

# mL-MFU16 PROGRAMMABLE TIMER & COUNTER WITH OUTPUTS 48 × 48 DIN

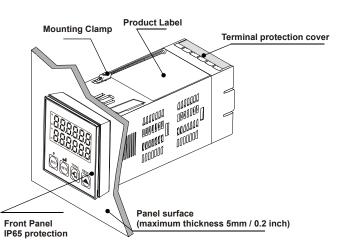
#### **FEATURES**

- 6 digits Process (PV) and 6 digits Set (SV) Value Display
- · Operation with 2 Set Value
- · Reset, Pause and ChA-ChB Counting Inputs
- Configurable Counter "Totalizer Counter", Batch Counter, Timer, Chronometer, Frequency meter and Tachometer Functions
- Programmable Time Bases for Timer and Chronometer (Second, Minute, Hour)
- · Operation with Automatic and Manual Reset
- Two 5A Relay Outputs
- PNP/NPN Type Operation
- INC, DEC, INC I INC, INC I DEC, UP I DOWN, x1 I x2 I x4 Counting with Phase Shifting (Quadrature) Property in Counter Function
- Multiplication Coefficient and Decimal Point Position
- Different Alarm Alternatives in Frequency meter and Cycle Measuring Functions
- Absolute or Offset Operation in Counter Function
- RS-485 Serial Communication with Modbus ASCII or RTU Protocol

### DESCRIPTION

The mL-MFU16 Programmable Timer & Counter can be used in package machines, production and quality control rollers, in cutting and processing machine of glass, plastic, marble, sheet, iron, fabric all measuring and controlling of dimension, count, total count, speed, cycle, productivity, time and can be adapted easily to all mechanical construction and automation system. They can be used in many application with their control outputs, serial communication unit and output modules.

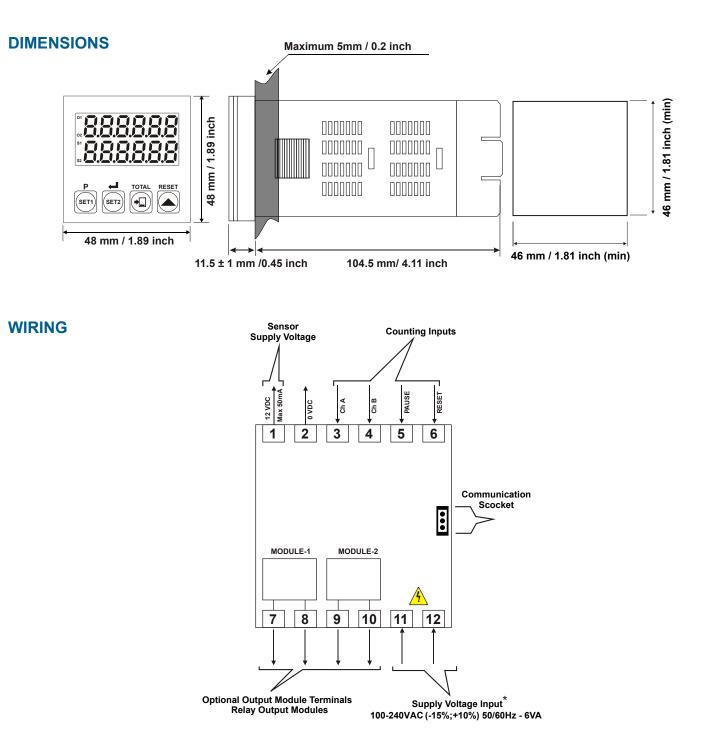
## **GENERAL DESCRIPTION**





## SPECIFICATIONS

Device Type	Programmable Timer & Counter
Housing & Mounting	48mm x 48mm x 116mm 1/16 DIN
riousing a mounting	43700 plastic housing for panel
	mounting. Panel cut-out is 46x46mm.
	Type-1 Enclosure Mounting.
Protection Class	IP65 at front, IP20 at rear.
Weight	Approximately 0.21 Kg.
Environmental Ratings	Standard, indoor at an altitude of less
Environmental realings	than 2000 meters with none condensing
	humidity
Storage / Operating Temp.	-40° C to +85° C / 0° C to +50° C
Storage / Operating Humidity	90 % max. (None condensing)
Installation	Fixed installation
Over Voltage Category	
Pollution Degree	II, office or workplace, none conductive
	pollution
Operating Conditions	Continuous
Supply Voltage and Power	100 - 240 VAC 50/60 Hz. (-15% / +10%)
	6VA
Electrical Characteristics of	Rated voltage: 16 VDC @ 5mA
Digital Inputs	Maximum continuous permissible
	voltage : 30 VDC
	Logic 1 minimum level : 3 VDC
	Logic 0 maximum level : 2 VDC
Maximum Input Frequency	For Counter / "Totalizer Counter" and
	Batch Counter ;
	If Pro-0 != 0, 1, 2; 6000Hz
	If Pro-0 != 3, 4; 4000Hz
	If Pro-0 != 5 , 6 ; 3500Hz If Pro-0 != 7 ; 2000Hz
	For Frequencymeter / Tachometer ;
	10kHz
	Max 30 Hz ( $P_{ro}$ -04 $\neq$ 000000,
	debounce)
Timer Accuracy	Tolerance (25°C): +/- 30 ppm
Time / toodrady	Aging: +/- 5 ppm / year
	Timing resolution dependent on
	selected time base
	Allow for electromechanical relay
	response time when used (typically
	30mSec)
Outputs	2 Relay Outputs (3A@250V AC)
	100.000 operation (Full Load)
Standard Communication	RS-485 Communication Module
Communication Protocol	MODBUS-RTU, MODBUS-ASCII
Communication Protocol Process Display	8 mm Red 6 digit LED display
Communication Protocol Process Display Set Display	8 mm Red 6 digit LED display 8 mm Green 6 digit LED display
Communication Protocol Process Display	8 mm Red 6 digit LED display



\* External Fuse is recommended (1A T)

ORDERING INFORMATION	
Model Number	Description
mL-MFU16	Programmable Timer & Counter with Output 100 - 240 VAC (-15%; +10%) 50/60Hz RS485 Serial Communication 2 Relay Outputs (5A @ 250 VAC ~ Resistive Load)