PROX+F/G Family

Programmable Terminals for Time & Attendance Recording Access Control and Production control

PROX+F/G is the current top of our range of terminals.
A tough steel casing, a large keypad, a very legible display, a generous number of I/O and communications ports make PROX+F/G **the ideal terminal for the most demanding applications.**

MAIN FEATURES

- Compact, versatile and very resistant, PROX+F/G is **easy to use** while offering a lot of built-in functions and a **high degree of programmability.**
  Users can activate programmes and procedures simply by pressing a key. Messages on the clear display and the beeper will guide them through the different stages of a procedure.
- Resident procedures for **access control and time & attendance** recording, with many ready-to-use features.
- Script interpreter **for customised data collection procedures.**
- PROX+F/G can function **on-line or in stand-alone mode.** Its robustness and functional design make it ideal for managing transactions in an industrial environment. It is suitable in any situation in general where reliable data collection and control is needed.
- PROX+G, fully compatible with standard alphanumeric PROX+, has a wide 240x128 dot matrix display that allows showing up to 4 different text fonts with up to 12 lines of 32 characters. All European languages special characters are supported with Windows™ ASCII codes. Function keys are aligned along the left border of the display, so that function descriptions can be clearly shown on it.
- Numeric **functional keyboard** with mobile-phone like letters editing.
- 128KB base **memory** for memorising up to 14000 transactions.
  RAM Card option for up to 1MB extra.
- Internal **Ethernet** interface (EtherLite)-optional.
- **Internal magnetic, barcode or proximity (RFID) card readers.**
  Wide range of technologies:
  - 125 KHz read-only EM H4102 compatible
  - LEGIC® advant prime and ISO 15693
  - 125 KHz read-only HID
- **GSM/GPRS** versions allow communications via GSM data sessions, or in/out sms or GPRS with TCP/IP packet data transmissions.
- **WiLite optional interface (external)** allows using PROX+G in environments with WiFi Internet coverage.
- In the event of a power failure, its optimised **battery management** and different energy levels ensure autonomous operation for up to 24 hours spread over a number of days. It retains data for 5 years (RAM Card option).
- PROX+F/G can control **up to 31 PROX+F/EnTRAX/MAX/TRAX+ slaves.** The slave EnTRAX or TRAX/2P's store transactions in their local memory; the Master PROX+F/G is only used as a "gateway" for downloading data from the slave terminals. The slave MAX units, instead, will read and send the card code to the Master PROX+F/G who will compare it against its internal access control authorisation tables. This makes it possible to build a low-cost Access Control solution, with time and space zones, antipassback control, etc.
- On-line or off-line operation. When in **off-line** mode data are memorised internally and can be downloaded at a later date.
  In **on-line** mode transactions are monitored in real time by a computer to which PROX+F/G sends all data that it collects (from either the keypad or card reader).
- Easy definition of custom **data collection procedures** for WIP (work in progress) control or other industrial requirements. For example it can be easily programmed to print transaction slips.

PROX+F/G Family
AXESS TMC

CONFIGURATIONS

PROX+F/G can be installed as a stand alone unit in point-to-point configuration on a serial link, via telephone or modem for remote installations, on a Current Loop line by means of a passive Current Loop converter, or in multipoint configuration on an RS485 line using NET92 protocol (up to 254 terminals).

- A handy **extractable screw connector** block simplifies both installation and maintenance.
- 4 optoinsulated **digital inputs.** They can be associated to a counter: a status change or overflow of the counter can activate a relay, can be recorded in a file, can prompt a message to the host computer, or launch a procedure.
- 3 **digital outputs** with relay. They can be programmed for valid entry, valid exit, invalid access, access under threat; schedules by the minute and by the weekday; on the basis of events at the inputs and on commands.
- Stylish column option for floor standing mounting. Table top mounting versions on request.

PROGRAMMING AT DIFFERENT LEVELS

PROX+F/G is equipped with a **file system** which manages the memory with commands like those of DOS (DIR, TYPE, DEL, etc.). The files are organised into "directories". An extra 1 MB of memory for data files and procedures can be added using a RAM card. The RAM card is treated as an additional logical drive by the file system. Its **multitasking operating system** allows the terminal to execute a number of I/O tasks managing at the same time the user console, and enables it to memorize data from the COM ports and the INPUTs in background. To programme and manage PROX+F/G using the support software supplied by TMC you need a PC with WINDOWS operating system. If you use another system, TMC can supply all the documentation necessary to create your own communication programmes. The **basic PROX+F/G software** runs all the functions of the terminal at a high level ensuring maximum flexibility for the advanced developer and user.

