

NEW

Durant Tool Company

Counters
Controllers
Measuring Machines



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Durant Counters

Electric Counters

Electric Counters

No. of Figures	Voltage	Reset	Mounting	Model
7	24 Vdc	Knob	Panel	7-Y-1-RMF-PM-24D
6	115 Vac	Knob	Base	6-Y-1-RMF-115A
7	115 Vac	Non-reset	Base	7-Y-13-RMF-115A
6	115 Vac	Knob	Panel	6-Y-1-RMF-PM-115A
7	115 Vac	Non-reset	Panel	7-Y-13-RMF-PM-115A
6	115 Vac	Non-reset	Base	6-Y-13-RMF-115A
6	115 Vac	Knob	Panel	6-Y-1-RMF-PM-115A
6	115 Vac	Keylock reset	Panel	6-Y-12-RMF-PM-115A
6	230 Vac	Keylock reset	Panel	6-Y-12-RMF-PM-230A
7	115 Vac	Keylock reset	Panel	7-Y-12-RMF-PM-115A
6	24 Vac	Keylock reset	Panel	6-Y-12-RMF-PM-24A
6	24 Vdc	Keylock reset	Panel	6-Y-12-RMF-PM-24D
7	24 Vdc	Keylock reset	Panel	7-Y-12-RMF-PM-24D
7	230 Vac	Keylock reset	Panel	7-Y-12-RMF-PM-230A
6	24 Vac	Knob	Panel	6-Y-1-RMF-PM-24A
6	240 Vac	Knob	Panel	6-Y-1-RMF-PM-240A
6	115 Vac	Knob	Panel	6-Y-1-RMF-PM-115A
6	115 Vac	Non-reset	Panel	6-Y-13-RMF-PM-115A
7	24 Vdc	Non-reset	Panel	7-Y-13-RMF-PM-24D

“RMF” Series Electromechanical Counters

Model RMF Series electric counters are designed to give accurate counts through a wide range of speeds up to 1000cpm. It features a strong, silent, fast operating DC electromagnetic drive with a compact, dependable built-in higher capacity rectifier for AC operation. The counter has a minimum of moving parts that never need lubrication under normal operating conditions. Compact and rigid, it continues to operate dependably even when subject to several shock and vibrations. Entirely enclosed to prevent damage from moisture and dust. Available in 6 or 7 figures.

Selection

To determine a model number from the product selection for model RMF Series Electronic Counters consider:

- Number of Figures
- Type of Reset
- Voltage
- Type of Mounting

Benefits

- Heavy Duty Counter and Accessories for long term trouble free operation and counting
- Monitor Production
- Precisely and Accurately measures your raw material or finished parts
- Quick Set-Up
- (3) Year Warranty



“RMF” Series Electromechanical Counters

“ME” Series Miniature Electric Counters

Small in size and price, but large in design versatility and model variety is the ME Series of miniature electric counters. Models in most popular AC or DC voltages operate on as little as 3 watts, with the non-reset models measuring only 1x1.593x2in (25.4x40.5x55.5mm) and weighing just three ounces (85grams). Available in 4, 6 or 7 figures, the counters feature stainless steel self-lubricating shafts, nylatron pinions and a synchronous electromagnetic drive to assure accurate, reliable long life operation. Designed for mounting flexibility and aesthetic attractiveness, the miniature electric counters are available with three types of mounting and a glare retarding finish Delrin, with crisp easy-to-read numerals set close to a tamper-proof sealed figure window

Selection

When ordering ME Series Miniature Electric Counters. Specify catalog numbers according to the features selected

Benefits

- Heavy Duty Counter and Accessories for long term trouble free operation and counting
- Monitor Production
- Precisely and Accurately measures your raw material or finished parts
- Quick Set-Up
- (3) Year Warranty



ME Series Miniature Electric Counters

No. of Figures	Voltage	Reset	Mounting	Model
4	12 Vdc	Pushbutton	Bottom	4-Y-41312-401-MEQ
4	24 Vdc	Pushbutton	Bottom	4-Y-41312-402-MEQ
4	120 Vac	Pushbutton	Bottom	4-Y-41312-406-MEQ
4	24 Vdc	Pushbutton	Base	4-Y-41313-402-MEQ
4	120 Vac	Pushbutton	Base	4-Y-41313-406-MEQ
4	240 Vac	Pushbutton	Base	4-Y-41313-407-MEQ
4	12 Vdc	Pushbutton	Panel	4-Y-41314-401-MEQ
4	24 Vdc	Pushbutton	Panel	4-Y-41314-402-MEQ
4	120 Vdc	Pushbutton	Panel	4-Y-41314-406-MEQ
4	240 Vdc	Pushbutton	Panel	4-Y-41314-407-MEQ

