411UDAC

Digital Alarm Communicator Transmitter

Description

The Gamewell **411UDAC** is a compact multifaceted, stand-alone Fire Alarm Communicator designed for a variety of fire and non-fire applications. It provides four channels (inputs) that accept waterflow devices, two- and four-wire smoke detectors, pull stations, and other normally-open contact devices. The 411UDAC is a cost-effective solution for applications that require an existing (or new) Fire Alarm Control or Security Panel to transmit system status to an off-site monitoring facility for Central or Remote Station compliance. Due to its extremely flexible programming options, the 411UDAC is ideal for use as a stand-alone unit to monitor: sprinkler systems for waterflow and supervisory conditions; processes (i.e., water level, gas detection, loss of air flow); and normally-open contact devices. With fifteen selectable transmission formats, including Ademco Contact ID, compatibility with virtually all Digital Alarm Communicator Receivers (DACR) is ensured. Programming can be accomplished on-site with a hand-held programmer (PRO-411), or remotely utilizing an optional PK-CD upload/download software package. The PK-CD upload/download software also permits system interrogation and revision from a remote site.

Phone Line Connections

Two modular phone connections are provided on the 411UDAC, accessible by simply opening the door. They provide connections for two separate telephone lines using standard RJ31X jacks. Both telephone lines are constantly supervised for proper voltage and current. If one phone line goes into fault, and the remaining a operational, a report is sent to the central or remote station via the operable phone line.

Communication Formats

0: 4+1 Ademco Express Standard, DTMF, 1400/2300 ACK.

1: 4+2 Ademco Express Standard, DTMF, 1400/2300 ACK.

2: 3+1 Standard 1800 Hz Carrier, 2300 Hz ACK.

3: 3+1 Expanded 1800 Hz Carrier, 2300 Hz ACK.

4: 3+1 Standard 1900 Hz Carrier, 1400 Hz ACK.

5: 3+1 Expanded 1900 Hz Carrier, 1400 Hz ACK.

6: 4+1 Standard 1800 Hz Carrier, 2300 Hz ACK.

7: 4+1 Expanded 1800 Hz Carrier, 2300 Hz ACK.

Features

- Four supervised monitoring channels (inputs): three fixed Style B (Class B) and one Style A (Class A) or style B (Class B).

- **Inputs may be individually programmed for stand-alone applications, or when monitoring a host control panel, for:** Two- and four-wire smoke detectors (Inputs 1 and 3), pull station, normally-open contacts, host panel trouble (slave mode), supervisory, supervisory (autoresettable), waterflow (silenceable and non-silenceable), process monitoring, and process monitoring (autoresettable).

- One Style Y (Class B) Notification Appliance (bell) Circuit (NAC).

- 1.0 Amp notification appliance power.

- Coded (temporal) notification appliance (bell, signal) circuit.

- 12 VDC operation.

- Capable of 60 hours standby.

- Seven individual LEDs; six visible through door: AC Power, system trouble, system alarm, supervisory, communication fail, battery trouble, and Earth fault (not visible with door closed).

- Dual telephone lines: Dual telephone line voltage detect, and alternating phone lines 24-hour test messages (programmable).

- Industry-first, UL recognized, "dialer runaway" prevention feature.

- New long-distance Carrier Access Code (CAC) compliant, accepting 20-digit central station and service terminal telephone numbers.

Features continued on page 2.

Listings

Listings and approvals below apply to the basic 411UDAC. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL Listed: file S624.

- CSFM approved: file 7300-0075:174.

- MEA approved: file 328-94-E Vol. VI.

- NFPA 72 National Fire Alarm Code.

- FCC Registration: OAAUSA-25431-AL-E.

- Ringer Equivalance: 0.5 B.

Gamewell™
A 150-Year Tradition

8: 4+1 Standard 1900 Hz Carrier, 1400 Hz ACK.

9: 4+1 Expanded 1900 Hz Carrier, 1400 Hz ACK.

A: 4+2 Standard 1800 Hz Carrier, 2300 Hz ACK.

B: 4+2 Expanded 1800 Hz Carrier, 2300 Hz ACK.

C: 4+2 Standard 1900 Hz Carrier, 1400 Hz ACK.

D: 4+2 Expanded 1900 Hz Carrier, 1400 Hz ACK.

E: Contact ID, DTMF, 1400/2300 ACK.

F: Future use.

