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## DITAK 3A - THE COST-EFFECTIVE WAY TO GET DIGITAL ACCURACY FOR MACHINE SPEED & PRODUCTION RATE INDICATION

- 4-DIGIT, 0.43" (11 mm) LED DISPLAY
- 0.1% ACCURACY
- 1-SECOND TIME-BASE
- PROGRAMMABLE INPUT CIRCUIT ACCEPTS OUTPUTS FROM A WIDE VARIETY OF SENSORS



### DESCRIPTION

The DITAK 3A provides a very economical means for obtaining high performance speed or rate readout on any machine or process. It is a natural choice for O.E.M. applications as well as for equipping existing machines or retrofitting older equipment in the users plant. The DITAK 3A uses circuit technology proven in tens of thousands of successful field applications. It's programmable input circuit allows it to be used with a wide variety of inputs and its simplicity of design makes it very easy to install and use.

The unit has a fixed 1-second time-base that is derived from the A.C. power-line and provides readings accurate to  $\pm 0.1\%$  (A program switch on the rear selects 50/60 Hz operation). A 1-second display update time provides optimum readability.

The fixed, 1-second time-base requires that input pulse rates be properly scaled to produce a direct readout. If the rate measurement is on a 1-second basis, such as strokes-per-second or inches-per-second, then one input pulse per stroke or per inch will result in direct readout. If the rate measurement is on a minute basis (ft/min, gallons/min, revolutions/min), then 60 pulses per unit-of-measurement are required for direct readout.

### SAFETY SUMMARY

All safety related regulations, local codes and instructions that appear in the manual or on equipment must be observed to ensure personal safety and to prevent damage to either the instrument or equipment connected to it. If equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

### SPECIFICATIONS

- PRIMARY SUPPLY VOLTAGE:** Available in two voltage ratings, 50/60 Hz (See Ordering Information). Allowable supply voltage variation  $\pm 10\%$ . Input power 5 VA.  
*Note: These units cannot be operated from +12 VDC.*
- SENSOR OUTPUT POWER:** +12 VDC  $\pm 15\%$ , 120 mA max.

### 3. ENVIRONMENTAL CONDITIONS:

**Operating Temperature:** -20 to 50°C

**Storage Temperature:** -40 to 80°C

**Operating and Storage Humidity:** 85% max. (non-condensing) from 0°C to 50°C.

**Altitude:** Up to 2000 meters

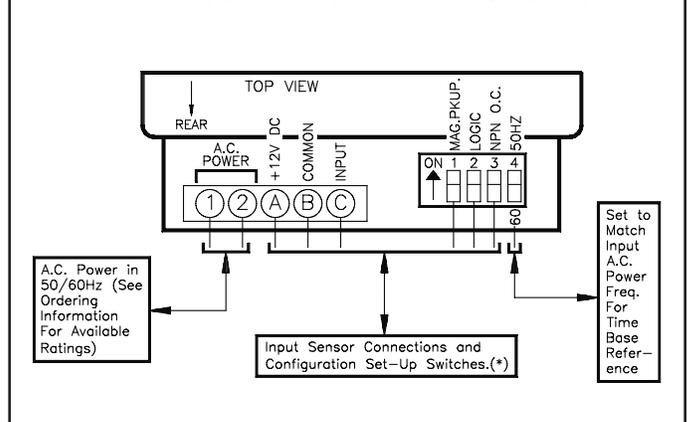
### 4. INPUT SENSITIVITY & RATINGS: \*

**5. CONSTRUCTION:** Steel Case, Aluminum Bezel, Aluminum Front Panel with Polycarbonate Overlay, Black Epoxy Paint Finish. Connections on rear via screw terminal strips with clamp-type pressure plates that accept stripped wires without lugs.

