## SHMPO **INSTRUMENTS**

# **Measuring Quality**

## **DT-5TS Economical Panel Indicator**

The DT-5TS Economical Panel Indicator is ideal for speed and process time monitoring when combined with a compatible in-line sensor. Loaded with features found in more expensive units, the DT-5TS Panel Indicator is extremely versatile with selectable inputs. The DT-5TS is fully scalable and possesses three selectable modes allowing it to measure and display RPM/linear speed/rate, elapsed time and process time. Each panel indicator accepts a variety of signal inputs from any sensor providing an NPN, contact, sine wave, or square wave such as pulse generators, proximity sensors, photoelectric sensors, magnetic sensors and NPN OC transistors. Typical applications can range from machine operation timing, rate of change monitoring such as on a conveyor, elapsed time of oven curing etc. with any variety of compatible sensor inputs desired.





DT-5TS LED Display without front cover protector

#### **Features**

- Highly accurate (± 0.008% ± 1 digit) makes ideal for process control and analysis
- Large 6 digit LED display plus two smaller 6 digit secondary displays allow easy viewing from greater distances
- Scalable programming gives user the flexibility to set up and monitor virtually any process
- Selectable update time allows operator to speed up/slow down display changes to facilitate process
- Wide range power voltage (85 264VAC, 50/60Hz) eliminates need for having to purchase and wire an additional power transformer
- Great versatility with multiple sensor input capability in one unit: NPN open collector, contact and square or sine wave sensor inputs.
- Front cover protection eliminates accidental bumping of keypad to incorrect program
- IP66 front cover protection keeps water out, enables usage in compatible plant wash-down operations
- DC power source output to power compatible sensors saves money by eliminating need for separate power supply
- Selectable decimal point enables higher resolution display potential
- 1/8 DIN size panel cut out permits easy, industry-standard mounting



## **DT-5TS Specifications**

Measuring Range	10 - 99,999 rpm (at 1 p/r), 0.2 - 30,000 rpm (at 60 p/r)
Display Range	Tachometer/Rate Meter: 0 - 999999 with selectable decimal point Elapsed Time: 0:00:00 - 9:59:59 or 0.00- 999.99 sec Process Time: 0:00:00 - 0:59:59 or 0.00 - 999.99 sec
Scalable	Yes (with outputs, see modules)
Accuracy	± 0.008 % ± 1 digit
Display Update Time	0.2, 0.5, 1, 2, 5, 10, 15, 30, 60 seconds (selectable)
Input No. of P/R	1 to 9,999 (programmable)
Input Signal Characteristics	NPN open collector input: max. frequency 100 kHz / Contact input: max. frequency 20 Hz / Square wave input: max. frequency 30 kHz - Sine wave input (magnetic pickup): max. frequency 10 kHz
Sensor Power Supply	12 VDC (150 mA)
Power Requirement	85 - 264 VAC (50/60 Hz) Optional (9 - 35 VDC at 1 W also available)
Ambient Temperature	32-113°F ( 0-45° C )
Product Weight	0.66 lb (300 g)
Package Weight	0.65 lb (295 g)
Dimensions	5.27 x 3.78x 1.89" (134 x 96 x 48 mm)
Warranty	2-Year
Included Accessories	Mounting adapters and mounting screws, decal sheet.

## **Ordering Details**

DT-5TS	Panel Indicator with selectable inputs, 100-240 VAC Power
1111-515-110	Panel Indicator with selectable inputs, 9-35 VDC Power

