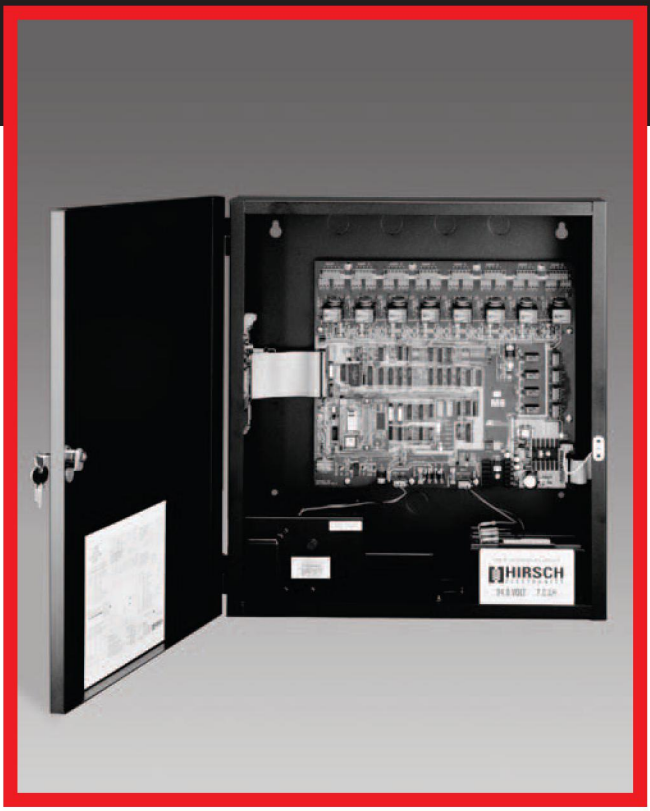
Specificatie tehnica

Nr.crt.	Denumire produs	Cod CPV	UM	Cant.
1	Controller DIGI*Track, cod M8N2-230Vac sau echivalent	42961100-1	buc	1
2	Interfata cititor cartele, cod MRIB sau echivalent	42961100-1	buc	1
3	Tastatura control acces tip ScramblePad, cod DS47L-Hi sau echivalent	42961100-1	buc	1
4	Contact magnetic balansat, cod SBMS3-L2HSS sau echivalent	42961100-1	buc	1
5	Placa de extensie alarme, cod AEB8 sau echivalent	42961100-1	buc	1
6	Modul adaptor linie, cod MELM3 sau echivalent	42961100-1	buc	1

1. Operatorul economic trebuie sa prezinte ISO 9001;
2. Livrarea produselor se va face la sediul RATEN ICN, str.Campului nr. 1, Mioveni, Arges, cod 115400, doar in urma comenzii, fara costuri suplimentare;
3. Termenul de plata este de 30 zile;
4. Produsele livrate vor fi insotite de factura fiscala, declaratie de conformitate si certificat de calitate;
5. Garantia produselor este de 12 luni;

HIRSCH ELECTRONICS

Product Data Sheet



DIGI*TRAC™ Model 8 Controller

*Hirsch DIGI*TRAC controllers are "standalone" access control systems that support:*
— ScramblePad® & ScrambleProx® secure keypads
— MATCH™ intelligent reader interfaces
— High security alarm monitoring
— Relay control outputs
*When connected locally, by a LAN, or by telephone lines to a Hirsch Host PC or server, DIGI*TRAC controllers provide a high-integrity, enterprise-wide access control and security management solution.*

Features

- Controls 8 Fully Supervised Doors
  - Both Entry & Exit
  - Keypads And/Or Readers
- Modular: Uses Expansion Boards
- Standalone or Networked
  - Microprocessor Based
  - High Security Supervised Alarm Inputs (2% Supervision)
  - Door Relay Outputs
  - General Purpose Relay Outputs
  - Dedicated Alarm Relay Outputs
  - Digital Keypad/Reader Channel
- Digital Transmission
  - Long Wiring Runs
  - Multi-drop Connections
  - LAN Interface Options
  - Modem Options
- Encryption Algorithm
  - High Security Transmission
- Local or Remote Programming
  - ScramblePad, ScrambleProx or PC
- Downloadable Firmware
  - Flash Memory
- Printer Port
- Multiple Reader Technologies
- Resident Application Library
- UL Listed: 294, 1076, Grade AA

Description

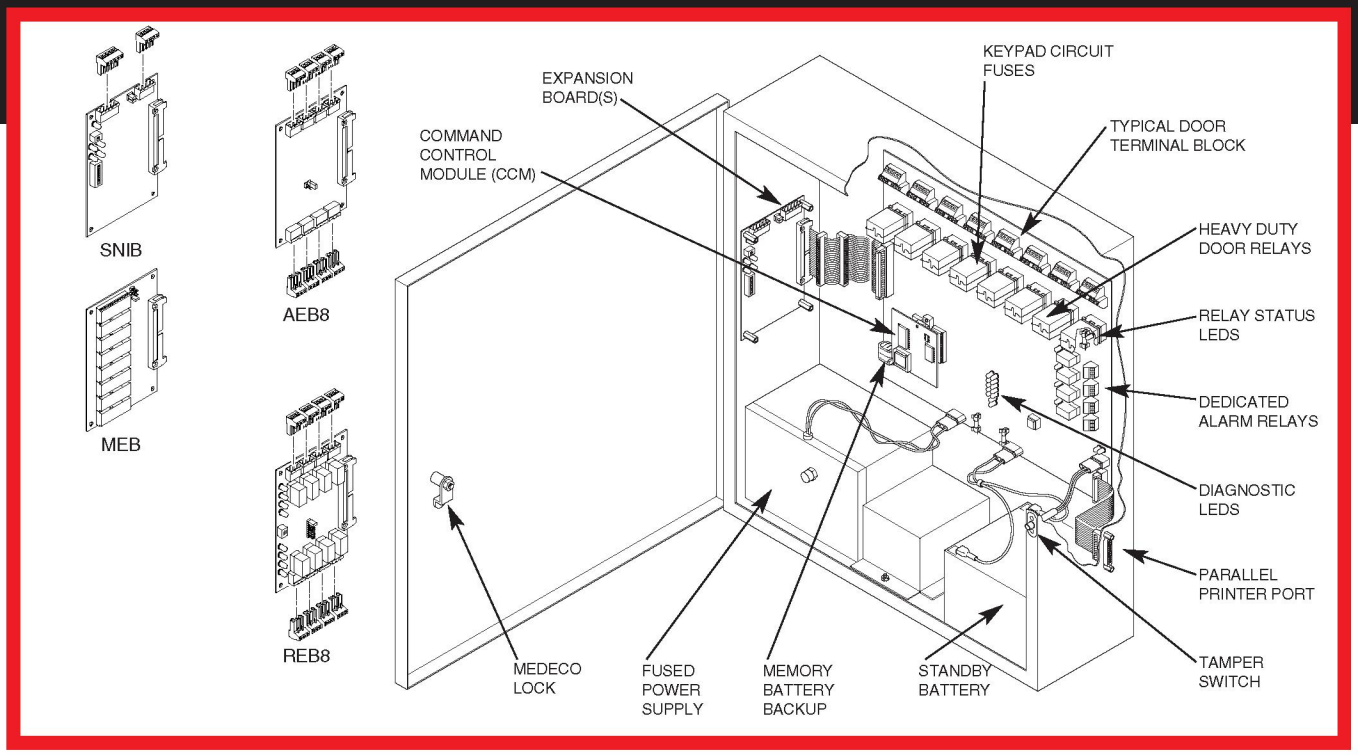
All DIGI*TRAC controllers have the same firmware functionality. A range of models and expansion options provides a variety of access control, high security alarm monitoring, relay control outputs, and programmable logic configurations to fit most applications. Each unit can be a complete standalone system or a distributed controller in a larger, multi-site enterprise system. This modular design and "scalable" architecture allows a system to start small and grow large.

