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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Totalizer - Ratemeter

Totalizer and Ratemeter - LCD, 36 x 72

3233 / 3253
3293

- Display : LCD 10 mm
- Input : contact, voltage or solid-state (PNP/NPN)
- Front panel or electrical reset to zero
- Lithium battery - 8 years life
- Scale factor : 0.001 to 9999 (3253 and 3293)
- Decimal point selectable (3253 and 3293)
- Rate (3253 and 3293)



Types	3233	3253	3293
Totalizer	●		
Ratemeter		●	
Totalizer and Ratemeter			●

Part numbers	87 614 040	87 614 340	87 614 440
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Characteristics		87 614 040	87 614 340	87 614 440
Display	Totalizer mode	8 digit LCD, height 10 mm	—	8 digit LCD, height 10 mm
	Tachometer mode	—	6 digit LCD, height 10 mm	6 digit LCD, height 10 mm

Inputs		87 614 040	87 614 340	87 614 440
1 slow counting input for contact closure or NPN open-collector transistor input		terminals 1 and 2	terminals 1 and 2	terminals 1 and 2
	Max. frequency	40 Hz	20 Hz	20 Hz
	Min. contact-closed time	12 ms	10 ms	10 ms
1 input for high-speed counting signal from voltage level	Min. contact-open time	12 ms	20 ms	20 ms
		terminals 1 and 3	terminals 1 and 3	terminals 1 and 3
	Max. frequency	5 kHz	5 kHz (5/coef. if coef>1)	5 kHz (5/coef. if coef>1)
	High level	3 • 30 V $\overline{\text{---}}$	3 • 30 V $\overline{\text{---}}$	3 • 30 V $\overline{\text{---}}$
	Low level	0 • 0.7 V $\overline{\text{---}}$	0 • 0.7 V $\overline{\text{---}}$	0 • 0.7 V $\overline{\text{---}}$
	Minimum pulse time	70 μ s	—	—

Reset		87 614 040	87 614 340	87 614 440
External : terminals 1 and 4	Volt-free contact	●	—	●
	NPN open-collector transistor	●	—	(Only for totalizer mode)
	Minimum pulse time	300 ms	—	300 ms
Front panel		by push-button if terminals 1 and 5 connected together	—	if enabled at time of programming
Input impedance		50 k Ω /+3 V $\overline{\text{---}}$	50 k Ω /+3 V $\overline{\text{---}}$	50 k Ω /+3 V $\overline{\text{---}}$
		(High-speed counting) 100 k Ω /+3 V $\overline{\text{---}}$ (Slow counting)	(High-speed counting) 100 k Ω /+3 V $\overline{\text{---}}$ (Slow counting)	(High-speed counting) 100 k Ω /+3 V $\overline{\text{---}}$ (Slow counting)
Tachometer mode	Type	—	Reciprocal 1/Tau	Reciprocal 1/Tau
	Accuracy	—	\pm 0.2 %	\pm 0.2 %
	Sampling time	—	0.7 s	0.7 s
Scale factor	Time limit for measuring	—	10 s	10 s
	Tachometer mode	—	0.001 • 9999 (0 not permitted)	0.001 • 9999 (0 not permitted)
Decimal point	Totalizer mode	—	—	0.0001 • 99.9999
	Tachometer mode	—	4 programmable positions	4 programmable positions
Rate	Totalizer mode	—	—	5 programmable positions
		—	x1 or x10 programmable	x1 or x10 only for ratemeter
Time base		—	Crystal controlled	Crystal controlled
Lithium battery		3 V $\overline{\text{---}}$	3 V $\overline{\text{---}}$	3 V $\overline{\text{---}}$
Life		8 Years	8 Years	8 Years

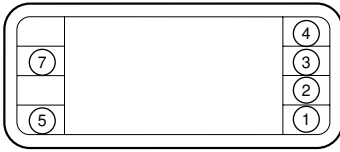
A power supply must be provided for a sensor (12 V $\overline{\text{---}}$)

Physical details and protection		87 614 040	87 614 340	87 614 440
Material : Self-extinguishing (UL94VO)		●	●	●
Front panel protection		IP56	IP56	IP56
Mounting (panel-mounting - slide-action clips)		●	●	●
Connections at rear of case		Screw terminals	Screw terminals	Screw terminals
Waterproof gasket for panel sealing		●	●	●
Temperature limits	Use	0 °C + 55 °C	0 °C + 55 °C	0 °C + 55 °C
	Stored	0 °C + 70 °C	0 °C + 70 °C	0 °C + 70 °C
Weight		60 g	60 g	60 g

To order, specify :

Standard products	1 Part number
Example : Totalizer/counter - 87 614 040	

Terminal markings



Type 3233

- 1 - Common 0 V
- 2 - Slow counting input
- 3 - High-speed counting input
- 4 - Remote reset
- 5 - Enable/disable front reset button

Type 3253

- 1 - Common 0 V
- 2 - Slow counting input
- 3 - High-speed counting input
- 5 - Programming

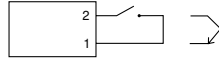
Type 3293

- 1 - Common 0 V
- 2 - Slow counting input
- 3 - High-speed counting input
- 4 - Remote reset
- 5 - Programming

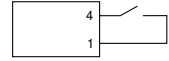
Connections

Totalizer 3233

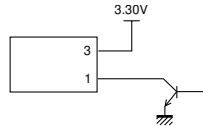
Slow counting.
Volt-free contact or NPN transistor.



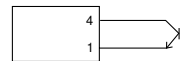
Remote reset.
By contact.



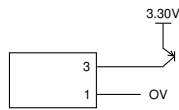
High-speed counting.
NPN transistor.



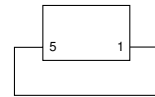
Remote reset.
By NPN transistor.



High-speed counting.
PNP transistor.

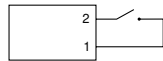


Front reset enable.

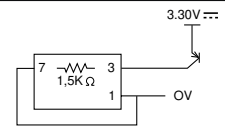


Ratometer 3253

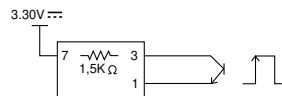
Slow counting.
Volt-free contact.



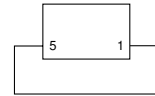
High speed counting.
PNP transistor



High-speed counting.
NPN transistor or voltage level.

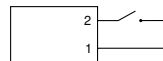


Programming enable.

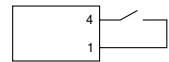


Totalizer and Ratometer 3293

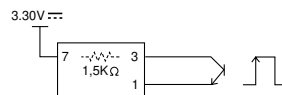
Slow counting.
Volt-free contact.



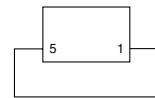
Remote reset.
Volt-free contact.



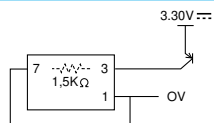
High-speed counting.
NPN transistor or voltage level.



Programming enable.



High-speed counting.
PNP transistor.



Dimensions

