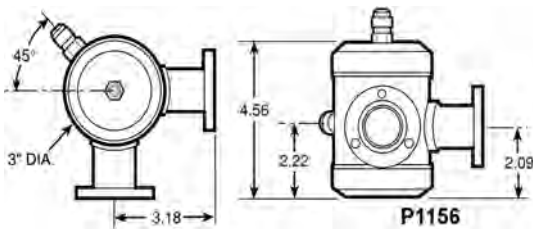


HENRY TECHNOLOGIES - OIL LEVEL REGULATORS (CONVENTIONAL)

The oil level regulator controls the oil level in the compressor crankcase with a float operated valve. Oil level regulators are designed to attach directly to the sight glass housing on compressor crankcases. Adapter kits are available for compressors that have a different sight glass configuration. The sight glass from the compressor or supplied with an adapter kit, bolts to the second regulator flange for visual observation of the oil level.

S-9010 FIXED LEVEL REGULATOR



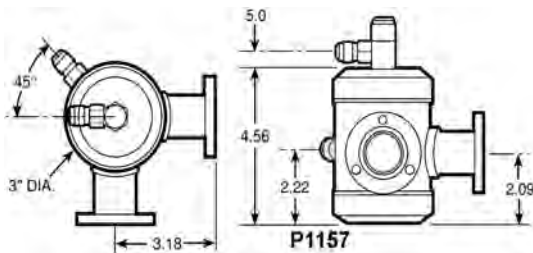
The S-9010 regulator maintains the oil level in the compressor crankcase at 1/8-in. sight glass. The S-9010 maintains the level at any pressure differential* between 5 and 30 psi.

The S-9010 oil level regulator is designed to bolt directly to the 3 bolt sight glass housing found on many compressor crankcases. Do not use on Satellite Compressor.

Part No

S-9010

S-9090 ADJUSTABLE REGULATOR



One oil level regulator for all applications

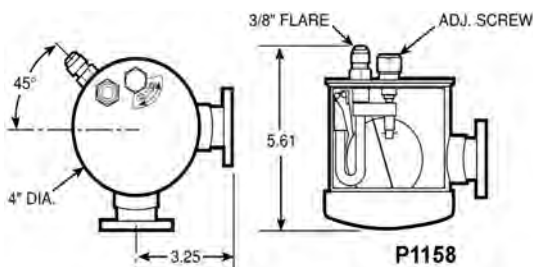
The S-9090 regulator allows the oil level in the compressor crankcase to be maintained at any level between 1/4 and 1/2 sight glass.

The S-9090 maintains the level at any pressure differential* between 5 and 90 psi. If the oil level in the crankcase is too high or too low, the level can be adjusted by turning the adjustment screw on top of the regulator. This can be done while the system is in operation. Our exclusive design eliminates the need of shutting down the system and disconnecting the oil feed lines in order to adjust the regulator.

Part No

S-9090

S-9130 ADJUSTABLE REGULATOR



The S-9130 regulator allows the oil level in the compressor crankcase to be maintained at any level between 1/4 and 1/2 sight glass.

The S-9130 maintains the level at any pressure differential* between 5 and 90 psi. If the oil level in the crankcase is too high or too low, the level can be adjusted by turning the adjustment screw on top of the regulator. This can be done while the system is in operation. Our exclusive design eliminates the need of shutting down the system and disconnecting the oil feed lines in order to adjust the regulator.

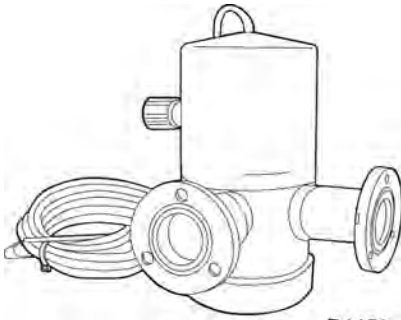
Part No

S-9130

***Operating Pressure Differential** — The difference between the oil fed to the oil regulator and its compressor crankcase, where the regulator is controlling oil level.

