



MOUNTING SCREWS & THREADS

Background

All of our SV74, SV75 & SV76 Series solenoid valves and SV23 Series pinch valves are provided with either #2-56 or #4-40 tapped holes for the purpose of securing the valve. These mounting holes are located on both the solenoid-end (TOP) as well as the body-end (BOTTOM). Please refer to our data sheets for specific details.

Cause / Effect

There have been instances - especially when the top mounting holes were used to secure valves – where incorrect mounting screws other than #2-56 or #4-40, or *over-engagement* eventually led to the failure of the valves.

Over-engagement of screws impinges the movement of the steel armature disk, which is attracted to the coil upon being energized. Over-engagement of the screws forces the coil/bobbin out of its shell, sometimes pushing out the retainer or even shorting the coil. The results are leaking valves or the inability of the coil to energize.

Remedy

When using the top mounting holes to secure valves, note the maximum thread engagement that is allowable:

VALVE SERIES	MOUNTING HOLE SIZE	MAXIMUM THREAD ENGAGEMENT	
		TOP	BOTTOM
P61 / 23A - 3/4"	#2-56	3/32"	3/16"
P25 / 23B – 1"	#4-40	1/8"	1/4"
P60 / 23C – 1 _"			
P48 / 23D – 1 _"			

Note: The holes in the bottom plate dead-end against the plastic body; these depths should be observed to avoid damage to the body.

When sizing your screw length, account for thickness of all washers, brackets, etc., through which the screw is to pass through or hold to, before engaging with the mounting holes of the valve. Do not extend beyond the specified maximum thread engagement length. Failing to comply voids any warranty offered and can render the valve irreparably damaged. Should countersink screws be used, it is essential that care is taken in calculating the length required, bearing in mind the quality and depth of the mating counter - sink will drastically affect the resultant length of the screw engaging the valve.