

# RPM CONTROLLER/MONITOR

Model : PDT-2250

ISO-9001, CE, IEC1010



PX-01  
(optional)



PI-06  
(optional)



LUTRON ELECTRONIC

*The Art of Measurement*

# RPM CONTROLLER/MONITOR

Model : PDT-2250

## FEATURES

|                                                                                             |
|---------------------------------------------------------------------------------------------|
| * Professional Tachometer ( RPM, m/min., ft/min. ) monitor and controller.                  |
| * Build in control relay and the alarm relay.                                               |
| * Alarm Relay will make action when the reading value reach to high/low alarm value.        |
| * Control Relay will make action when the reading value reach to control value.             |
| * Hysteresis value setting for control and alarm function.                                  |
| * Can set input pulse no. of each round.                                                    |
| * Can set the roller's diameter for the surface speed ( m/min., ft/min. ) function.         |
| * Can cooperate the optional proximity sensor or photo sensor.                              |
| * Large red LED display, high brightness and easy to read.                                  |
| * RS232 computer interface.                                                                 |
| * Microprocessor circuit ensures high accuracy and provides special functions and features. |
| * Standard 96 X 48 mm DIN case.                                                             |
| * Optional data acquisition software.                                                       |
| * Optional GSM controller.                                                                  |

## GENERAL SPECIFICATIONS

|                       |                                                                                                                                                                                                                                     |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Display               | 4 digits red LED, digit size : 14 mm.                                                                                                                                                                                               |                                                                                     |
| Unit                  | RPM                                                                                                                                                                                                                                 | RPM                                                                                 |
|                       | Surface speed                                                                                                                                                                                                                       | m/min ( meter per min. )<br>ft/min ( feet per min. )                                |
| Circuit               | Custom chip of microprocessor LSI circuit.                                                                                                                                                                                          |                                                                                     |
| Sampling Time         | Approx. 1 second.<br>* <i>Input : one pulse per round, <math>\geq 60</math> RPM</i>                                                                                                                                                 |                                                                                     |
| Relay Output          | Number                                                                                                                                                                                                                              | 2 relays                                                                            |
|                       | Function                                                                                                                                                                                                                            | <i>Relay 1 :</i><br>Control relay.<br><br><i>Relay 2 :</i><br>High/Low alarm relay. |
|                       | Max load                                                                                                                                                                                                                            | 1 ACA/250 ACV<br>1 DCA/24 DCV                                                       |
| Setting Value         | Control value setting.<br>Alarm high limit value setting.<br>Alarm low limit value setting.<br>Pulse no. of each round.<br>Roller diameter value setting.<br>Hysteresis value setting.<br>* <i>Setting for RPM, m/min., ft/min.</i> |                                                                                     |
| Input Signal          | Pulse                                                                                                                                                                                                                               |                                                                                     |
| Time base             | Quartz crystal                                                                                                                                                                                                                      |                                                                                     |
| External Power Supply | DC 12 V, 50 mA max.                                                                                                                                                                                                                 |                                                                                     |
| Data Output           | RS 232 PC serial interface.                                                                                                                                                                                                         |                                                                                     |
| Operating Temperature | 0 to 50 °C.                                                                                                                                                                                                                         |                                                                                     |
| Operating Humidity    | Less than 80% R.H.                                                                                                                                                                                                                  |                                                                                     |
| Power Supply          | 90 to 260 ACV, 50/60 Hz.                                                                                                                                                                                                            |                                                                                     |
| Weight                | 384 g/ 0.84 LB.                                                                                                                                                                                                                     |                                                                                     |

|                      |                                                                                                                                                                                                                                                              |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Consumption    | Approx. 4.7 VA/AC 110V.<br>Approx. 5.3 VA/AC 220V.                                                                                                                                                                                                           |
| Dimension            | DIN size : 96 x 48 mm.<br>Depth : 110 mm.                                                                                                                                                                                                                    |
| Accessories Included | Instruction manual.....1 PC<br>Case holder with screw..... 2 PCs                                                                                                                                                                                             |
| Optional Accessories | * Proximity sensor, PX-01.<br>* Photo sensor, PI-06.<br><br>* Data Acquisition software, SW-U801-WIN.<br>* RS232 cable, UPCB-02.<br>* USB cable, USB-01.<br><br>* GSM controller, GSM-889.<br>* Interface cable ( cable between meter to GSM-889 ), GMCB-89. |

## ELECTRICAL SPECIFICATIONS (23 ± 5 °C)

|            |                                                             |             |                          |
|------------|-------------------------------------------------------------|-------------|--------------------------|
| Range      | <i>Photo Tachometer :</i><br>10 to 99,999 RPM               |             |                          |
|            | <i>Surface Speed ( m/min. ) :</i><br>0.05 to 9,999 m/min.   |             |                          |
|            | <i>Surface Speed ( ft/min. ) :</i><br>0.2 to 32,805 ft/min. |             |                          |
| Accuracy   | ± ( 0.1 % + 1 digit ).                                      |             |                          |
| Resolution | RPM                                                         | 0.1 RPM     | < 1,000 RPM              |
|            |                                                             | 1 RPM       | 1,000 to 9,999 RPM       |
|            |                                                             | 10 RPM      | 10,000 to 99,999 RPM     |
|            | m/min.                                                      | 0.01 m/min. | < 100 m/min.             |
|            |                                                             | 0.1 m/min.  | 100 to 999 m/min.        |
|            |                                                             | 1 m/min.    | 1,000 to 9,999 m/min.    |
|            | ft/min.                                                     | 0.1 ft/min. | < 1000 ft/min.           |
|            |                                                             | 1 ft/min.   | 1,000 to 9,999 ft/min.   |
|            |                                                             | 10 ft/min.  | 10,000 to 32,805 ft/min. |

## OPTIONAL PROXIMITY SENSOR Model : PX-01

|                         |                                                           |
|-------------------------|-----------------------------------------------------------|
| Application             | * Sensor for PDT-2250<br>Panel RPM Controller,<br>Monitor |
|                         | * Sensor for DT-2240D<br>Panel Tachometer                 |
|                         | * Position Detector.                                      |
| Output method           | PNP, NO(normal open)                                      |
| Sensing direction       | Vertical.                                                 |
| Sensing distance        | 4 mm.                                                     |
| Operating voltage       | 10-30 VDC.                                                |
| Standard Sensing object | Iron 18 x 18 x 1 mm.                                      |
| Current consumption     | 8 mA, no load.                                            |
| Response frequency      | 600 Hz.                                                   |
| Output current          | 250 mA max.                                               |
| Leakage current         | 1.1 mA.                                                   |
| Residual voltage        | 0.9 VDC.                                                  |
| Operating Temperature   | -20 to 70 °C                                              |
| Operating Humidity      | 35 to 95% RH.                                             |
| Wire Dimension          | 4.7 mm Dia. x 2 m x 3 cores.                              |
| Application             | * Sensor for PDT-2250<br>DT-2240D.                        |
|                         | * Position Detector.                                      |