

Plug-in Signal Conditioners M-UNIT

DC ALARM
(thumbwheel switch adjustment)

MODEL **ASD1**

MODEL & SUFFIX CODE SELECTION

ASD1-□□□□□□□□

MODEL _____
 INPUT _____
 Current _____ Voltage _____
 A : 4 – 20mA DC 4 : 0 – 10V DC
 5 : 0 – 5V DC
 6 : 1 – 5V DC

SETPOINT 1 OUTPUT _____
 1 : Hi (coil energized at alarm)
 2 : Hi (coil de-energized at alarm)
 3 : Lo (coil energized at alarm)
 4 : Lo (coil de-energized at alarm)

SETPOINT 2 OUTPUT _____
 1 : Hi (coil energized at alarm)
 2 : Hi (coil de-energized at alarm)
 3 : Lo (coil energized at alarm)
 4 : Lo (coil de-energized at alarm)

ON DELAY TIME _____
 0 : 0.5 seconds 3 : 3 seconds
 1 : 1 second 4 : 4 seconds
 2 : 2 seconds

POWER ON DELAY TIME _____
 1 : 1 second
 2 : 2 seconds
 5 : 5 seconds

POWER INPUT _____
 K3 : 100 – 120V AC
 L3 : 200 – 240V AC* *Option /UL not selectable

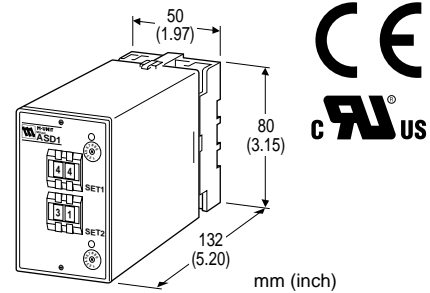
OPTIONS _____
 /UL : UL approval

ORDERING INFORMATION

Specify code number and variables.
 •Code number (e.g. ASD1-61302-K3/UL)

GENERAL SPECIFICATIONS

Construction: plug-in
Connection: M3.5 screw terminals
Housing material: flame-resistant resin (black)
Isolation: input to output to power
Setpoint adjustments: thumbwheel switches (front);
 0 – 99% independently; 1% increments
Deadband and latching control: 16-position rotary switches (front)
Deadband: 0.5, 1 – 14% independently; 1% increments (SW position 0 = 0.5, A thr. E = 10 thr. 14); [Lo SP + Deadband] ≤ 102
Latching: enabled at the position "F." For resetting, turn the power supply off or set the switch position to other than "F."



Functions & Features

- Providing SPDT relay outputs at preset DC input levels
- Dual trip
- Latching or non-latching output
- Thumbwheel switch setpoint adjustments
- Enclosed relays
- Relays can be powered 110V DC
- Isolation up to 2000V AC
- High-density mounting

Typical Applications

- Annunciator
- Various alarm applications

Front LEDs: red light turns on when the coil for output 1 is energized.
 green light turns on when the coil for output 2 is energized.

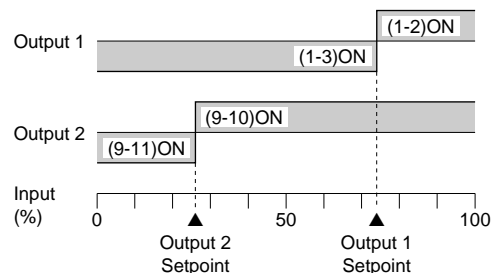
INPUT & OUTPUT

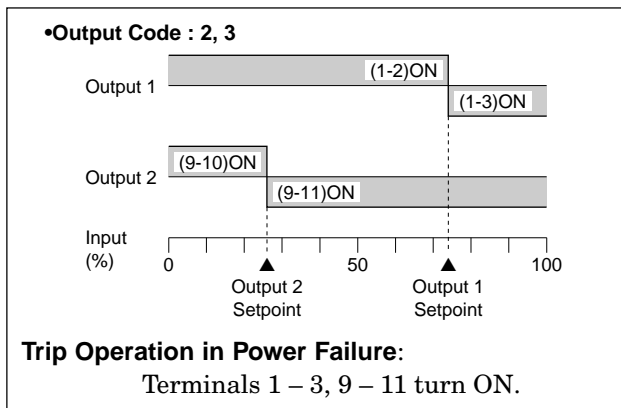
- INPUT
- DC Current: 4 – 20mA DC; shunt resistor attached to input terminals (0.5W)
 - Input resistance: 250Ω
 - DC Voltage: 0 – 10V DC, 0 – 5V DC or 1 – 5V DC
 - Input resistance: 1MΩ minimum

