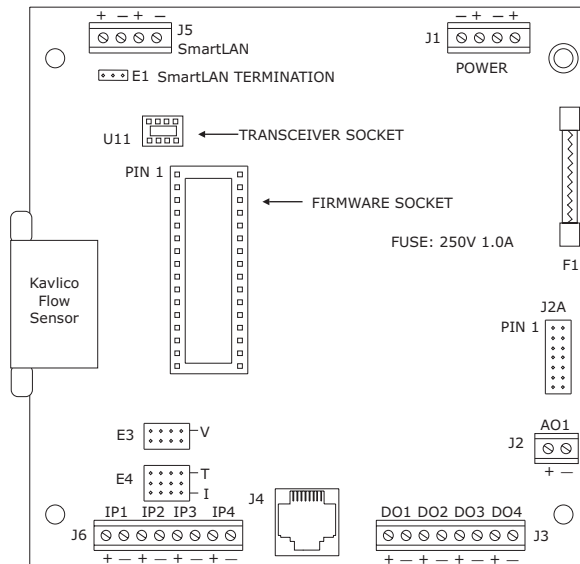




WALKER SYSTEMS

building intelligence



DESCRIPTION

MicroSACs are adapted for terminal equipment controls, such as variable air volume (VAV) systems, reheat, radiation and unitary applications, yet they are fully programmable. As such, these devices can also be applied to low point density areas within any control strategy.

Factory assembled VAV configurations are available for use as complete airflow stations (MicroSAC-20K and 21K). Options include damper motors and expander boards, all installed in a shielded metal enclosure suitable for direct mounting to ductwork.

MicroSAC-20K/21K (STAND ALONE CONTROLLERS)

APPLICATIONS

- low point density areas (4 inputs and up to 12 outputs in various combinations)
- airflow station VAV control
- fixed-function unitary control

FEATURES

HARDWARE

- 4 Universal inputs (all models)
- 4 digital Triac outputs (20K)
- 4 digital Triac & 1 analog output (21K)
- 2 analog outputs, 4 digital outputs or 8 digital outputs can be added to each
- isolated switching power supply
- watchdog timer
- FLASH memory
- communication LEDs
- 8 bit A/D and DAC

SOFTWARE

- menu-driven operator interface
- multilevel password security
- English language programming
- global system access
- fixed-function VAV routines

MicroSAC-20K/21K
TECHNICAL SPECIFICATIONS

I/O POINT QUANTITIES

| | MICROSAC-20K | MICROSAC-21K |
|---------|--------------------|--------------------|
| Inputs | 3 Universal/1 Flow | 3 Universal/1 Flow |
| Outputs | 4 Triac digital | 4 Triac/1 Analog |

INPUTS

| TYPE | USAGE | RANGES | DEVICES | DISPLAY |
|-----------|--------------------|--|---------------------|-------------------|
| Universal | voltage | 0-1 VDC / 0-5 VDC / 0-10 VDC | standard devices | 0 to 100% |
| | current | 1-5 VDC / 2-10 VDC | standard devices | 0 to 100% |
| | | 0-20 mA / 4-20 mA / 0-50 mA | current transducers | 0 to 100% |
| | digital | 1 mA to GND / 10mA to GND | contact closures | user defined |
| | temperature | -10°C to 140°C (14°F to 284°F) | 3k thermistor | temperature |
| | temperature | -40°C to 40°C (-40°F to 104°F) | 1k thermistor | temperature |
| | existing sensors | inputs can be adapted to operate with existing sensors | | temperature, etc. |
| Flow | diff. air pressure | see Kavlico Flow Sensor # D2 | flow sensor | 0 to 100% |

OUTPUTS

| TYPE | USAGE | RANGES | CAPACITY | DISPLAY |
|---------------|---------|-------------------------------|----------------|--------------|
| Analog | Voltage | 0-5 VDC / 0-10 VDC / 2-10 VDC | 20 mA & 50 mA | 0 TO 100% |
| | Current | 4-20 mA | 500 Ω | 0 TO 100% |
| | | 4-20 mA | 250 Ω | 0 TO 100% |
| Triac Digital | Digital | 24 VAC | 30 VAC @ 1.2 A | user defined |

EXPANSION OPTIONS

| COMPONENT | POINT TYPE | QTY | LIMITS |
|-----------|---|-----|---|
| MicroAO2 | analog outputs | 2 | A maximum of one expansion board (MicroAO2, MicroDO4, MicroDO8) may be added to a MicroSAC. |
| MicroDO4 | Triac digital outputs | 4 | |
| MicroDO8 | Triac digital outputs | 8 | |
| I/O Bus | See I/O Bus Specification Sheets Form No. WSC99-068, WSC99-73 to WSC99-81 | - | - |

FACTORY ASSEMBLIES

| MICROSAC-20K / MICROSAC-21K AIRFLOW STATION OPTIONS | |
|---|--|
| <ul style="list-style-type: none"> damper motor damper motor w/ position feedback potentiometer | <ul style="list-style-type: none"> MicroBOX shielded metal enclosure Kavlico flow sensor expansion options as above |

CPU & MEMORY

| PROCESSOR | | | MEMORY | | OTHER | | |
|-----------|-----|------|--------|------|----------|----------------|--------|
| CPU | MHz | BITS | RAM | ROM | CLOCK | A/D RESOLUTION | BACKUP |
| Z84C15 | 10 | 8 | 32k | 128k | software | 8 bit | FLASH |

COMMUNICATION PORTS

| TYPE | QTY | USAGE | 9.6 kbps | 38.4 kbps |
|--------|-----|----------------|----------|-----------|
| RS-232 | 1 | modem/terminal | ✓ | |
| RS-485 | 1 | SmartLAN | | ✓ |

ELECTRICAL / MECHANICAL

| TRANSFORMER | LOADED VA RATING | BOARD SIZE | TERMINAL CONNECTOR |
|-------------|------------------|------------|--------------------|
| 24 VAC | 6.8* | 155 X 14mm | RJ45† |

* 6.8 loaded VA rating for MicroSAC-20K/21K

† RJ45 (8-pin modular) includes connections for 3 input points and 1 low current status output

25.4mm = 1.0 inches