“ME” Series Miniature Electric Counters



Durant Counters

Stroke Counters

“X” Series Stroke Counters/Pushbutton Desk Tallies

Model X Series is a dustproof and rustproof series of counters for light and medium-duty work. They are sound and durable, requiring a minimum of driving effort, and have been especially designed for incorporation as integral parts of a variety of machines and equipment.

Selection

To determine a model number from the product selection table for Model X Series Stroke Counters and Pushbutton Desk Tallies consider

- Number of Figures
- Drive

Benefits

- Heavy Duty Counter and Accessories for long term trouble free operation and counting
- Monitor Production
- Precisely and Accurately measures your raw material or finished parts
- Quick Set-Up
- (3) Year Warranty



“X” Series Stroke Counters

Stroke Counters: Light Duty

No. of Figures	Drive	Reset	Mounting	Model
5	LH Lever	Knob	Base	5-X-1-1-L
4	RH Lever	Knob	Base	4-X-1-1-R
5	RH Lever	Knob	Base	5-X-1-1-R
5	LH Lever	Knob	Panel	5-X-1-1-L-REV
5	RH Lever	Knob	Panel	5-X-1-1-R-REV
4	Push bar	Knob	Base	4-X-2

“D” Series Stroke Counters

Model D Series are medium duty stroke counters available with 4, 5 or 6 figures that have been designed for general service on small production machines. Although compact D models are sturdily constructed and thoroughly tested for accuracy and efficient operation.

Description	Specification
Figures	4, 5 and 6
Speed	400 cpm
Shaft	0.25 in (6.4 mm) diameter stainless steel, rustproof
Drive	Nylon ratchet and Delrin drive plate. Right-hand drive standard; left-hand drive available
Bearings	Oil-less, maintenance free
Figure size	1/4 in (6.4 mm) high, black-on-white background
Reset	Wing nut
Finish	Black frame and cover
Operating lever	Adjustable to any position. Furnished complete with pull string

Stroke Counters: Medium Duty

No. of Figures	Voltage	Reset	Mounting	Model
4	RH Lever	Wing nut	Base	4-D-1-1-R
5	RH Lever	Wing nut	Base	5-D-1-1-R
6	RH Lever	Wing nut	Base	6-D-1-1-R
4	LH Lever	Wing nut	Base	4-D-1-1-L
5	LH Lever	Wing nut	Base	5-D-1-1-L

Stroke Counters: Heavy Duty

No. of Figures	Drive	Reset	Mounting	Model
5	RH Lever	Wing nut	Base	5-H-1-1-R
5	LH Lever	Wing nut	Base	5-H-1-1-L
5	RH Lever	Wing nut	Base	5-H-1-1-R-REV
5	LH Lever	Wing nut	Base	5-H-1-1-L-REV
5	RH Lever	Wing nut	Base	5-H-1-1-R-RP
5	LH Lever	Wing nut	Base	5-H-1-1-L-RP
5	RH Lever	Lock reset	Base	5-H-1-2-R
5	LH Lever	Lock reset	Base	5-H-1-2-L
5	RH Lever	Lock reset	Base	5-H-1-2-R-RP
5	RH Lever	Wing nut	Rear	5-H-1-4-R
5	RH trip arm	Wing nut	Base	5-H-5-A
5	RH trip arm	Wing nut	Base	5-H-5-B
5	LH trip arm	Wing nut	Base	5-H-5-C
5	LH trip arm	Wing nut	Base	5-H-5-D
5	RH trip arm	Lock reset	Base	5-H-6-A
5	RH trip arm	Lock reset	Base	5-H-6-B
5	LH trip arm	Lock reset	Base	5-H-6-C
5	LH trip arm	Lock reset	Base	5-H-6-D

“H” Series Stroke Counters

Model H Series heavy duty counters are designed for hard usage and long trouble free service. They are high speed, streamlined counters constructed of the highest quality materials and drive shaft moves in oil-less bearings. All shafts are stainless steel.

