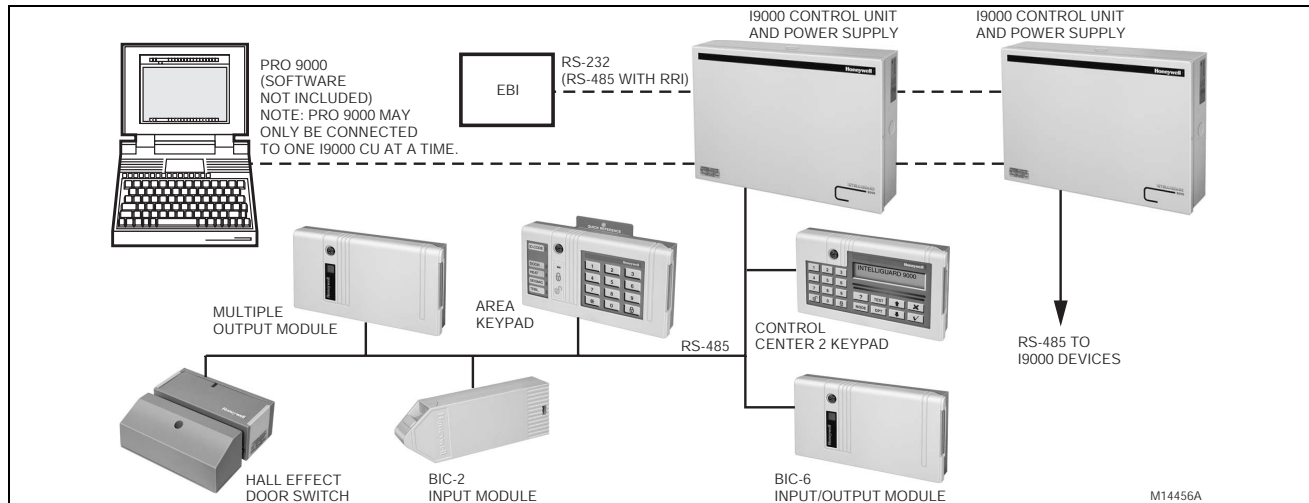


Intelliguard 9000™ SECURITY SYSTEM

SPECIFICATION DATA



SYSTEM FEATURES

- **Adaptable for a wide range of applications.**
- **Multiple area controls.**
- **False alarm reduction minimizes costly, unnecessary emergency calls.**
- **Cost effective protection.**
- **Easy-to-use.**
- **Multiple regulatory agency listings.**
- **Meets High Security UL Grade AA requirements.**

- 8003-242 2-Input Concentrator (BIC-2).
- 8003-277 Control Center 2 (CC2) Keypad.
- 8003-283 Hall Effect Door Switch IV (HEDS IV).
- 8003-284 2-Input Concentrator Hold-up Actuator (BIC-2 HU).
- 8003-286 Multiple Output Module (MOM).
- 8003-321 RS-232 to RS-485 Interface (RRI).
- 8003-332 I9000 EBI/Orbix Control Unit (CU) in casing.
- 12-volt batteries.

IMPORTANT

The Multiple Output Module is currently not a CE approved device. In countries requiring CE approval, the installer should reconfigure one or more BIC-6 input/output devices as output devices.

APPLICATION

The Intelliguard 9000™ (I9000) is a protection system designed to detect intrusions and other critical conditions when used with the Enterprise Buildings Integrator™ (EBI). The I9000 monitors multiple areas, receiving input and providing localized reporting and control. A single I9000 Control Unit can simultaneously monitor many different building areas with high security door sensors.

I9000 hardware includes:

- 8003-217 Remote Intelligent Power Supply (RIPS).
- 8003-220 Area Keypad (KID).
- 8003-238 6-Input Concentrator (BIC-6).

Other compatible detectors and output devices can be added to the system such as motion sensors, infrared sensors, sound detectors, lights, sirens and buzzers.

