

**FEATURES**

- 24VAC or DC operation
- Optically isolated input
- Input/ output signal LED indication
- Zero & span potentiometers
- Two piece terminal block for easy installation
- Small size 1.50” by 2.9”
- Fully encapsulated

**APPLICATIONS**

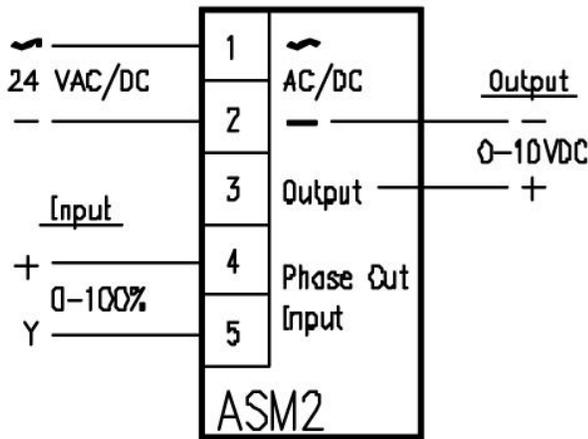
- Converts phase cut to drive valve or damper actuators
- Converts phase cut to drive most VFD’s

**DESCRIPTION & OPERATION**

The ASM2-P-LED was designed as a phase cut to analog signal scaling module. The ASM2’s phase cut input is optically isolated allowing the output to be connected to devices that use one side on the 24VAC power as common. The ASM2 utilizes the full phase cut signal to produce its 0-10VDC output. Both input and output have LEDs to indicate that a signal is present and the brightness indicates the signal level.

The ASM2 uses a half-wave rectifier for 24VAC/DC power input, with terminal 2 being common for the power supply and output common. The phase cut signal passes through an opto-isolator, then through a linearization filter, and on to two op-amp stages where it is scaled to the desired output signal.

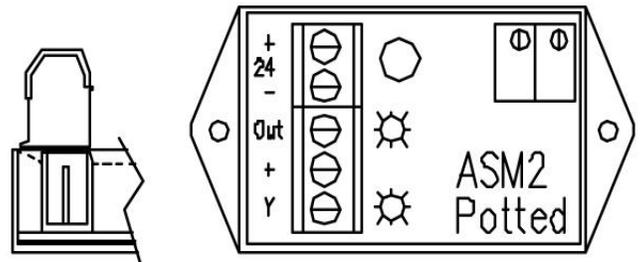
**WIRING CONFIGURATION**



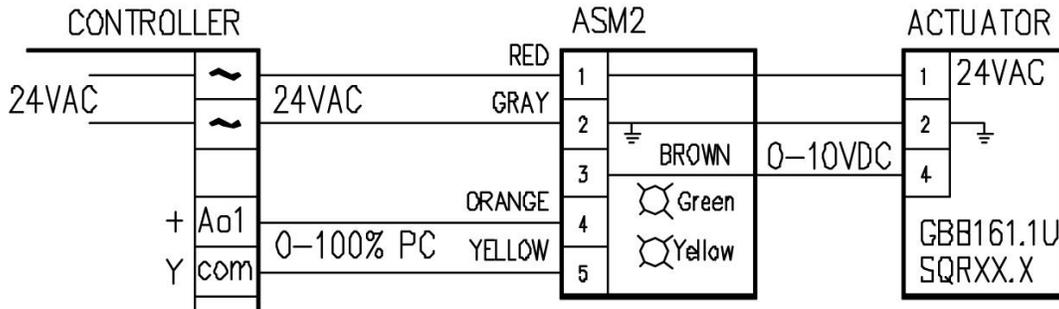
**SPECIFICATIONS**

SIZE:	1.50”L x 2.9”W x 0.75”H
MOUNTING:	2 mounting tabs for #8 screw
POWER:	24VAC ± 10%, 50/60Hz, 0.6VA 24VDC @ 25mA (or filtered DC)
INPUT:	0-20VDC phase cut
INPUT IMPEDANCE:	±3.6KΩ
ACTION:	Dir. With 2 Hz filtering
OUTPUT:	0-5VDC – Adjustable
ADJUSTMENTS:	Zero & span ± 20%
AMBIENT TEMPERATURE:	0-50°C

