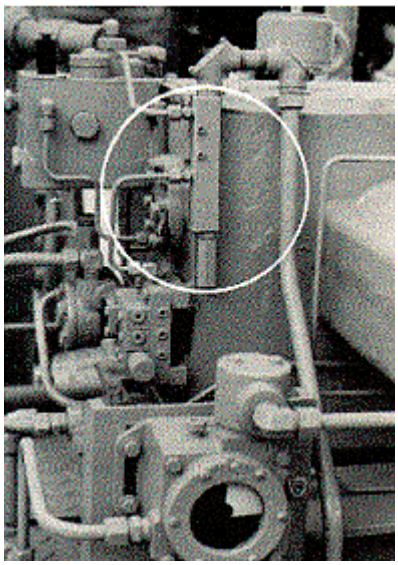
NO FLOW SAFETY SWTICH

NO-FLOW SAFETY SWITCH

Compressor and Engine Cylinder
Protection Against Lubrication Failure

* Fail-Safe wear pattern.
  No dangerous “shoulder” to prevent shutdown so that switch is always functional with clean oil above its pour point.
* Shutdown time adjustable over a wide range
* Explosion-proof models available
* Overpressure rupture assembly optional
* Switch contact rating - 2A at 30 VAC / DC



The Kenco No-Flow Switch mounts in the line between the lubricator and cylinder. Oil flow is through the switch -- forcing the plunger off its contact. Its rate of travel is controlled by fluid slippage past the precision-fit plunger, preventing premature shutdown. If the lubricator stops pumping, the plunger will drift to the contact and stop the engine. On start up, the first stroke of the lubricator automatically opens the switch. In operation the plunger can pump out of its hole on very high feed rates and does not obstruct flow. The time interval between lubrication failure and shutdown can be adjusted by increasing or decreasing the compression on the spring.

The switch is available with an overpressure rupture assembly which will instantaneously bleed off and stop the engine in the event the lube-line check-valve plugs. The standard rupture disc fails at 1750 psi. Other rupture-pressure available on request.

The non-explosion proof switch has been tested to 5,000 psi. Its maximum recommended working pressure is 2,000 psi. The explosion-proof switch has been tested to 15,000 psi and its recommended working pressure is 8,600 psi.

EQUIPTMENT SPECIFICATIONS

NFS-3: No-Flow Switch without mounting bracket

NFS-4: No Flow Switch with mounting bracket for Ajax

NFS-5: Triple No-Flow Switch with mounting bracket

NFS-6: Explosion-Proof No-Flow Switch

NFS-7: No-Flow Switch with overpressure rupture assembly

NFS-9: No-Flow Switch with overpressure rupture assembly and mounting bracket for Ajax

NFS-25: Explosion-Proof No-Flow Switch with overpressure rupture assembly for large Ajax (3 switches on one bracket)

PARTS LIST AND INSTRUCTIONS

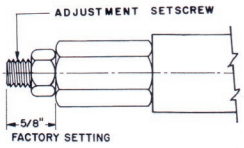
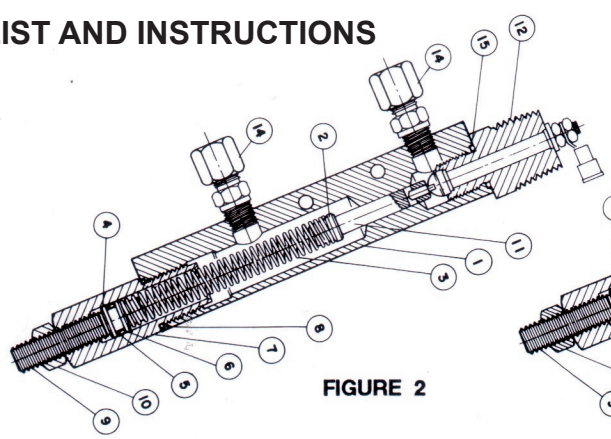


