SOLID STATE HOUR METERS & COUNTERS



700 SERIES



DESCRIPTION

The Curtis 700 Series are highly reliable solid state hour meters and counters that offer an unprecedented combination of patented technology, performance, reliability and value.

MODEL 700: 2-Wire Hour Meter, displays only

when powered. Available in AC/DC.

MODEL 701: 3-Wire Hour Meter, has a provision

or continuous display. Available in

AC/DC and DC-only.

MODEL 703: Pulse Counter. Available in AC/DC

and DC-only.

APPLICATIONS

A wide variety of industrial and commercial applications, including scheduled maintenance, warranty and leasing – for medical equipment, transport and industrial vehicles and other industrial equipment.

FEATURES

- All-8's LCD function test: each digit displays an eight for one second after power-up.
- Attractive 6-digit LCD 5mm or 7mm high digits (7mm with optional backlighting) are much easier to read than electromechanical meters, which have only 3mm high digits.
- Silent operation no moving parts. Eliminates annoying gear and motor noise.
- Exceptional reliability due to nonvolatile memory (EEPROM) which retains data for 25+ years.
- Wide voltage ranges, for example, one unit can be powered from 75 to 270 VAC anywhere between 48 and 440 Hz – ideal for distribution and worldwide markets without having to stock multiple model types.
- Electrical reset (optional).
- Available in ten case styles all fit in standard hour meter/counter cutouts.
- Multiple mountings available –
 Metal U-bracket, "U" clamp/stud (D, Q, R and S cases), flange mount with hardware (F, T, G, J cases), or mounting clip (G, L, Y, Z, cases).
- Backlit units allow external illumination control, i.e., on/ off or dimmer (12VDC only).
- Flashing hourglass icon indicates when the hour meter is accumulating time.
- Memory will arm only when power has been applied for five seconds (with no loss of time or counts).
- Low power consumption.
- UL and CE recognized.

CURTIS INSTRUMENTS, INC. 200 KISCO AVENUE MT. KISCO, NY 10549 USA TEL (914) 666-2971 FAX (914) 666-2188 CURTIS INSTRUMENTS, (UK) LTD.
5 UPPER PRIORY STREET
NORTHAMPTON NN1 2PT, ENGLAND
TEL 44 (0) 1604-629755
FAX 44 (0) 1604-629876

CURTIS INSTRUMENTS INDIA PRIVATE LTD. 1199, GHOLE ROAD PUNE 411004, INDIA TEL 91 (0) 20-5531288 FAX 91 (0) 20-5539192 Case

SPECIFICATIONS

Bezel

Lens

Case

IP Rating

Style	Shape	Material	Material	Front/Rear			Panel Cutout mm				
D	Rectangular	Acrylic	ABS	65/50	3/16" Spade	Yes	45.0 x 22.2				
F/T	Hexagonal	Acrylic	ABS	65/65	Spade ⁷	Yes	36.8 x 24.1				
G	Hexagonal	Acrylic	ABS	65/65 ¹	Packard (2 pin) ²	Yes	36.8 x 24.1				
J	Hexagonal	Acrylic	ABS	65/651	Packard (4 pin) ³	Yes	36.8 x 24.1				
L	Rectangular	Polycarbonate	Polycarbonate	65/40	Molex ⁴	Yes	36.8 x 24.1				
Q	Round	Glass	Polycarbonate	65/50 ⁶	1/4″ Spade	Yes	ø52 (ø2-1/16)				
R	Round	Glass	Polycarbonate	65/50 ⁶	3/16" Spade	Yes	ø52 (ø2-1/16)				
(5mm displ	ay)										
R	Round	Glass	Polycarbonate	65/50	1/4″ Spade	Yes	ø52 (ø2-1/16)				
(7mm displ	ay)										
S	Square	Glass	ABS	52/50	1/4″ Spade	Yes	45.0 x 45.0				
Υ	Rectangular	Acrylic	ABS	65/65 ¹	Packard (4 pin) ³	Yes	36.8 x 24.1				
Z	Rectangular	Acrylic	ABS	65/65	1/4" Spade	Yes	36.8 x 24.1				
Display		6 digit LCD, 5 or 7mm high, 6 o'clock viewing angle									
Range & Re	esolution	Hour meters: 99,9	999.9 hours								
		Counters: 999	,999 counts								
Accuracy		Hour meters: 0.19 Counters: ±1	% count								
Humidity		95%, non-condensing at 38°C									
Operating	Temperature	-40°C to +85°C									
Storage Ter	mperature	-50°C to +85°C									
Mechanica	l Shock	SAE J 1378, 55g									
Mechanica	l Vibration	SAE J 1378, 20g									
Operating (AC power		48 to 440 Hz									
Memory		Main power must be applied for 5 seconds to arm memory (with no loss of time/counts). EEPROM, data retained for 25+ years without power.									
Current Co (Power Terr	•	0.5mA max. @ 5VDC (0512D models) 0.8mA max. @ 12VDC (1248D models) 1.0mA max. @ 120VAC 2.0mA max. @ 230VAC									
Input Signo	ıl (DC-only)	Counters (703 on	ly): 500 Hz. mc	ax., 50% duty	cycle (1 ms low, min.,	between	consecutive highs)				
Input Signo	ıl (AC/DC)	Hour meters (701 Counters (703 on			d for 0.5s, min., to dele (500ms low, min.,						
Reset		5ms min. at operating voltage. Main power must be applied for a minimum of 250ms prior to reset signal.									