HENRY TECHNOLOGIES - ELECTRO-MECHANICAL OIL LEVEL REGULATORS

S-9030 Adjustable Regulator



P4459

The Electro-Mechanical Oil Level Regulator S-9030 provide a simplistic means for controlling oil level for hermetic, semi-hermetic, reciprocating and scroll compressors, through the use of a float switch and solenoid valve. A magnetic reed float switch closes upon the reduction of oil level in the oil regulator body. This action energizes the solenoid valve thereby feeding oil into the regulator body.

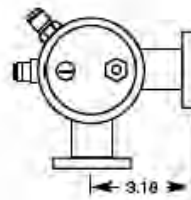
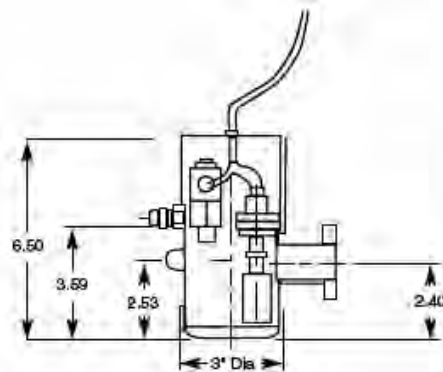
The oil level is adjustable by loosening the compression nut and manually adjusting the position of the float switch. A low level alarm is also provided, for oil safety on hermetic and scroll compressors. If the oil level drops 1/8" below the set point, a second magnetic reed switch closes activating a customer supplied alarm. This alarm circuit may also be used to disconnect power from the compressor. While the regulator is in alarm the solenoid valve remains open trying to re-establish the oil level.

FEATURES:

- Complete oil level control without variations in pressure drop.
- 3/8" Flare normally closed solenoid valve.
- Adjustable between 1/4" and 1/2" glass.
- Low level alarm circuit.
- 24 VAC .25 amp. No UL considerations.
- Equalization connection 3/8" Flare.
- Operating differential 5 to 300 psig.
- Reliable float switch operation, 20 VA pilot duty.
- All major components replaceable.
- One oil level regulator for all applications

S-9030 Adjustable Regulator

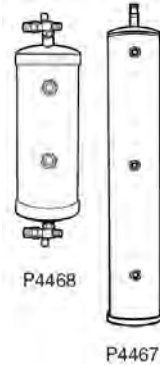
The S-9030 Oil Level Regulator is designed to bolt directly to the three bolt sight glass housing found on many compressor crankcases. Adapter kits are available for compressors that have a different sight glass configuration. The sight glass from the compressor or supplied with an adapter kit, bolts to the second regulator flange for visual observation of the oil level.



P4460



HENRY TECHNOLOGIES - OIL RESERVOIR



Due to system design, loads & defrost cycles, varying amounts of oil can be returned by the oil separator. Because of this, a safety reserve of oil is required for the operation of our oil control system. The oil reservoir is the holding vessel for this stand-by oil. It has sight glass ports to observe the oil level inside the vessel. The valve on top of the Oil Reservoir receives oil from the Oil Separator, and the bottom valve distributes oil to the Oil Level Regulators. The valves are backseating and have a 1/4" flare connection, allowing the addition or removal of oil from the reservoir. High pressure gas returns with the oil from the Oil Separator to the Oil Reservoir. Pressure could build up in the Oil....

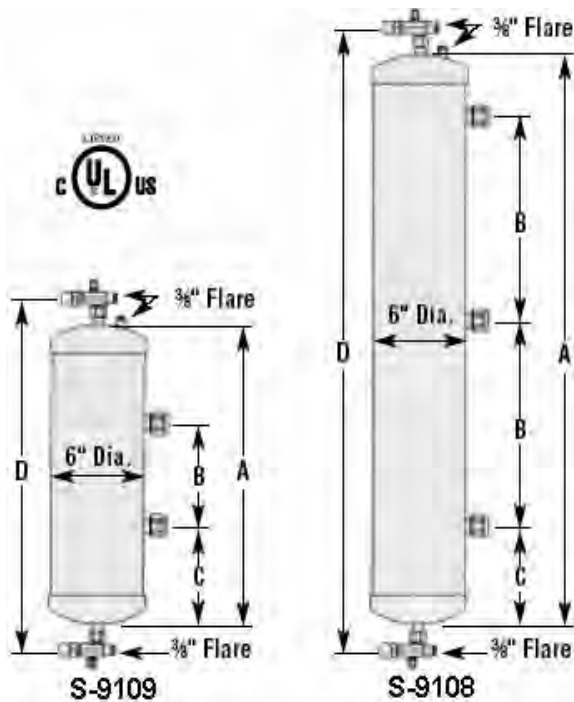
....Reservoir to adversely affect the Oil Regulators. To prevent this, a vent line is installed from the top of the Oil Reservoir to the suction line. This line permits the pressure in the Oil Reservoir to be approximately the same as the suction line and the compressor crankcases. The 4 gallon model Cat. No. S-9108 should be used on very large systems, or systems with excessive oil charges, long line runs or any case where suction oil return may be impeded.