The drive action is designed to overstroke so counter does not bottom increasing life and permitting easier installation. The sturdy cover is stamped steel, locked into position on a heavy die-cast base of a special alloy. A heavy steel mounting plate is adjustable for either bottom or back mounting. Model H has earned the reputation of being the work horse of industrial counters. Wing nut or tamper-proof reset lock which requires a key to reset the counter, guarding against unauthorized resetting or tampering.



“H” Series Stroke Counters



“D” Series Stroke Counters



Durant Counters

Measuring / Revolution Counters

“D” -7 Series Measuring/Revolution Counters

Model D-7 Series spur gear end drive units are compact counters that meet a variety of needs. Accurate, dependable and moderately priced, they are especially recommended for braiding machines. low-speed coil winders, wire measuring equipment and all medium duty revolution applications.

Selection

To determine a model number from the product selection table for model D-7 Series Revolution Counters consider

- Number of Figures
- Shaft Rotation Direction
- Shaft Drive
- Reset or Non-Reset

Benefits

- Heavy Duty Counter and Accessories for long term trouble free operation and counting
- Monitor Production
- Precisely and Accurately measures your raw material or finished parts
- Quick Set-Up
- (3) Year Warranty



“D-7” Series Revolution Counter

No. of Figures	Drive	Rotation	Reset	Mounting	Model
5	LH	Clockwise	Wing nut	Base	5-D-7-1-L-CL
5	LH	Anti-clockwise	Wing nut	Base	5-D-7-1-L-AC
5	RH	Clockwise	Wing nut	Base	5-D-7-1-R-CL
5	RH	Anti-clockwise	Wing nut	Base	5-D-7-1-R-AC
5	LH	Anti-clockwise	None	Base	5-D-7-3-L-AC
5	RH	Clockwise	None	Base	5-D-7-3-R-CL

“H” Series Measuring/Revolution Counters

Model H Series are heavy-duty, end drive revolution counters designed for industrial use, suitable for speeds up to 800cpm. They are available with either right or left hand drive and with wing nut reset.



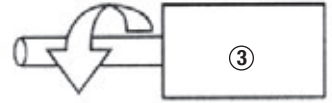
H Series Revolution Counter

No. of Figures	Drive	Rotation	Reset	Mounting	Ratio	Model
5	LH	Clockwise	Wing nut	Base	1.1	5-H-7-1-L-CL
5	LH	Anti-clockwise	Wing nut	Base	1.1	5-H-7-1-L-AC
5	RH	Clockwise	Wing nut	Base	1.1	5-H-7-1-R-CL
5	RH	Anti-clockwise	Wing nut	Base	1.1	5-H-7-1-R-AC
5	LH	Clockwise	Wing nut	Base	3.2	5-H-8-1-L-CL
5	LH	Anti-clockwise	Wing nut	Base	3.2	5-H-8-1-L-AC
5	RH	Clockwise	Wing nut	Base	3.2	5-H-8-1-R-CL
5	RH	Anti-clockwise	Wing nut	Base	3.2	5-H-8-1-R-AC
5	LH	Clockwise	Wing nut	Base	1.2	5-H-9-1-L-CL
5	LH	Anti-clockwise	Wing nut	Base	1.2	5-H-9-1-L-AC
5	RH	Clockwise	Wing nut	Base	1.2	5-H-9-1-R-CL
5	RH	Anti-clockwise	Wing nut	Base	1.2	5-H-9-1-R-AC
5	LH	Clockwise	Wing nut	Base	1.2	5-H-9-0-1-L-CL
5	RH	Clockwise	Wing nut	Base	1.2	5-H-9-0-1-R-CL
5	RH	Anit-clockwise	Wing nut	Base	1.2	5-H-9-0-1-R-AC

Top View-LH Drive

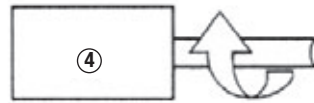


Clockwise Shaft Rotation

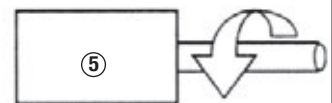


Anti-Clockwise Shaft Rotation

Top View-RH Drive

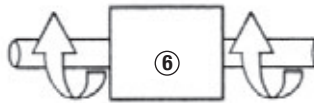


Clockwise Shaft Rotation

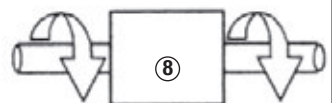


Anti-Clockwise Shaft Rotation

Top View-RH and LH



Clockwise Shaft Rotation



Anti-Clockwise Shaft Rotation

Measuring Wheels

Measuring wheel mounts to Durant Encoders and Rotary contactor to allow for accurate measurements.



