

### Refrigerant Solenoid Valves

**Liquid Hammer** — Industrial solenoid valves, or other liquid line valves, may cause liquid hammer when installed on liquid lines with high liquid velocities. If this occurs, it can be minimized by the use of larger pipes, (i.e. lower velocities), or a standpipe installed in the piping near the solenoid valve inlet. Commercially available shock absorbers may also be used to reduce this noise. Recommended maximum velocity is approximately 300 fpm.

**AC Hum** — A loose coil hex screw or coil locknut may cause this problem on the PKC molded model coils. Foreign material between the magnetic top plug and the plunger may cause AC hum also.

**Leak Testing** — Special care should be taken when leak testing valves with synthetic gaskets. Gasket materials typically have a miniscule permeability. Leak rates of 0.5 oz. per year, depending on the valve size, is acceptable in most cases. Note the sensitivity of electronic leak detectors. Most have the capability of finding a leak smaller than 0.05 oz. per year. Double check small seal leaks with soap bubbles or a halide torch if possible. **Do not over tighten the enclosing tube locknut.** If a leak occurs, change the gasket and verify the metal surfaces have a clean smooth finish.



Basic Valve Type	Ambient Temp. Rating (°F)*	Ambient Temp. Rating (°F)**	Approved Fluids
R12, R16, R22, R26, R32, R36, R38, R42, R46, R52, R56	120	240	①

① All Halogenated Refrigerants.  
 \* Minimum ambient temperature is -40°F  
 \*\* Minimum fluid or gas temperature is -40°F

Figure 5

Figure 5 contains a full size plunger gauge, and a manual lift stem gauge for easy identification of parts. Be sure to gauge from the end of the manual lift stem. Do not gauge from the packing gland assembly.

**Stem Diameter**

**.125**

R26, R32

**.165**

R36, R38, R42, R46, R52

