



Product sheet

Access Terminals Model 1030A and 1030W

Features

- Large display
8 line x 30 characters/line
- Alphanumeric keyboard
- Hazardous Area Approval
- Touch Key or
Smart Card Reader
- Weatherproof
- Isolated RS485 port
- Output relays for opening gate
- Rugged housing

Overview

The 1030 Access Terminals provide an operator keyboard and display together with Touch Key and Smart Card authorisation. The terminals are designed for mounting at remote locations, in both hazardous and safe areas.

The 1030s are ideal for use in petroleum terminals at the gatehouse, weigh stations or at the loading rack, and can communicate with a computer automation system via an isolated RS485 communications line.

The 1030A offers the advantages of a rugged explosionproof enclosure, large dot matrix display and alphanumeric keyboard.

The 1030W is suited for use in non-hazardous areas and provides room to mount modems and transmitters inside the enclosure.

As well as functioning as a terminal for an automation system, the 1030s can also store up to 500 card numbers and can authorise users without reference to the automation system.

This function is useful in applications where communications with the automation system is not continuous or may be interrupted.

Applications

- Gate access
- Weigh stations
- Truck loading
- Operator input terminals



Access Terminals 1030A and 1030W

The 1030A/1030W is designed to control access to secured sites, loading and unloading terminals and other locations. Entry and exit can be controlled by Touch Key or Smart Card.

Touch Keys

Touch Key technology offers a rugged and secure method of identification for both drivers and vehicles.

The Touch Keys produce a coded number, similar to a magnetic card, that can be read by the Model 1030. Unlike magnetic cards, however, the Touch Key numbers will not be corrupted through heavy use. Each key has a unique identification number laser etched into a microchip that will transmit the number when the key is momentarily pressed against the reader.

Driver or vehicle authorisation can be granted via a database of valid key numbers stored internal to the 1030.

Alternatively, the key number can be sent to the office automation computer for authorisation.

Touch Keys are available as a key ring tag in a number of colours or as a Smart Card, where the actual touch button is mounted on a plastic card or badge, of similar size to a magnetic card.

Standard Touch Keys do not have a battery and, therefore, have an unlimited life span.

The keys receive a very small amount of power from the reader, which is mounted on the front panel. For hazardous areas, an intrinsically safe isolation barrier inside the unit limits the power to microwatts, and both the keys and the reader are internationally certified for use in hazardous areas.

Computer Mode

In the computer mode all operations are controlled by the automation computer including:

- Reading the Touch Key or Smart Card and sending the ID code back to the computer.
- Displaying messages from the computer system.
- Transmitting keyboard entries back to the computer system.
- Activating a relay when commanded by the computer.

The relay can be programmed to operate in either an acknowledge mode or pulse mode.

In the pulse mode, the relay will remain closed for a pre-programmed time between 0.1 to 999.9 seconds.

In the acknowledge mode, the relay will de-activate on sensing an external switch input.

Alternatively, the computer can send a command to de-activate the relay.

The standard protocol used in the Model 1030 is SLIP, originally developed for the internet, because it provides a very reliable, secure and efficient method to transfer information. SLIP conforms to the International Standards Organisation OSI recommendations for multi-layered protocols.

Stand-Alone Mode

Although the Model 1030 is designed to operate in conjunction with a computer automation system, the Model 1030 can also operate in a stand-alone mode.

In the stand-alone mode, the Model 1030 will store up to 500 Touch Key or Smart Card numbers. These numbers can be entered via the front panel by touching the keys to the reader, or more commonly, by downloading from a computer.

The 1030 is then able to authorise the driver or truck and activate a relay to open a gate without reference to the computer automation system.

When authorised, a relay will be activated and can be used to open a gate or door. The relay can be programmed to operate in either an acknowledge mode or time pulse mode.

In the time pulse mode, the pulse time can be programmed from 0.1 to 999.9 seconds.

In the acknowledge mode, the relay will de-activate on sensing an external switch input.

The Model 1030 will log all key attempts together with the time and date and will download these to a computer system on request.



Specifications



Physical - Model 1030A

Keypad Buttons

Switches: Flameproof with heavy duty actuators
11 alphanumeric and 7 function keys.