#### DISTRIBUTED BY:

#### **Accessories**

BI2-S12   NPN (NO) sinking output 1.5 kHz frequency, LED indication, 6.5' (2 m) cable, 0.08" (2 mm) sensing distance, NEMA 6 (IP67) rating
Proximity Sensors  MCS-3109  RETO- Reflective Photo Sensors  LS-S50MLR  RE1B-60F  RE1B-60F  MCS-3109  Capability, 6.5' (2 m) cable, 0.08" (2mm) sensing distance, NEMA 6 (IP67) rating  NPN (NO,NC) output, 300 Hz frequency, 0.32" (8 mm) sensing distance, 6.5' (2 m) cable, NEMA 6 (IP67) rating, for use in high vibration areas  Square wave output, 8 kHz frequency, LED indication, 18" (0.46 m) cable, 0.04" (1 mm) sensing distance,  Photo sensor with NPN sinking output, 250 Hz activating frequency, 10' (3 m) cable 1" to 3' (25 to 914 mm) operating range  Photo sensor with NPN sinking output, 333 Hz activating frequency, LED status, 10' (3 m) cable, NEMA 4 (IP65), 1" to 3' (25 to 914 mm) operating range for light or dark activation.  Laser sensor with NPN/PNP (NO,NC) outputs, 1.5 kHz frequency, LED indication, 6' (1.8 m) with quick disconnect connection, NEMA 6 (IP67) rating  Rotary encoder in ABS housing with 60 ppr digital output, maximum speed 5000 rpm, 1.7 ft (0.5 m) cable  Rotary encoder in ABS housing with 600 ppr
NPN (NO,NC) output, 300 Hz frequency, 0.32" (8 mm) sensing distance, 6.5' (2 m) cable, NEMA 6 (IP67) rating, for use in high vibration areas    Se-G
Retro- Reflective Photo Sensors  LS-S50MLR  RE1B-60F  Retro- Re1B-60F  Retro- Reflective Photo Sensors  Indication, 18" (0.46 m) cable, 0.04" (1 mm) sensing distance, 0.04" (1 mm) sensing distance, 0.04" (25 mm) cable, 10 mm c
Retro- Reflective Photo Sensors  MCS-655  LS-S50MLR  RE1B-60F  MCS-655  Activating frequency, 10' (3 m) cable 1" to 3' (25 to 914 mm) operating range  Photo sensor with NPN sinking output, 333 Hz activating frequency, LED status, 10' (3 m) cable, NEMA 4 (IP65), 1" to 3' (25 to 914 mm) operating range for light or dark activation.  Laser sensor with NPN/PNP (NO,NC) outputs, 1.5 kHz frequency, LED indication, 6' (1.8 m) with quick disconnect connection, NEMA 6 (IP67) rating  Rotary encoder in ABS housing with 60 ppr digital output, maximum speed 5000 rpm, 1.7 ft (0.5 m) cable  Rotary encoder in ABS housing with 600 ppr
Reflective Photo Sensors  Hz activating frequency, LED status, 10' (3 m) cable, NEMA 4 (IP65), 1" to 3' (25 to 914 mm) operating range for light or dark activation.  Laser sensor with NPN/PNP (NO,NC) outputs, 1.5 kHz frequency, LED indication, 6' (1.8 m) with quick disconnect connection, NEMA 6 (IP67) rating  Retaber  Retaber  Retaber  Retaber  Rotary encoder in ABS housing with 60 ppr digital output, maximum speed 5000 rpm, 1.7 ft (0.5 m) cable  Rotary encoder in ABS housing with 600 ppr
Laser sensor with NPN/PNP (NO,NC) outputs, 1.5 kHz frequency, LED indication, 6' (1.8 m) with quick disconnect connection, NEMA 6 (IP67) rating  Retab-60F  Rotary encoder in ABS housing with 60 ppr digital output, maximum speed 5000 rpm, 1.7 ft (0.5 m) cable  Rotary encoder in ABS housing with 600 ppr
RE1B-60F digital output, maximum speed 5000 rpm, 1.7 ft (0.5 m) cable  Rotary encoder in ABS housing with 600 ppr
ft (0.5 m) cable
Retary encoder in ABS housing with 1000 ppr digital output, maximum speed 5000 rpm, 1.7 ft (0.5 m) cable
Pulse Generators  RE2B-30F  Quadrature rotary encoder in ABS housing with Dual (90° out of phase) 30 ppr digital output, maximum speed: 5000 rpm, 1.7 ft (0.5 m) cable
RE2B-600F  Quadrature rotary encoder in ABS housing with Dual (90° out of phase) 600 ppr digital output, maximum speed: 5000 rpm, 1.7 ft (0.5 m) cable
*
FPM-RE1B 12" circumference wheel for use with RE1B and RE2B pulse generators
12" circumference wheel for use with RE1B
FPM-RE1B  12" circumference wheel for use with RE1B and RE2B pulse generators  Sine wave output from change in magnetic to non-magnetic, change in voltage proportional to magnetic flux intensity over time, range of 0.01" (0.25 mm) typical clearance, 10' (3 m)
FPM-RE1B  12" circumference wheel for use with RE1B and RE2B pulse generators  Sine wave output from change in magnetic to non-magnetic, change in voltage proportional to magnetic flux intensity over time, range of 0.01" (0.25 mm) typical clearance, 10' (3 m) cable  Sine wave output from change in magnetic to non-magnetic, change in voltage proportional to magnetic flux intensity over time, range of 0.01" (0.25 mm) typical clearance, Amphenol
## PPM-RE1B  12" circumference wheel for use with RE1B and RE2B pulse generators  Sine wave output from change in magnetic to non-magnetic, change in voltage proportional to magnetic flux intensity over time, range of 0.01" (0.25 mm) typical clearance, 10' (3 m) cable    Sine wave output from change in magnetic to non-magnetic, change in voltage proportional to magnetic flux intensity over time, range of 0.01" (0.25 mm) typical clearance, Amphenol connector
## PPM-RE1B  12" circumference wheel for use with RE1B and RE2B pulse generators  Sine wave output from change in magnetic to non-magnetic, change in voltage proportional to magnetic flux intensity over time, range of 0.01" (0.25 mm) typical clearance, 10' (3 m) cable    3030AN