Access Control System

As an access control system, the DIGI*TRAC controller includes extensive local firmware for control sequences as basic as "who goes where when" to sophisticated functions like 2-person rule, occupancy counting, individual user tagging, door interlocking, and anti-passback.

Access may be restricted based on: Time of Day, Day of Week, and Door. Access may be granted when the user presents the correct code, card, or both. The user may be granted "temporary" access based on: Use Count Limits, Temporary Day Limits, and Absentee Rule Limits, with Auto-Disable or Auto-Delete on expiration of Temporary Users.

Additional functions include: Unlock/Relock, Alarm Mask/Unmask, and Lock Down/Lock Down Release.



The associated door may be monitored for: Door Forced Open and Door Open Too Long, while providing Auto Relock control.

Readers supported include ScramblePad, ScrambleProx and, via the MATCH intelligent reader interface, these technologies: Magnetic Stripe, Proximity, Wiegand, Bar Code, Smart Card, RF, IR, and Biometric. Technologies may be combined on the same controller or the same door in any combination.

High Security Reader Channel

The DIGI*TRAC controller supports electrically isolated terminal blocks that provide communications and power to the ScramblePad, ScrambleProx and MATCH interfaces. The communication path allows multi-drop connections for entrance and exit keypads, and dual technology applications.

User codes are digitized for transmission between a Hirsch ScramblePad, ScrambleProx or MATCH and the DIGI*TRAC controller. Digital transmission allows longer wiring runs than are normally available with conventional access control reader technologies.

High Security Alarm Monitoring

Hirsch uses very stable digitally processed analog inputs with 2% line supervision for high security alarm monitoring. A line supervision module (DTLM, MELM, or SBMS) is located at the door contact, alarm sensor, request to exit (RQE), or similar device to establish this supervision.

In lieu of "shunting," which turns off supervision, Hirsch uses "alarm masking" for full-time supervision and reporting of line status — even during hours of authorized access. Conditions reported include: Alarm, Secure, RQE, Mask, Tamper Alarm, Tamper Secure, Short, Open, Noisy and Input-Out-of-Spec.

Relay Control System

Relay outputs on DIGI*TRAC controllers can be used for: electric door locks and strikes, arming/disarming security systems, alarm annunciation, elevator floor control, HVAC control, lighting control, storage locker control, and many other equipment control applications. These relays may be activated by codes (via ScramblePad), cards (via MATCH and reader), time zones, alarms, or logic sequences linked to other relays.

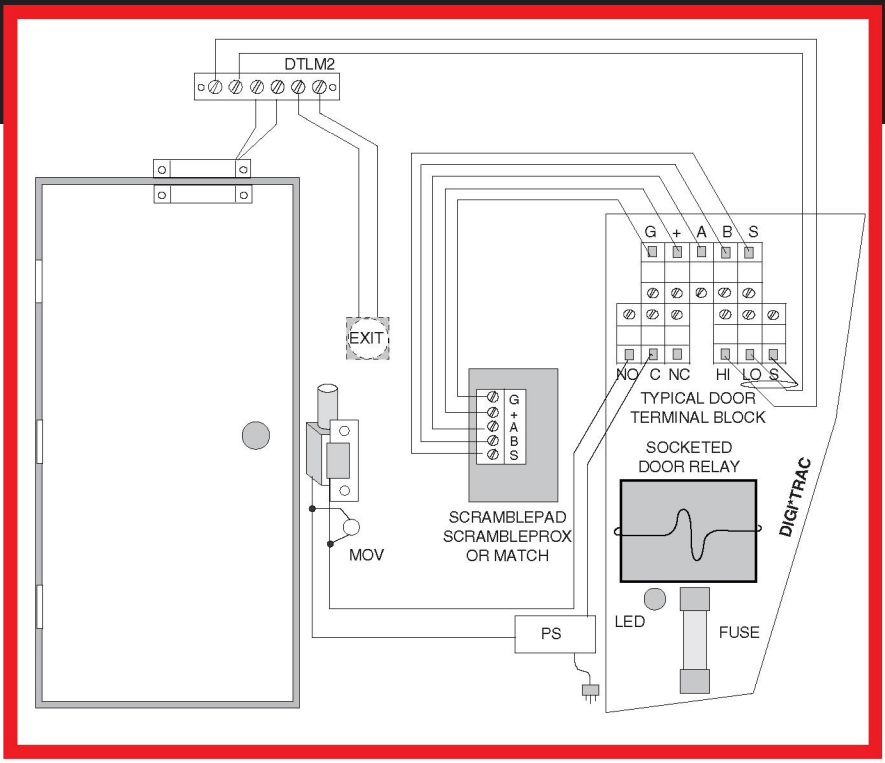
When used with a ScramblePad, DIGI*TRAC controllers are ideal for after-hours tenant override systems. A history of who issued the override command is available for tenant billing or audit trails. The same ScramblePad used for access control can be used for tenant override and remote operator command functions.

Programmer's Terminal

DIGI*TRAC controllers can be programmed by either a ScramblePad or a PC using Hirsch Host software. The PC can be local or connected by LAN or modem. A ScramblePad used for access control can also be used as a programmer's terminal. Programming functions supported include: add & delete user access codes, assign unlock/relock codes, assign alarm codes, and assign elevator control codes.

SCRAMBLE*NET™

DIGI*TRAC controllers communicate with a Hirsch Host PC using SCRAMBLE*NET protocol which uses an encryption algorithm for high security. The SCRAMBLE*NETcommand/packet structure is ideal for LAN and hardwired paths, including RS-485 multi-drop and RS-232 via direct connect or dial-up modem.