New System Start-Up

On system start-up of a new parallel system, oil should be added to the OIL RESERVOIR to the upper sight glass port, NOT ABOVE IT. It is commonly accepted that in a new refrigeration system, some oil will be absorbed by the refrigerant as the system becomes balanced out. After two hours of operation, the OIL RESERVOIR, if necessary, should again be filled to the upper sight glass, and also after two days, by which time the entire refrigeration system should be balanced out. Then the OIL RESERVOIR must be observed on each service call. No oil should be added again until the oil level falls below the lower sight glass port.

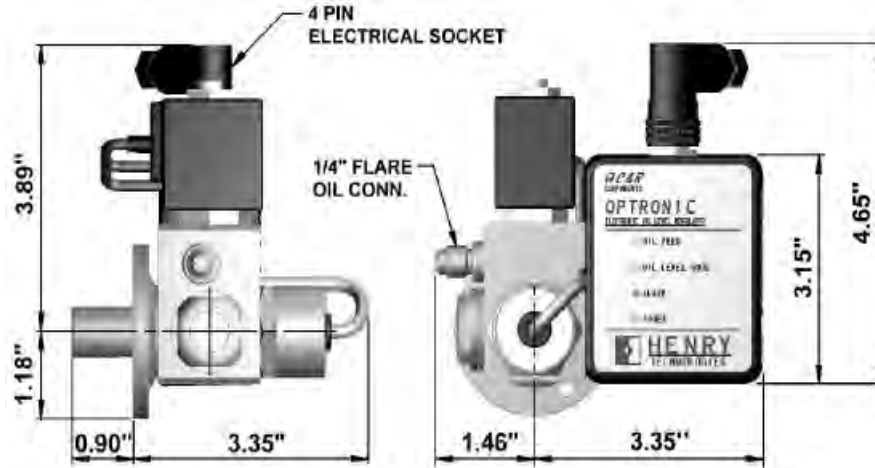
Existing System Start-Up

When installing this OIL CONTROL SYSTEM, on a parallel system that has been in operation for some time, the amount of oil should be added cautiously. With the efficiency of the new OIL SEPARATOR, the oil return could likely be sufficient to fill the OIL RESERVOIR to the lower sight glass port only. Observe for one day. After the second day, if the oil level has not risen to the upper sight glass, add oil. If the oil level has risen above the upper sight glass port, remove the excess oil from the OIL RESERVOIR.



PART NO	NO OF SIGHT GLASSES	CAPACITY (IN GALLONS)			DIMENSIONS (in) D
		A	B	C	
S-9108	3	4	2.5	3/4	37.94
S-9108U	2	3	1-3/4	3/4	28.94
S-9109	2	2	1-1/4	3/4	19.94

HENRY TECHNOLOGIES - ELECTRONIC OIL LEVEL CONTROL



The Optronc Oil Level Regulator* is designed to control the oil level in the compressor crankcase using proven optical sensor technology.

The stand alone regulator is suitable for both high pressure and low pressure oil management control systems. The oil is regulated at 1/2 Sight Glass using a pulse timer. When a low condition is detected, there is a 15 second time delay prior to oil feed to ensure stability and prevent overfill. Oil is then pulsed into the compressor at 3 second on/off intervals. If demand is not satisfied after 2 minutes of continuous oil feed, a low level alarm is initiated by means of a fail-safe electrical contact. During the alarm condition the regulator will continue to pulse feed oil. The alarm will reset automatically if the oil returns to 1/2 glass. The alarm contact may be used to shut down the compressor in the event of a low level condition.