- **The standard resident procedures for access control and time & attendance recording** can work with various options: with or without memorisation of transactions; with PIN and PIN "under threat" management; antipassback control; common code up to 9 figures; 2 to 14 figures user codes; time zones; user groups; causal codes management; 2nd user guaranteed entry; and timed siren. It can display all the entries and exits recorded and, if uploaded by the host in special files, it can provide users with a breakdown of their hours and display personalised messages for either single users or groups. More functions can be defined and programmed. The users access rights tables like groups definition and time-zones can also be managed via the keypad.

Customised programs can be developed in the following ways:

- The **configuration parameters** can be set by means of the keyboard or via the communication links. They determine how the resident pre-programmed procedures of the terminal (attendance, access control, I/O task management, on-line or off-line functions) will be carried out.
- **Data collection procedures (scripts)** can be launched by specific function keys, input events, or for a time event. The sequence of the steps in the transaction can be determined on the basis of the date, the time, or the status of the input/output lines. The **transactions** are **defined by text files** downloaded onto PROX+F/G via the RS232 or NET92 links, or by transferring the RAM Card. These files describe the operator prompts and validity checks for each transaction. They contain the necessary operations, the questions to the operator, and data validity checks. In some cases text procedures are not enough. Then it is possible to download **programmes written in "C"** and compile them on your PC by means of a "cross-compiler", via the communication links. TMC supplies a library to give high level support to all the hardware and software resources of PROX+F/G.
- **Up to three custom applications** can be installed on the terminal's **Flash ROM** via any of the available communication channels. TMC supplies a library to give high level support to all hardware and software resources of PROX+F/G.

HARDWARE/SOFTWARE SPECIFICATIONS

KEYPAD	Membrane type, dust and splash proof, with tactile action, 24 numeric+alphabetic and functional keys.
DISPLAY	Backlit, superTwist LCD. 2x16 with 9mm characters or 4x20 with 5mm characters, 240x128 dot matrix (view area 123x70 mm).
INTERNAL READER	Magnetic ISO track 2, I.R. barcode, or proximity: 125KHz 164 bit read only; EM H4102 compatible or HID; LEGIC® advant and ISO 15693. Available without reader on request.
AUXILIARY READER	RJ11 connector or 5 pin pin-strip for external barcode reader (pens, CCD, laser, barcode slot readers) or second magnetic reader.
BARCODE DECODER	EAN 13/8, I2/5, C39. EAN/C128.
BEEPER	Magnetic single tone.
COMMUNICATION PORTS	On an extractable screw-connector block. • **COM1:** RS232, 1200 to 38400 bps, software or hardware handshake, with RJ11 socket connected in parallel (preferred EtherLite connection port). • **COM2:** Current Loop (4800 bps max)/RS232/RS485, 1200 to 38400 bps, software or hardware handshake. • **NET 92:** RS485 with present protocol. Can function as either "slave" or "master".
INPUT/OUTPUT PORTS	On an extractable screw-connector block. • **Input:** 4 digital inputs, optocoupled for on/off sensors activated by currents of 3 to 20 mA, can be associated to counters for signals of up to 8 Hz. • **Output:** 3 with relay with normally open contacts, 2A @ 30Vdc max.
MEMORY	RAM - 128KB, expandable with PCMCIA RAM Card (128KB, 512KB, 1MB). Flash EPROM - 256KB+32KBootloader.
POWER SUPPLY	9 to 14 Vdc, 400 mA (max). NiCd backup battery will ensure supply for up to 24 hours spread over a number of days. Data is retained for 2 months (5 years with RAM Card).
ENVIRONMENTAL RANGES	Working: 0 °C a +50 °C, Storage: -20 °C to +70 °C, Humidity: up to 100% (non condensing barcode version)
CASING	Steel plate, splash proof (except barcode versions)
DIMENSIONS	185 x 190 x 50…90mm (D x H x P) - **PROX+F**; 185 x 250 x 50…110mm (D x H x P) - **PROX+G**
WEIGHT	1950 g - **PROX+F**; 2350 g - **PROX+G**
SOFTWARE SUPPORT	TMCDLLDemo/Ethertest/CTW32; PROX DLL libraries; NET92 DLL libraries; OCX for Ethernet/IP communications; TRAXiT communication manager/monitor for batch applications