The I9000 detects an abnormal situation with one of its detection devices such as a HEDS IV, locates the alarm and then sends that alarm signal to the Enterprise Buildings Integrator™ (EBI). The EBI uses that signal to take the necessary action. The I9000 can also activate a local alarm output such as a siren, light, or buzzer when attached to the system.



All events are sorted by day and date and then recorded in an event log.

The I9000 recognizes a maximum of 99 users, plus one reserved for service personnel, and five security levels with individual identification numbers (ID) and passwords.

SPECIFICATIONS

Each component of the I9000 has the following temperature and humidity requirements:

Temperature Ratings: 32°F to 120°F (0°C to 49°C).

Humidity Ratings: 5% to 95% at 86°F (30°C) RH, non-condensing.

I9000 Control Unit

The Control Unit includes the 8003-295 Intelligent Switching Power Supply (ISP) and the 8003-331 Intelligent Communications Processor II (ICP II). The I9000 Control Unit supports up to 62 devices, 31 on each of two communication ports, with 512 input points and 64 output points. The Control Unit receives an intrusion alarm signal from a BIC-6, BIC-2, or HEDS IV. The CU processes the signal and sends it to the EBI, output devices, or both. The EBI uses the signal to take the appropriate action. The MOM, BIC-6 (configured for output), BIC-2, BIC-2 HU, or ISP output activates any local alarms such as a siren, light, or buzzer that are attached to the system.



The control unit supports up to eight ISPs, one of these is the ISP contained in the I9000 Control Unit enclosure itself and counts as one of the 62 devices. The other ISPs are located in RIPS, one ISP per RIPS. Depending on the installation power backup requirements, up to two batteries can be connected to the ISP. When the ISP programmable output is used, two batteries are recommended.

For added security, system configuration is only accessible using the service technicians ID and Code with the control unit in tamper alarm.

Model: 8003-332 I9000 EBI/Orbix Control Unit.

Firmware:

8950-109: Supports the I9000 EBI/Orbix protocol (included).
8950-100: Only supports existing XSM installations.

NOTE: Firmware 8950-100 (SMP protocol) must be ordered separately and field swapped at installation time.

Electrical Ratings:

Transformer: Must be connected to a non-switched electrical circuit.

Type: Class II Energy Limiting.

Output Voltage: 16 Vac.

Output Current: 2.3A.

Power Rating: 37 VA.

Intelligent Switching Power Supply (ISP)

ISP FEATURES

- **Red LED Communication Indicator is disabled if no jumper is present on the ISP tamper input.**
- **Green LED AC On Indicator.**
- **Switch selectable address (0, 1, 2, or 3). Learned using CC2 or PRO9000.**
- **Switch selectable programmable output mode (steady or pulsing).**
- **Status transmission (Low Battery, AC Fail, Tamper).**
- **RS-485 receiving and transmitting signals.**

Electrical Ratings:

Operating Voltage: 13.6 Vac to 17.6 Vac.

ICP Power Consumption during AC failure: 20 mA at 13.8 Vdc (maximum battery voltage). Add programmable output load current to this value if the output is used.

Outputs: 2 x 400 mA maximum at 12.9 Vdc ± 4%. One programmable switched output at 1A, 12 Vdc.

NOTE: Power for the ISP programmable switched output is partly obtained from the standby batteries. Therefore, this output should be used to drive loads such as sirens and bells for short durations (15 minutes maximum). Otherwise the battery capacity will be reduced and this will affect the total backup time available for the devices connected to that ISP.

Standby Batteries:

Model: YUASA P/N NP7-12, or equivalent.

Electrical Ratings: 12V, 7 Ah.

Type: Sealed lead acid.

Quantity: Two, maximum.

Dimensions, maximum: 2-9/16 in. (65 mm) wide x 3-7/8 in.