Typical Controller-to-Door Wiring Diagram

Reliability By Design

DIGI*TRAC controllers are designed for "high availability" as complete systems solutions for global markets. Standby batteries for both memory and system operation are standard. The controller ships with an internal international power supply. All door relays are socketed. All Keypad/Reader terminals and power circuits are fused. Each unit is configured in a heavy duty, NEMA style enclosure, with a high security lock and tamper alarm.

Specifications

Communications

- Serial Interface Ports:
  - SCRAMBLE*NET: Requires SNIB. Encrypted message structure.
  - RS-485 multi-drop or RS-232 protocol
  - Optically isolated serial port
  - Baud Rate: 9600 or 19,200
  - RS-485: 4000 ft. (1220m) with 22 gauge. 2 pair, stranded, twisted, overall shield
  - RS232: 50 ft (15m) @9600 baud
- Parallel Printer Port: Standard
- Keypad/Reader Port: 16 device addresses
  - Address 1-8 for door relay 1-8 entry. Address 9-16 for door relay 1-8 exit. Any address for command and programming
  - Wiring: 750 ft (160m) with 22 gauge, 1800 ft (550m) with 18 gauge. 2 pair, stranded, twisted, overall shield

Firmware

- Command & Control Module (CCM):
  - Removable & Upgradable
  - Time Zones: 150
  - Access Zones: 128
  - Control Zones: 256
  - Holidays: Four 366 Day x 2 Years
  - Daylight Savings Time Adjustment
- Dial-Up to Remote Host:
  - Phone Numbers: 4, with roll over
  - User selectable retry attempts
  - Call-back mode for security
  - Initiation by alarm, buffer % full, and/or time

Memory

- Buffers: 1500 events, 1500 alarms standard
  - 20,000 events, 2,000 alarms with MEB/BE
  - 20,000 events, 2,000 alarms with MEB/CB (reduces users by 20%)
  - Oldest discarded first, if full
- Users: 4000 standard
  - 8,000 with MEB/CE16
  - 20,000 with MEB/CE32
  - 68,000 with MEB/CB64
  - 132,000 with MEB/CB128
- Battery Backup: 30 day for code, setups, clock and buffer

Electrical

- Keypad/Reader Power: 8 terminals
  - 1.0 Amp @24VDC each, fused
  - 2.90 Amp @24VDC, total
  - Powers ScramblePad, ScrambleProx and MATCH
- Primary and Standby Power:
  - 90-130VAC, 50/60 Hz., fused
  - 180-260VAC, 50/60 Hz, fused
- Uninterruptible Power Supply
- Standby Batteries: 7 AH Included
- Door Relays: 10 Amp, Form C
- Control Relays: 2 Amp, Form C (requires REB8)
- Alarm Relays: 2 Amp, Form C
- LEDs:
  - Individual Relay Status
  - Battery (OK, Low, Fail)
  - AC (OK, Fail)
  - System (OK, Fail)
  - Keypad/MATCH (Poll, Response)
  - SCRAMBLE*NET (Poll, Response)
  - Test Mode
  - Alarm Events in Buffer
  - Box Tamper Alarm

Physical

- Door Tamper Switch
- Medeco High Security Key Lock
- Enclosure: NEMA type, with conduit knockouts & removable door
- Dimensions: 22" H x 20" W x 6.25D" (55.9 cm x 51cm x 15.9cm)
- Expansion Boards: 6" H x 4.25"W x .75"D (15.2cm x 10.8cm x 1.9cm)
- Shipping Weight: 60lbs (27.2kg)
- Expansion Boards: 1 lb (.05kg)
- Operating Temperature Range: 32°F to 140° F (0° to 60° C)
- Relative Humidity: 0 to 90%, non-condensing

Listings & Approvals

- UL 294 Access Control Systems Units
- UL 1076 Proprietary Burglar Alarm Systems, Grade AA
- CE

Ordering Information — Controllers

Model #	Description	Comments
M8N	DIGI*TRAC MODEL 8N - 8 Door - 115VAC	Controls 8 Supervised Doors. 4000 Users. Includes 8 door relays, 8 Alarm Inputs (requires Line Modules), enclosure, power supply, battery, tamper switch, Medeco lock and SNIB. Supports Expansion Boards. CE. UL Listed. 115VAC.

Note: Add "-230" to model number for 230 VAC.

Ordering Information — Expansion Boards & Modem

Model #	Description	Comments
AEB8	Alarm Expansion Board - 8 Inputs	Adds 8 additional high security alarm inputs. SNAP, SAM and MOMENTUM support up to 2 boards in M2, M8, MSP or M64. Velocity supports up to 4 boards in M2, M8, MSP, M64 and up to 2 boards in M16. Each input requires appropriate Line Module. Features removable connectors. UL Listed. CE.
REB8	Relay Expansion Board - 8 Relays	Adds 8 additional 2 Amp Form C relays to an M2, M8, M16 or MSP-8R. May not be installed in an M64. A total of 5 (4 if networked) REB8 Boards may be installed in all other DIGI*TRAC controllers. Removable connectors & status LEDs. UL Listed. CE.
MEB/BE	Memory Expansion Board - Buffer Expansion	Expands standard buffer from 1500 events and 1500 alarms to 20,000 events and 2,000 alarms with CCM 7.X. Expands standard buffer from 37 events and 37 alarms (700 events and 700 alarms with CE boards) to 20,000 events and 2,000 alarms with CCM 6.6. Protected from data loss during power failures for up to 30 days by controller memory battery. UL Listed. CE.
MEB/CE16	Memory Expansion Board - CODE Expansion 4,000/16,000	Expands CODE Memory from 4,000 to 8,000 on Velocity and MOMENTUM with CCM 7.X. Not recognized by SNAP or SAM with CCM 7.X. Expands CODE Memory from 1,000 to 16,000 maximum with CCM6.X. Protected from data loss during power failures for up to 30 days by controller memory battery. UL Listed. CE.
MEB/CB64	Memory Expansion Board - CODE Expansion of 64,000 with Buffer Option	Expands CODE Memory by 64,000 (from 4,000 to 68,000) with CCM 7.X on Velocity and MOMENTUM. Not recognized by CCM 6.6 or earlier. A portion of the Code Memory may be allocated to alarm and event Buffers on Velocity only. Protected from data loss during power failures for up to 30 days by controller memory battery. CE. UL Listed.
MEB/CB128	Memory Expansion Board - CODE Expansion of 128,000 with Buffer Option	Expands CODE Memory by 128,000 (from 4000 to 132,000) with CCM 7.X on Velocity and MOMENTUM. Not recognized by CCM 6.6 or earlier. A portion of the Code Memory may be allocated to alarm and event Buffers on Velocity only. Protected from data loss during power failures for up to 30 days by controller memory battery. CE. UL Listed.
DM9600A-DL	DIGI*TRAC 9600 BAUD MODEM ASSEMBLY (Factory Set: Dial-Up Line)	A miniature 9600 Baud Modem Assembly that can be powered from & installed internally in the M1, M2, M8, M16 or MSP for remote site management via dial-up network. Includes cables, adaptor, & power supply harness. Do not use at Host PC or NET*MUX4 out port.

