



## For 3-Wire Floating or Proportional Control of 15 to 100 mm Globe Valves

### General

The SH Series valve actuators are designed for 3-wire floating / on-off, proportional voltage / current control for 2-way and 3-way globe valves from 15 to 100 mm. All units are equipped with a manual override device.

The SH Series actuator features a reversible synchronous motor with an integral magnetic clutch to eliminate the need for position switches and enhance the overall reliability of the actuator. Position feedback for SH222 from a 0 - 1000 $\Omega$  potentiometer is available as an option (ordered separately) while position feedback signal of 0 - 10 VDC or 0 - 200  $\mu$ A is available on SH522 as a standard feature. An auxiliary switch is also available as an accessory (ordered separately).

### Installation

The thermostat or controller to be used should be selected or adjusted to complement the stroke time of the SH Series actuator.

For ease of installation, the SH Series actuator mounts directly onto an globe valve in minutes, without the need for time consuming field calibration of its stroke or span. For mounting SH Series actuator onto a VSB Series valve, mounting kit AG21 (ordered separately) is required.



### Field Selection

For best control results, the SH522 actuator can be controlled by virtually any proportional voltage or current input. The circuit board allows the user to select one of seven different operating ranges, as well as the direction of stroke.

### Note

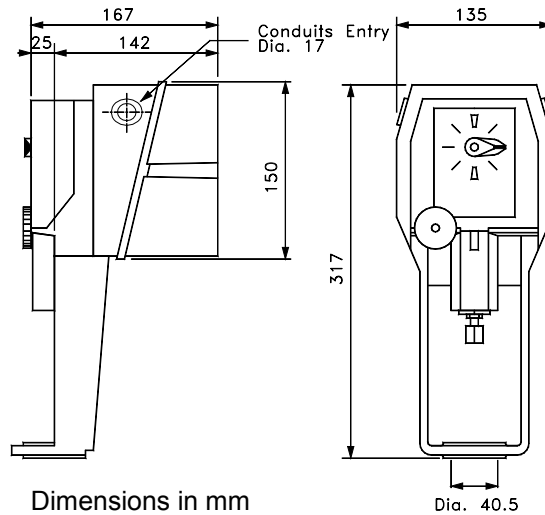
To change the control action to reverse, reposition jumper SW2 to "A" position. The control operating range can also be changed by repositioning jumper SW1 to the desired operating range.

SW2 Settings:

C Stem goes down upon increase in signal

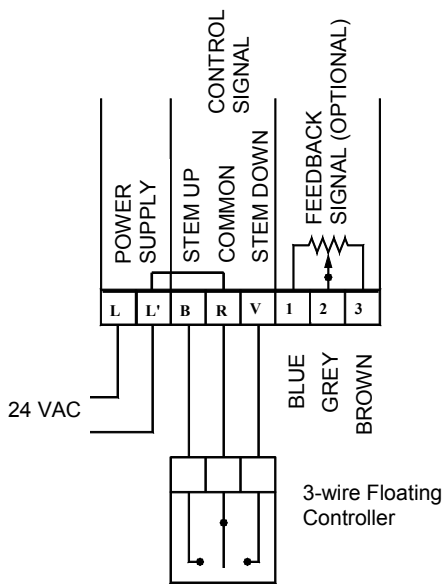
The specification above are normal and conform to generally acceptable industry standard. Cyrus is not responsible for damages resulting from misapplication or misuse of its products.

# VALVE ACTUATOR SH

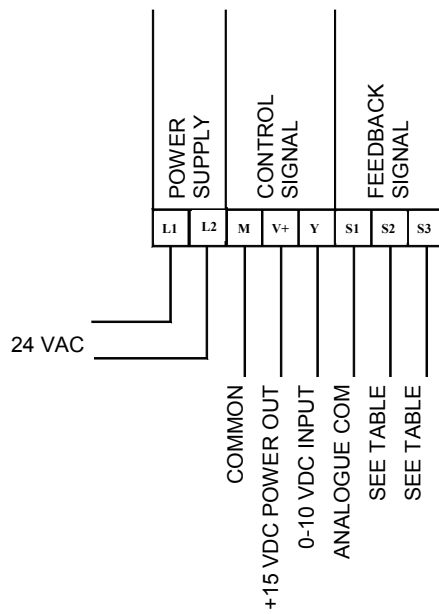


Dimensions in mm

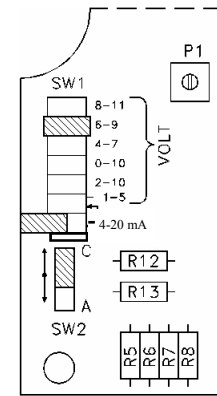
Dia. 40.5



SH222 Wiring Diagram



SH522 Wiring Diagram



SH522 Circuit Board Detail

Feedback	Voltage output		Current output		
	Terminals	S2&M	S3&M	S2&S1	S3&S1
Stem up	10 V	0 V	200 $\mu$ A	0 $\mu$ A	
Stem down	0 V	10 V	0 $\mu$ A	200 $\mu$ A	

(L2 and M are internally

## Specifications

Model Numbers	SH222	SH522
Control Signal	3-Wire Floating (Incremental) or on/off	(6-9,0-10,1-5,2-10,4-7,8-11) VDC 4-20 mA
Input Impedance	N/A	100 k $\Omega$
Feedback Signal	0 –1000 $\Omega$ potentiometer	0-10 VDC or 0-20 $\mu$ A
Power Supply	24 VAC (+15%, -10%), 50/60 Hz	
Power consumption	9 VA	
Stroke Time	80 sec (50 Hz) or 67 sec (60 Hz)	
Maximum Stroke	45 mm	
Close-off Force	1200 N (100 lbf)	
Ambient Operating Limits	-15...50 $^{\circ}$ C RH 80%	
Agency Approval	CE Mark Compliant	
Shipping Weight	2.0 kg (4.4 lbs)	