(98 mm) high (including terminals), x 6 in. (152 mm) deep.

Weight: 6.17 lb (2.65 kg).

Intelligent Communications Processor II (ICP II)

ICP II FEATURES

- **Enclosure tamper switch input.**
- **Two RS-485 ports for communicating with peripheral devices (receiving and transmitting signals).**
- **One RS-232 port for communicating with an EBI station, or for remote programming from a PC via PRO9000 (receiving and transmitting signals).**
- **Red communication status LEDs for all three ports. To save power, LEDs disabled when tamper normal.**
- **On-board independent battery backup for Real Time Clock and data memory. Ten year battery life.**
- **Reports a loss of Real Time Clock operation to the EBI (FW 8950-109 only; must be programmed in I9000).**
- **Reports a loss in device communication (must be programmed in I9000).**
- **Push button switch and yellow LED cold start indicator.**

Electrical Ratings:

Operating Voltage: 10 Vdc to 18 Vdc.

ICP II Power Consumption: 55.4 mA at 14.5 Vdc.

Wiring Connections: Table 1 describes the connections between the I9000 CU and its input and output devices. Use a RS-232 cable to connect the CU to the EBI. Use twisted pair cable to connect the RS-485 CU ports to the I9000 input and output devices.

NOTE: All devices should be equally divided among the two RS-485 communication lines to maximize system performance. See Control Center 2 Keypads and Area Keypads sections for details.

Enclosure: 0.06 in. (1.52 mm) cold rolled steel.

Dimensions: 14-7/16 in. (367 mm) wide x 10-5/16 in. (262 mm) high x 3-1/8 in. (79 mm) deep.

Weight: 8.66 lb (3.93 kg), without batteries.

Approvals: UL, ULC, CE.

Table 1. I9000 CU Cable, Baud Rate Connections to Input, Output Devices.

Designation	COM1, COM2	COM3
Application	I9000 CU and peripherals	EBI Interface
Electrical Interface	RS-485	RS-232
Cable	Twisted Pair (two or three pairs)	Shielded Cable, four conductors
Maximum Distance	3277 ft (999m)	75 ft (22m)
Baud Rate	4800 Baud	75-2400 Baud, Programmable
Word Format	10 Bits (Start, 7 Data, Even Parity, Stop)	12 Bits (1 Start, 8 Data, 1 Parity, 2 Stop)

NOTE: Device to CU wire gauge is 22 AWG. Voltage drops due to load and cable length may require an increase in conductor size to ensure devices remain within operational limits.

Power Supply

The I9000 and the RIPS operate from 16 Vac, 50/60 Hz (37 to 40 VA) provided by a locally supplied power transformer. For ULI installations, this is a Silent Knight model 9220 Transformer with Silent Knight model 4165 Enclosure or listed equivalent. For ULC installations (Canada only), this is a 5660-051 Honeywell Transformer Assembly.

Remote Intelligent Power Supply

A Remote Intelligent Power Supply (RIPS) consists of an I9000 enclosure containing the 8003-295 Intelligent Switching Power Supply (ISP) without an ICP II Control Board. The RIPS is required when the installation power requirements exceed the available control unit power.



Each I9000 CU supports a maximum of seven RIPS. The control unit supports up to eight ISPs (four per RS-485 port), seven in the RIPS (one per RIPS) and one located in the I9000 control unit enclosure. Depending on the installation power backup requirements, up to two batteries can be connected to each ISP. When the programmable outputs are used, two batteries are recommended for those respective RIPS.

Features

- Same as ISP features except the tamper input is factory wired to the RIPS enclosure tamper switch.
- When cover is closed, the red LED Communication Indicator is automatically disabled to save power.

Model: 8003-217 Remote Intelligent Power Supply (RIPS).

Transformer Electrical Ratings: Each RIPS must have its own transformer connected to a non-switched electrical circuit.

Type: Class II Energy Limiting.

