

Modularm **DAC-55™** & **DL-35™** Door Monitors

FOR WALK-IN FREEZERS, WALK-IN COOLERS, TEMPERATURE OR ENVIRONMENTALLY SENSITIVE COMPARTMENTS & SECURE AREAS

PATENTED MICROCONTROLLER TECHNOLOGY



DAC-55

FEATURES:

- 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 & 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 door-ajar alarm condition.
- (DAC-55 only) Compatible with the **Datalarm™** Monitoring/ Data Logging System.

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

BENEFITS:

- Saves energy
- Increases operator safety
- Lowers equipment maintenance costs
- Helps compartment to operate more efficiently
- Reduces coil icing
- 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



DL-35



MODULARM CORPORATION

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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:

SYSTEM FUNCTIONS	MONITORED CONDITIONS			
	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, 2-60 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 40 seconds after door is closed. (Unless optional IP-1 is pressed if installed. See below)
REFRIGERATION SYSTEM (DAC-55 only)	ON	Refrigeration operation may be interrupted depending upon settings 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)	ON

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

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

1. **Constant On Refrigeration Switch** - When selected, refrigeration operation is unaffected when door is opened.
2. **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 Shutoff Pre-Delay Adjustment setting.)

SPECIFICATIONS:

	DAC-55	DL-35
Dimensions:	Surface: 8" L x 6" W x 1.8" D Flush: 9.375" L x 4.75" W x 1.8" D	Surface: 4 1/2" L x 2 3/4" W x 2 1/2" D Recessed: 4 1/2" L x 2 3/4" W x 1" 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 All control contacts @ 120 or 240 VAC 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 - 2500 kHz SPL - 100db @ 30cm Typical	Piezo Horn: Frequency-3.8 kHz, SPL-85 dB @ 3' typical.
Visual Alarm:	Strobe Light	Red LED
Time Delay:	Door Ajar Alarm. Range: 2-60 minutes. Refrigeration Shutoff pre-delay. Range: 1-120 seconds	Door Ajar Alarm. Range: 1-60 minutes

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:

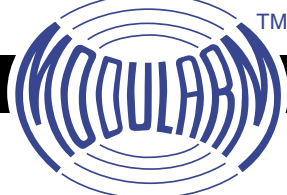
1. **Lights & Refrigeration Control**
Momentarily pressing the pushbutton will shut refrigeration off (DAC-55 only) and keep interior lights on. (Functions return to normal operation when user exits and closes door.)
2. **Panic Alarm** - Holding the pushbutton for 2 seconds causes immediate activation 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.)



IP-1

WARRANTY: All systems and components manufactured by Modularm Corporation are warranted to be free from defects in material and workmanship under normal use and service for a period of one year from date of installation. If, during this time period and after examination, any Modularm system or component appears to be defective, Modularm agrees to repair or replace same. This warranty shall not apply to any system or component that has been altered or repaired by anyone other than a factory authorized representative. Modularm Corporation limits this warranty only to those systems and components which it specifically manufactures, and its sole liability shall be to repair or replace these systems and components in accordance with the aforementioned terms, and assumes no additional liabilities. In no case will Modularm's liability exceed the purchase price paid for the product. No other warranty is expressed or implied regarding the sale or use of Modularm systems or components.

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