Note: The DIGI*TRAC M8 controller can accommodate up to 5 expansion boards. Only one MEB/CE or MEB/CB is supported per controller. A maximum of 4 AEB8 expansion boards are supported per controller.

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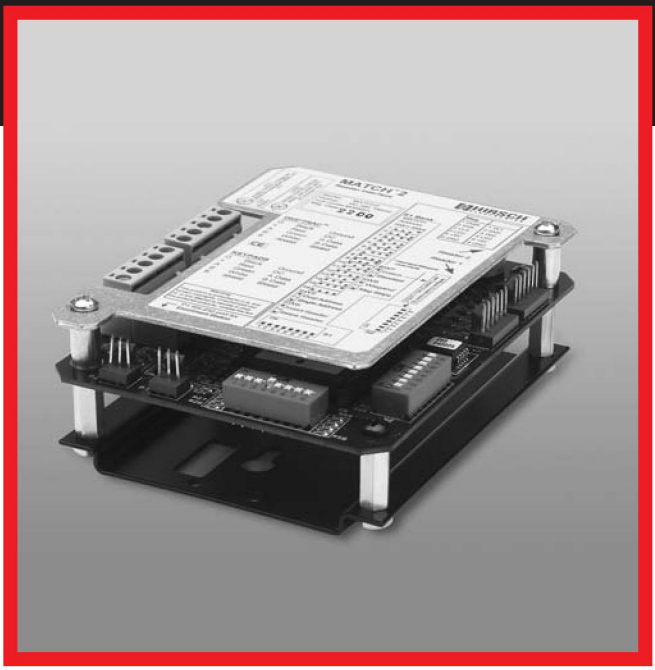
Product Data Sheet



MATCH™

Intelligent Reader Interface

*Hirsch's MATCH Interface makes conventional access control readers intelligent and provides a high security solution for access control. It is used with a Hirsch DIGI*TRAC™ controller.*

Features

- Microprocessor Based
- Mathematical Digitizing Algorithm
  - High Security Transmission
  - Eliminates Facility Codes
- Supports "Off the Shelf" Cards
  - No Waiting on Card Orders
- Mix Reader Technologies on One System
- Data Formats
  - ABA Magnetic Stripe
  - Wiegand (26- to 55-Bit Format)
  - Proximity
  - Bar Code
  - Touch Memory
  - Barium Ferrite
  - RF (Radio Frequency)
  - Biometric
  - Wiegand No Parity
  - HID Corporate 1000 Format
  - Pass Through
- Digital Transmission
  - Long Wiring Runs
  - Multi-drop Connections
- Dual Technology Options
- Entry and Exit Reader on One MATCH Interface Unit
- Many Custom Formats Now Supported

Description

The MATCH Intelligent Reader Interface is installed at or near a conventional access control reader. It converts the reader's analog or pulsed signals to a high security digital code. MATCH's on-board 5VDC power source powers most readers.

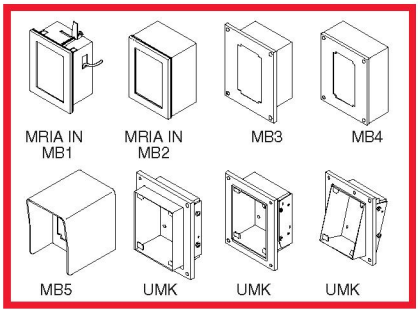
Used with a conventional reader, MATCH converts the card's raw code into the security code used by a Hirsch DIGI*TRAC controller. There is no need to decipher the raw code. Existing card access systems can usually be upgraded without replacing the current cards.

High Security Communication Path

The MATCH interface has microprocessor intelligence. MATCH uses a complex mathematical algorithm to digitize the code for transmission to a DIGI*TRAC controller. Digital transmission permits longer wiring runs between a MATCH-based reader and its controller than are normally available with conventional access technologies.

Multiple Reader Support

A single MATCH Interface will support both an entrance and an exit reader for the same door. MATCH interfaces are used on the same communication path with the Hirsch ScramblePad® and ScrambleProx®.

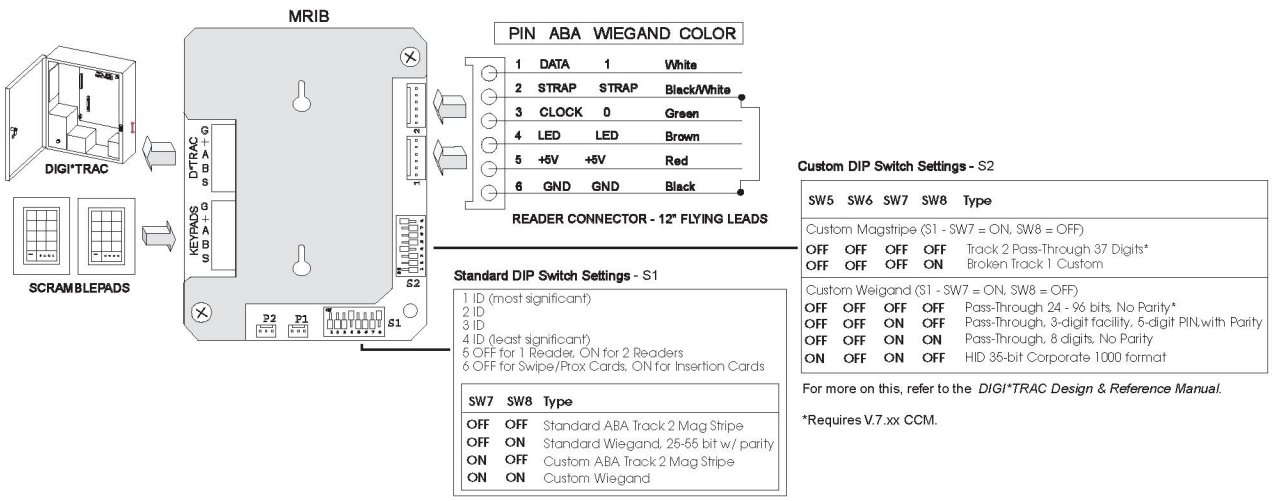


Mounting Boxes

Accessories For MRIA

MB1	Flush Mounting Box
MB2	Surface Mounting Box
MB3	Heavy Duty Flush Mounting Box
MB4	Heavy Duty Surface Mounting Box
MB/FFP	Flat Faceplate
MB/SWS	Shallow Wall, Semi-flush Spacer Ring
UMK	Universal Mounting Kit (requires MB2)

Systems With Integrity



Typical MATCH-to-Reader Wiring.

