

PATENT PENDING

4165 SINGLE DIRECTION ACTUATOR POSITIONER

DESCRIPTION

The 4165 is a single direction positioning device incorporating a hydraulic power boost. Variable air pressure is required to actuate the control rod which in turn positions the hydraulic power piston. Pressure ranges on the pneumatic side are available to customer specifications. The minimum oil pressure required is 200 PSIG and the maximum oil pressure is 800 PSIG. The adjustable output lever permits infinite positioning which in turn governs the travel to the controlled apparatus. Accessory cylinders are also available which will replace the lower pivot plate and serve such functions as engine shut down cylinders or secondary control signals to owner specifications. Cylinder is also provided with external preload screw.

APPLICATIONS

This unit can be used on stiff engine speed control devices, single direction hydraulic pump controls, single direction control requiring mechanical forces up to 60 ft. lbs. of torque (maximum oil pressure) such as C.P. propellor positioning.

NOTE: THIS UNIT WILL NOT TOLERATE ANY BACK PRESSURE FROM THE HYDRAULIC CONTROL SIDE. BACK PRESSURE WILL INTERFERE WITH THE PNEUMATIC CONTROL SIGNAL AND ALSO DAMAGE DIAPHRAGM.

Weight: 19.75 lb (9 kg)

Materials: Sand Cast Brass, Stainless Steel Hardware. Reactor spring is steel. (A stainless steel spring can be supplied but this will result in a slight loss of accuracy)

Maximum Input Pressure:
Pneumatic: 100 PSIG (6.89 BAR)
Hydraulic: 800 PSIG (55.16 BAR)

Operating Temperature Range: -20°C to +70°C.

Pipe Port Size: 1/4" N.P.T.

Stroke: Adjustable from 3/4" (19 mm) to 6" (152 mm)

ORDERING INFORMATION

Standard pressure ranges available

N — 0- 60 PSIG

P — 0- 80 PSIG

R — 0-100 PSIG

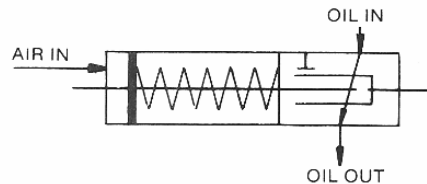
T — 10- 60 PSIG

U — 10- 80 PSIG

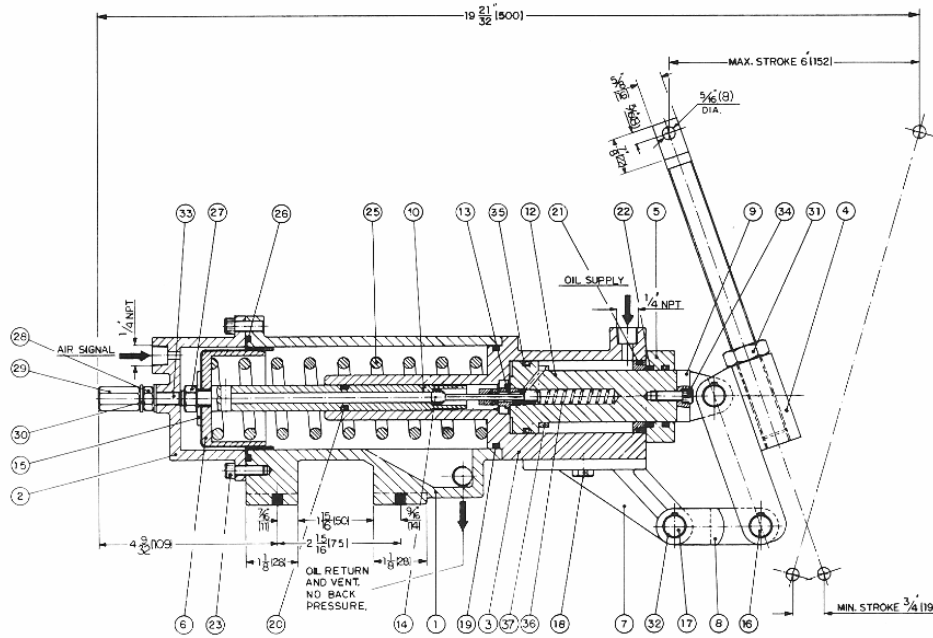
W — 10-100 PSIG

Any pressure range and preload can be ordered. Please specify.

SCHEMATIC SYMBOL



DIMENSIONS AND PARTS 4165

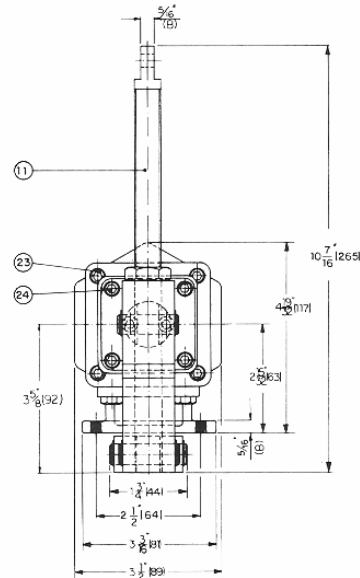


ALL DIMENSIONS IN INCHES (MM)

4165

ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	4165-0001	Spring Housing
2	1	4165-0002	Diaphragm Cap
3	1	4165-0003	Piston Housing
4	1	4165-0004	Output Link
5	1	4165-0005	Piston End Cap
6	1	4165-0006	Diaphragm Piston
7	1	4165-0007	Lever Bracket
8	1	4165-0008	Link
9	1	4165-0009	Clevis
10	1	4165-0013	Control Rod
11	1	4165-0011	Threaded Lever
12	1	4165-0012	Hydraulic Piston
13	1	3230-0010	Spool End
14	1	3230-0009	Ball Stem Assembly
15	1	1023-0212	Washer
16	2	1025-0820	Pin
17	1	1025-0826	Pin
18	2	1001-1010	Screw
19	1	1101-0228	'O' Ring
20	1	1102-0003	'U' Cup
21	1	1101-0222	'O' Ring
22	2	1102-0011	'U' Cup
23	10	1002-1012	Socket Head Screw
24	4	1002-1018	Socket Head Screw
25	1	1201-0042	Spring "U" Range
26	1	1104-2004	Rolling Diaphragm
27	1	1022-0112	Nut 3/8" NC
28	1	1022-0211	Jam Nut 3/8" NC
29	1	3328-0001	Cap Nut
30	2	1023-0230	Washer
31	1	1022-0266	Jam Nut 3/8" NF
32	6	1029-1050	Snap Ring
33	1	1016-1124	Set Screw
34	2	1002-0808	Socket Head Screw
35	1	1102-0013	'U' Cup
36	1	1201-0099	Spring
37	1	4165-0015	Brass Ring

** When ordering please specify pressure range.



Dimensions are for reference and subject to change without notice unless certified.