

SMVD STAEFA MAGNETIC VALVE DRIVER

FEATURES

- ❖ High reliability
- ❖ Universal analog input
- ❖ Valve sequencing option
- ❖ 40, 80 or 120 watt power ratings
- ❖ Panel or remote mounting option
- ❖ Optically isolated phase cut input
- ❖ Lower operating temperature

APPLICATIONS

- ❖ Phase cut amplification
- ❖ Milliamp & DC input to phase cut output
- ❖ Valve sequencing from same signal
- ❖ Isolated milliamp input valve driver

DESCRIPTION

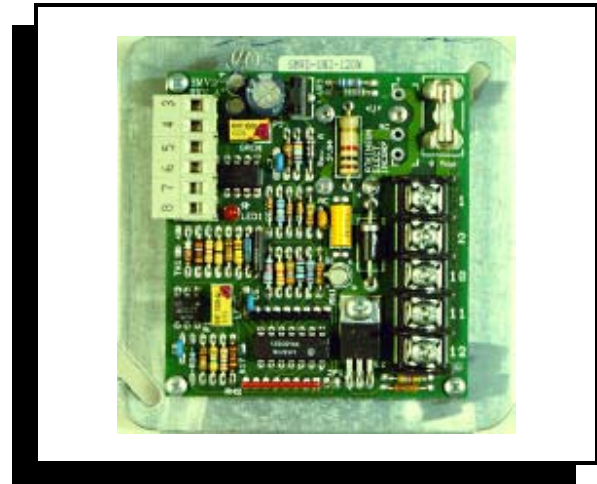
The SMVD is designed to drive large Staefa magnetic valves. It is available as a phase cut amplifier or with a universal analog input. The input section will accept a phase cut, mA, or DC voltage input signal. The mA and DC inputs are non-isolated, however, an isolated mA input is available. The factory output calibration is 6 - 18V phase cut which Staefa recommends for linear valve operation. No other output ranges are available on the SMVD due to it's application specific design. The output of the SMVD is designed to overcome line losses even when mounted in a panel. It is still recommended that the SMVD may be mounted as close to the valve as possible.

OPERATION

The SMVD consists of one of three full wave bridge rectifier for the 40, 80 and 120 Watt versions, 15V DC regulated supply, one opto-isolator and an amplifier section. The isolated input accepts a phase cut input (or milliamps when specified) and two non-isolated inputs accept 0-10V DC and 4-20mA. The phase cut output circuitry is driven by the amplifier section and is scaled specifically for driving magnetic valves. In case of accidental shorting of the output, or in the case that an isolation problem occurs, the SMVD is fused and the output is designed to withstand a direct short. The SMVD has an extremely low output impedance and will operate valves up to one hundred feet away. It is Recommended that the 120W be mounted as close to the valve as possible using a 4" square box, due to the high currents needed to operate the valves.

STAEFA'S RECOMMENDED WIRE LENGTH & SIZE CHART

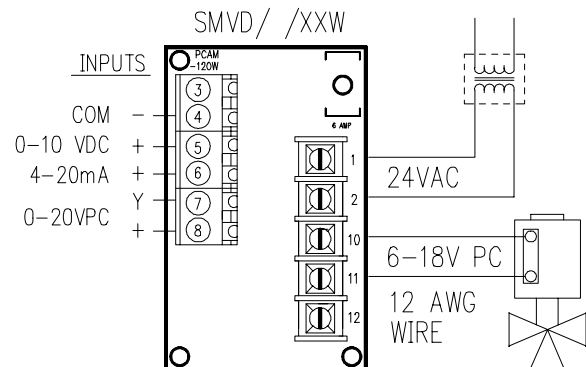
NORMAL POWER	COPPER WIRE SIZE			
	18GA	16GA	14GA	12GA
40W	40'	60'	75'	100'
80W	20'	30'	40'	60'
120W	12'	20'	30'	50'



SPECIFICATIONS

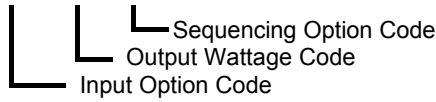
SIZE:	3.25" L x 3" W x 1.5" H
MOUNTING:	40W - 3.5" x 3" Snap Track 80W - 3.5" x 3" Snap Track 120W - 4" x 4" plate (supplied). Will fit inside a 4 x 4 box.
POWER:	24 V AC, ± 10%, 50/60Hz, 2.5VA* * <i>Note: When sizing the power transformer, the power rating of the valve must be added.</i>
INPUTS :	0-20V phase cut isolated 0-10V DC non-isolated - 10KΩ 4-20mA non-isolated - 250Ω 4-20mA isolated - 600Ω
OUTPUT:	6-18V phase cut @ 40, 80, or 120W
ACTION:	Direct with 2Hz Filtering
AMBIENT TEMP:	0 to 50°C.