Specifications

*Note: The MATCH is designed to operate with a Hirsch DIGI*TRAC Controller.*

Communications

- Wiring From Controller: 2 pair, stranded, twisted, overall shield. Refer to controller specifications for distance
- Supervision: Digital from controller
- Wiring To Reader: Refer to reader specifications

Electrical

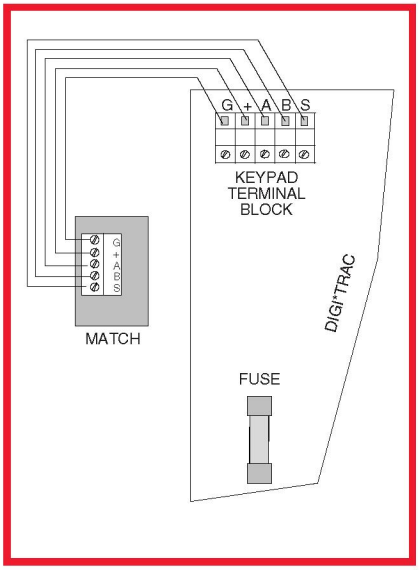
- Operating Power
  - 70 mA @24VDC, with externally powered readers
  - 200 mA@24VDC, with 2 readers powered by MATCH
- Reader Power: 2 terminals
  - 250 mA @ 5VDC each
- RS232 Port (P1) For Enrollment Station

Physical

- Physical Tamper Alarm (MRIA)
- Dimensions:
  - MRIA: 5.75"H x 4.5"Wx2"D (14.6 cm x 11.4 cm x 5.1 cm)
  - MRIB: 4.5"H x 3.5"W x 1.75"D (11.4 cm x 8.9 cm x 4.4 cm)
- Shipping Weight: 2 lb. (0.9kg)
- Operating Temperature Range: 32°to 140°F (0° to 60°C)
- Relative Humidity: 0 to 90%, non-condensing

Listings & Approvals

- UL-ALVY (294), Access Control Systems Units
- CUL-UEHX7, Signal Appliances
- CE



Typical Controller-to-MATCH Wiring Diagram.

Ordering Information

Model #	Name	Discription and Comments
MRIA	MATCH Reader Interface Assembly	Includes MRIB, mounting base and bezel, physical tamper switch and blank faceplate. 2 MATCH connectors with 6" pigtails. Installs in Hirsch mounting boxes. Use MB1, MB2 or MB5. UL Listed. CE.
MRIB	MATCH Reader Interface Board	Accepts up to 2 readers & 2 ScramblePads for dual technology entry & exit control of 1 door. Use with CCM 6.4 (or higher) & CR readers (see DIGI*TRAC Deisgn and Installation Guide for compatible readers). 2 MATCH connectors with 6" pigtails. Provides 5VDC @ 250mA reader power. Mounting plate. UL Listed. CE.

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Specifications are subject to change without notice

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IDENTIVE

ScramblePad®

Scrambling Keypad Family

HIRSCH™

ScramblePad® • ScrambleProx® • ScrambleSmartProx™

Hirsch's ScramblePad® family of keypads and keypad+reader devices prevent access codes from being stolen by using a key scrambling technique that is combined with unique viewing angle restrictors. An integrated contactless prox/smart card reader enables a variety of card+code applications. The onboard MATCH™ allows for direct connection of a variety of devices (standard readers, biometrics, etc.). The keypad also gives operators remote system control of DIGI*TRAC™ Controllers.

Trusted, Versatile, Secure

The Hirsch ScramblePad range is a family of access control devices that provide high security keypad functionality with optional reader technologies, can be combined and configured to meet the most demanding applications. The ScramblePad design is specified in many of the world's most secure locations due to high security scramble feature that randomly orders the digits every time 'START' is pressed. This prevents the acquisition of a user code via pattern recognition, and also prevents keypad wear from leaving a tell-tale as to the numbers used in a valid PIN. This feature is further enhanced by the use of viewing restrictors that narrow the field of vision to the point where only the person directly facing the ScramblePad can see the presented digits.

The use of a memorized credential (PIN—personal identification number) as a single technology access method reduces disruption caused when credentials (e.g. cards) are lost, loaned or left at home, and security is enhanced since the PIN cannot be stolen or copied. The PIN is linked to the specific user so their accountability is ensured.

All ScramblePad devices provide a universal reader interface for analog or pulsed signal readers along with 5VDC power for such devices. The ScramblePad onboard MATCH (the security code used by a Hirsch-Identive DIGI*TRAC™ controller) converts the card's payload into a MATCH code — without a need to decipher. This allows existing card access systems to be upgraded and made more secure without replacing existing cards and readers.

Using dual technology (keypad and reader) further enhances security requiring both 'something you know' and 'something you have' to gain access. In many applications off-hours access is controlled with dual technology while during normal operating hours either PIN or card only are used. A DIGI*TRAC controller and Velocity™ software installation provides an industry leading range of options and custom features, that can be tailored to the requirements of the assets being controlled.

FEATURES

- **HIGH SECURITY** - Scrambling Display, Unique Horizontal & Vertical Viewing Restrictors, High Security Data, Transmission, 3 to 16 Digit Codes, No need for Facility Codes
- **MULTI-FUNCTION INTERFACE** - Access Control, Programmer's Terminal, Alarm & Relay Control, Override HVAC, Lighting, Custom control sequences
- **AUDIBLE FEEDBACK** - On Scramble, On Access/Denial, Silent Operation Option
- **IMMEDIATE AVAILABILITY OF CODES** - No Waiting for Cards, Instant Authorizations/Deauthorization
- **DUAL TECHNOLOGY** - Support 1 or 2 Readers, AutoSTART Scrambling Display
- **DIGITAL TRANSMISSION** - Long Wiring Runs, Multi-Drop Connections, Secure Communication

ScramblePad®

Scrambling Keypad Family

A Multitude of Options

The standard **ScramblePad** does not include an integrated credential reader. The **ScrambleProx** (SPX) includes an integrated 125kHz proximity reader) and antenna in the same form factor. And the **ScrambleSmartProx** (SSP) includes a 125kHz proximity reader and a 13.56MHz contactless smartcard interface (see ordering information for format detail). These powerful combinations provide a myriad of access control configuration options including the use of multiple technologies on a single system (e.g. 26-bit Proximity cards and 200-bit PIV compliant Smartcards). When dual technology is used, the ScramblePad may be configured to operate card only, code only or card plus code based on time of day or a specific individual or group.

For high ambient light conditions high intensity versions are available for all of the ScramblePad keypad/reader configurations. These units are available with 'aerospace' White Incandescent lamps or low power consumption Orange LEDs. Due to the higher light output the viewing restriction is slightly relaxed compared to the standard model.

