

APPLICATIONS:

Oil and gas separators, water knockouts, and similar equipment where a mechanical to pneumatic interface is required to operate motor valves.

FEATURES:

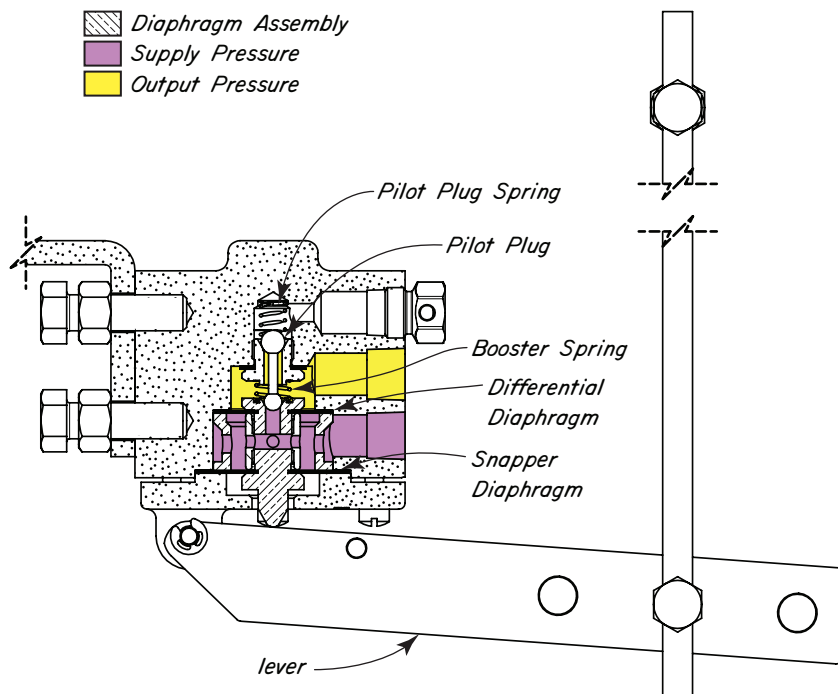
- Direct float operated.
- Snap or throttle action
- Field reversible
- Controls any motor valve requiring up to 30 psig diaphragm pressure.

OPERATION:

Assume the Diaphragm Assembly is held in an up position by an outside float arm connected to the pilot LEVER with a turn-buckle. Such an arrangement is shown in the 3 PM installation photograph, lower right-hand corner. The BOOSTER SPRING together with Supply Pressure (Violet), acting on the difference in areas of the SNAPPER and DIFFERENTIAL DIAPHRAGMS, forces the Diaphragm Assembly against the LEVER. With a downward movement of the LEVER the upper seat, which is the pressure vent (Yellow to Atmosphere), closes first. The PILOT PLUG SPRING holds the upper ball against its seat while a further downward movement of the LEVER opens the Supply Pressure inlet (Violet to Yellow). As Output Pressure (Yellow) increases, pressure across the DIFFERENTIAL DIAPHRAGM is reduced, loading the DIAPHRAGM ASSEMBLY in a down direction. The accelerated downward movement of the DIAPHRAGM ASSEMBLY produces a sudden opening of the Supply Pressure inlet (Violet to Yellow).

In order to reverse the above action, the upward force of the LEVER on the Diaphragm Assembly must be greater than the force of the BOOSTER SPRING plus Supply Pressure (Violet) acting on the full area of the SNAPPER DIAPHRAGM. As the Diaphragm Assembly moves up, the Supply Pressure inlet is closed first. The PILOT PLUG SPRING holds the lower ball against its seat while a further upward movement of the LEVER opens the pressure vent (Yellow to Atmosphere). Decreasing Output Pressure (Yellow) accelerates the upward movement of the Diaphragm Assembly to produce a sudden opening of the pressure vent. The sudden changes in Output Pressure (Yellow) caused by movements of the LEVER, snap actuates any motor valve to which it is connected.

For throttling Service, connect Supply Pressure (Violet) to opening marked "THROT" on the pilot body. This will require changing the pivot on the LEVER or reversing the motor valve action. The supply gas connection for snap service becomes the exhaust for throttling service.