Measuring Wheels

Description	Model
5/16 in bore, urethane rim	20144300KIT
3/8 in bore, urethane rim	20144303KIT
5/16 in bore, rubber rim	20154300KIT
3/8 in bore, rubber rim	20154301KIT
5/16 in bore, knurled rim	20156300KIT
3/8 in bore, knurled rim	20156301

Mounting Bracket for “D” Series

Counters & Rotary Contactors

Mounting Bracket for Durant-D-Series Counters and Rotary Contactors



Mounting Bracket

Durant Counters

Ambassador Series



Ambassador Series (Totalizers)

Durant's Ambassador Series is our most noise-immune totalizer available. Various counting modes can be set by the user.

Description	Model
10-15 Vdc LCD	57600400
115 Vac LCD	57601400
230 Vac LCD	57602400

Benefits:

- Heavy Duty Counter and Accessories for long term trouble free operation and counting
- Monitor Production
- Precisely and Accurately measures your raw material or finished parts
- Quick Set-up
- (3) Year Warranty

Features:

- AC/DC powered two-line LCD display
- 1/Tau Ratemeter
- Four user Configurable Controls Inputs
- RS-485 Series Communications
- Eight-Digit Totalizer
- Totalizer and Ratemeter Scaling
- Two Solid State Outputs

LCD Totalizers

Features:

- Low Price and High Efficiency
- Various counting models like up/down differential available
- IP65
- Locking of the reset key
- All version of positive or negative counting edge
- Large eight-digit LCD display, height of the figures 0.31 in (8mm)
- High voltage input for 10-260 Vac/Vdc voltage pulses
- Screw terminals, RM 5mm
- Operating temperature 14 to 140F (-10 to 60C)
- Filter function for bounce-free counting with mechanical contacts



LCD Totalizers

Description	Model
Eight-Digit LCD Totalizer, Battery Power	
4—30 Vdc powered, NPN/PNP 0.94x1.89in (24x48mm)	E5-024-C0400
10—120V input AC/DC powered, NPN only 0.94x1.89in (24x48mm)	E5-024-C0408
Count up/down 4—30 Vdc powered, NPN only 0.94x1.89in (24x48mm)	E5-024-C0410

Description	Specification
Power Supply	Non-replaceable lithium battery (lifetime approximately eight years at 68°F (20°C))
Display	LCD, eight-digits
Figure Size	0.31 in (8 mm) high
Mode	Adding or subtracting (selectable), counting direction, differential counting or phase discriminator single or dual evaluation (selectable)
Display Range	-9999999 to 99999999, with overflow display
Reset	Manual and electrical
Interference emissions	EN 55011 Class B, EN 61 000-6-2, EN 61010 Section 1 (only AC versions)
Housing	Dark gray RAL 7021
Operating temperature	14° to 131°F (-10° to 55°C)
Ambient temperature	14° to 140°F (-10° to 60°C)
Storage temperature	-4° to 158°F (-20° to 70°C)
Protection	IP65 (from front)
Weight	Approx. 1.76 oz (50g)

Description	Specification
Power Input	
AC operation	115 Vac (±15%)std., 50 to 60 Hz, 7W 230 Vac (±15%)opt., 50 to 60 Hz, 7W
DC operation	10-15 Vdc opt., 300 mA maximum
DC Power output	12 Vdc (±25%), 100 mA maximum (includes all line and load variations)
Environmental	
Operating temperature	32° to 131°F (0° to 55°C)
Storage temperature	-4° to 158°F (-20° to 70°C)
Operating humidity	85% relative, non-condensing
Rating	NEMA 4 When mounted with gasket provided
Totalizer	
Type	Bi-directional
Digits	Eight
Scaler Range	0.00001 to 9.99999
Decimal point	Five positions, programmable
Average time	0.1 to 99.9 seconds, programmable

Ambassador Series Ratemeter

Durant's Ambassador Series provides up to four presets in one of the most noise-immune packages available.

