

Mechanical Counters

Technical Data

Small Non-Reset Open Barrel Counter, Series M20

Typical Models Actual Size



STANDARD SPECIFICATION

Capacity 2, 3, 4, 5, 6 or 7 figures

Figure Colors Black figures on white background
White figures on black background
Alternatively on units wheel only (Lowest Significant Digit)
Red figures on white background
Orange figures on black background

Figure size .160" (4.1mm) high, .088" (2.2mm) wide
.030" (.7mm) stroke

Types of Drive

Revolution
Adds or subtracts one count for each complete revolution of the input shaft.

Direct Drive
Adds or subtracts ten counts for each complete revolution of the input shaft.

Rotary Ratchet
Adds ten counts for each complete revolution of the input shaft. Reverse rotation will not subtract counts. Oscillation of the input shaft through 36° to 60° adds only one count.

Ratchet with Stops (With return action spring)
Specification on request.

A Non-overthrow Mechanism is incorporated in both ratchet types to eliminate the possibility of double counting under normal operating conditions.
On Rotary Ratchet counters, this is effective for only 19° beyond each indexing position.

Speed Rating (maximum)

Revolution Drive - 3,000 counts per minute continuous

Direct Drive - 15,000 counts per minute continuous

Rotary Ratchet - 3,000 counts per minute continuous
1,500 counts per minute at peak when used as an oscillating counter.

Operating Torque

Revolution and Direct Drive	.14oz in	} At 25°C
Rotary Ratchet	.28oz in	

Input shaft position Left Side or Right Side

Direction of Shaft Rotation Top Going or Top Coming

Drive Shaft Revolution and Rotary Ratchet counters are supplied complete with drive shaft. Direct Drive counters can be supplied complete with drive shaft, or without drive shaft and associated parts.

Materials Body and wheels - plastic
Input Shaft - super-finished stainless steel

Weight .07 oz. to .28 oz. according to capacity.

Mounting Four holes at the left end of the barrel will accept rolled or cut thread screws #2-56 UNC (See below for Mounting Details)

Mounting Details In an environment with a normal operating temperature range (+25°C maximum approx.), use two screws. In an environment with an extended temperature range (+70°C maximum), the drive shaft should be supported and the counter mounted on a metal plate. Use one screw and/or the locating peg. If the drive shaft cannot be supported, use one screw and one shouldered screw with .002" (.05mm) minimum clearance under the head.

- With or without drive shaft
- Range of Capacities
- Four types of Drive
- Non-overthrow mechanism on ratchet counters
- Optional wheel and figure colors
- Optional unit wheel colors
- Optional large wheel four figure counter



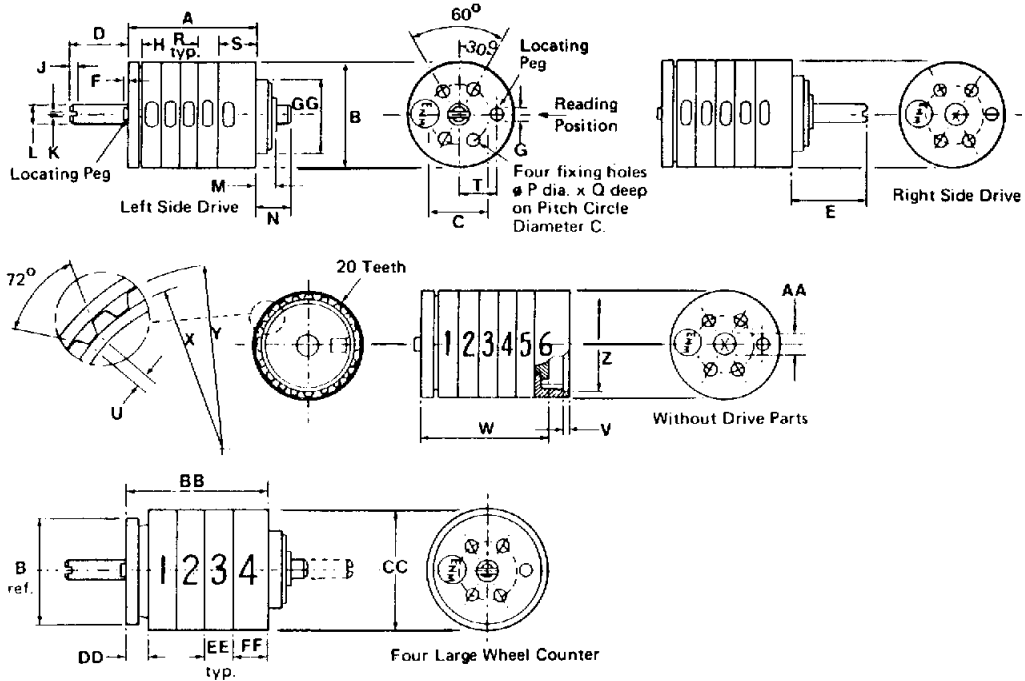
ENM Company

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SERIES M20

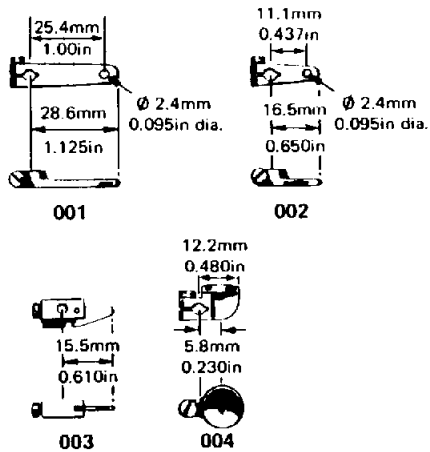
Dimensions

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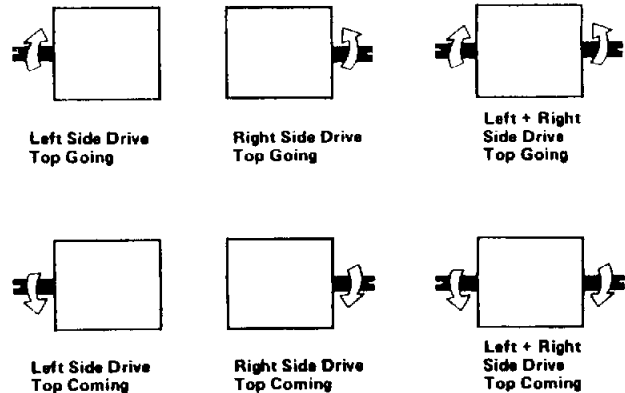


Variable				Constant																									
No. of Wheels.		A	Q	W	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V	X	Y	Z	AA	BB	CC	
2	mm.	10.4	0.4	7.5	17.1	9.0	9.5	11.7	0.5	2.0	2.2	1.2	0.8																
	in.	0.408	0.170	0.294	0.675dia.	0.354	0.375	0.460	0.020	0.079	0.085	0.05	0.03																
3	mm.	13.3	0.6	10.4																									
	in.	0.525	0.220	0.411																									
4	mm.	16.3	0.6	13.4																									
	in.	0.642	0.220	0.528																									
5	mm.	19.3	0.6	16.4																									
	in.	0.759	0.220	0.645																									
6	mm.	22.3	0.6	19.4																									
	in.	0.876	0.220	0.762																									
7	mm.	25.2	0.6	22.3																									
	in.	0.993	0.220	0.879																									
					mm.	2.9	4.7	5.2	15.0 max.			*Varies with																	
					in.	0.113	0.185	0.205	0.590 max.			type of drive																	

OPERATING LEVERS For use with Ratchet counters



SIDE AND DIRECTION OF INPUT



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