Programming

An optional digital programming unit with a keypad, model PRO–411, is available programming the 411UDAC. It is also used for troubleshooting and accessing the various modes of operation. **Off-site programming** can be accomplished with the optional PK-CD programming software. The PK-CD enables a user to program the 411UDAC offsite via the public switched telephone network using any personal computer with Windows® 3.1 or higher or Windows® 95 and a 1200-baud Hayes® compatible modem.

Housing

The cabinet is red and measures 14.5" (36.83 cm) high x 12.5" (31.75 cm) wide and 2.875" (7.303 cm) deep. It provides space for up to two 7 A.H. batteries (order batteries separately). An optional dress panel, DP-2, which mounts inside the cabinet, is available. The dress panel restricts access to the system wiring but allows access to the membrane switch panel.

Transformer Assembly

One transformer is shipped in the same carton as the cabinet and main circuit board but not mounted in the cabinet. The transformer should be installed before the cabinet is mounted to the wall.

Auxiliary Relay

Two optional Form-C relays (**411RK**) are available for installation on the 411UDAC main circuit board. The relays are programmable for activation on fire alarm, host panel trouble, fire supervisory, process monitoring, total communications failure, and DACT trouble. **Relay contact rating:** 2.0 amps @ 30 VDC (resistive).

Features continued...

- Fully programmed transmittal codes for fire and non-fire (e.g., process monitoring) applications.

- Industry-first, user-selectable restoral methods.

- **Capable of transmitting the following DACT information, in addition to vital system status of the host control panel:** DACT troubles, telephone line 1 and 2 voltage fault, primary or secondary Central Station communication fault, system off-normal, 24-hour normal test and 24-hour abnormal test.

- Includes 15 popular communication formats, including the widely used **Ademco Contact ID** format, ensuring compatibility with virtually all DACRs.

- Local piezo sounder with separate and distinct sounds for various conditions.

- Acknowledge/System Silence and Reset switches.

- Alarm Verification.

- Signal silence inhibit.

- Autosilence.

- Trouble reminder (with 24-hour resound).

- Real-time clock.

- **Optional two Form-C relays (411 RK), fully programmable to activate for the following conditions:** Fire alarm, process monitoring (autoresettable), host control panel trouble, total communication trouble, fire supervisory (latching and autoresettable), DACT trouble (factory default for relay) and process monitoring.

- Optional PK-CD Remote Upload/Download Kit.

- Optional DP-2 Dress Panel.

Specifications

AC Power (TB3): 120 VAC, 60 Hz, 0.3 amps.

Wire size: minimum 14 AWG (2.00 mm²) with 600 V insulation.

Battery (lead-acid only) (J3): maximum charging circuit: normal flat charge 13.7 V @ 0.6 amps.

Maximum charger capacity: 14 AH battery.

Channels/Inputs (TB2 terminals 1 through 10):

- Programmable channels 1 through 4.

- Power-limited circuitry.

- Fully supervised (monitored for opens, shorts, and earth faults).

- Normal operating voltage: 12.0 VDC (ripple 100 mV maximum).

Ordering Information

411UDAC   Four-channel, dual-line, stand-alone or slave Fire Alarm Communicator. Includes housing, operating and programming instructions. Use PRO-411 *(below)* hand-held DACT programmer for local programming; or PK-411UD *(below)* Windows®-based programming software for remote programming and real-time diagnostics.

DP-2   Front dress panel.

PRO-411   Optional hand-held DACT programmer which can be used to troubleshoot and program the 411UDAC, as well as access the various modes of operation.

PK-CD   Remote upload/download programming software kit. The PK-CD enables a user to program the 411UDAC off-site via the public switched telephone network using any personal computer with Windows® 3.1 or greater or Windows® 95 and a 1200-baud Hayes®-compatible modem.

411RK   Optional dry auxiliary Form-C relays, with contacts rated for 2.0 amps @ 30 VDC (resistive) or 0.5 amps @ 30 VAC (resistive). *Optional use requires two relays.*

MCBL-7   DACT phone cord, seven feet long *(two required).*

BAT-1270   Battery, 12-volt, 7.0 AH *(one required for 24-hour systems; two [wired in parallel] required for 60-hour systems).*

17062   Gamewell key.

17066   Gamewell lock.

Specifications continued...

- End-of-line resistor: 2.2K ohms, 1/2 watt (P/N 27070, UL listed).