Materials: Stainless Steel.

Enclosure

Dimensions: 302mm (w) x 288mm (h) x 326mm (d).

Material: Powder coated aluminium.

Sealing: IP66 (Nema 4X) weatherproof, fully O-ring sealed.

Mounting: Four 8 x 1.5mm metric or 5/16" UNF threaded holes top and bottom.

Weight: Single enclosure 22.5 kg (approx).
Shipping weight 23.0 kg (approx).

Cable Connection: Five 25mm x 1.5mm metric threaded holes or 2 x 1¼" and 1 x 1" NPT holes.

Touch Key Reader

Material: Stainless Steel & Delrin.

Physical - Model 1030W

Keypad Buttons

Switches: Double actuator switches behind a membrane overlay.

11 numeric and 7 function keys.

Enclosure

Dimensions: 270.5mm (w) x 270mm (h) x 268.5mm (d).

Material: Powder coated mild steel.

Sealing: IP66 (Nema 4x) weatherproof, fully O-ring sealed.

Mounting: Two 14mm diameter metric holes on the bottom.

Weight: Single enclosure 9.4 kg (approx).
Shipping weight 14.0 kg (approx).

Cable Connection: Removable gland plate can be drilled to suit.

Operational

Displays

Alphanumeric: 112 x 62 mm backlit dot matrix LCD
Note: Contrast can be adjusted via keypad.

Power Requirements

110V ac +10% -15%, 50/60Hz.

220V ac +10% -15%, 50/60Hz.

Operating Temperature (Ambient)

-10 to 60°C (-40°C with optional heater).

Communications

Port 1: RS232/RS422/RS485 or isolated RS485.

Port 2: RS232/RS422/RS485.

Interference

CE Compliance

Permissive Outputs

2 x Electromechanical relay rated at 1A @ 240V ac or 24V dc.

Approvals

Hazardous area approvals for the enclosure include:

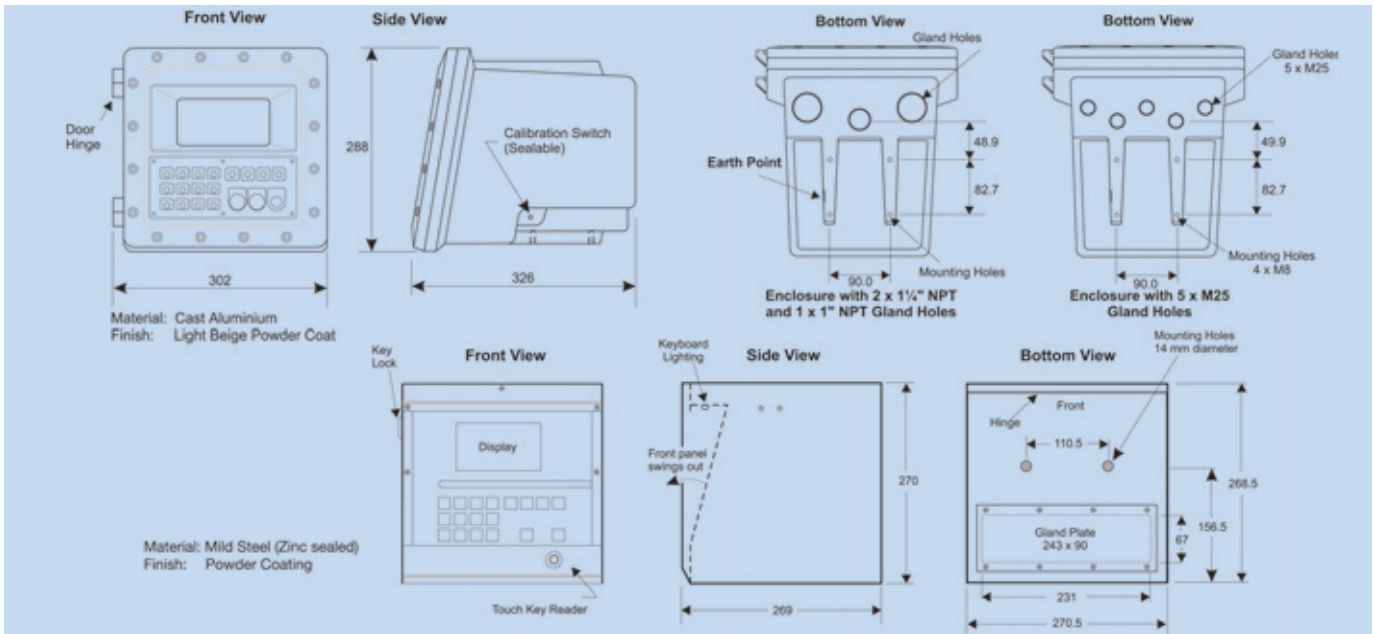
- **European Approval** Cenelec EEx d IIB T6
- **USA & Canadian** CSA_{us/c} for Class 1, Groups C & D.