Output Voltage: 16 Vac.

Output Current: 2.3A.

Power Rating: 37 VA.

RIPS Electrical Ratings:

Operating Voltage: 13.6 Vac to 17.6 Vac.

ISP Power Consumption During AC Failure: 20 mA at 13.8 Vdc (maximum battery voltage). Add programmable output load current to this value if the output is used.

Outputs: 2 x 400 mA maximum at 12.9 Vdc ± 4%. One programmable switched output at 1A, 12 Vdc.

NOTE: Power for the ISP programmable switched output is partly obtained from the standby batteries. Therefore, this output should be used to drive loads such as sirens and bells for short durations (15 minutes maximum). Otherwise the battery capacity will be reduced and this will affect the total backup time available for the devices connected to that ISP.

Standby Batteries:

Model: YUASA P/N NP7-12 or equivalent.

Electrical Ratings: 12V, 7 Ah.

Type: Sealed lead acid.

Quantity: Two maximum.

Dimensions: 2-9/16 in. (65 mm) wide x 3-7/8 in. (98 mm) high (including terminals), x 6 in. (152 mm) deep.

Weight: 6.17 lb (2.65 kg).

Communication: RS-485 receiving and transmitting signals.

Enclosure: 0.06 in (1.52 mm) cold rolled steel.

Dimensions: 14-7/16 in. (367 mm) wide x 10-5/16 in. (262 mm) high x 3-1/8 in. (79 mm) deep.

Weight: 8.62 lb (3.91 kg).

Approvals: UL, ULC, CE.

Control Center 2 Keypads

Each I9000 CU supports a maximum of four Control Center 2 (CC2) Keypads, two per communication channel maximum. Each CC2 displays current system status and allows local system control. The operator can perform all functions related to programming, arming and disarming any area at the CC2.



Features

- **Automatically learned by the I9000 CU at power up.**
- **Can be programmed via DIP switch for no backlighting or backlighting with auto shutoff after five minutes of no activity.**
- **Tone volume programmable via DIP switch for Low or High output.**
- **Supports four different addresses, programmable via DIP switches.**

Model: 8003-277 Control Center 2 Keypad.

Electrical Ratings:

Nominal Operating Voltage: 12 Vdc to 15 Vdc.
 Operating Voltage: 10 Vdc to 18 Vdc.
 Nominal Operating Current: 10 mA at 14.5 Vdc, no backlighting, (107 mA with backlighting).

Annunciation: Two line by 24 character LDC display with backlighting. Backlighting can be disabled to conserve power. A red LED and a tone give the user visual and audible keystroke feedback.

Keypad: Membrane keypad with 20 keys.

Communication: RS-485 receiving and transmitting signals.

NOTE: Control Center 2 Keypads should be equally divided among the two RS-485 communication lines to maximize system performance.

Enclosure: Plastic polycarbonate base, ABS plastic cover.

Dimensions: 6-7/8 in. (174 mm) wide x 3-3/4 in. (94 mm) high x 1-1/4 in. (30 mm) deep.

Weight: 0.72 lb (0.33 kg).

Approvals: UL, ULC, CE.

Area Keypads

Each I9000 CU supports a maximum of eight Area Keypads. Each Area Keypad (KID) shows the user if a specific area is armed or disarmed. The operator can arm, disarm, force arm, or partially arm a specific area at the KID.



Features

- **Serial numbered device—no address switch setting required—learned through the KID Keypad in conjunction with a CC2 Keypad or using PRO9000.**
- **Quick Reference guide (protruding from the top of the KID) can be extended as required.**
- **Keypad insert can be used to identify the four programmable LEDs at installation.**

Model: 8003-220 Area Keypad.

Electrical Ratings:

Nominal Operating Voltage: 12 Vdc to 15 Vdc.
 Operating Voltage: 10 Vdc to 18 Vdc.
 Nominal Operating Current: 28.6 mA at 14.5 Vdc.

