Product Data Sheet
June 2020
SD 4104-2E07

PTC Block

Pressure and Temperature Compensating Block for VPI A1

DAMCOS™

EMERSON™

General Description

Pressure and Temperature Compensating Block for VPI indication. The PTC-Block can be used with fullest advantage together with the VPI-C (continuous indicator). The PTC-Block is especially used where an exact indication of the intermediate and end position of the valve is desired. Where the volume ratio is extremely large between pipe and actuator, the PTC-Block can be used with advantage together with the VPI-E (end position indicator) valve with A and B lines connected to the tank in intermediate position. The PTC-Block can only be used for double-acting actuators with an equally large stroke capacity (for instance BRC, BHA and KC).

Note!

The PTC-Block is always to be used together with a 4/3-way control.

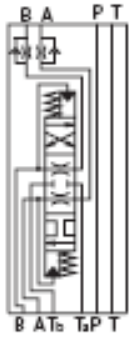
Functional Description and Hydraulic Symbol

The function of the PTC-Block is :

a. Pressure compensation: to ensure that the VPI indicator is always measuring in the return line from the actuator where the failure indication is small, as the possible oil compression in the return line is fixed (approx. 3 bar). By always measuring on the return line, irrespective of the actuator being activated through the A or B line, there will be no variation in compression from measuring to measuring. (Measuring on the return line gives a signal indicating the movement of the actuator).

b. Temperature compensation: to allow an undesired oil flow to bypass the VPI indicator when the actuator is not activated.

