UNIVERSAL PULSE DIVIDER

UPD SERIES

DESCRIPTION

The **Kele UPD Series** universal pulse divider accepts pulse signals from devices such as electric meters and flow sensors, rescales these pulses, and provides an isolated pulse output. This allows the receiving devices to monitor higher frequencies than they are able to accept directly. The **UPD-2** provides two separate channels and the **UPD-4** provides four channels. The output pulse signal is optically isolated from the input signal and each channel is isolated from the others.

FEATURES

- ***Two or four channels***
- ***Optically-isolated signals***
- ***24 VAC power***
- ***Snap-track mounted***
- ***User-adjustable pulse divider ratio***
- ***Operates with mechanical switch or open-collector transistor devices***

APPLICATION

The function of the **UPD Series** is to count input pulses and produce one output pulse for a specified number of input pulses. The pulse ratio from the **UPD** is user-adjustable through an eight-position DIP switch and may represent from one to 255 input pulses. An input pulse is defined as a contact opening, then closing, and then re-opening. The duty cycle or contact open/close ratio does not need to be exactly 50%. The input pulse rate may not exceed 50 pulses per second. The minimum open or closed time, whichever is shorter, must not be less than 10 milliseconds.

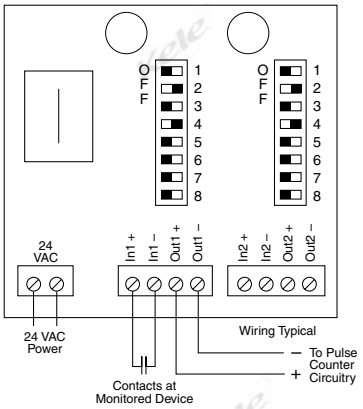
SPECIFICATIONS

Supply Voltage	24 VAC ±10%
Supply VA	
UPD-2	2.5 VA
UPD-4	5.0 VA
Input	Mechanical switch contact or open-collector transistor
Input Signal	Factory set scale 10:1; DIP switch adjustable range 1:1 to 255:1
Input Pulse Time	Contact minimum open or close time 10 ms, maximum frequency 50 Hz
Output	30 VDC, 6 mA maximum contact rating (observe polarity)
Wiring Terminations	Screw terminals
Operating Temperature	32° to 158°F (0° to 70°C)
Operating Humidity	0% to 95% RH (non-condensing)
Dimensions	
UPD-2	3.3"H x 4.1"W x 1.0"D (8.3 x 10.5 x 2.5 cm)
UPD-4	3.3"H x 8.3"W x 1.0"D (8.3 x 21.0 x 2.5 cm)
Weight	0.5 lb (0.23 kg)
Approvals	RoHS
Warranty	1 year

UPD-2

WIRING

Make all connections according to the diagram below or as shown on the job diagrams and in compliance with national and local codes. Make all connections with the power removed. Failure to do so could result in circuit board damage.



Pulse Ratio Rescaling Instructions

The **UPD** is factory set to provide one output pulse for 10 input pulses. This ratio is easily changed in the field. Each switch is assigned a pulse value shown in the table below. Simply turn "ON" the combination of switches that adds up to the number of input pulses you would like each output pulse to represent. For example, if you would like each output pulse to represent 100 input pulses, turn on the following:

		Switch	ON Value	Switch	ON Value
Switch 3	4	1	1	5	16
Switch 6	32	2	2	6	32
Switch 7	64	3	4	7	64
Total	100	4	8	8	128

$$\text{output pulse period (seconds)} = \frac{\text{DIP Switch Divider}}{\text{Input Frequency (pulse/second)}}$$

Note: Make divider even number for equal time high and low pulse.

ORDERING INFORMATION

MODEL	DESCRIPTION
UPD-2	Universal pulse divider, two channel
UPD-4	Universal pulse divider, four-channel