Operation for each channel:

- **Channel/Input 1**, Style B (Class B) two-wire smoke detector input and **Channel/Input 3**, Style B (Class B) or Style D (Class A) two-wire smoke detector or waterflow input.

- **Channel/Input 2** and **Channel/Input 4** Style B (Class B) contact closure input.

- Refer to Device Compatibility Document for listed compatible devices.

Notification Appliance Circuit (TB4 Terminals 1[+] and 2 [–]:

- Style Y (Class B) circuit.

- Power-limited and supervised (monitored for opens, shorts, and earth fault).

- Operating voltage nominal 13.8 VDC.

- Current for all external devices: 1.0 amp.

- End-of-line resistor: 2.2K ohms, 1/2 watt (P/N 27070).

- Refer to Device Compatibility Document for listed compatible devices.

Two Optional Form-C Relays (TB1 Terminals 1 through 6): Operating voltage: nominal 12 VDC. Contact rating: 2.0 amps @ 30 VDC (resistive), or 0.5 amps @ 30 VAC.

12 VDC Resettable Power (TB4 Terminals 3[+] and 4 [–]:

- Operating voltage: nominal 12 volts.

- Up to 200 mA available to power four-wire smoke detectors.

- Power-limited and supervised circuitry.

- Recommended maximum standby current: 50 mA.

  Note: *For power supply and battery calculations, refer to the 411UDAC manual.*

OPERATING POWER:
  Primary Power Source (AC):
  AC power connections are made inside the 411UDAC cabinet. The primary power source is 120 VAC, 60 Hz, 0.3 amps.

  Secondary Power Source (Batteries):
  One 12-volt battery can provide power for up to 7 AH applications. Two 12-volt, 7 AH batteries (in parallel) can provide power for up to 14 AH applications (60-hour standby). The battery charger is current-limited and capable of recharging sealed lead-acid-type batteries. The charger shuts off when the system is in alarm. Refer to the battery calculations table in the 411UDAC manual to determine the correct battery rating.

Compatible UL-Listed Recievers

The chart below shows UL-listed receivers compatible with the 411UDAC:

	Format # (addresses 16 & 42)	Ademco 685 (1)	Silent Knight 9000	ITI CS4000 (3)	FBI CP220FB	Osborne Hoffman Models 1 & 2	Radionics 6000/6500 (5)	Sescoa 3000R (7)	SurGuard MLR-2 (9)
0	4+1 Ademco Express	4			4				4
1	4+2 Ademco Express	4			4	4 (8)		4	4
2	3+1/Standard/1800/2300	4	4 (2)	4	4 (4)	4	4 (5,6)	4	4
3	3+1/Expanded/1800/2300	4	4 (2)	4	4 (4)	4		4	4
4	3+1/Standard/1900/1400	4	4 (2)		4 (4)	4		4	4
5	3+1/Expanded/1900/1400	4	4 (2)		4 (4)	4		4	4
6	4+1/Standard/1800/2300	4	4 (2)	4	4 (4)	4	4 (5)	4	
7	4+1/Expanded/1800/2300	4	4 (2)		4 (4)	4		4	4
8	4+1/Standard/1900/1400	4	4 (2)		4 (4)	4		4	4
9	4+1/Expanded/1900/1400	4	4 (2)		4 (4)	4		4	4
A	4+2/Standard/1800/2300	4	4 (2)	4	4 (4)	4	4 (5)	4	4
B	4+2/Expanded/1800/2300	4	4 (2)		4 (4)	4		4	4
C	4+2/Standard/1900/1400	4	4 (2)		4 (4)	4		4	4
D	4+2/Expanded/1900/1400	4	4 (2)		4 (4)	4		4	4
E	Ademco Contact ID	4			4	4			4

51735rec.tbl

KEY:

(1) With 685-8 Line Card with Rev 4.4d software.

(2) With 9002 Line Card Rev 9035 software or 9032 Line Card with 9326A software.

(3) Rev. 4.0 software.

(4) FBI CP220FB Rec-11 Line Card with Rev 2.6 software and a memory card with Rev 3.8 software.

(5) Model 6500 with Rev 600 software.

(6) Model 6000 with Rev 204 software.

(7) With Rev B control card at Rev 1.4 software and Rev C line card at Rev 1.5 software.

(8) Model 2 only.

(9) Version 1.62 software.

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