Annunciation: Six LEDs; Arm/Disarm status (bi-color), ID/Code status (tri-color) and four red LEDs (control unit programmable), provide system feedback.

Keypad: Membrane keypad with 12 keys.

Communication: RS-485 receiving and transmitting signals.

NOTE: Area Keypads should be equally divided among the two RS-485 communication lines to maximize system performance.

Enclosure: Plastic polycarbonate base, ABS plastic cover.

Dimensions: 6-7/8 in. (174 mm) wide x 4-3/16 in. (106 mm) high x 1-1/4 in. (30 mm) deep.

Weight: 0.66 lb (0.30 kg).

Approvals: UL, ULC, CE.

BIC-6 Input Concentrator

Each I9000 CU supports a maximum of 62 input devices. The BIC-6 supports a maximum of six detection or output devices. The BIC-6 transmits information from the intrusion detection devices to the CU.



The BIC-6 is a combination input/output device. It has six loops. Each loop can be configured for input or output, independently from the other loops in the BIC-6. Each loop can be configured for normally open or normally closed contacts. Each loop can be wired with or without an end-of-line resistor (EOLR) depending on the loop type chosen. A loop configured as an open collector output may be used to drive an external LED directly (no external resistor required), a low current/voltage device or a relay module if a higher drive or isolation is required.

The BIC-6 can annunciate alarm or trouble in any loop on a 7-segment LED local display independently of the control unit, provided the corresponding BIC-6 parameter has been enabled. If several loops are abnormal, the local display automatically scrolls and displays all abnormal loops.

For installation or service, three onboard switches—in conjunction with the LED display—allow the technician to configure the unit. In this mode, the BIC-6 annunciates the programmed loop type for each loop which can then be modified using the switches.

Features

- **Enclosure tamper switch.**
- **Six independently programmable loops—four loop types:**
 - N.C. loop with EOLR.
 - N.O. loop with EOLR.
 - Output.
 - N.C. loop with no EOLR.
 - Interface is via three on-board push button switches and the 7-segment display.
- **Serial numbered device, no address switch setting required—learned using the programming interface in conjunction with a CC2 Keypad or using PRO9000.**
- **Status transmission (Alarm, Trouble, Tamper).**

Model:

8003-238 Six Entry Concentrator (BIC-6) Module.

Electrical Ratings:

Nominal Operating Voltage: 12 Vdc to 15 Vdc.

Operating Voltage: 10 Vdc to 18 Vdc.

Minimum Operating Current: 16 mA at 14.5 Vdc (all loops open).

Nominal Operating Current: 35 mA at 14.5 Vdc (all loops normal with a 2.2K ohm EOLR).

Maximum Operating Current (all input loops shorted, P0 = 1):
Normal Mode: 69 mA at 14.5 Vdc (type 2, **6** displayed).
Service Mode: 73 mA at 14.5 Vdc (type 4, **0** displayed).

Maximum Loop Distance: 250 ft (76m), 22 AWG (0.34 sq mm), twisted pair cable. UL and ULC limit the distance to 50 ft (15m).

Typical Loop Output Drive Current:

Direct LED Drive: 5.5 mA (not included in operating currents above).

Relay or Other Device: 80 mA maximum at 14.5 Vdc or Operating Voltage, whichever is less (not included in operating currents above).

Typical of Loop Inputs:

Time to Trigger BIC-6 Input: 750 mS min.

Cleaning Current of Detector Contacts Connected to Loops: 1 mA maximum.

Annunciation:

Display: 7-Segment LED.

Information:

Communication Status: Unit must be in tamper alarm.

All Loop Status: Unit must be in tamper alarm or the respective parameter must be enabled.

Loop Type during Local Programming: Unit must be in tamper alarm.

Communication: RS-485 receiving and transmitting signals.

Enclosure: Plastic polycarbonate base, ABS plastic cover.

