MODULARM DAC-55™ & DL-35™

Door Monitors

For Walk-In Freezers, Walk-In Coolers, Temperature or Environmentally Sensitive Compartments & Secure Areas

Features at a Glance

- Door Ajar Alarm (field adjustable time delay) with visual, audible and remote notification. (Remote on DAC-55 only)
- Panic (Entrapment) Alarm, manual and automatic. (Accessible with optional Illuminated Pushbutton, Part # IP-1)
- Automatic control of interior compartment lights relative to the status of the door
- (DAC-55 only) Automatic control of the refrigeration system (fans and solenoid) relative to the status of the door in a variety of user selectable configurations
- (DAC-55 only) Automatic restarting of refrigeration (fans and solenoid) in a doorajar alarm condition
- (DAC-55 only) Compatible with the Datalarm™ Monitoring/Data Logging System

Benefits

- Saves energy
- Increases operator safety
- Lowers equipment maintenance costs
- Reduces coil icing
- Helps compartment to operate more efficiently
- Helps to maintain product integrity and prevent loss
- Makes functions normally "personnel controlled" automatic to eliminate user error:
 - a. Replaces standard light switches
 - B. Replaces mechanical refrigeration shutoff timers, door operated refrigeration shutoff switches and manually operated shutoff switches (DAC-55 only)
- Easy to install



Applications

- Supermarkets and Convenience Stores
- Fast Food Facilities
- Hotels and Resorts
- Correctional Institutions
- Restaurants and Catering Halls
- Schools and Cafeterias
- Institutional Kitchens and Nursing Homes
- Hospitals and Blood Banks
- Environmental Rooms and Biomedical Labs
- Warehouse Facilities
- (DL-35) Secure Areas, such as College Dormitories

Operation

The DAC-55 and the DL-35 use low voltage magnetic contacts to monitor door status. (Additional contacts may be added to monitor multiple doors.) Both units use internal relays (dry contacts) to perform control functions. Operation is as follows:

| | MONITORED CONDITIONS | | | | |
|--|---|--|--|--|--|
| SYSTEM FUNCTIONS | DOOR CLOSED (NORMAL OPERATION) *1 | DOOR OPENED | DOOR OPENED FOR TOO LONG (ALARM DELAY TIMES OUT) | DOOR CLOSED | |
| DOOR AJAR ALARM | No alarm | Visual Alarm activates. Audible Alarm Delay activates. (Field adjustable, 5-45 minutes) | Audible Alarm activates. (Alarm Relay also activates on DAC-55 only) | Alarm functions reset. No alarm. | |
| INTERIOR LIGHTS | OFF | ON | ON | Lights turn off 10 minutes after door is closed. (Unless optional IP-1 is pressed if installed. See back) | |
| REFRIGERATION SYSTEM (DAC-55 ONLY) | ON | Refrigeration operation may be interrupted depending upon setting of user selectable parameters *2 | If refrigeration operation has been interrupted and door remains open for 40 seconds after audible sounds, refrigeration will automatically restart. (Auto restart) | Resume after safety delay | |

^{*1} Door closed at any time always restores normal operation. (No Alarm, Lights Off, Refrigeration On.)

- Constant On Refrigeration Switch When selected, refrigeration operation is unaffected when door is opened.
- Refrigeration Shutoff Pre-Delay Adjustment Provides means for creating a period of time from when door is opened to when refrigeration operation is interrupted. (A significant feature for food service applications with frequent short duration opening and closing of compartment doors.) Range: 1-120 seconds.
- 3. Fan Shutoff Switch When selected, fans shut off immediately when door is opened. (Solenoid still responds to the Refrigeration Shuttoff Pre-Delay Adjustment setting.)

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^{*2} The DAC-55 may be configured to affect refrigeration operation in a variety of user selectable configurations:

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PRESS TO MEET LIGHTS ON PARIC AL GOODS PARIC AL GOODS PRESS ROLL FOR 2 SEC. PRESS A ROLL FOR 2 SEC. PR

IP-1 Illuminated Pushbutton (Optional Accessory)

The IP-1 mounts **inside** of the monitored compartment. **With the door closed and the user inside of the compartment**, the IP-1 offers the following additional functions:

- Lights & Refrigeration Control –
 Momentarily pressing the pushbutton will
 shut refrigeration off (DAC-55 only) and
 keep interior lights on. (Functions return
 to normal operation when user exits and
 closes door.)
- Panic Alarm Holding the pushbutton for 2 seconds causes immediate activation of all alarm functions. A Safety Feature for when personnel may be trapped in a compartment by a malfunctioning door or a doorway being blocked. (Functions return to normal operation when user exits and closes door.)

SPECIFICATIONS

| | DAC-55 | DL-35 | |
|------------------|---|---|--|
| DIMENSIONS | Surface: 8" L x 6" W x 1.8" D | Surface: 4.5" L x 2.75" W x 2.5" D | |
| POWER | 120 VAC @ 80 mA, surge protected. (Other operating voltages available) | 120 VAC @ 20 mA, surge protected. (Other operating voltages available) | |
| CONTACTS | Lights: N/O Dry Contacts, 30A Fans: N/C Dry Contacts, 30A Solenoid: N/C Dry Contacts, 5A Alarm Relay: N/O & N/C Dry Contacts, 1A @ 12 VDC | Lights: N/O Dry Contacts, 30A @ 120 or 240 VAC (Built-In Arc Suppression on all control contacts to minimize pitting) | |
| AUDIBLE ALARM | Piezo Horn: Frequency -2500kHz, SPL -100dB @ 30cm Typical | Piezo Horn: Frequency -3.8kHz, SPL -85dB @ 3' Typical | |
| VISUAL ALARM | Strobe Light | Red LED | |
| TIME DELAY | Door Ajar Alarm. Range: 5-45 minutes. Refrigeration Shutoff pre-delay. Range: 1-120 seconds | Door Ajar Alarm. Range: 5-45 minutes | |



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WARRANTY

Kitchen Brains warrants that its products shall not fail to function in accordance with their specifications because of defects in material or workmanship, for the following warranty periods:

- New Products: New Products consisting of microprocessor based controllers, timers, data-loggers or remote monitoring devices for 1 year from date of purchase.
- ii. Sensors and Accessories: Sensors and accessories (consisting of probes, wireless sensors, hoses, relays, switches, mounting hardware or accessories) for 90 days from date of purchase.

For complete details consult www.kitchenbrains.com/warranty

PATENTS

The products manufactured by Kitchen Brains are protected under one or more of the following U.S. Patents:

| 5,331,575 | 5,539,671 | 5,711,606 | 5,723,846 |
|-----------|-----------|-----------|-----------|
| 5,726,424 | 5,875,430 | 6,142,666 | 6,339,930 |
| 6,401,466 | 6,401,467 | 6,581,391 | 7,015,433 |
| 7,145,463 | 7,650,833 | 7,877,291 | 8,060,408 |
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Plus foreign patents and patents pending. Plus licensed patent 5,973,297

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