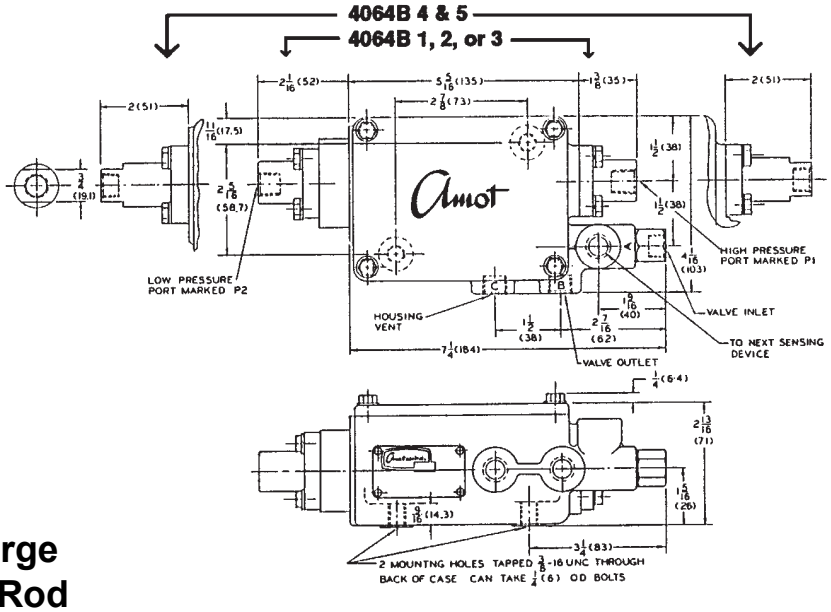
Model 4064

Differential Pressure Sensing Valve



Features

- **Settings from 8 - 3500 psi**
- **Gulfproofed, Anodized Aluminum Construction**
- **Accepts Hydraulic or Pneumatic Signals**

Applications / Benefits

- **Compressor Suction / Discharge Pressure Sensing, Detecting Rod Overload**
- **Detecting Clogs Across Filters, Separators, Scrubbers, and Membranes**
- **Pump Differential Pressures, Detecting Pump Cavitation, Fluid Leakage, Damage**

Specifications

Housing Material (Gulfproofed, Anodized)	Cast Aluminum
Internal Parts	Steel & Aluminum
Valve Seat and Seals	Viton
Diaphragm Mat'l. (When Used)	Buna N; Viton Optional
Piston Mat'l.	Stainless Steel
Piston Seals	Teflon
Max. Valve Press. Port A	80 psi
Net Weight (Approximate)	5.5 lb
Shipping Weight (Approximate)	6.5 lb

Operation / Application

Model 4064 is used is used for sensing limits of increasing or decreasing differentials. At the set differential, safety control system pressure coming into port A will vent out of port B. A typical application would be on a gas compressor installation. The gas discharge line would be connected to port P1, and the suction pressure line would be connected to port P2. If the pressure at P1 exceeded that of port P2 by the set amount, (indicating compressor connecting rod overloading), port A would vent and shut down the engine. Another application would be to sense excessive pressure drop through a filter, indicating filter clogging.

Model 4064 is furnished by the factory with the differential pressure setting compatible for a specific working pressure level. If this working pressure level changes, the unit must be readjusted if the same differential pressure setting is required. For example, Model 4064B52E might be furnished by the factory so that with a pressure of 500 psi on port P2 the unit would trip when the pressure at port P1 reached 750 psi (250 psi differential). If the pressure level at port P2 increases to 600 psi, the unit will no longer trip at the same 250 psi differential, which would be at 850 psi. If this tripping point of 850 psi is required, then the unit must be readjusted. In the Pressure Range Table, the columns under Differential Pressure To Reset show the sensitivity of the various models. Figures shown do not vary proportionally with the setting of the trip points, but more with the pressure level.

Installation

Two $^{3}/_{8}$"-16 tapped holes in the back of Model 4064's case can be used to mount the valve. The unit can be mounted in any position, but is normally installed with the vent connection at the bottom. A quality thread sealant should be used when making piping connections, but must not be permitted to enter port passages. Minimum size tubing recommended for safety control system piping is $^{1}/_{4}$" O.D. If the unit is to sense liquid pressures with pulsations present, an orifice or other dampening device should be used in the line to ports P1 and P2 to protect diaphragm models (Range 1, 2, and 3).

How to Order

Since there are several variables in these units, it is requested that the exact operating characteristics be furnished by the customer. In order to see whether the desired differential is obtainable, proceed as follows (refer to the Model Code Table below):

1. Model No. Determination - From the Pressure Range Table, use the lowest "maximum working pressure" valve in the center column to meet the maximum pressure level encountered, then choose the Model No. from the "Adj. Differential Pressure Range" column desired.
2. Specify Settings - Under normal operating conditions, port P1 or port P2 will be fixed, and the other port will either increase or decrease in pressure until the unit trips. Please specify:
   a. Port No. and Pressure of Fixed Port
   b. Port No. and Pressure at which Variable Port trips and whether on Increasing or Decreasing pressure.
3. Example of Ordering - With a pressure of 400 psi on one port, it is desired that the unit will trip when the other port increases to 550 psi (150 psi differential increasing).
   I. Model No. is 4064B42B. (Model 4064B52B could have been chosen but, Model 4064B42B has an adjustable range of 50-250 increasing and would be more sensitive than 4064B52B having an adjustable range of 100-650.)
   II. Settings:
      a. Pressure at fixed port P2 is 400 psi.
      b. Variable port P1 increases to 550 psi to trip the unit.

Model Code Table

4064B 1 2 A - ( )
Basic Model No.
Special Requirements (MTO)

Table A — Adj. Differential Pressure Range / Diff. Press to Reset (PSI)

Code No.	Decreasing (psi)	Max. Wkg. Increasing (psi)	Pressure	Decreasing	Increasing
1	8 - 35	8 - 35	350	3.5	3.5
2	25 - 125	25 - 125	350	3 - 8	3 - 8
3	90 - 285	90 - 285	350	10 - 15	10 - 15
4	20 - 215	50 - 250	1000	14 - 40	12 - 40
5	50 - 580	100 - 650	1000	20 - 60	18 - 60
6	150 - 1000	300 - 1200	4000	40 - 180	30 - 150
7	300 - 3300	500 - 3500	4000	90 - 180	80 - 160

Table B — Thread and Finish

Code No.	Thread	Finish
2	NPT	Gulfproof
3*	BSP (PL)	Standard
4*	BSP (PL)	Gulfproof

Table C — Diaphragm Material (Ranges 1, 2 & 3 Only)

Code No.	Diaphragm Material	Range
A	Buna	1, 2, 3
D	Viton	1, 2, 3
E	Viton	4, 5
F	Viton	6, 7

Indicates Special Order

* Available from AMOT U.K. factory only

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