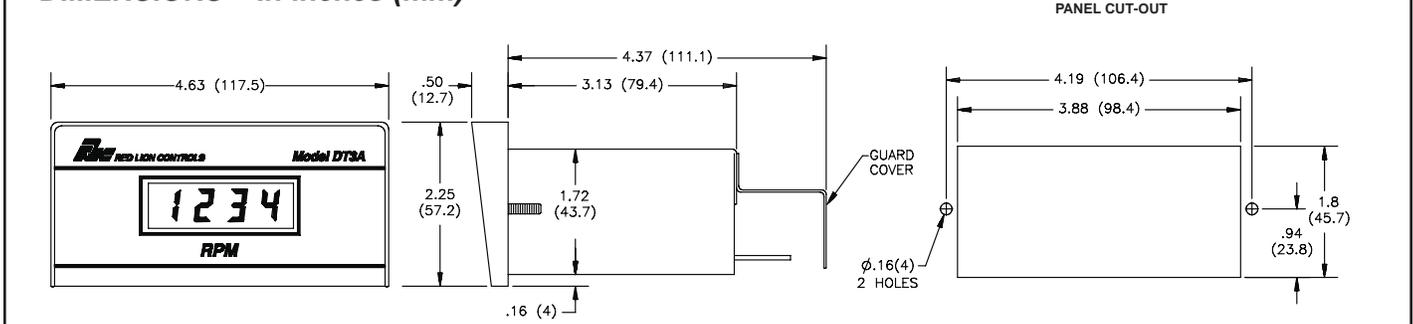
**6. WEIGHT:** 1.2 lbs (0.54 Kg)

\* - See DITAK 3A & 3D Sensor Input Connections & Input Configuration Switch Set-up section.

### DITAK 3A CONNECTIONS AND INPUT SET-UP

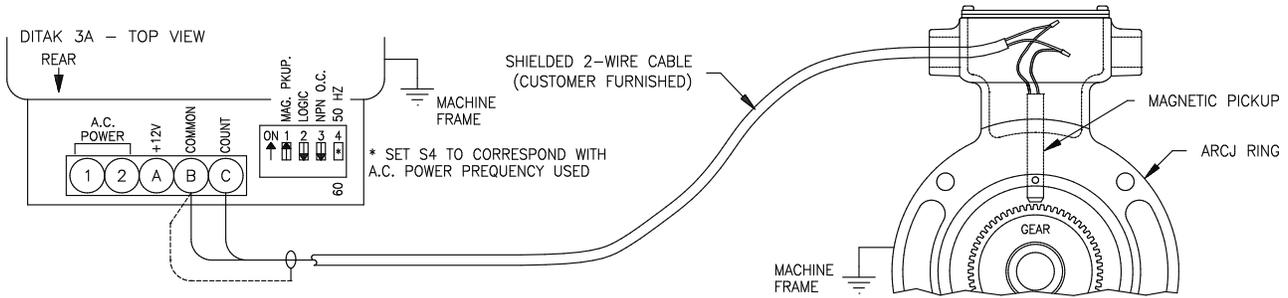


### DIMENSIONS "In inches (mm)"



# DITAK 3A TYPICAL APPLICATIONS

## 1. MOTOR RPM READOUT USING ARCJ NEMA C-FLANGE ADAPTER KIT



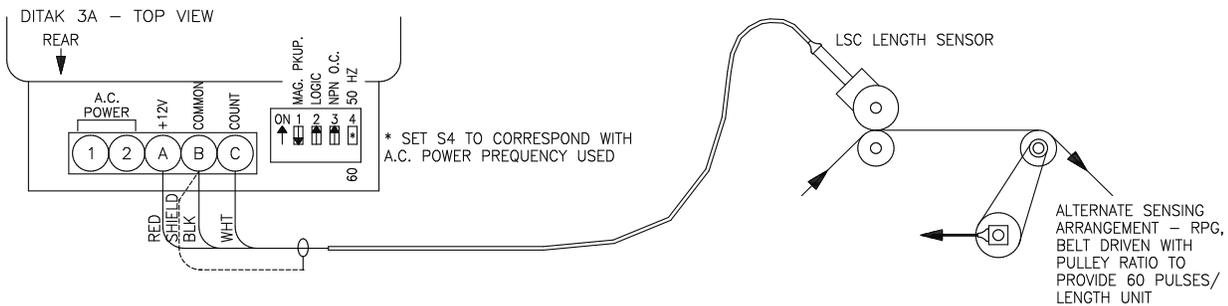
Readout of motor or shaft RPM is one of the most popular applications of the DITAK 3A, since it is usually quite simple to locate a 60-tooth sensing gear on the shaft to be monitored.