Dimensions: 6-7/8 in. (174 mm) wide x 3-3/4 in. (94 mm) high x 1-1/4 in. (30 mm) deep.

Weight: 0.62 lb (0.28 kg).

Approvals: UL, ULC, CE.

BIC-2 Input Concentrator



The BIC-2 supports a maximum of two input (detection) and one output, configured by the installer. The inputs can be any standard detection device such as a sensor or contact switch, but must be normally open circuits. The output may be any standard notification device such as a bell or light. The BIC-2 transmits information from the intrusion detection devices to the CU.

Features

- **Enclosure tamper switch.**
- **Serial numbered device, no address switch setting required—learned using actuator buttons in conjunction with a CC2 Keypad or using PRO9000.**
- **Status transmission (Alarm, Trouble, Tamper).**
- **Honeywell patented.**

Models:

8003-242 BIC-2 Input Module with white actuator buttons. The BIC-2 actuator buttons may be used as any push button input to the system as required (except holdup). Push button activated by squeezing both white buttons at the same time.

8003-284 BIC-2 HU Input Module with Hold-up Actuator. The BIC-2 HU allows the user to send a distress signal to the I9000 Control Unit by squeezing both red buttons at the same time.

4545-059 Optional Relay for BIC-2. The optional relay for BIC-2, or BIC-2 HU provides one normally open or normally closed dry contact.

NOTE: If using the relay option, loop 2 is not available on either model.

Electrical Ratings:

Nominal Operating Voltage: 12 Vdc to 14.5 Vdc.

Operating Voltage: 10 Vdc to 15 Vdc.

Minimum Operating Current: 7.6 mA at 14.5 Vdc (both loops normal, no optional relay, no output active, not polled or idle).

Nominal Operating Current: 8 mA at 14.5 Vdc (both loops normal, 2.2K EOLR, no optional relay, no output active).

Maximum Operating Current: 31 mA at 14.5 Vdc (loop 1 shorted to ground, optional relay in closed position with output active).

Maximum Loop Distance: 250 ft (76m), 22 AWG (0.34 sq mm), twisted pair cable. UL and ULC limit the distance to 50 ft (15m).

Two loops jumper-programmable to a value of end-of-line resistor (EOLR): 2.2K (as shipped) or 22K ohm. The jumper affects both loops simultaneously.

Open Collector Output Switching Maximum: 20 mA at 14.5 Vdc or Operating Voltage, whichever is less.

One Optional Plug-in Relay Contact (normally open or normally closed): 30 Vdc at 1A.

Optional Relay Minimum Load Switching Current: 0.01 mA at 10 mV.

NOTE: If using the relay option, loop 2 is not available on either model.

Annunciation: Red LED communication status indicator visible through one of the actuator buttons.

Communication: RS-485 receiving and transmitting signals.

Enclosures:

BIC-2 Input Module: Plastic polycarbonate. White with white actuators.

BIC-2 HU Input Module: Plastic polycarbonate. White with red actuators.

Dimensions: 5 in. (127 mm) wide x 1-3/4 in. (44 mm) high x 1 in. (25 mm) deep.

Weight: 2-7/8 oz (0.08 kg).

Approvals: UL, ULC, CE.

Multiple Output Module

The I9000 activates alarms such as sirens, bells, lights, or buzzers with the multiple output module (MOM). Each MOM activates a maximum of eight alarms or notification devices. The I9000 CU supports four MOMs per communication line for a maximum of eight per system.



The MOM annunciates which outputs are active on a 7-segment LED local display independently of the I9000 control unit, provided the corresponding MOM parameter has been enabled. If several outputs are active, the local display automatically scrolls and displays all active outputs.

NOTE: The display indicates whether the function is active, not whether the output is open or closed.

For installation or service, three onboard switches—in conjunction with the LED display—allow the technician to configure the unit. In this mode the MOM annunciates the programmed output type for each output which can then be modified using the switches.