Remote Control by Extension Digits

The use of "extension digits" allows authorized users to issue dozens of unique command functions. By appending a code to the end of the user PIN an operator can Unlock/Relock doors, Mask/Unmask Alarms, Arm/Disarm Security Systems, Activate After-Hours HVAC or Lighting, Control Mechanical/Electrical systems, Initiate Elevator Floor Requests, and many other custom control sequences. All code transactions are registered in Velocity providing a complete audit trail.

High Security Communication Path

The ScramblePad uses its own microprocessor intelligence to digitize the code for transmission to a Hirsch DIGI*TRAC controller. Digital transmission permits longer wiring runs between ScramblePad and controller than are normally available with conventional technologies. The communication path also allows for multi-drop connections. This enables entrance and exit keypads, as well as dual technology applications, on the same cable.

Programmer's Terminal

The ScramblePad also functions as a programming terminal for Hirsch DIGI*TRAC controllers. This provides a complete, low-cost access control system with no need for a host PC. Programming functions supported include Add/Delete User Access Codes, Assign Unlock/Relock Codes, Assign Mask/Unmask Codes, Add/Delete Relay Control Codes, Add/Delete Time Schedules and Holidays.

Technical Features:

Keypad *Note: the ScramblePad family of products is designed to operate with a Hirsch controller.*	
PIN Code Length	3-16 digits, user defined or randomly generated
Duress Digit	Yes
Code Tamper Alarm	Yes
Display	Default is scrambled on wake. Program mode locks in traditional keypad layout.
7-Segment Display Color/Type	Standard=Red (LED), 'HL'=Orange (LED), 'HI'=White (Incandescent)
Annunciation (Audible)	7-tone 'START' prompt, 1-tone each key press
Annunciation (Visual)	4 LEDs (Green x 2, Amber and Red)
Viewing Restriction	Standard= +/-4 deg horizontal: +/-26 deg vertical. High Intensity= +/20 deg Horiz.; +/-26 deg Vertical
(Physical) Tamper	Yes. Standard. Optical.
Embedded Readers	
125kHz Support	Yes. Standard Prox. (HID compatible, Indala versions available)
13.56MHz Support	Yes. Depending on model. Compatible credential include: FIPS 201 PIV II, TWIC, CAC-EP, PIV-I/C, DESFire/MIFARE CSN, iCLASS™ (CSN only some models), NFC UID.

ScramblePad®

Scrambling Keypad Family

Technical Features (continued):

Supported External Devices	
Biometric	Yes. See price list for available options.
Mag Stripe	Yes. See price list for available options.
LF/HF Readers	Yes. See price list for available options.
Electrical	
Wiring Type	2 pair, stranded, twisted, overall shield
Wiring Maximum Distance	Refer to DIGI*TRAC controller documentation
Typical Operating Current	215mA DS47L, 250mA DS47L-SPX-HI - (Illuminated)
Reader Power	250mA @ 5VDC (2 terminals)
Key Particulars	
Face plate (front)	5.75” x 4.37” x 0.375” (146mm x 111mm x 10mm)
Main Unit (from mounting surface)	4.5” x 3.5” x 1.5”* (114mm x 89mm x 38mm) *DS47L & SPX, SSP is 2” (50mm)
Standard Mounting Height	58" (1.47m) *Refer to local AHJ/Code
ADA Mounting Height	48” (1.2m) *Refer to local AHJ/Code
Operating Temperature Range	0 to 140 deg F (-20 to 60 deg C)
Relative Humidity	0-90% (non-condensing)
Shipping Weight	2-lb (0.90-kg) nominal

Mounting Accessories Table:

Supported External Devices	
MB1	Flush Mounting Box
MB2	Surface Mounting Box
MB2S	Shallow Version of MB2
MB2SL	Sloped Surface Mounting Box (ADA)
MB3	Heavy Duty Flush Mounting Box
MB4	Heavy Duty Surface Mounting Box
MB5	Exterior, Heavy Duty Surface Mounting Box
MB8	Heavy Duty Flush
MB9	Heavy Duty Flush Mounting Box, Slope Front Face Plate (ADA)
MB20	Heavy Duty Combo Surface Mounting Box (ADA)
MB/FFP	Flat Faceplate
MB/SFP	Slope Front Faceplate
MB/SWS	Shallow Wall, Semiflush Spacer Ring
MP35	Mounting Post, 35” (88.9 cm) for curb mounting
MP41	Mounting Post, 41” (104.1 cm) for ground level mounting
UMK	Universal Mounting Kit (requires MB2) (ADA)
SPSH-1	ScramblePad Space Heater Assembly, for use with MB5, where temperatures drop below freezing

ScramblePad®

Scrambling Keypad Family

Ordering Information:

Standard Models		
DS47L	ScramblePad	Scrambling display & viewing restriction. Audible annunciator, 4 status LEDs & physical tamper switch. MATCH function for 1 or 2 readers. 2MATCH connectors with 6" pigtails. Installs in Hirsch mounting boxes.
DS47L-HL	ScramblePad - High Intensity 'Orange'	As above but with an energy efficient orange LED high intensity display. For use in high ambient light conditions. Use MB5 to protect from contamination and to shield unit from direct lighting.
DS47L-SPX	ScrambleProx - HID	DS47L Scramble Pad with embedded HID compatible 125kHz reader. 1 MATCH connector with 6" pigtail included. Installs in Hirsch mounting boxes.
DS47L-SPX-HL	ScrambleProx - HID - High Int. 'Orange	As DS47L-SPX but with an energy efficient orange LED high intensity display. For use in high ambient light conditions. Use MB5 to protect from contamination and to shield unit from direct lighting.
DS47L-SPX-I	ScrambleProx - Indala	As DS47L-SPX except embedded low frequency reader, designed for use with 26-bit Indala credentials.
DS47L-SSP-HE	ScrambleSmartProx - HE Standard	DS47L Scramble Pad with embedded Identive 125kHz reader and 13.56MHz contactless smart card reader. 1 MATCH connector with 6" pigtail included. Installs in Hirsch mounting boxes (MB2 and deeper).
DS47L-SSP-HE-HL	ScrambleSmartProx - HE High Int. 'Orange'	As DS47L-SSP-HE but with an energy efficient orange LED high intensity display. For use in high ambient light conditions. Use MB5 to protect from contamination and to shield unit from direct lighting.
Also Available		
DS47L-HI	ScramblePad - High Intensity 'White'	As DS47L but with high performance white incandescent high intensity display. For use in high ambient light conditions. Use MB5 to protect from contamination and to shield unit from direct lighting.
DS47L-SPX-HI	ScrambleProx - HID - High Int. ' White'	As DS47L-SPX but with high performance white incandescent high intensity display. For use in high ambient light conditions. Use MB5 to protect from contamination and to shield unit from direct lighting.
DS47L-SPX-I-HI	ScrambleProx - Indala - High Int. 'White'	As above but with high performance white incandescent high intensity display. For use in high ambient light conditions. Use MB5 to protect from contamination and to shield unit from direct lighting.
DS47L-SSP-HID	ScrambleSmartProx - HID Standard	DS47L Scramble Pad with embedded HID compatible 125kHz reader and 13.56MHz contactless smart card reader. 1 MATCH connector with 6" pigtail included. Installs in Hirsch mounting boxes (MB2 and deeper).
DS47L-SSP-HID-HI	ScrambleSmartProx - HID High Int. 'White'	As above but with high performance white incandescent high intensity display. For use in high ambient light conditions. Use MB5 to protect from contamination and to shield unit from direct lighting.
DS47L-SSP-HID-I	ScrambleSmartProx - HID -Indala	As DS47L-SSP-HID except embedded low frequency reader, designed for use with Indala credentials.
DS47L-SSP-HID-I-HI	ScrambleSP - HID Indala - High Int. 'White'	As above but with high performance white incandescent high intensity display. For use in high ambient light conditions. Use MB5 to protect from contamination and to shield unit from direct lighting.
DS47L-SSP-HID-SN	ScrambleSmartProx - HID - Serial Number	DS47L-SSP-HID with firmware to provide MIFARE/DESFire Serial Numbers
DS47L-SSP-HID-SN-HI	ScrambleSP - HID - Serial No. - High Int.	As above but with high performance incandescent high intensity display
DS47L-SSP-HID-64	ScrambleSP - HID - 64-bit FASC-N/PIV	DS47L-SSP-HID with firmware to provide 64bit Weigand output from encoded FASC-N
DS47L-SSP-HID-64-HI	ScrambleSP - HID - 64-bit -High Int.	As above but with high performance incandescent high intensity display
DS47L-SSP-HID-64-I	ScrambleSP - HID - 64-bit -Indala	DS47L-SSP-HID-64 with Indala low frequency reader
DS47L-SSP-HID-64-I-HI	ScrambleSP - HID - 64-bit -Indala -High Int.	As above but with high performance incandescent high intensity display
DS47L-SSP-HID-SN-I	ScrambleSP - HID - Serial No. - Indala	DS47L-SSP-HID-SN with Indala low frequency reader
DS47L-SSP-HID-SN-I-HI	ScrambleSP - HID - SN -Indala -High Int.	As above but with high performance incandescent high intensity display

Contact Inside Sales for full details of compatible credentials

Contact Identive

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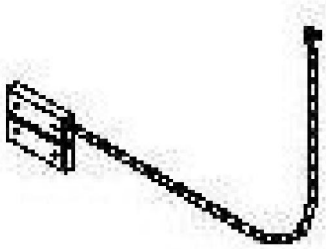
Revision/Date of release: 0/2012-09-10

www.hirsch-identive.com

Supervised Balanced Magnetic Switch, LM3
SBMS3-L2HSS



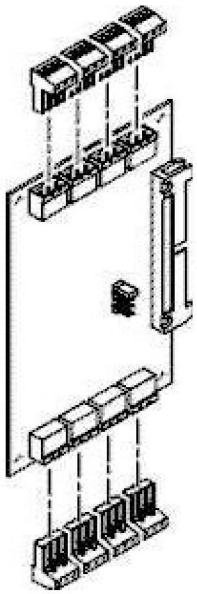
Magnasphere Level 2 Series High Security Sensor with integral Hirsch MELM3. High-Security triple biased door contact combines 2% multistage line supervision, RQE and TAMPER on a single pair of shielded wires. UL 634 Level 2 High Security Standard Listed for SCIF and all other high level secure applications. Aluminum housing, 3ft stainless steel cable. Intrinsically Safe (UL 913, Class I, II, III, Division 1 Hazardous Locations), hermetically sealed switch contacts, suitable for indoor or outdoor use. 0.062" actuation gap. Includes Tamper plate. 1.5"Hx4.25"Lx1.0"D.

Alarm Expansion Board - 8 Inputs

Model#: AEB8

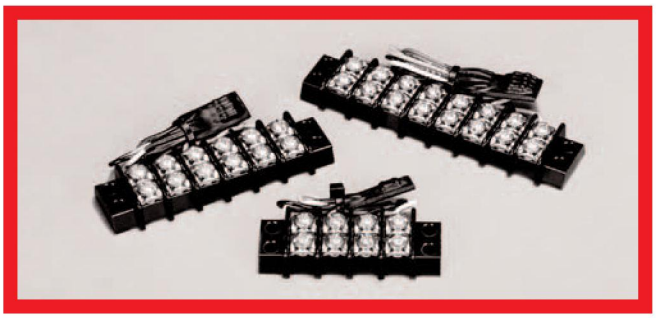
Adds 8 additional high security alarm inputs. Velocity supports up to 4 boards in M2, M8, MSP, M64 and up to 2 boards in M16. Each input requires appropriate Line Module. Features removable connectors. UL Listed. CE.

Note(s):



HIRSCH ELECTRONICS

Product Data Sheet



Alarm Line Modules

*Hirsch Alarm Line Modules provide high security line supervision and alarm masking functionality to DIGI*TRAC™ controllers.*

Features

- High Security Alarm Inputs
- 2% Line Supervision
- MELM May Be Located Within Sensor
- Monitors up to 3 Discrete Inputs
  - Alarm or Door Status
  - Alarm Masking or Request-to-Exit (RQE)
  - Tamper Alarm, Tamper Secure

Description

Hirsch DIGI*TRAC controllers use very stable digitally-processed analog inputs with 2% line supervision for high security alarm monitoring. A line supervision module (DTLM, MELM, or SBMS) is located at the door contact, alarm sensor, request-to-exit (RQE), or similar device to establish this supervision.