Pilot valve side/CETOP-3 connection



Indicator side/VPI connection

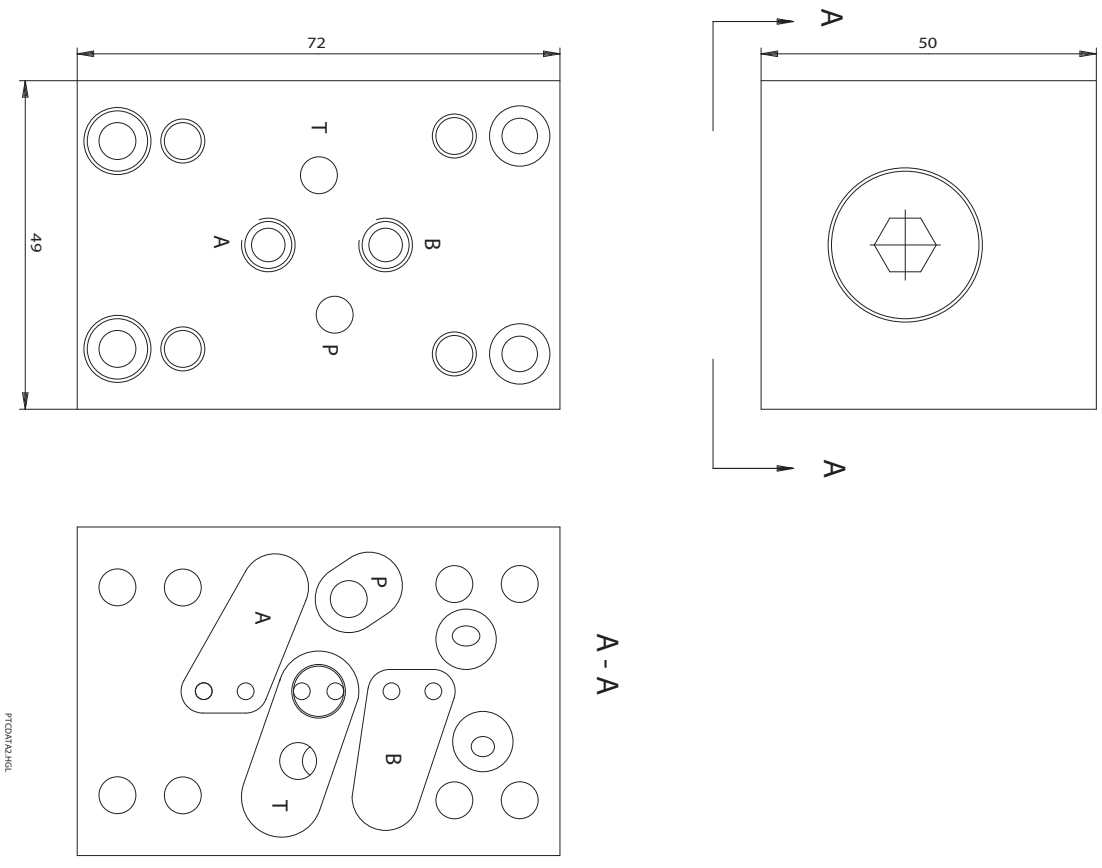
Technical Specification

Maximum working pressure	135 bar ~ 1958 lbf/in²
Maximum test pressure	205 bar ~ 2973 lbf/in²
Maximum flow rate at 135 bar / 1958 lbf/in² (through any line)	6 l/min
Weight	1.3 kg ~ 2.87 lb
Hydraulic media	Acid-free hydraulic oil
Viscosity	15-200 cSt
Filtration requirements	25 µm absolute or finer
Temperature range	-20° C to 80° C
Connection face	CETOP R 35H size 3, DIN 24340/VPI connection

Materials

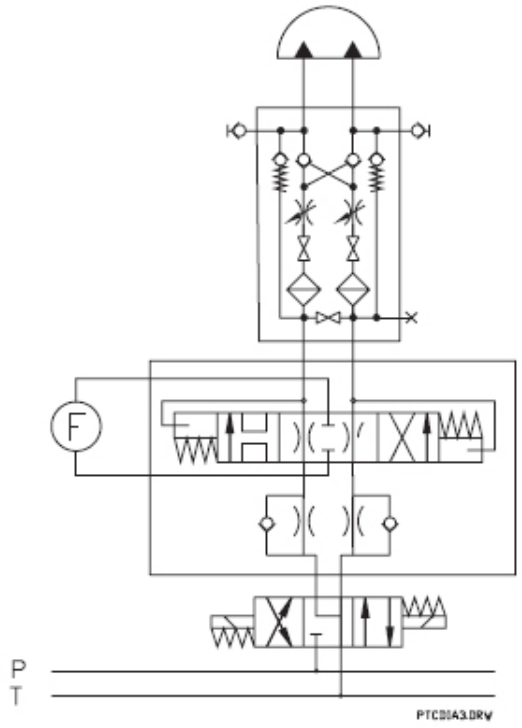
Housing	MS 58 (Brass)
Stop screws	MS 58 CuZn39Pb3
Screws	AISI 304
Seals	NBR
Sign Plate	AISI 304

Main Dimensions

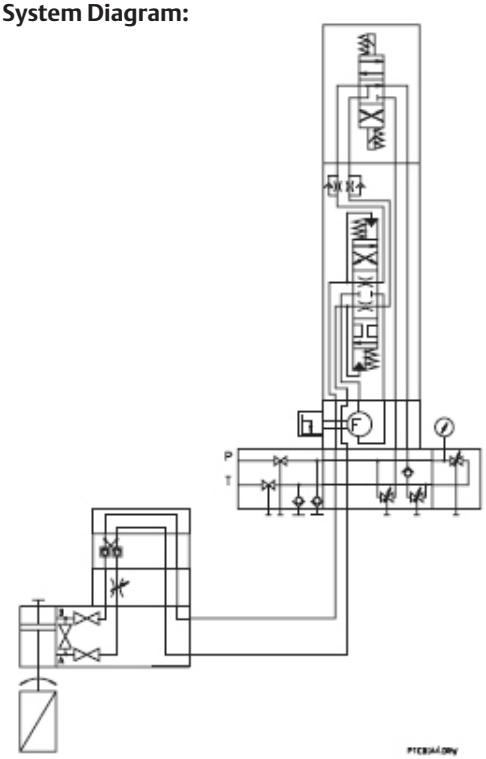


Hydraulic and System Diagram

Hydraulic Diagram:



System Diagram:



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