Features

- **Enclosure tamper switch.**
- **Eight independently programmable outputs—three output types:**
 - Output normally off—on when the I9000 linked function is active.
 - Output normally on—off when the I9000 linked function is active.
 - Output normally off—pulsates as long as the I9000 linked function is active.
 - Interface is via three on-board push button switches and the 7-segment display.
- **Serial numbered device, no address switch setting required—learned using the programming interface in conjunction with a CC2 Keypad or using PRO9000.**
- **Tamper transmission status.**

Model: 8003-286 Multiple Output Module (MOM).

Electrical Ratings:

Nominal Operating Voltage: 12 Vdc to 15 Vdc.

Operating Voltage: 10 Vdc to 18 Vdc.

Minimum Operating Current: 13.9 mA at 14.5 Vdc (outputs set to Type 0 or 3, outputs not active, parameter 0 = 0, tamper = normal, all switched loads powered separately).

Maximum Operating Current: 98.7 mA at 14.5 Vdc (all output drivers powered on (outputs set to Type 0, outputs active) parameter 0 = 1, tamper = normal, eight displayed, switched loads powered separately).

Maximum Switched Current per Output: 50 mA externally powered at 14.5 Vdc.

Maximum Output Terminal Voltage Drop: 1.0V (opto-coupler in the ON state).

Maximum Output Terminal Voltage: 30V (opto-coupler in the OFF state).

Annunciation:

Display: 7-Segment LED.

Information:

Communication Status: Unit must be in tamper alarm.

All active outputs: Unit must be in tamper alarm or the respective parameter must be enabled.

Output Type: Normally open, normally closed, or pulsating during local programming. Unit must be in tamper alarm.

Communication: RS-485 receiving and transmitting signals.

Enclosure: Plastic polycarbonate base, ABS plastic cover.

Dimensions: 6-7/8 in. (1.74 mm) wide x 3-3/4 in. (94 mm) high x 1 in. (25 mm) deep.

Weight: 0.64 lb (0.29 kg).

Approvals: UL, ULC.

Hall Effect Door Switch

Each Hall Effect Door Switch IV (HEDS IV) is a high security intelligent door contact/detector. It consists of two parts, the sensor (see photo—right side) and the magnet assembly (see photo—left side). The sensor is mounted on the door frame and the magnet assembly attaches to the door. When the door opens, the HEDS IV sends a signal directly to the I9000 Control Unit.



NOTE: Maximum gap permitted between the sensor and magnet assemblies is 3/16 in. (4.76 mm).

Model: 8003-283 Hall Effect Door Switch IV (includes both the 8003-280 and 8003-282).

Electrical Ratings:

Nominal Operating Voltage: 12 Vdc to 15 Vdc.

Maximum Operating Voltage: 10 Vdc to 18 Vdc.

Normal Operating Current: 7 mA at 14.5 Vdc.

Maximum Operating Current: 12 mA at 14.5 Vdc (learn mode).

Weight: 0.68 lb (0.31 kg).

Accessory (optional): 8003-302 HEDS IV L Bracket (white aluminum).

Approvals: UL, ULC, CE.

8003-280 Sensor

FEATURES

- **Serial numbered device, no address switch setting required.**
- **Learned through push button in conjunction with a CC2 Keypad or using PRO9000. Button also enables calibration mode.**
- **Completes calibration via the I9000 reset detector command—unauthorized calibration causes alarm.**
- **Magnet assembly substitution detection (causes alarm when polarity and field strength is out of calibrated range).**
- **Status transmission (Door Open, Door Closed, Calibration Failure).**

Annunciation: Red LED communication status indicator visible through a slot in the cover.

Communication: RS-485 receiving and transmitting signals.

Enclosure: Plastic polycarbonate and aluminum (white).

Dimensions: 4-1/4 in. (108 mm) wide x 2-1/16 in. (52 mm) high x 1-1/2 in. (39 mm) deep.

