

# MODEL 451

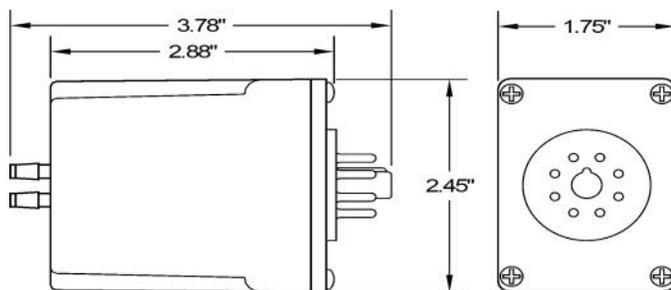
## Pressure Transducer

- 0-15 PSI air pressure input
- 4-20mA output
- Bubbler type system
- Can be used with any controller requiring a 4-20mA input
- 5 Year Unconditional Warranty
- Engineered and Built in the U.S.A.

### DESCRIPTION

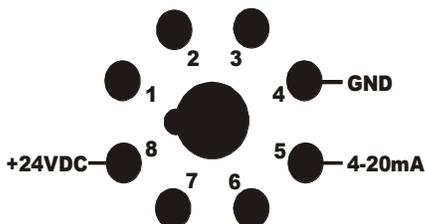
The **Model 451 pressure transducer** will convert 0-15psi to proportional 4-20mA signal. It can be used with any pump control system that utilizes a 4-20mA input for level control. The 451 can be mounted in a standard 8-pin octal socket for remote use.

### DIMENSIONS



(dimensions have a tolerance of  $\pm 0.06$ )

### PIN DRAWING



### SPECIFICATIONS

Model	451
Input voltage	24VDC
Power consumption	1 watt maximum
Air pressure input	0 to 15 psi
Max. air pressure	58 psid
Input air supply fitting	requires 3/16" i.d. tubing
Repeat accuracy	$\pm 1\%$
Signal output	4-20mA proportional to 0-15 psi (in water; 0-15 psi = 0-34.6 feet at +77° F)
Max. load resistance	500 ohms
Compensated temperature	32° to +158° F
Operating temperature	-13° to +158° F
Humidity tolerance	0-97% w/o condensation
Case material	NORYL plastic
Termination	*8-pin octal socket
Weight	3 oz.

\*Order 8-pin socket number **51X120**

### INSTALLATION

Mount the Model 451 in a suitable enclosure. An 8-pin socket (Model 51X120) and a NEMA-1 rated enclosure, designed for socket-mounted devices (Model ENC-1) are available from Time Mark.

Connect the wiring as shown on the pin drawing or the front of the unit.

Connect a 3/16" I.D. tubing to the input air supply fitting

Telephone: Main - (918) 438-1220  
Sales - (800) 862-2875  
Fax: (918) 437-7584

E-mail: sales@time-mark.com  
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Tulsa, Oklahoma 74116

09/2020  
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# MODEL 451

# Pressure Transducer

READ ALL INSTRUCTIONS BEFORE INSTALLING, OPERATING OR SERVICING THIS DEVICE.  
KEEP THIS DATA SHEET FOR FUTURE REFERENCE.

## GENERAL SAFETY

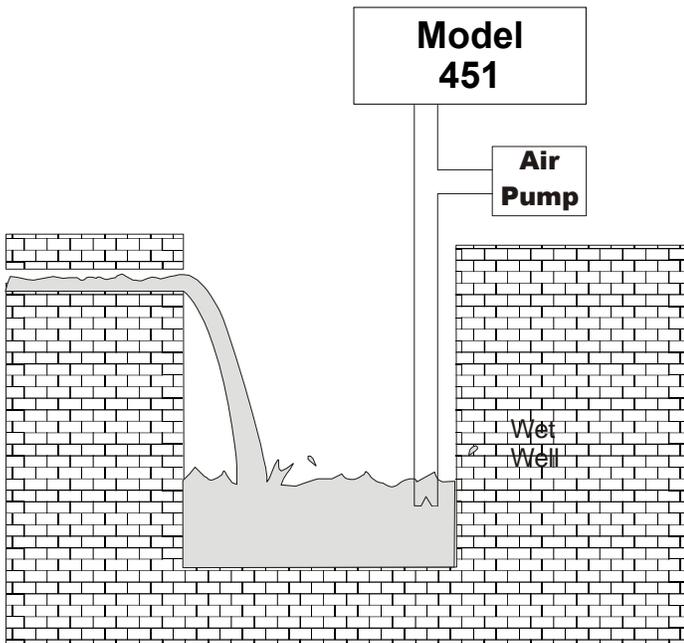
POTENTIALLY HAZARDOUS VOLTAGES ARE PRESENT AT THE TERMINALS OF THE MODEL 451.  
ALL ELECTRICAL POWER SHOULD BE REMOVED WHEN CONNECTING OR DISCONNECTING WIRING.  
THIS DEVICE SHOULD BE INSTALLED AND SERVICED BY QUALIFIED PERSONNEL.

## Installation Instructions

### INSTALLATION (cont'd)

Connect a 3/16" I.D. tubing to the input air supply fitting on the top of the unit. No connection is required on the reference fitting. Connect the other end of the tubing to the air compressor and the tank or well (see figure 1).

Figure 1 Model 451 Application



### TROUBLESHOOTING

Should the Model 451 Pressure Transducer fail to operate, check the power supply connections, making sure that the polarity and voltage levels are correct. Verify that all electrical connections are firmly attached to the terminals. Check the full length of the air hose and hose connections, to ensure there are no pressure leaks. Connect a known pressure source to the INPUT connection, while measuring the output current from pins 5 and 4. The output current must have a complete circuit through the controller, returning to the pressure transducer. Should problems persist, contact the factory for assistance.

### WARRANTY

This product is warranted to be free from defects in materials and workmanship, and is covered by our exclusive **5-year Unconditional Warranty**. Should this device fail to operate for any reason, we will repair it for five years from the date of manufacture. For complete warranty details, see the *Terms and Conditions of Sales* page in the front section of the Time Mark catalog or contact Time Mark at 1-800-862-2875.

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