test

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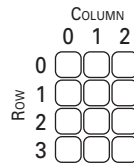
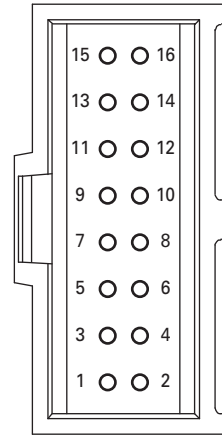
[www.itwactivetouch.com](http://www.itwactivetouch.com)

**ITW ActiveTouch™**  
SENSORS, SWITCHES, ELECTRONIC CONTROLS

### Pin-Out Configurations:

Pin No.	Matrix	RS-232	Wiegand
1	+9 to 24 VDC	+9 to 24 VDC	+9 to 24 VDC
2	Aux. Out	Aux. Out	Aux. Out
3	—	TX Data	—
4	—	—	—
5	Row 0	—	Data 0
6	Row 1	—	Data 1
7	Row 2	—	—
8	Row 3	—	—
9	Column 0	—	—
10	Column 1	—	—
11	Column 2	—	—
12	—	—	—
13	Red LED*	Red LED*	Red LED*
14	Green LED*	Green LED*	Green LED*
15	Ground	Ground	Ground
16	Ground	Ground	Ground

### Diagrams



Back view

(mates with Molex® 16-pin female connector part number 90142-0016, not included)

\* Please note, the Red and Green LED's are externally controlled by pulling to ground.

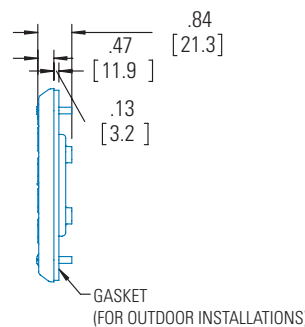
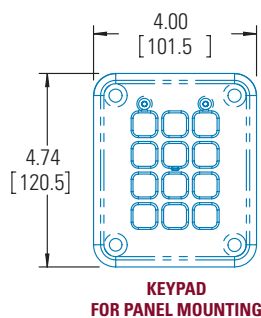
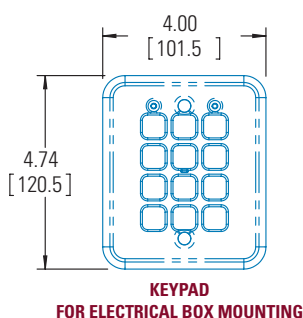
### Sensitivity and Audio Settings:

Within the first 8 seconds after power up, press one of the following keys (see Key Map above) to select the sensitivity and audio settings. If one of these keys are not pressed during the first 8 seconds after power up, the last setting prior to power down will be used.

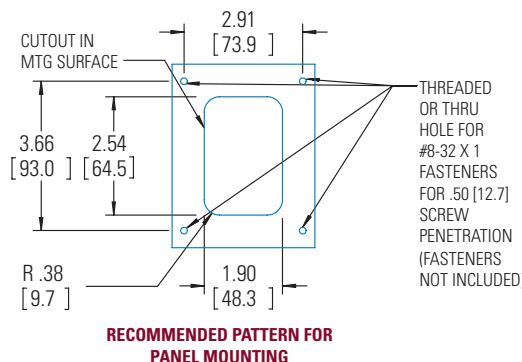
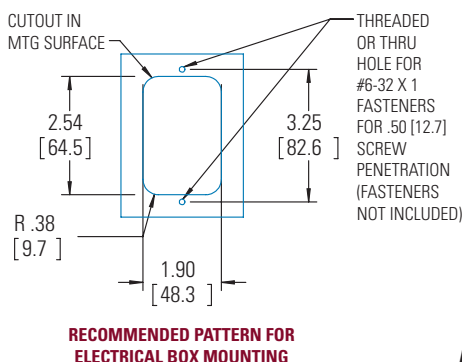
- |   |  |
|---|--|
| <b>Row 0, Column 0</b> — Low sensitivity (heavier touch), Sound On    | <b>Row 1, Column 0</b> — Low sensitivity (heavier touch), Sound Off  |
| <b>Row 0, Column 1</b> — Med sensitivity (standard touch), Sound On** | <b>Row 1, Column 1</b> — Med sensitivity (standard touch), Sound Off |
| <b>Row 0, Column 2</b> — High sensitivity (lighter touch), Sound On   | <b>Row 1, Column 2</b> — High sensitivity (lighter touch), Sound Off |

\*\* Default Setting

### Dimensions / Mounting Diagrams:



For outdoor installations use the sealing washers and gasket (provided), and a weatherproof backbox, seal the wire entry locations with silicone and provide a drain hole. In addition, use anti-oxidant grease for wire harness connections.