Weight: 0.4 lb (0.18 kg).

8003-282 Magnet Assembly

FEATURE

- **To prevent substitution, calibration is lost when Magnet Assembly is removed from mounted position.**

Enclosure: Plastic polycarbonate.

Dimensions: 4-1/4 in. (108 mm) wide x 1-3/4 in. (45 mm) high x 1-1/2 in. (39 mm) deep.

Weight: 2.88 oz (82g).

Other Detection and Alarm Devices

The I9000 accepts detection and output devices not described in this specification. Any device added to the system must conform to the specifications for the I9000. Talk to your Honeywell representative for complete details.

Specifications

Detection Devices: Normally Open Dry Contacts Rated for Switching: 18 Vdc at 1 mA to 100 mA.

Output Devices: Nominal 12 Vdc Devices: 9V to 18V operating range at 1A maximum.

RS-232 to RS-485 Interface Assembly

The RS-232 to RS-485 Interface Assembly (RRI) is used to convert the RS-232 signals from the CU COM 3 Port to RS-485. This provides a means to connect the I9000 to the EBI workstation via RS-485 ports, as well as allowing multi-drop connections to other I9000 control units also equipped with an

RRI. Whether the EBI workstation is connected to a single I9000 or multi-dropped to several I9000 control units, the distance between units will be extended up to 3,277 ft (999m). The distance is based on the assumption that the units are extreme opposite devices with the longest cable length between them, not the devices that are physically located the farthest apart.

Features

- **DIP switches enable RS-485 end-of-line termination and line biasing.**

Model: 8003-321 RS-232 to RS-485 Interface Assembly.

Electrical Ratings:

Nominal Operating Voltage: 12 Vdc to 15 Vdc.

Operating Voltage: 10 Vdc to 18 Vdc.

Operating Current: See Table 2.

Table 2. Operating Current.

Connection Type	mA at 14.5V
Receiving (termination = enabled, bias = disabled).	5.0
Single Unit Connection, Transmitting (termination = enabled, bias = disabled).	36.2
Multi-drop Connection, Transmitting (termination = disabled, bias = disabled).	24.4

NOTES:

— Use 22 AWG twisted pair cable for RS-485 connections.

For the RS-232 connections between the RRI and the ICP II in the control unit enclosure, use solid 22 AWG wire obtained from the twisted pair cable. Shielded cable is not necessary because the wires are short and remain within the control unit itself.

— For further details on RS-485 line termination and biasing, refer to form no. 74-3047, Intelliguard 9000 Installation Instructions.

Dimensions:

2-3/4 in. (70 mm) wide x 3-3/16 in. (81 mm) high x 1 in. (25 mm) deep.

Mounting:

Mounts to inside of I9000 Enclosure using 7003-217 Plastic Track and 1041-004 Retaining Clip supplied with the RRI Assembly.

Weight: 2 oz (57g).

Approvals: UL, ULC.

Multi-Drop Configurations

As many as three I9000 Control Units (Intelligent Communications Processors (ICP-II) COM 3) can be connected to an EBI workstation using the RRI and RS-485 bus wiring. The I9000 data is communicated to the central; individual I9000s do not communicate peer-to-peer. Refer to form no. 74-3047, Intelliguard 9000 Installation Instructions for further details.

PRO9000 Software

Configure the I9000 and define detection points using the PRO9000 Software (not included with the I9000 CU). PRO9000 Software is a DOS application. It runs on any PC compatible computer running MS-DOS, Version 5.0 or higher, or Microsoft® Windows 95 in a DOS window, or Windows 2000 in a DOS full screen window. Refer to form no. 74-3046, Intelliguard 9000 Programmer's Guide for more information.

IMPORTANT

Product damage or failure may occur if this system is not installed and operated according to this specification.

Honeywell

Automation and Control Solutions

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