Features:

- AC/DC powered two-line LCD display
- Two-line, five-digit high visibility 0.3in (7.5mm)
- Characters backlit display
- One or Two Rate Inputs
- Two Rate Alarms
- Dual rate unit calculations A/B, A-B or draw
- Programmable average and zero times
- Programmable decimal point
- 12Vdc, 100mA max output power
- Removable screw terminals
- RS-485 Communications
- NEMA 4 Front Panel

No. of Figures	Drive
Power Input	
Model 57150-40X	10 to 15 Vdc, 300 mA maximum
Model 57151-40X	115 Vac(±15%)50-60Hz, 7W
Model 57152-40X	230 Vac(±15%)50-60Hz, 7W
DC Power Output	(AC Models Only)
Output	12 Vdc(±25%), 100 mA maximum (includes all line and load variations)
Environment	
Operating temperature	32° to 131°F (0° to 55°C)
Storage temperature	-4° to 158°F (-20° to 70°C)
Operating humidity	85% relative, non-condensing
NEMA 4 rating	When mounted with gasket provided
Ratemeter	
Type	1/Tau
Digits	Five with overrange indication
Scaler Range	0.00001 to 99999
Decimal point	Five positions, programmable
Average time	0.1 to 99.9 seconds, programmable
Zero time	0.1 to 99.9 seconds, programmable
Accuracy	±0.015% of reading

Durant Counters

President Series

Profitable high speed industrial production depends on the accuracy of the way you monitor and control it. Why settle for less than the Ambassador and Presidential Series from Durant. We were the first on the market with these high tech digital controls, and we have constantly improved them ever since. Right now, for example, you can order these no-compromise Durant Counters with the options you need to do just about anything you want:

- Simple Production Counting
- Length measurement
- Cut-to-Length Operations
- Batching, Packaging, or Roll Forming
- Blending or Dispensing
- Motor Speed Monitor Control
- Printing
- Parts Counting or Coil Winding
- Wide Range of Other Industrial Applications



President Series Count Control

No. of Figures	Features	Batch Counter	Rate	Scaler	Cropcut	Main Counter	Presets	Digits	Model
120 Vac, no Communications	—	—	✓	—	—	1	1	5	57820400
Single Preset	—	—	—	—	—	1	1	5	58821400
Single Preset w/rate	—	—	✓	✓	—	1	1	5	58825400
Dual Preset	—	—	—	✓	—	1	2	5	58831400
Dual Preset w/Batch	—	✓	—	✓	✓	1	2	6	58841400
Dual Preset w/totalizer or batch counter	1	1	—	✓	✓	1	2	6	58851400
Three presets /floating pre-warn	—	—	—	✓	—	1	3	6	58861400
Main counter, batch & totalizer presets	2	2	✓	✓	—	3	1 ea.	6	58827400
Two independent count registers	3	3	✓	✓	—	3	1 ea.	6	58827410
High-speed count control—30 kHz max.	—	✓	✓	✓	—	1	2	6	58827400
President position controller									58868400

The President Series leads the way with features like these:

- Color-coded Keyboard Panel for dependable and simple selection, indication, control and programmability.
- Bright .56" Seven-Segment LED Display for easy-to-read count and preset values.
- Sealed Front Panel to NEMA 4 Specifications for complete environmental protection.
- Two-way 20 MA Loop Communications 1200 baud serial communications.
- Ideal Power Input 115/230 VAC and 11-28 VDC for versatility in application.
- System Matched Auxiliary Power for instant hook-up of flow cost DC input devices at correct voltage and current design.
- Full Line of Transducers and Sensors for one-source systems design.
- Relay and Transistor Outputs to meet every control requirement.
- Non-Volatile Memory for no loss of memory – no batteries required.

Rotary Contactor

Designed for use on fillers, crowners, washers, conveyors and other bottling machinery. Counts one-half pints, pints and quarts – either round or square type. Adjustable tension screw prevents spinning assures peek accuracy. Gear box is changeable to any of four positions, giving great flexibility of installation.