WIRING CONFIGURATION



ORDERING INFORMATION

SMVD/XXX/XXX/XX



INPUT CODE OPTIONS

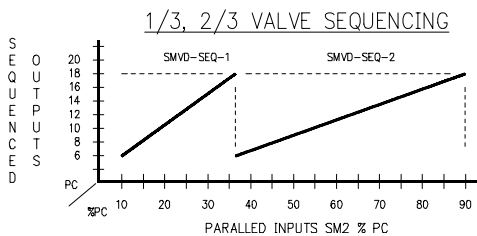
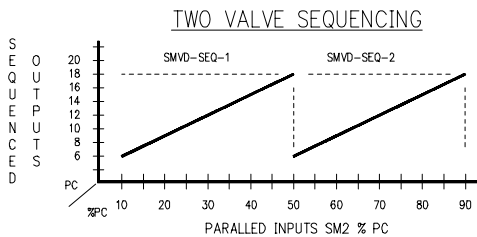
- UNI - 4-20mA, 0-10V DC(non-isolated) and 0-20V phase cut isolated (isolated).
- AMP - 0-20V Phase cut (isolated).
- SEQ - 4-20mA, 0-10V DC (non-isolated) and 0-20V phase cut isolated with the same slope sequencing option.
- MAI - 4-20mA (Isolated & non-isolated), & 0-10V DC (non-isolated).
- MIS - 4-20mA (Isolated & non-isolated), & 0-10V DC (non-isolated), same slope sequencing.

OUTPUT WATTAGE CODE OPTIONS

- 40W - 6-18V Phase cut low power, (40 watt).
- 80W - 6-18V Phase cut medium power, (80 watt).
- 120W - 6-18V Phase cut high power, (120 watt).

SEQUENCING OPTION

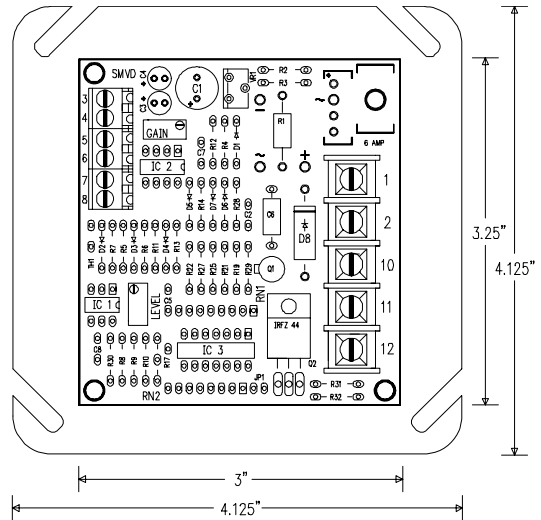
- 1/2 - 50% - 50% valve operation
- 1/3,2/3 - 33% - 67% valve operation
- 1/3,1/3,1/3 - 33% - 67% -100% valve operation



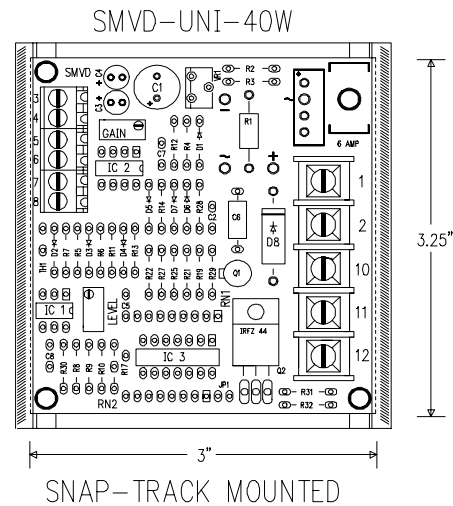
ORDERING CODE EXAMPLES

- SMVD /UNI/120W 0-20V phase cut, 4-20mA, or 0-10V DC to 6-18V phase cut 120 watts.
- SMVD /AMP/40W 0-20V phase cut amplifier only 40 watts, mounted in 3.5" Snap Track.
- SMVD /SEQ/40W 0-20V phase cut, 4-20mA, or 0-10V DC to 6-18V phase cut with sequencing option 40 watts.
- SMVD /MIS/120W Isolated 4-20mA to 6-18V phase cut with sequencing option 120 watts.

PHYSICAL CONFIGURATION 120 WATT



PHYSICAL CONFIGURATION 40 WATT



STD MOUNTING - 40, 80, & 120W VERSIONS

- 40W,80W - 3.5" X 3" Snap Track standard
- 4" X 4" Cover plate optional
- 120W - 4" X 4" cover plate only