■OUTPUT

Alarm Trip Operation Terminal No. in parentheses

•Output Code : 1, 4





- Relay Contact: 120V AC @5A (cosφ=1)
240V AC @2.5A (cosφ=1)
30V DC @5A (resistive load)
electrical life 10⁵ cycles (rate 30/min.)
- Maximum switching voltage: 300V AC or 125V DC
- Maximum switching power: 600VA or 150W
- Minimum load: 5V DC @10mA
- Mechanical life: 5 × 10⁷ cycles

INSTALLATION

- Power input: operational voltage range for K3: 90 – 132V, L3: 180 – 264V, 47 – 66 Hz, approx. 3VA
- Operating temperature: -5 to +60°C (23 to 140°F)
- Operating humidity: 30 to 90% RH (non-condensing)
- Mounting: surface or DIN rail
- Dimensions: W50×H80×D132 mm (1.97"×3.15"×5.20")
See General Spec. Sheet Figure C-2.
- Weight: 300 g (0.66 lbs)
- Terminal assignment: See General Spec. Sheet Figure D-2.

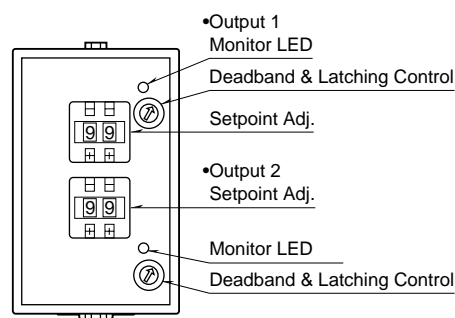
PERFORMANCE in percentage of span

- Setpoint accuracy: ±0.5%
- Deadband setpoint accuracy: ±0.3%
- ON delay time accuracy: (0 – 100% at 90% setpoint)
Code 0: 0.5 ±0.2 sec.
Code 1, 2, 3, 4: rating ±20%
- Power ON delay time accuracy: rating ±35%
- Trip point repeatability: ±0.05%
- Temp. coefficient: ±0.015%/°C (±0.008%/°F)
- Line voltage effect: ±0.1% over voltage range
- Insulation resistance: ≥100MΩ with 500V DC
- Dielectric strength: 2000V AC @1 minute
(input to output to power to ground)

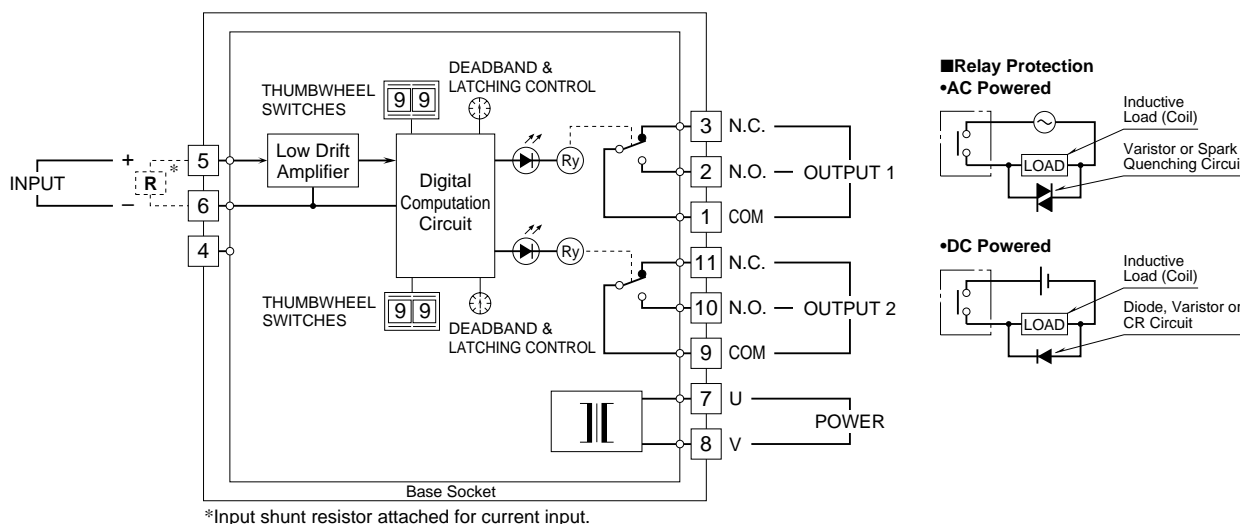
STANDARDS & APPROVALS

- CE conformity: EMC Directive (89/336/EEC)
EMI EN50081-2
EMS EN50082-2 (EN61000-6-2)
Low Voltage Directive (73/23/EEC)
Installation category II
Pollution degree 2
Max. operating voltage 300V
Input to output to power – Basic insulation
- Approval: UL/C-UL general safety requirements
(UL 3111-1, CAN/CSA-C22.2 No.1010-1)

FRONT PANEL CONFIGURATION



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications subject to change without notice.