The Optronc Regulator is fitted to the sight glass housing of the compressor and has an internal sight glass that allows the visual inspection of the crankcase oil level.

*Utilizing patented technology-Patent #5,278,426.

Part No.	OPTRONIC OP-02
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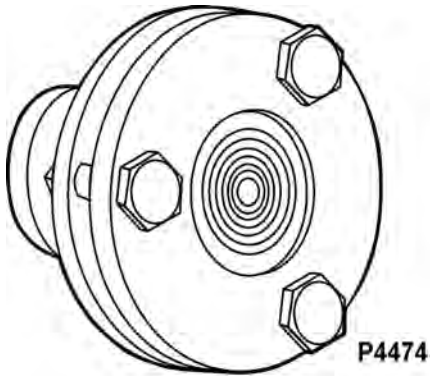
SPECIFICATIONS

Max Working Pressure	500 PSIG
Max Differential Pressure	350 PSIG
Max Ambient Temp	113°F
Max Fluid Temp	176°F
Supply Voltage (Conns 1 & 2)	24V AC 50 / 60 HZ
Rated Operating Current	0.5 Amps
Alarm contacts (Conns 3 & 4)	Volt Free, N/O
Alarm Contact Rating	24V DC@ 2A, 120V AC@2A
Electrical Connection	4 Pin M12 Circular, IEC60947-5-2
Protection Class	IP54
Status LED's	4
Oil Supply Line	1/4" FLARE
Weight	2.6 LBS
Approved Refrigerants/Oils	HFC/POE

(For other refrigerant/Oil combinations contact Henry Technologies)

The Optronc Regulator meets the requirements of UL and bears the UR symbol. The regulator is CE marked in accordance with the EMC directive.

HENRY TECHNOLOGIES - OIL LEVEL REGULATOR ADAPTER KIT



All kits include necessary hardware, gaskets and sight glasses to mount Oil Level Regulators to various compressors shown in this table.

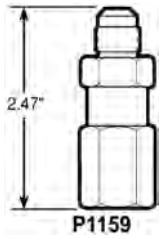
***KIT 3-033-201 INCLUDED WITH ALL OIL LEVEL REGULATORS**

NOTE: For compressors not listed above, a universal adapter kit is available Part No. 3-033-217. This adapter kit has a 3-hole flange to mount to the regulator. The compressor end of the kit is a 1-1/4" OD steel tube. The existing compressor sight glass gland or flange must be bored out or bushed down to accept the 1-1/4" tube. The tube is then brazed or welded to the reworked gland or flange and installed on the compressor.

ADAPTER KIT PART NO	SIGHT GLASS OIL LEVEL	COMPRESSOR MANUFACTURER	SIGHT GLASS CONFIGURATION
3-033-201*	1/2	Dunham-Bush Big 4	3 Bolt 1-7/8 B.C.
3-033-201*	1/2	Trane	3 Bolt 1-7/8 B.C.
3-033-201*	1/2	York	3 Bolt 1-7/8 B.C.
3-033-201*	1/4	Carrier (models EA & ER)	3 Bolt 1-7/8 B.C.
3-033-201*	1/4	Copeland (over 5 tons)	3 Bolt 1-7/8 B.C.
3-033-202	1/2	Copeland (under 5 tons)	1-1/8 - 12 Thread
3-033-202	1/2	Prestcold (model "K")	1-1/8 - 12 Thread
3-033-203	1/2	Dunham-Bush (model "D")	4 Bolt 2-1/8 B.C.
3-033-204	1/4	Carrier (DA,DR,5F,5H & 06D)	1-1/2 - 18 Thread
3-033-205	1/2	Schnacke-Grasso	2" x 16 Thread
3-033-206	1/2	Trane	5 Bolt 2-1/2 B.C.
3-033-207	1/4	Copeland (older model)	4 Bolt 2-1/8 B.C.
3-033-208	1/2	Vilter	1-1/2 NPT Thread
3-033-209	1/2	Vilter	2" NPT Thread
3-033-212	1/4	Copeland (model "8R")	3 Bolt 1-7/8 B.C.
3-033-218	1/2	Prestcold (C,E,R,L, & LG)	42mm Thread
3-033-218	1/2	Trane (model "K")	3/4 NPT Thread
3-033-219	1/2	Schancke-Grasso	1-1/4 NPT Thread
3-033-228	1/2	Grasso Thermtrol	1" NPT Thread
3-033-242	1/2	Bristol	15/16 - 20 Thread
3-033-244	1/2	Bock	4 Bolt 1-31/32 B.C.
3-033-246	1/2	Maneurop	1-1/8 - 18 thread
3-033-253	1/2	Bitzer	4 Bolt 2" B.C.

