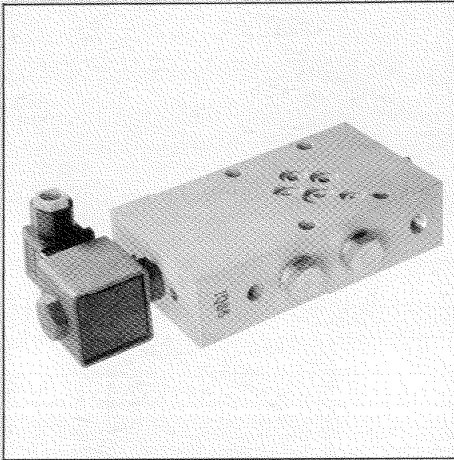


By-pass module E504 Series

PDS E504 11.89



Features

- Fits under 62 & 760 Series valves
- By-passes servovalve
- Causes actuator to extend, retract or float
- Suitable for 4 or 5 port valves
- Fail-safe design for dirt resistance
- Optional coil voltages
- Port pattern to BS6494 Part 2, Type 4

Typical applications

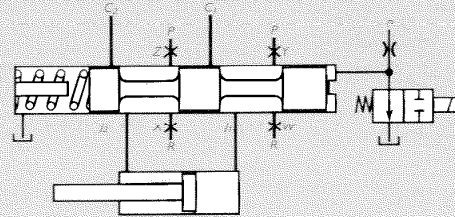
Where an actuator piston must retract when the servoloop is disconnected, the module may be configured so that, say J_2 is connected to P and J_1 to R.

Where an actuator piston must extend when the servoloop is disconnected, the module may be configured so that, say J_2 is connected to R and J_1 to P.

Where an external mechanical force, such as a spring must move the actuator when the servoloop is disconnected, the module may be configured so that both J_1 and J_2 are connected to R.

Where external hydraulic force, derived from say, a 4-way solenoid, must move the actuator when the servoloop is disconnected, the module may be configured so that J_1 and J_2 are not connected to P or R.

Description



This unit contains a spring loaded spool. This spool is moved against the spring by hydraulic pressure from a solenoid and orifice. When the solenoid is energised, the spool moves against the spring, connecting the servovalve control ports C_1 and C_2 to their respective actuator ports J_1 and J_2 .

When the solenoid is de-energised, the spring moves the spool to block the servovalve control ports and to connect the actuator ports to their respective by-pass ports. By selecting the appropriate plugs (X, Y, W and Z) in the by-pass ports, each actuator port can be connected to either pressure or return.

The plugs are field accessible. Should it be necessary to limit speeds during by-pass, the plugs may be replaced by orifices. Because a sliding spool is used, the E504 Module should not be relied upon to lock an actuator. In this case, either the Moog E501 or E502 Modules should be used.

Specification

Operating pressure, 70 to 210 bar standard. High and low pressure versions available on request.

Seal material. Buna N for petroleum based hydraulic oils, water-oil emulsions or water-glycol mixtures. Other seal materials available on request.

Coil rating, 24V DC, 500mA } standard
12V DC, 1A }
115V AC, 100mA } optional
230V AC, 50mA }

Coils are rated for continuous operation. (AC coil options incorporate full wave rectification rate at 1000 volts peak).

Connector, Hirshman.

Operating sense (standard), servovalve is by-passed when coil is de-energised.

Optional operation, servovalve is by-passed when coil is energised

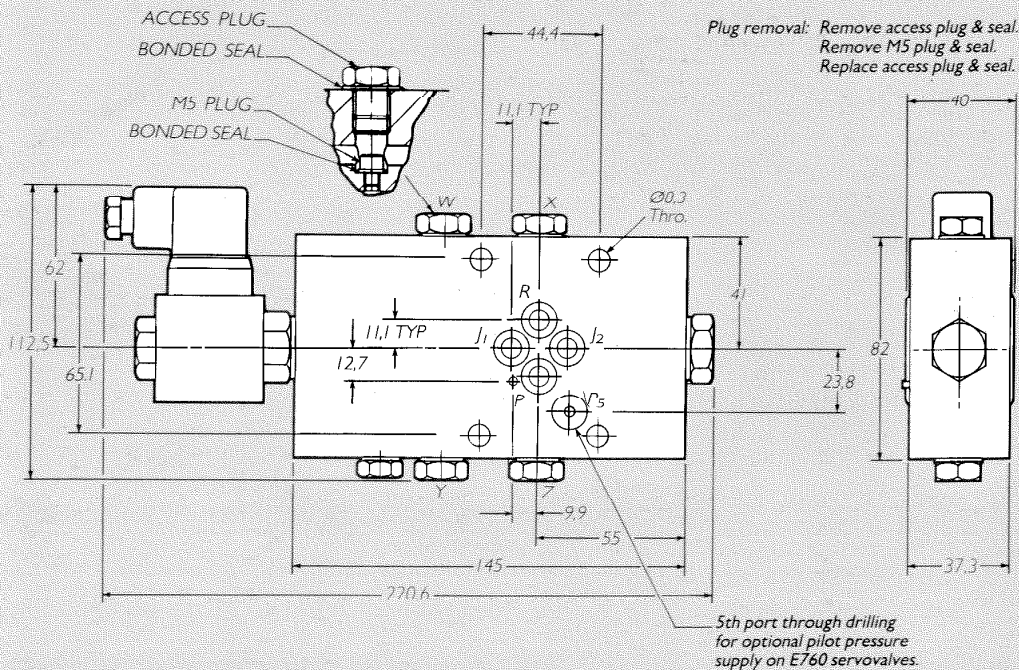
Solenoid leakage (when servovalve is by-passed),
0.4 l/min. at 70 bar supply
0.7 l/min. at 210 bar supply.

Response time, Switch on (start-up function) < 200mS. Switch off (abort function) < 75mS.

Flow rating, in a 4-way configuration and normal operation, flow rating is 25 l/min with a 10 bar pressure drop.

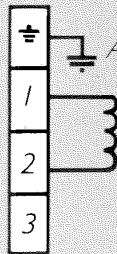
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Installation



Dimensions in mm.

Coil wiring



AC Options only

Ports

Ports P, R, J₁ and J₂
O-rings 1,78mm section x 10,82mm I.D.
Port P₅
O-ring 1,78mm section x 9,25mm I.D.

Ordering information

E 5 0 4 - X X X

012 - 12V DC

024 - 24V DC

115 - 115V AC

230 - 230V AC

H - standard solenoid (without lamp)
K - standard solenoid (with lamp)
M - energises to bypass (without lamp)
T - energises to bypass (with lamp)

PLUG CONFIGURATION

LETTER	PLUG W	PLUG X	PLUG Y	PLUG Z
B	REMOVED	FITTED	FITTED	REMOVED
C	FITTED	REMOVED	REMOVED	FITTED
D	REMOVED	REMOVED	FITTED	FITTED
E	ORIFICE	FITTED	FITTED	ORIFICE
F	FITTED	ORIFICE	ORIFICE	FITTED

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