Plug-in Signal Conditioners *M-UNIT*

DEVIATION ALARM

MODEL **AYDV**

MODEL & SUFFIX CODE SELECTION

AYDV–6❑❑❑–❑

MODEL
INPUT 2 (reference)
6 : 1 – 5V DC
INPUT 1 (measured signal)
Current
A : 4 – 20mA DC
H : 10 – 50mA DC
Voltage
6 : 1 – 5V DC
OUTPUT 1
1 : Relay; SPDT or transfer contact
coil energized with deviation > setpoint
2 : Relay; SPDT or transfer contact
coil de-energized with deviation > setpoint
OUTPUT 2
1 : Relay; SPDT or transfer contact
coil energized with deviation > setpoint
2 : Relay; SPDT or transfer contact
coil de-energized with deviation > setpoint
POWER INPUT

AC Power		DC Power
B : 100V AC	**G** : 200V AC	**S** : 12V DC
C : 110V AC	**H** : 220V AC	**R** : 24V DC
D : 115V AC	**J** : 240V AC	**V** : 48V DC
F : 120V AC		**P** : 110V DC

ORDERING INFORMATION

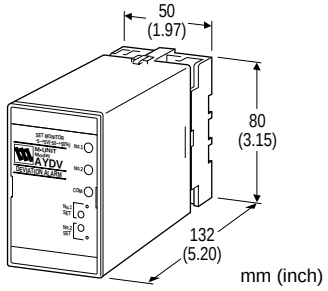
Specify code number. (e.g. AYDV-6622-B)

GENERAL SPECIFICATIONS

Construction: plug-in
Connection: M3.5 screw terminals
Housing material: flame-resistant resin (black)
Isolation: input to output to power
Setpoint adjustments: multi-turn screwdriver adjustments (front); -50 – +50% independently; deviation = input 1 (meas.) – input 2 (ref.)
Monitor jacks: output -5 – +5V for -50 – +50% setpoints
Hysteresis (deadband): 0.2 ±0.1%
Front LEDs: red lights turn on when coils are energized.

INPUT & OUTPUT

■**INPUT 2 (reference)**: 1 – 5V DC
Input resistance: 1MΩ minimum



Functions & Features
• Providing relay contact closures at preset deviations of two DC input levels • Dual (Hi/Lo) trip • Energized or de-energized coil at tripped conditions selectable • Multi-turn screwdriver setpoint adjustments • Monitor jacks provided for setpoint adjustments • Enclosed relays • Relays can be powered 110V DC • Isolation up to 2000V AC • High-density mounting
Typical Applications
• Annunciator • Various alarm applications

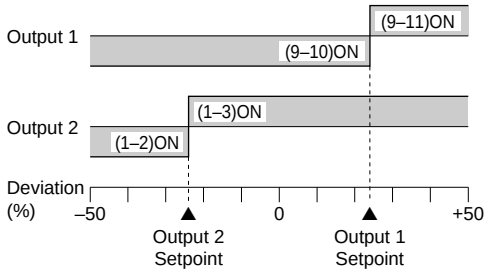
■**INPUT 1 (measured signal)**
•**DC Current**: shunt resistor attached to input terminals (0.5W)
Input resistance

Input	Input Resistance
4 – 20mA	: 250 (Ω)
10 – 50mA	: 100

•**DC Voltage**: 1 – 5V DC
Input resistance: 1MΩ minimum

■**OUTPUT**

Alarm Trip Operation Terminal No. in parentheses



Trip Operation in Power Failure
•**Output 1**: (9 – 10) turn ON with code 1
(9 – 11) turn ON with code 2
•**Output 2**: (1 – 2) turn ON with code 1
(1 – 3) turn ON with code 2

•**Relay Contact**: 120V AC @1A (cosø=1)
240V AC @0.5A (cosø=1)
30V DC @1A (resistive load)
electrical life 5×10^5 cycles (rate 30/min.)
Maximum switching voltage: 380V AC or 125V DC
Maximum switching power: 100VA or 30W
Minimum load: 5V DC @10mA
Mechanical life: 5×10^7 cycles
For maximum relay life with inductive loads, external protection is recommended.

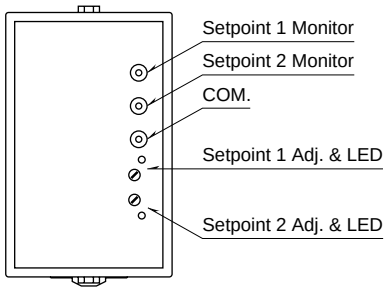
INSTALLATION

Power input
AC: rating ±10%, 50/60 ±2 Hz, approx. 2VA
DC: rating ±10%, or 85 – 150V for 110V rating (ripple 10% p-p max.)
approx. 2W (80mA at 24V)
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: 400 g (0.88 lbs)
Terminal assignment: See General Spec. Sheet Figure D-2.

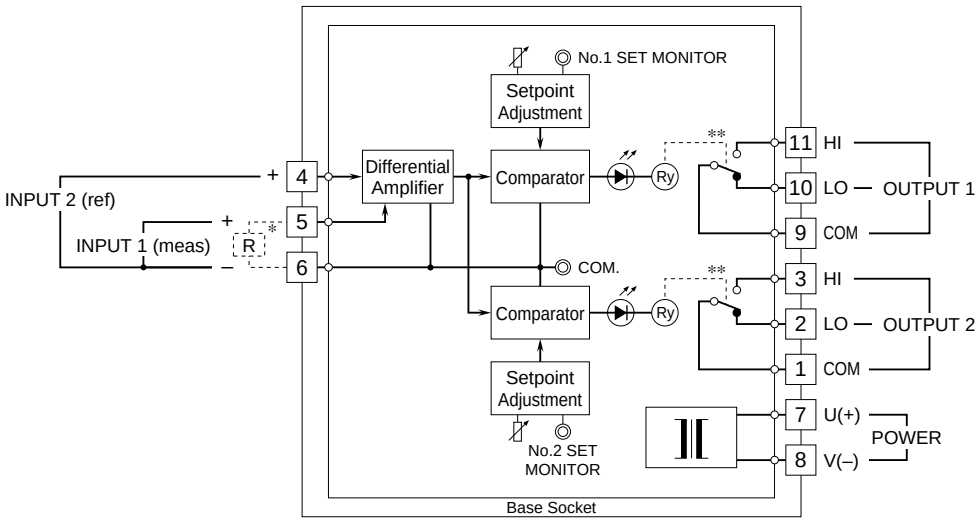
PERFORMANCE in percentage of span

Setpoint monitor accuracy: ±0.5%
Trip point repeatability: ±0.05%
Temp. coefficient: ±0.015%/°C (±0.008%/°F)
Response time: ≤0.5 seconds (0 – 100% at 90% setpoint)
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)

FRONT PANEL CONFIGURATION

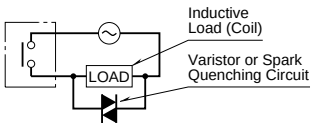


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

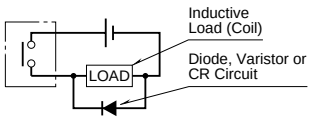


* Input shunt resistor attached for current input.
** Relay status for output code "1", at power OFF.

■**Relay Protection**
•**AC Powered**



•**DC Powered**



Specifications subject to change without notice.