SHIMPO INSTRUMENTS

Measuring Quality

DT-5TXR Panel Meter with Optional Output Modules

The DT-5TXR Panel Meter with Optional Output Modules is an economical unit for speed and process time monitoring when combined with a compatible in-line sensor. Loaded with features found in more expensive units, the DT-5TXR Panel Meter is extremely versatile with selectable inputs. The DT-5TXR is fully scalable and possesses three selectable modes allowing it to measure RPM/linear speed/rate, elapsed time and process time. Each panel meter 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 machining 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. The DT-5TXR panel meter also accepts various output modules, enabling it to output data for analysis, record keeping or assist in controlling the process through a separate control device. Up to two modules can be accepted simultaneously, offering an enormous number of combinations and options.

Features

- *Accepts up to two output modules allowing voltage, current, BCD, NPN & relay output combinations for control or remote process monitoring*
- *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 power range (85 - 264VAC, 50/60Hz) eliminates need for having to purchase and wire an additional power transformer. Low voltage models available*
- *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*

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DT-5TXR 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	Tachometer/Rate Meter & Elapsed Time: ± 0.008 % ± 1 digit
	Process Time: ± 0.008 % ± 1 digit
Display Update Time	0.2, 0.5, 1, 2, 5, 10, 15, 30, 60 sec.
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	0.95 lb (430 g)
Dimensions	5.27 x 3.78x 1.89" (134 x 96 x 48 mm)
Warranty	2-Year
Included Accessories	Mounting adapters & screws, decal sheet

Ordering Details

DT-5TXR	Panel Meter with Output Module Capability, Selectable inputs, 100-240 VAC Power
DT-5TXR-DC	Panel Meter with Output Module Capability, Selectable inputs, 9-35 VDC Power
DOP-BCD	BCD output module, 36 Pin Connection
DOP-CPTR	Relay output module, terminal block connection
DOP-FVC	Analog output module (4-20mA & 0-1, 0-10, 1-5 VDC), 36-pin connection
DOP-FVTR	Analog output module (4-20mA & 0-1, 0-10, 1-5 VDC), terminal block connection
DOP-RMTR	Ratio input module, terminal block connection
DOP-TRC	NPN open collector output module, 36 pin connection
DOP-TRTR	NPN open collector output module, terminal block connection

Note: For Factory Assembled Panel Meter with Output Modules, Add Module to end of DT-5TXR Part and remove DOP. For two modules, only 1 36-Pin Module and 1 Terminal Block connection module can combine. Example: DT-5TXR-CPTR-FVC Panel Meter, 100-240VAC Power with Relay Output Terminal Module & 36-Pin Analog Output Module

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Accessories

Proximity Sensors	**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
	DJ2-G	NAMUR output, 3 kHz frequency, zero-sensing capability, 6.5' (2 m) cable, 0.08" (2mm) sensing distance, NEMA 6 (IP67) rating
	MCS-3109	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	Square wave output, 8 kHz frequency, LED indication, 18" (0.46 m) cable, 0.04" (1 mm) sensing distance,
Retro-Reflective Photo Sensors	**MCS-625**	Photo sensor with NPN sinking output, 250 Hz activating frequency, 10' (3 m) cable 1" to 3' (25 to 914 mm) operating range
	MCS-655	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.
	LS-S50MLR	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 Pulse Generators	**RE1B-60C**	Single logic output (Logic "1" …supply voltage minus 2.5V or more, 10mA (max) / Logic "0"… less the 0.4V, 30mA max.), 60 pulses/rev., 5000 rpm max., 10' (3 m) cable
	RE1B-600C	Single logic output (Logic "1" …supply voltage minus 2.5V or more, 10mA (max) / Logic "0"… less the 0.4V, 30mA max.), 600 pulses/rev., 3000 rpm max., 10' (3 m) cable
	RE1B-1000C	Single logic output (Logic "1" …supply voltage minus 2.5V or more, 10mA (max) / Logic "0"… less the 0.4V, 30mA max.), 1000 pulses/rev., 1800 rpm max., 10' (3 m) cable
	RE2B-30C	Dual logic output (90° out of phase) for quadrature applications. Same logic as the RE1B Series. A zero position output for shaft position reference. 30 pulses/rev., 5000 rpm max., 1.6' (.49 m) cable.
	RE2B-60C	Dual logic output (90° out of phase) for quadrature applications. Same logic as the RE1B Series. A zero position output for shaft position reference. 60 pulses/rev., 5000 rpm max., 1.6' (.49 m) cable.
	RE2B-600C	Dual logic output (90° out of phase) for quadrature applications. Same logic as the RE1B Series. A zero position output for shaft position reference. 600 pulses/rev., 3000 rpm max., 1.6' (.49 m) cable.
	FPM-RE1B	12" circumference wheel for use with RE1B and RE2B pulse generators
Magentic Pick-up Sensors	**MP-10**	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	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
	CABLE-3030	Optional cable for 3030AN
	3070-XP12010	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 Stainless steel housing, explosion-proof ATEX approved: II 2 GEExm II T3
Slot Type Sensor	**CM-SR21**	For less dense materials that allows beam to penetrate through, NPN or PNP output with a 0.08" (2 mm) gap range, NEMA 4x (IP65) housing.
	CBL-75ANL	Optional cable for CM-SR21 16.4' (5 m)