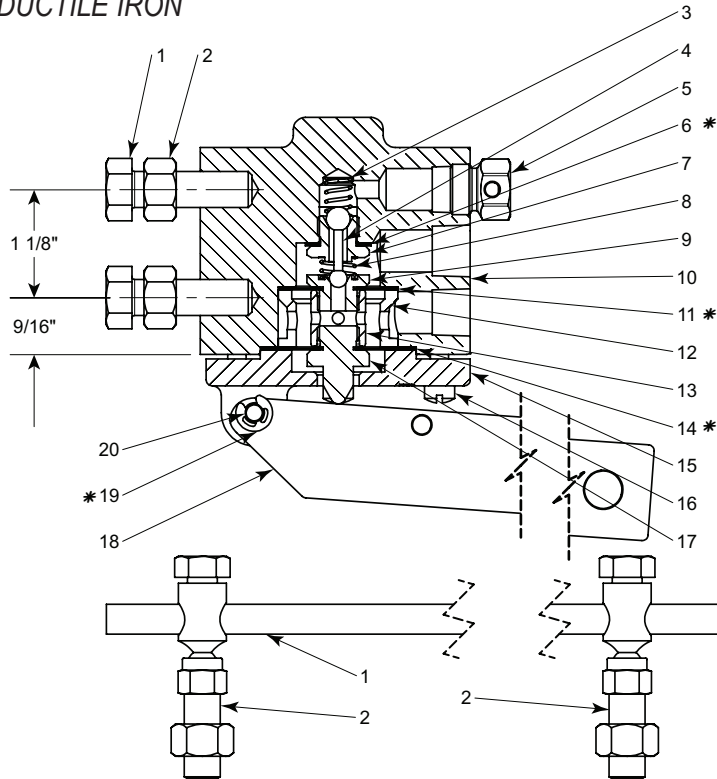
Float operated, 3 PM Pilot mounted on Kimray 8" Float Opening Cover.

Kimray is an ISO 9001- certified manufacturer.

MECHANICAL LEVEL CONTROLS

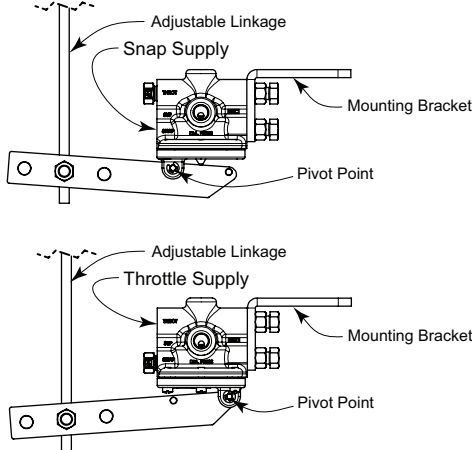


3 PM MECHANICAL PILOT DUCTILE IRON



ITEM	QTY.	DESCRIPTION	PART NO.
1	2	BOLT	247
2	2	NUT	241
3	1	SPRING	585L
4	1	PILOT PLUG	112
5	1	BREATHER PLUG	147
6	1	GASKET *	118
7	1	SEAT	565
8	1	SPRING	566
9	1	SEAT	113
10	1	BODY	592
11	1	DIAPHRAGM *	584
12	1	SPOOL	580
13	1	SPACER	581
14	1	DIAPHRAGM *	583
15	1	COVER	588
16	6	SCREW	693
17	1	BUTTON	590
18	1	LEVER BAR	591
19	2	SNAP RING *	1181
20	1	PIN	589
TB 4 SOLD SEPARATELY			
1	1	ROD	754
2	2	BALL JOINT	753

MECHANICAL PILOT INSTALLATION



ROD MOVEMENT	OUTPUT
Up	Supply Pressure
Down	Vented

ROD MOVEMENT	OUTPUT
Up	Vented
Down	Supply Pressure

PILOTS AVAILABLE:

PART NO.	PILOT	SUPPLY PRES.	MAX W.P.	REP. KIT
CDA	3 PM	5-30	30	RMN

TURNBUCKLE AVAILABLE: Order separately

CAT. NO.	TURNBUCKLE
YTB	TB 4

MOUNTING BRACKETS AVAILABLE: Order separately

FLOAT OPENING	MOUNTING BRACKET
612 TO	903
812 TO	904
1012 TO	681
50 TOB-D	3035
25 TOB-D	3035
26 WA/26DM	1856

Kimray is an ISO 9001- certified manufacturer.

NOTES:

*These parts are recommended spare parts and are stocked as repair kits.

For standard & optional Seals, Metals, Cv values, Material specifications & Dimensions see Technical Data on pages C2:I - C2:V