NOTES:

- 1. Mating connector must be installed.
- Equivalent to Delphi-Packard connector P/N 12162000 2-pin.
 Equivalent to Delphi-Packard connector P/N 15336035 4-pin.
- 4. Equivalent to Molex connector P/N 43045-0412.
- 5. UL files AU1841 and E45175.
- 6. R(5mm) and Q housings also available in a 65/65 version (see model encodement).

UL⁵/CE

Suggested

Termination

7. F= 1/4", T= 3/16"

MODEL ENCODING

700	R	R	001	O	0512D0612A
MODEL	Case Style	Resetability	Additional Feature	Logo*	Operating Voltage
700 = (2-wire hour meter, AC/DC only) 701 = (3-wire hour meter, AC/DC or DC-only 703 = (3-wire counter, AC/DC or DC-only)	D F/T G1 J L ² Q R S Y	R = Electrically resettable N = Non- resettable	001 = 5mm, non-backlit display (Standard) 091 = Epoxy filled unit (moisture resistant, Q, R (5mm), cases only) 601 = 7mm, backlit display (R or S case only) 701 = 7mm, non-backlit display (R or S case only)	O = Curtis Logo N = No Logo	

- 1. Only model offered: 700GN001N1248D2060A
- 2. Only models offered: 700LN001N1248D2060A, 700LN001N48150D100230A and 701LN001N1248D
- * Custom logos are available Backlight available on 7mm R or S cases only.

WIRING GUIDE

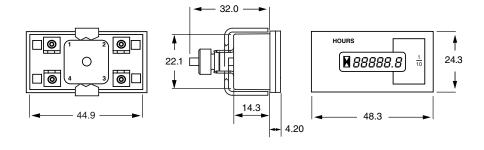
Case Style	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
D, F, T, J,Q, R (5mm), Y & Z	V+	V-	I	R	N/A	N/A
G	V+	V-	N/A	N/A	N/A	N/A
L	V+	V-	1	N/A	N/A	N/A
R (7mm), S	V+	V-	R		L	N/A

- V+ Operating voltage
- V- Common (ground)
 I Enable (Optional, use operating voltage to power this pin to record elapsed time (701) or increment count (703).)
- Reset (Optional, supply with operating voltage when unit is to be reset to 0.)
- Lighting control (Optional, 9-15VDC absolute only, regardless of operating voltage.)
- NC No connection