**PHYSICAL CONFIGURATION**

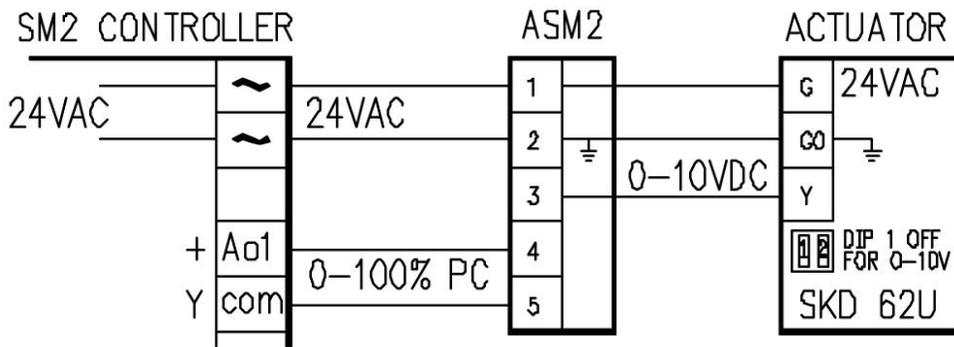


**APPLICATION 1  
ACTUATOR INTERFACE - PHASE CUT TO 10VDC CONVERSION**



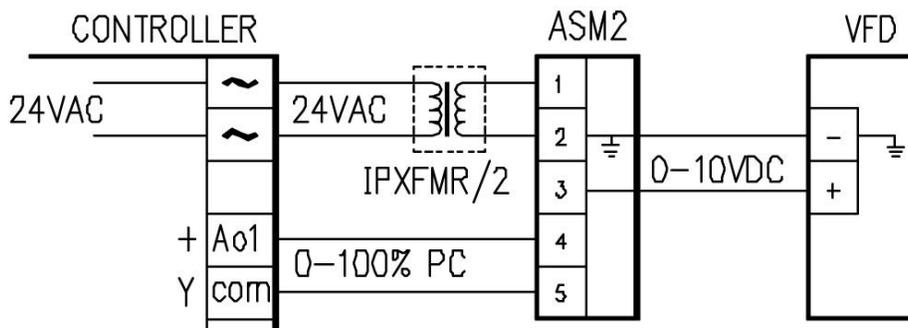
The ASM2/10V converts STAEFA's phase cut signal (0-100%) to a 0-10VDC output signal to drive Landis or Belimo damper actuators. The ASM2's phase cut input is optically isolated configured to accept the phase cut (+) & (Y) signal, the output signal is referenced to terminal 2 of the 24VAC/DC input.

**APPLICATION 2  
VALVE ACTUATOR INTERFACE - PHASE CUT TO 10VDC CONVERSION**



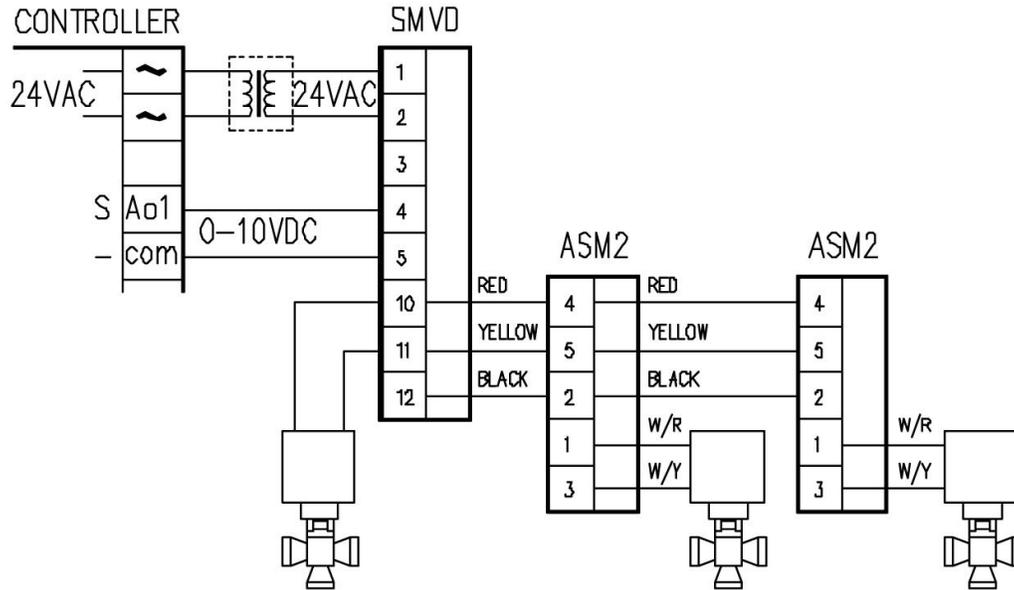
The ASM2/10V converts STAEFA's phase cut signal (0-100%) to a 0-10VDC output signal to drive Siemens valve actuators. The ASM2's phase cut input is optically isolated configured to accept the phase cut (+) & (Y) signal, the output signal is referenced to terminal 2 of the 24VAC/DC input.

**APPLICATION 3  
VFD INTERFACE - PHASE CUT TO 10VDC CONVERSION**



The ASM2/10V converts STAEFA's phase cut signal (0-100%) to a 0-10VDC output signal to drive a VFD. The ASM2's phase cut input is optically isolated configured to accept the phase cut (+) & (Y) signal, the output signal is referenced to terminal 2 of the 24VAC input which should be transformer isolated from the 24VAC powering the controller to avoid ground loop and/or noise problems generated by the VFD.

**APPLICATION 4**  
**PHASE CUT TO 10VDC CONVERSION WITH I/O LED INDICATION**



The SMVD converts the 0-10VDC or 4-20mA signal to a phase cut signal to drive the first STAEFA zone valve and an ASM2/PC/PC/ISO and its STAEFA zone valve. The ASM2 is powered by the SMVD's bridge rectifier and provides an isolated phase cut signal a second zone valve. The only limitation to the number of ASM2's and zone valves is the wattage of the SMVD driver. A SMVD/UNI/40W can drive a total of four AMS1 valve actuators and three ASM2 isolators, a SMVD/UNI/80W can drive 10 valves. The AMS1 zone valve actuator is rated at 8 watts each.

*NOTE an isolation transformer is used when the controller's output common has the same potential as one side of the 24VAC power line.*