

# PRESSURE CONTROLS

## 3100 MINI-GARD® PRESSURE CONTROLS

The 3100 Series of Mini-Gard pressure controls are designed for residential or commercial air conditioning equipment, refrigeration units, heat pumps, rooftop units, etc. These limit controls may also be used as operating controls in applications such as a low ambient condenser fan control. The units have factory set, nonadjustable pressure settings, and are available in low or high pressure models with automatic or manual reset (high pressure only).

### HEAVY DUTY MODELS

The 3100 Series heavy duty Mini-Gard pressure controls have a SPDT 25 amp rated switch. The control is suitable for handling heavier electrical loads on compressors in residential and commercial air conditioning refrigeration and heat pump applications.

### UNI-KIT MODELS

3100 Series Uni-Kit models include a special adaptor fitting (30-110) to allow quick and easy addition of a Mini-Gard pressure control to an existing system.

### ELECTRICAL RATING

#### STANDARD DUTY MODELS

RATING	24V	120V	240V
PILOT DUTY (VA)	75	375	375
A.C. FULL LOAD AMPS	-	5.8	2.9
A.C. LOCKED	-	34.8	17.4

#### HEAVY-DUTY MODELS

RATING	120V	240V	277V	480V	600V
A.C. FULL LOAD AMPS	25	25	20	4	3.2
A.C. LOCKED ROTOR AMPS	78	78	78	24	19.2
PILOT DUTY (VA)	750	750	-	125	125

## 3100 PRESSURE OPERATED FAN CYCLING CONTROLS

Condenser fan cycling allows a system to maintain proper head pressures throughout large ranges of ambient temperatures. Without any type of head pressure control, a system during low ambient conditions can subcool the liquid refrigerant causing flash gas to occur at the inlet of the expansion valve or other metering device, reducing system efficiency. There are two methods of cycling the condenser fan: Pressure (using the 3100 Series) and Temperature (using the E31-2826).

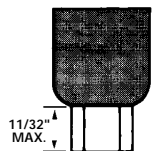
The 3100 Series fan cycling controls have the same features as the 3100 Series pressure controls except that they have pressure settings engineered for fan cycling applications. Some feature SPDT switching which permits use of a 2-speed condenser fan motor.

### ELECTRICAL RATING

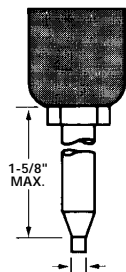
#### 3100

RATING	24V	120V	240V
FULL LOAD AMPS	-	5.8	2.9
LOCKED ROTOR AMPS	-	34.8	17.4
PILOT DUTY (VA)	25	375	375

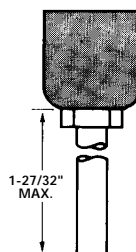
### PRESSURE PORT FITTING STYLES



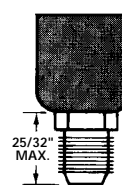
**STYLE 1**  
1/4" SAE FEMALE  
FLARED TUBE FITTING



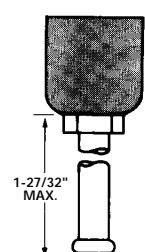
**STYLE 2**  
.093 CAPILLARY TUBE



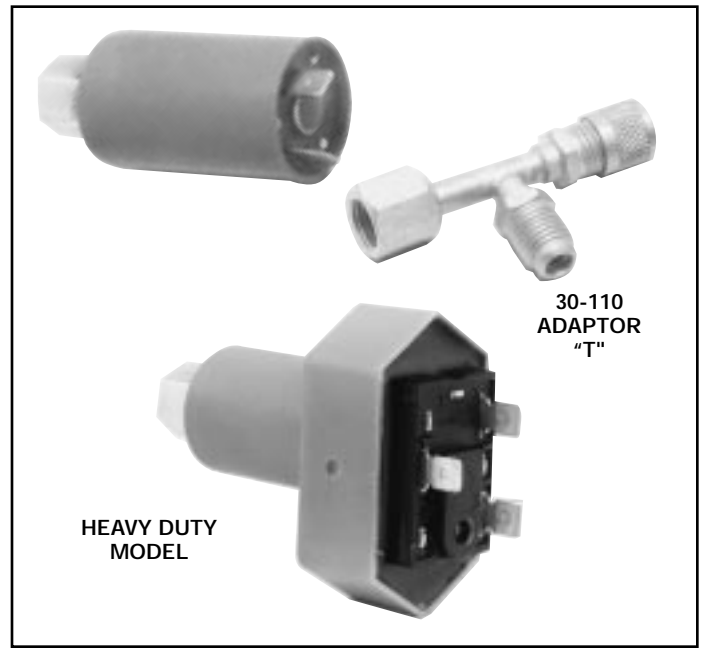
**STYLE 3**  
1/4" DIA. COPPER TUBE



**STYLE 5**  
1/4" SAE MALE  
FLARED TUBE FITTING



**STYLE 9**  
1-1/2" LONG  
1/4" STRAIGHT TUBE



### SPECIFICATIONS—ALL MODELS

Ambient rating	-20° to 150°F (-28.9° to 65.6°C),
Gas Temperature	0-100% relative humidity
Minimum	-35°F (-37.2°C)
Maximum	275°F (135.0°C)
SPDT switch	Terminal designations molded in switch Terminal 1 opens on pressure increase Terminal 2 is common Terminal 3 opens on pressure decrease