In lieu of "shunting," which turns off supervision, Hirsch uses "alarm masking" for full-time supervision and reporting of line status — even during hours of authorized access. Conditions reported include:

- Alarm
- Secure
- RQE
- Short
- Open
- Noise
- Mask
- Tampering
- Line-Out-of-Spec
- Latch Monitor (option)

For doors with access control, both monitoring and alarm notification are provided for:

- Door Forced Open
- Door Open Too Long
- Auto Re-Lock Status

Specifications

Electrical

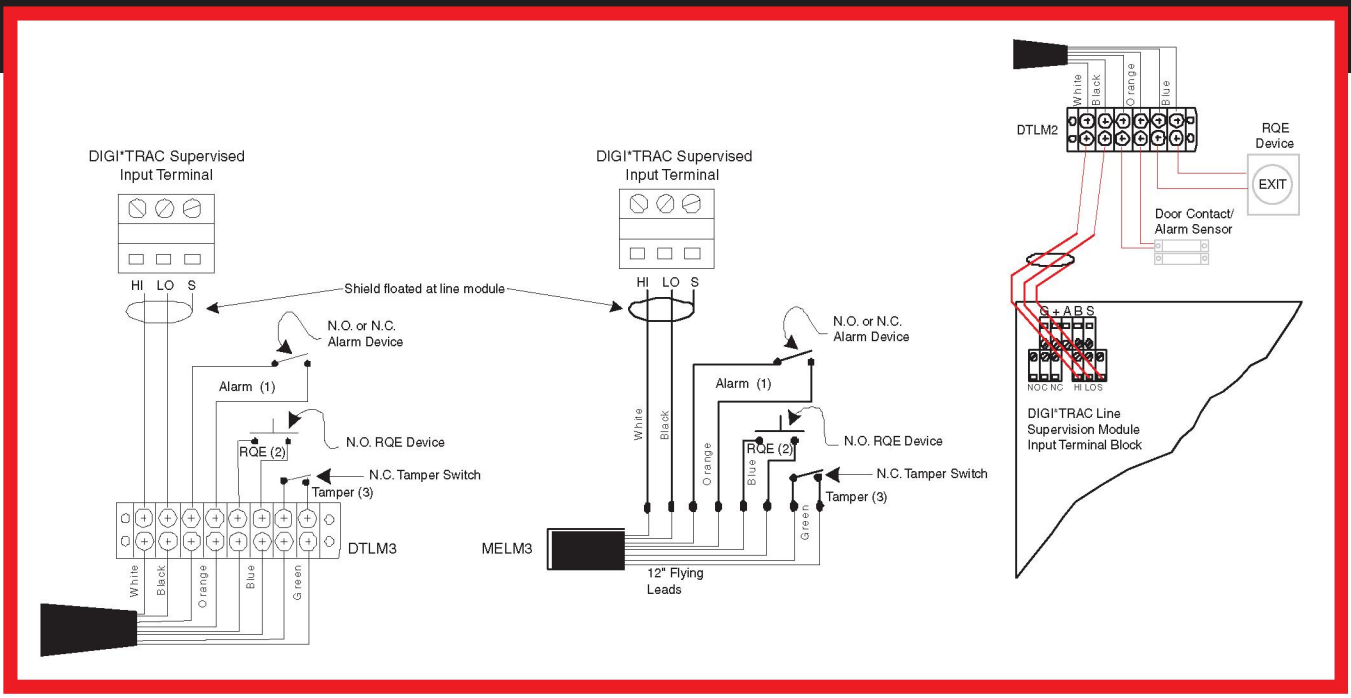
- Input 1: NO or NC (Alarm)
- Input 2: NO (RQE)
- Input 3: NC (Tamper- or Latch Monitor Option with CCM7.1x)
- Total Impedance: 10 Ohm maximum for alarm device contacts and cable
- Wiring Distances to DIGI*TRAC for 22 gauge twisted shielded pair:
  - DTLM1/MELM1: 5490 ft (1673 m)
  - DTLM2/MELM2: 3000 ft (914 m)
  - DTLM3/MELM3: 925 ft (282 m)

Physical

- Dimensions:
  - DTLM1: 2-1/8"L x 1-3/8"W x 3/8"H (5.5cm x 3.5cm x 1.1cm) each
  - DTLM2: 2-7/8"L x 1-1/2"W x 3/8"H (7.5cm x 3.7cm x 1.1cm) each
  - DTLM3: 3-5/8"L x 1-1/2"W x 3/8"H (9.3cm x 3.7cm x 1.1cm) each
  - MELM1: 1"L x 1/2" Dia. (2.5cm x 1.3cm)
  - MELM2: 1"L x 1/2" Dia. (2.5cm x 1.3cm)
  - MELM3: 1"L x 1/2" Dia. (2.5cm x 1.3cm)
  - SBMS3: 4-1/4"L x 1-1/2"W x 3/4"H (10.8 cm x 3.8 cm x 1.9 cm) each, with 3 ft. (92 cm) armored cable.
- Shipping Weight:
  - DTLM1: 1lb (.45kg)
  - DTLM2: 1lb (.45kg)
  - DTLM3: 1lb (.45kg)
  - MELM1: 1lb (.45kg)
  - MELM2: 1lb (.45kg)
  - MELM3: 1lb (.45kg)
  - SBMS3: 2lb (.9kg)
- Operating Temperature Range: 32° to 140°F (0° to 60°C)
- Relative Humidity: 0 to 90% non-condensing

Listings & Approvals

- UL 294 (ALVY) Access Control Systems Units
- UL 1076 Proprietary Burglar Alarm Systems Grade AA



Typical Controller-to-Line Module Wiring Diagram

Ordering Information

Model #	Description	Comments
DTLM1	DIGI*TRAC Line Module 1	1 input for Alarm/Door monitoring. Enables Auto-Relock function on a door. Consists of MELM1 prewired to one side of a two row terminal block. Locate at door or device supervised.
DTLM2	DIGI*TRAC Line Module	2 inputs for Alarm/Door monitoring and alarm mask/RQE. Enables Auto-Relock function on a door. Consists of MELM2 prewired to one side of a two row terminal block. Locate at door or device supervised.
DTLM3	DIGI*TRAC Line Module 3	3 inputs for Alarm/Door monitoring, alarm mask/RQE and tamper. Enables Auto-Relock function on a door. Consists of MELM3 prewired to one side of a two row terminal block. Locate at door or device supervised.
MELM1	Miniature Embedded Line Module 1	1 input for Alarm/Door monitoring. Enables Auto-Relock function on a door. Includes 12" color coded flying leads. For installation within the body of most alarm sensors. Locate at door or device supervised.
MELM2	Miniature Embedded Line Module 2	2 inputs for Alarm/Door monitoring and alarm mask/RQE. Enables Auto-Relock function on a door. Includes 12" color coded flying leads. For installation within the body of most alarm sensors. Locate at door or device supervised.
MELM3	Miniature Embedded Line Module 3	3 inputs for Alarm/Door monitoring, alarm mask/RQE and tamper. Enables Auto-Relock function on a door. Includes 12" color coded flying leads. For installation within the body of most alarm sensors. Locate at door or device supervised.
SBMS3-2707A	Supervised Balanced Magnetic Switch with Line Module 3	Sentrol #2707A-L14 with integral MELM3. High-Security triple-biased door contact combines 2% multistage line supervision, RQE and TAMPER on a single pair of shielded wires. UL Listed for vaults and safes. Aluminum housing, 3ft armored cable. 3/16 to 5/8 inch gap. Includes Tamper plate.

Note: 2% line supervision is available on DTML3/MELM3. DTLM1/MELM1 and DTLM2/MELM2 provide 4% line supervision.

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