FIGURE 1



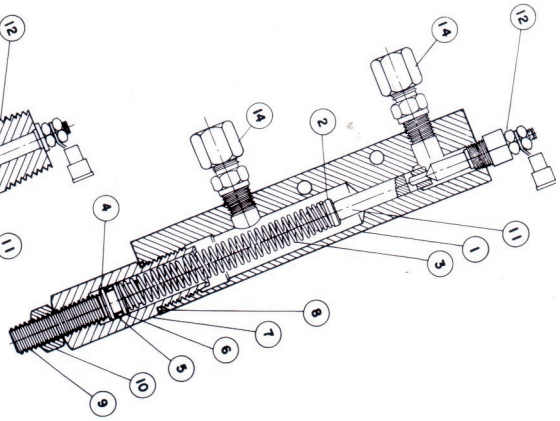


FIGURE 2

PARTS LIST AND INSTRUCTIONS

Description	Part #	Item #	-3	-4	-5	-6	-7	-9	-25
Body	B-19188	1	1	1	3	-	-	-	-
Body-Explosion Proof	B-19190	1	-	-	-	1	-	-	-
Body-w/Rupture Disc Mtg. Hole	B-19189	-	-	-	-	-	1	1	-
Body-Explosion Proof w/ Rupture Disc Mtg. Hole	B-19191	1	-	-	-	-	-	-	1
Pusher	A-19185	2	1	1	3	1	1	1	1
Spring	A-794	3	1	1	3	1	1	1	1
Piston	B-19184	4	1	1	3	1	1	1	1
Back-Up Ring	P-19237	5	1	1	3	1	1	1	1
O-Ring	P-13011-B	6	1	1	3	1	1	1	1
Adjustment Screw Housing	B-19187	7	1	1	3	1	1	1	1
O-Ring	P-13015-B	8	1	1	3	1	1	1	1
Set Screw	P-19028	9	1	1	3	1	1	1	1
Hex Nut	P-1960	10	1	1	3	1	1	1	1
Plunger	A-19186	11	1	1	3	1	1	1	1
Contact Switch	A-687	12	1	1	3	-	1	1	-
Contact Switch	A-802	12			1				1
O-Ring	P-13013-B	15			1				1

INSTALLATION AND OPERATING INSTRUCTIONS

1. Switch MUST be mounted either vertically (terminal end up) or at a minimum angle of 20 º off horizontal with terminal end at the high point. This prevents water from accumulating around switch contact (see figure 2).

2. A 25 micron sintered bronze or similar in-line type filter should be installed ahead of the no flow switch. These are available from either KENCO or most manufacturers of lubricators.

3. To assure constant oil viscosity, mount switch in a warm place near cylinder lube-line check valve or point of lubrication. The “NFS-4”, “NFS-5” and “NFS-9” no flow switches for Ajax are provided with brackets for mounting to one of the screws which hold the cast cover to the cylinder near the cylinder check. Connect no flow switch contact wire to magneto or alarm/shutdown switch.

4. Connect line from lubricator to inlet port on no flow switch.

5. Hand pump lubricator until oil flows from outlet port; then connect line from outlet to point of lubrication.

6. Switch is factory adjusted for a shutdown time of approximately 3 minutes using SAE 30 oil at 100 º F. The switch is viscosity sensitive, therefore, shutdown time will vary with oil viscosity. Many compressor manufacturers indicate that 10-15 minutes operations after cessation of lubricant flow is acceptable so it should not be necessary to make seasonal adjustments.

7. If adjustments are necessary, ensure that adjustments are made while engine / compressor / no flow switch are at their normal operat ing conditions. The adjustment setscrew is located on bottom of switch housing. Turn setscrew IN to decrease shutdown time and OUT to increase. Shutdown time can be determined by removing / disabling lubricator pumping unit. On multiple pump installations pumping at the same rate, the setting can usually be transferred from one switch to another by making the distance from the end of the adjustment setscrew to the end of the adjustment setscrew housing equal on all switches (see figure 1).

Represented by:

Tulsa
PO Box 470426 Tulsa, OK 74147
phone 918.663.4406 fax 918.663.4480
http://www.kenco-eng.com email: info@kenco-eng.com

Baton Rouge
11616 Industriplex, Suite 14 Baton Rouge, LA 70809
phone 504.755.1912 fax 504.755.1913
http://www.kenco-eng.com