HENRY TECHNOLOGIES - OIL LEVEL CONTROL COMPONENTS

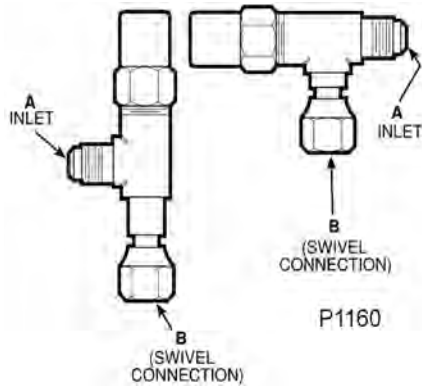
PRESSURE VALVE



PART NO	PRESSURE SETTING	SIZE CONNECTION
S-9104	5 lbs	3/8" Female x 3/8" Male Flare
S-9104H	20 lbs	3/8" Female x 3/8" Male Flare

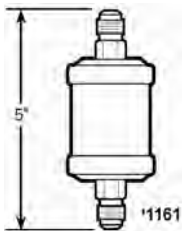
Used with oil reservoir.

SHUT-OFF BRASS VALVES



PART NO	A	B	TYPE
S-9106H	3/8" Flare	3/8" Fem. Flare	Vertical
S-9106V	3/8" Flare	3/8" Fem. Flare	Horizontal

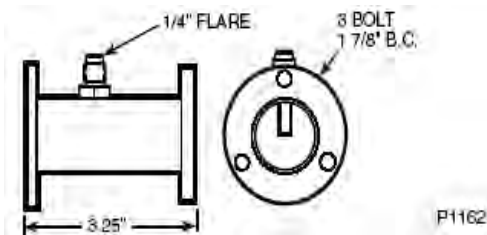
OIL LINE STRAINER



Used to protect oil regulators by removing foreign matter.
3/8" ODS connections available by ordering with an "X" suffix (i.e., S-9105X)

PART NO	SIZE CONNECTION	SCREEN DATA
S-9105	3/8" Flare	100 Mesh x 11 sq. in.

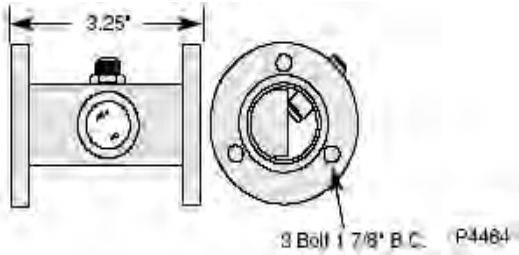
EQUALIZATION ADAPTER KIT



PART NO
3-033-226

HENRY TECHNOLOGIES - ELECTRONIC OIL LEVEL CONTROL AND ACCESSORIES

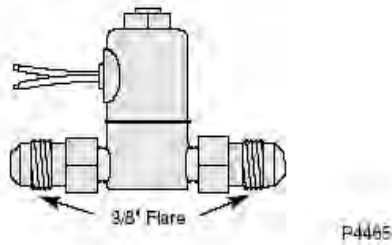
3-033-245 Sight Glass Adapter Kit



Sight Glass Adapter Kit is for compressors with only one crank-case sight glass. The 3-Bolt flange Oil Level Transducer (S-9330) does not allow for a visual observation of the oil level in compressors. This adapter kit provides an additional sight glass and a 1/4" flare equalization/oil fill connection.

PART NO
3-033-245

3-044-001 Solenoid Valve



Solenoid Valve is used with the S-9310 Electronic Oil Level Controller. The 3-044-001 solenoid valve is piped directly in the oil return line to the compressor.

PART NO
3-044-001