Rotary Contactor

Model	Description
ES9513RS	12:1 Ratio Reed Switch Output
ES9513RS	10:1 Ratio Reed Switch Output
ES9513RS	1:1 Ratio Reed Switch Output
ES9513RS	1:3 Ratio Reed Switch Output
ES9513RS	1:3.28 Ratio Reed Switch Output
ES9513RS	1:10 Ratio Reed Switch Output
ES9513	1:10 Ratio Leaf Switch Output
ES9513	1:1 Ratio Leaf Switch Output
ES9513	1:3 Ratio Leaf Switch Output

and quarts – either round or square type. Adjustable tension screw prevents spinning assures peek accuracy. Gear box is changeable to any of four positions, giving great flexibility of installation.

Benefits:

- Heavy Duty Counter and Accessories for long term trouble free operation and counting
- Monitor Production
- Precisely and Accurately measures your raw material or finished parts
- Quick Set-up
- (3) Year Warranty

Features:

- Five or Six digit LED Display, 056 in (14mm)
- 15 Vdc at 100 mA Output Power
- 20 mA Current Loop Communications
- Tactile Keypad NEMA 4 Front Panel
- 1,2 or 3 Presets
- Real Panel Screw Terminals
- 2 Form C Relays

Cube Shaft Encoders



Provides accurate pulse outputs for use with PLCs and counter

Cube Shaft Encoders

Selection

Cube Shaft Encoders

Description	Normally Stocked Item	Model
Single Channel		
60 pulses per revolution	—	38150060
100 pulses per revolution	Yes	38150100
120 pulses per revolution	—	38150120
600 pulses per revolution	Yes	38150600
Quadrature		
60 pulses per revolution	—	38151060
100 pulses per revolution	Yes	38151100
120 pulses per revolution	—	38151120
600 pulses per revolution	Yes	38151600

Accessory

Mounting Bracket for Encoders

Description	Normally Stocked Item	Model
Mounting Bracket	—	40460402

Features:

- 5-28 Vdc Input Power
- NPN Transistor Output, 250 mA Sinking Capacity
- Single Channel and Quadrature Models
- 3/8 in (9.5mm) Double Ended Shaft
- Tapped Holes for Face or Base Mounting
- 80 mA Current Draw
- Square Wave Output, (50-50 Duty Cycle)
- Up to 600 Pulses per Revolution
- ABEC Three Double Sealed Ball Bearings
- Military Style Connector



Durant Counters

Flat Material / Wire Measuring Machines

WCMP-1 Wire/ Cable Measuring Machine

When your production application requires measuring wire or cable, look to Durant's complete measuring machine. Precisely and accurately measure your wire or cable to monitor your usage or predetermined requirements. The Durant measuring machine can be ordered with a heavy duty base mounted stand or mounting bracket.

Specification:

- Durant Counter - Model # E5-648-C2421, 120 Volt, (2) Presets, Relay Output
- Encoder Cable - Model #29665300, 10 Foot long or Specify
- Heavy Duty Mounting Stand or Mounting Bracket - Customer Specify
- Durant Encoder - Model #48370060, 60 Pulses per Minute
- Rubber Coated Measuring Wheel - 12" Diameter, #20154301 Kit

Features:

- Heavy Duty Base Mounted Stand or Mounting Bracket
- Non marking material measuring wheel
- Heavy Duty Counter for long term industrial use with (2) presets
- Precise and Accurate Measuring

FMMP-1 Flat Material Measuring Machine

When your production application requires measuring flat material, look to Durant's complete measuring machine. Precisely and accurately measure your materials to monitor your usage or predetermined requirements. The Durant measuring machine can be ordered with a heavy duty base mounted stand or mounting bracket.

Specification:

- Durant Counter - Model # E5-648-C2421, 120 Volt, (2) Presets, Relay Output
- Encoder Cable - Model #29665300, 10 Foot long or Specify
- Heavy Duty Mounting Stand or Mounting Bracket - Customer Specify
- Durant Encoder - Model #48370060, 60 Pulses per Minute
- Urethane Coated Measuring Wheel - 12" Diameter, #20144303 Kit



Benefits:

- Precisely and Accurately measure your flat or wire materials
- Quick Set Up
- Monitor material usage
- Monitor production
- (3) Year Warranty

Features:

- Heavy Duty Base Mounted Stand or Mounting Bracket
- Non marking material measuring wheel
- Heavy Duty Counter for long term industrial use with (2) presets
- Precise and Accurate Measuring



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