In this example, an ARCJ adapter ring kit is used to develop the input signal. The ARCJ kit includes the adapter ring, magnetic pickup, and a 60-

tooth sensing gear. It can be mounted directly on a NEMA-C flange motor face or between the motor and a mating flange on a gear reducer. (For more information, see *Sensor Section of the Catalog.*)

Signal connection between the DITAK 3A and the magnetic pickup of the ARCJ ring is via a 2-wire shielded cable.

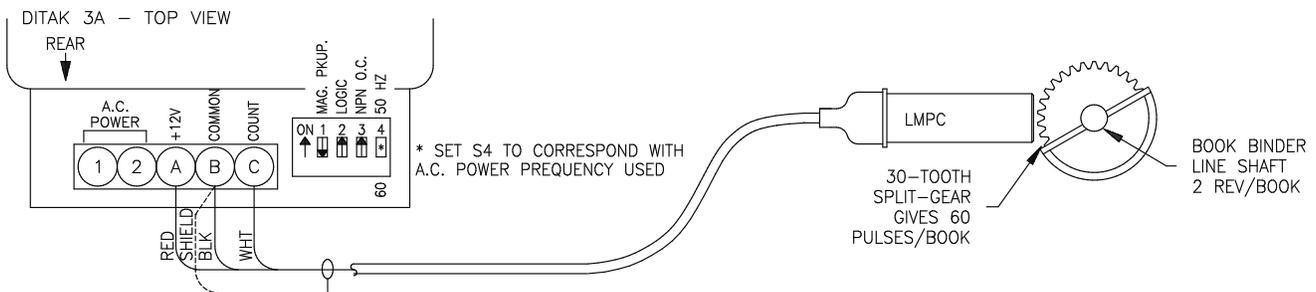
## 2. READING LINEAR SPEED IN FEET/MIN, INCHES/MIN, METERS/MIN, ETC.



Rate measurement of units having a time based in minutes (*gallons/min, feet/min, etc.*) is easily accomplished, with the fixed, 1-second, up-date time of the DITAK 3A, if the sensor arrangement yields 60 pulses/unit-of-measure. Shown above is a typical application involving material length measurement. LSC Length Sensors are available with outputs of 60 pulses/ft,

60 pulses/yard, and 60 pulses/ meter, specifically for this type of application. As an alternate, an RPG can be belt driven from an idler roll shaft to provide the same information rate. (See *Sensor Section of the Catalog for more information on LSC, RPG, and other sensors.*)

## 3. OBTAINING 60 PULSES/UNIT INFORMATION RATE FROM LINE SHAFT



Many machines have a line shaft or an intermediate drive member that runs at some integral speed related to the product being produced. In this example, a book-binding machine is driven by a line shaft that makes 2 revolutions for each book produced. The desired rate readout is in Books/Min. To use the

DITAK 3A with its 1-second time base, an information rate of 60 pulses/book is required. As shown above, this is easily accomplished by sensing a 30-tooth gear mounted on the line shaft with an LMPC sensor.

## TROUBLESHOOTING

For further technical assistance, contact technical support at the appropriate company numbers listed.

## ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBERS FOR AVAILABLE SUPPLY VOLTAGES	
		230 VAC	115 VAC
DT3A	4-Digit Tach. 1-Sec. T.B.	DT3A0410	DT3A0400

For more information on Pricing, Enclosures & Panel Mount Kits refer to the RLC Catalog or contact your local RLC distributor.