



# TRANSDUCERS

## OPTIONS FOR MODEL UCP-422

### UCO-44, UCO-44T OPTIONS

#### DESCRIPTION

The **UCO-44** and **UCO-44T Options** are designed to be used with the Kele Model UCP-422 electronic/pneumatic transducer. The **UCO-44 Option** allows the Model UCP-422 to be controlled by a pulse-width modulated (PWM) signal. The **UCO-44T Option** allows the Model UCP-422 to be controlled by a tri-state input signal. These options are mounted in an expander ring attached to the Model UCP-422.

#### FEATURES

- **Selectable PWM time base 0.1-2.65, 5.2, 12.85, 25.6, or 0.59-2.93 sec**
- **Selectable tri-state time base 2.55, 5.1, 12.75, 25.5, 59.9, 90.5, or 119.9 sec**
- **255-step resolution**
- **Positive or negative input reference**
- **AC/DC voltage**
- **LED indication**

#### OPERATION

##### UCO-44 Option

The **UCO-44 Option** accepts a pulse-width modulated input and produces an internal 4-20 mA current signal that controls the Model UCP-422. The standard time base is 25.6 seconds but is switch-selectable for any of the other four ranges. The **UCO-44 Option** responds to the elapsed time when the controlling computer closes the contacts wired in series with the signal SIG IN + or SIG IN - terminals. Each pulse received will produce a corresponding pressure output. The transducer will hold this signal until given a pulse with a different value.

##### UCO-44T Option

The **UCO-44T Option** is controlled from two discrete contact closures or one tri-state output from a controlling computer. Each signal given the transducer will ramp an internal 4-20 mA signal up or down to control the Model UCP-422. A contact closure wired in series with the SIG IN + terminal will increase the output in proportion to the length of the signal given. A contact closure wired in series with the SIG IN - terminal will decrease the output in proportion to the length of the signal given.

#### LED INDICATION

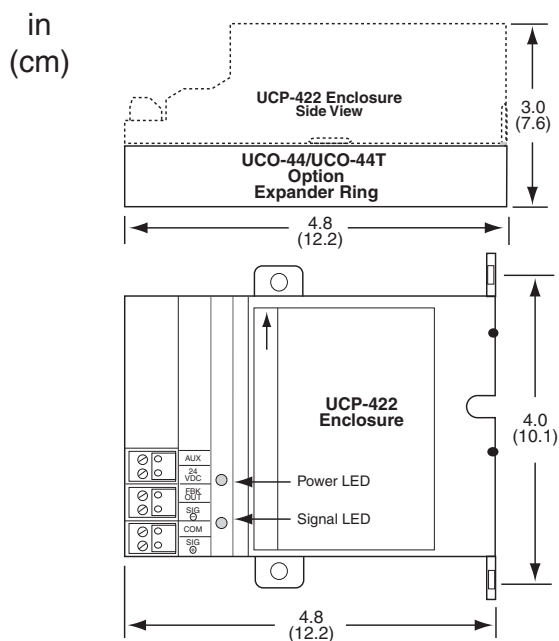
**PWR LED** - On when 24V is present

**SIG LED** - On only when an input signal is present



Shown with Optional Pressure Gauge

#### DIMENSIONS



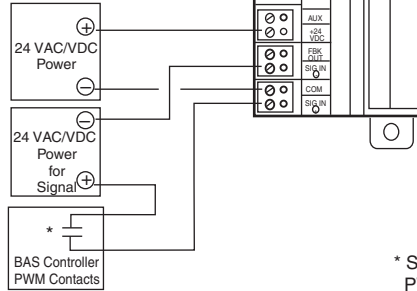
#### SPECIFICATIONS

<b>Supply voltage</b>	24 VAC $\pm 10\%$ @ 100 mA (half-wave) 24 VDC $\pm 10\%$ @ 50 mA	<b>Tri-state time base</b>	2.55, 5.1, 12.75, 59.9, 90.5, 119.9, or factory-set 25.5 sec (internally DIP switch selectable)
<b>PWM time base</b>	0.1-2.65, 5.2, 12.85, factory-set 25.6, or 0.59-2.93 sec (internally DIP switch selectable)	<b>Accuracy</b>	$\pm 0.5\%$ of span
<b>Output resolution</b>	255 steps	<b>Operating temp</b>	32° to 122°F (0° to 50°C)
		<b>Humidity limit</b>	5% to 95% RH non-condensing
		<b>Warranty</b>	18 months



## WIRING

PWM board is located in **UCO-44** expander ring housing attached to the **UCP-422** enclosure.

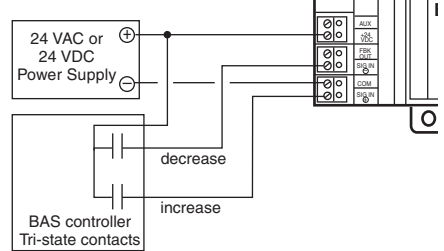


**PWM Wiring  
Separate 24V Supplies  
for Power and Signal**

\* Signal input is optoisolated and polarity insensitive.  
PWM computer contact can switch either PWM wire lead.

**PWM Wiring  
Common 24V Supply for  
Power and Signal**

Tri-state board is located in **UCO-44T** expander ring housing attached to the **UCP-422** enclosure.



**Tri-state Wiring**

## CALIBRATION

**Important!** To change the time base, the transducer must be disassembled. A time base other than the factory setting may be specified at the time of order entry.

### Time Base Selection

1. Remove two screws from the bottom plate of the enclosure.
2. Carefully remove the PWM/Tri-state board and locate time base select switches.
3. Set switches 3, 4, and 5 to desired time base as shown in table. Switches 1, 2, 6, 7, and 8 are not used and should be in the off position.
4. Carefully reassemble the transducer, ensuring that socket and pins are properly aligned.
5. No other adjustment or calibration is required.

**TABLE 1. TIME BASE SELECTION**

PWM TIME BASE (sec)	TRI-STATE TIME BASE (sec)	SWITCH		
		3	4	5
0.1-2.65	2.55	Off	Off	Off
0.1-5.2	5.1	Off	Off	On
0.1-12.85	12.75	Off	On	Off
0.1-25.6 (factory setting)	25.5 (factory setting)	Off	On	On
0.59-2.93	59.9	On	Off	Off
	90.5	On	Off	On
	119.9	On	On	Off

## ORDERING INFORMATION

MODEL	DESCRIPTION
UCP-422-44	Electronic / pneumatic transducer PWM option (factory installed)
UCP-422-44T	Electronic / pneumatic transducer tri-state option (factory installed)