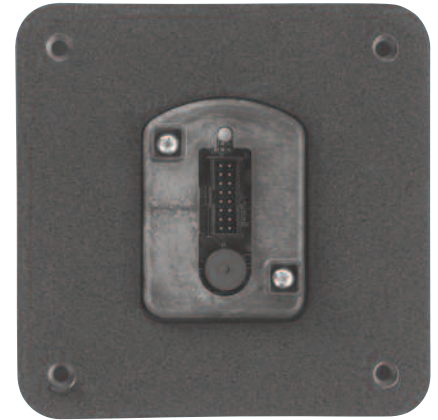
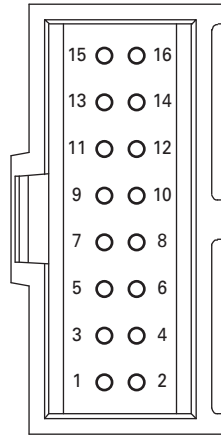
INCHES [MM]

### Pin-Out Configurations:

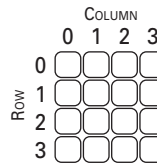
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15	Ground	Ground	Ground
16	Ground	Ground	Ground

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### Diagrams



Back view



(mates with Molex® 16-pin female connector part number 90142-0016, not included)

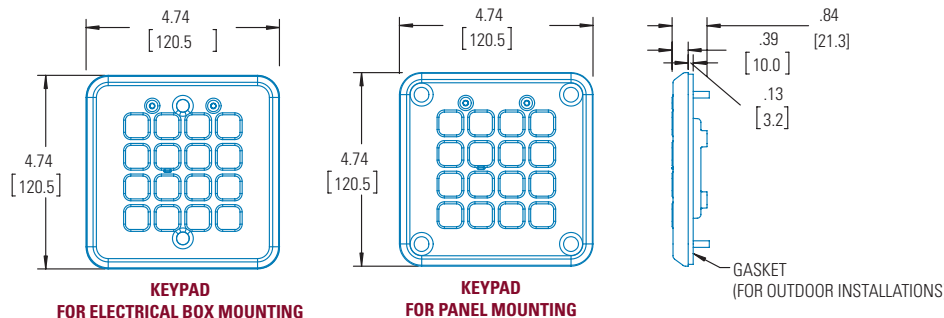
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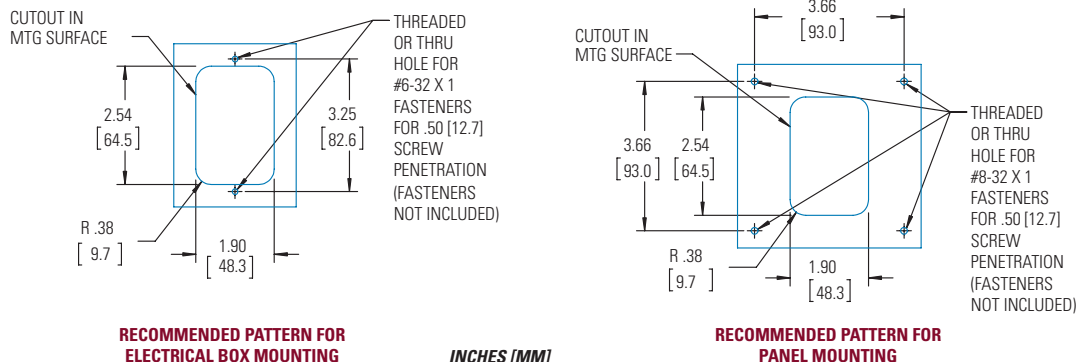
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- Row 0, Column 2** — High sensitivity (lighter touch), Sound On
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### Dimensions / Mounting Diagrams:



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RECOMMENDED PATTERN FOR ELECTRICAL BOX MOUNTING

INCHES [MM]

RECOMMENDED PATTERN FOR PANEL MOUNTING



**2550 Millbrook Drive**  
**Buffalo Grove, IL 60089**  
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**847.876.9400**  
**847.876.9440 (Fax)**  
**[www.itwactivetouch.com](http://www.itwactivetouch.com)**

**Distributed Via:**  
**ITW Switches**  
**Authorized Distributors**  
**800.544.3354**  
**[www.itwswitches.com](http://www.itwswitches.com)**

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**ITW ACTIVETOUCH OFFICE LOCATIONS**

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<b>Round Rock, Texas</b> — R&D	<b>Milan, Italy</b> — Appliance
<b>Des Plaines, Illinois</b> — Appliance	<b>Kaohsiung, Taiwan</b> — Sales
<b>Glenview, Illinois</b> — R&D and Automotive	<b>Portsmouth, England</b> — Sales

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