DIMENSIONS IN MM

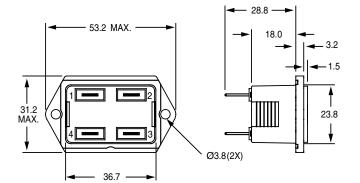
Case Style D

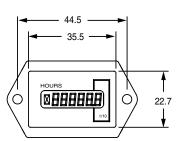




Case Style F/T

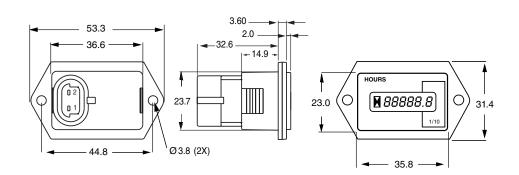






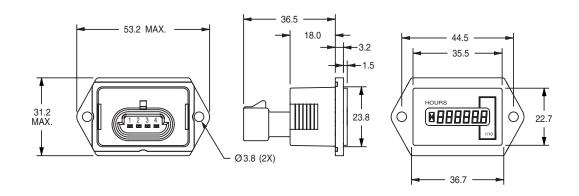
Case Style G





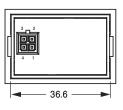
Case Style J

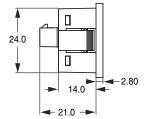


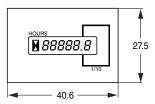


Case Style L



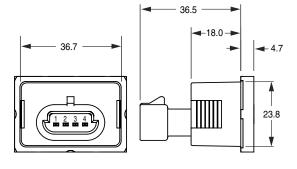


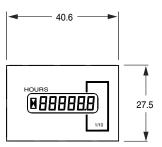




Case Style Y

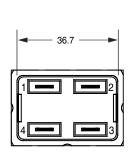


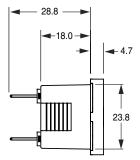


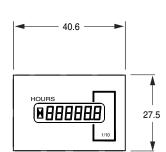


Case Style Z



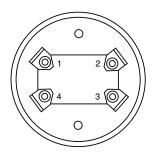


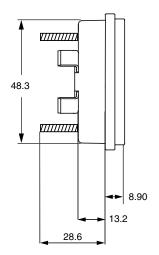


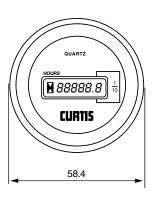


Case Style Q



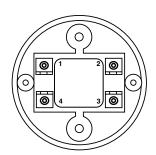


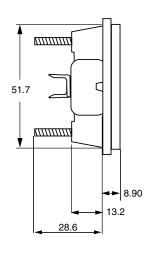


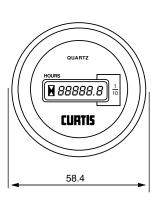


Case Style R (5mm)



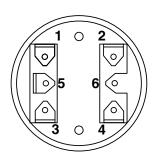


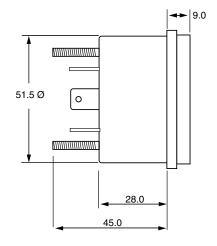


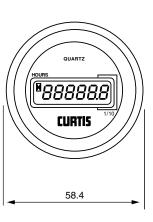


Case Style R (7mm)



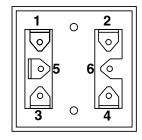


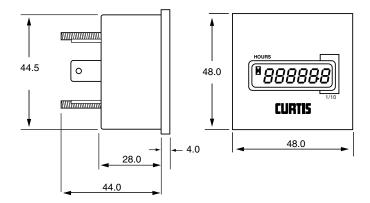




Case Style S







700 SERIES HARDWARE

Case Style	F, T		G, J		D, Q, R, S			Y		Z	
Shipping Style	Carton Bulk		Carton		BulkCarton		BulkCarton		BulkCarton		Bulk
Steel Slot Screws	2	2	2	2							
Steel Hex Nuts		2		2		2					
Plastic Thumb Nuts	2		2		2						
Lock Washers	2	2	2	2	2	2					
Faston Terminals	4				4				4		
Plastic Bracket							1	1	1	1	
Metal U Bracket					1	1					

Note: L case does not require hardware.

ACCESSORIES

Curtis P/N	Description
17607303	Plastic mounting bracket for F, T, G, J, Y & Z models
12237003	External Dash Mounting Bracket for 52mm round gauges
13210001	Meter Guard (1 box of 10 meter guards) R & Q models
13515801	3-Hole Mounting Kit, for Ø2.53" mounting holes
13515905	3-Hole Mounting Kit, for Ø2.44" mounting holes
15336002	Gasket for F, T, G and J cases
15336003	Gasket for R (5mm) case
15336005	Gasket for Q and R (7mm) cases

WARRANTY: Two-year replacement warranty.