Approvals for the Touch Keys, Reader and barrier include:

- **European Approval** Cenelec EEx d [ia] IIB T5
- **USA & Canadian** CSA_{us/c} for Class 1, Groups C & D.

Important: Specifications are subject to change without notice.

Dimensional Diagrams (All dimensions in mm)



Identification code

Pos 1, 2, 3, 4 Model			
1	0	3	0
Access terminal and touch key / card reader			
Pos 5 Style			
A	Explosionproof enclosure		W Weatherproof enclosure
Pos 6			
-			
Pos 7, 8 Application pack			
G	C		For description see application pack brief
Pos 9			
-			
Pos 10 Authorisation			
2	Touch key		3 Other
Pos 12 Glands, approvals and heater options for enclosures			
A	SAA approved with 5x M25		M CENELEC with 5x M25
C	CSA us/c 2x 1.25" & 1x1"		N CENELEC as above with heater
D	CSA as above with heater		L No gland holes
Pos 13 Power supply			
1	110 VAC		3 DC Volts
2	220 Vac		
1 0 3 0 A - G C - 2 A 1 Typical identification code			
1 0 3 0 - - - - - Your identification code			

We at Enraf are committed to excellence.

Enraf B.V.
 Röntgenweg 1, 2624 BD Delft
 P.O. Box 812, 2600 AV Delft, The Netherlands
 Tel.: +31 (0)15 269 86 00, Fax: +31 (0)15 261 95 74
 Email: info@enraf.nl, http://www.enraf.com

China: Enraf B.V. (Shanghai Rep. Office)
 18G, International Shipping & Finance Center
 720 Pudong Avenue, Shanghai 200120
 Tel.: +86 21 50367000, Fax: +86 21 50367111

France: ENRAF S.a.r.l.
 ZAC Les Beaudottes, 15 rue Paul Langevin,
 93270 SEVRAN
 Tel.: +33 (0)1 49 36 20 80, Fax: +33 (0)1 43 85 26 48

Germany: Enraf GmbH
 Obere Dammstrasse 10, 42653 Solingen
 Postfach 101023, 42648 Solingen
 Tel.: +49 (0)212 58 750, Fax: +49 (0)212 58 7549

Russia: Enraf B.V. (Moscow Rep. Office)
 21, Dostoevskogo street
 103030 Moscow
 Tel./Fax: +7 (0)95 788 0713,
 Tel./Fax: +7 (0)95 788 0691

Singapore: Enraf Singapore Pte Ltd
 Lam Soon Industrial Building
 63 Hillview Avenue, # 07 - 04, Singapore 669569
 Tel.: +65 676 94 857, Fax: +65 683 67 496

United Kingdom: Enraf Ltd.
 Unit D2, Melville Court, Spillsby Road
 Harold Hill, Romford, Essex RM3 8SB
 Tel.: +44 (0)1708 346 333, Fax: +44 (0)1708 370 670

USA: Enraf Inc.
 4333 West Sam Houston Parkway North, Suite 190
 Houston, TX 77043
 Tel.: +1 832 467 3422, Fax: +1 832 467 3441



Made by Contrec Pty. Ltd., a Delft Instruments company.

Information in this publication is subject to change without notice.
 © Enraf is a registered trademark © Enraf B.V. The Netherlands