

Millimar 830M

Compact Amplifier

FEATURES

- Battery operates more than 8 hours under full load
- Choice of power modules for 120 or 240 VAC operation
- ± 2 Volt analog output
- Conforms to CE Standards
- Dual input - for single or differential modes
- Normal/Reverse transducer setting
- Selectable ranges in either inch or metric units
- Calibration adjustments for each input
- Convenient, front-mounted controls
- Tilt base provides stable support and easy adjustment for best viewing angle
- **Package contains:** instruction manual, power source



TECHNICAL DATA

Order no.	2121702	2121706	2121707
Product type	830M		
Range of analog display	μm	$\pm 100, \pm 20, \pm 10$	
Range of analog display	inch	$\pm .004", \pm .001", \pm .0002"$	
Graduation value	μm	5, 1, 0.5	
Graduation value	inch	200 μm , 50 μm , 10 μm	
Probe inputs	2		
Compatibility	Mahr		
Measuring combination	+A, -A, +B, -B, A+B, +A-B, -A+B, -A-B		
Response time analog display	s	0.5	
Response time analog output	s	0.015	
Data interface	none		
Analog output	± 2 Vdc		± 2 Vdc
Energy supply	110 V / 60 Hz	230 V / 50 Hz, Power source	240 V / 50 Hz (UK)
Power supply connection	120 V	220 V (EU)	240 V (UK)

Order no.	Depth	Depth	Height	Height	Width	Width
	mm	inch	mm	inch	mm	inch
2121702	148	5.8"	165	6.5"	190	7.5"
2121706	148	5.8"	165	6.5"	190	7.5"
2121707	148	5.8"	165	6.5"	190	7.5"

ACCESSORIES

Order no.	Product name	Product type
2211067	Rechargeable battery (Ni-Cad), 4.8 V / 2.5 Ah	EBY-1015
2224530	Analog output connector	PRT-2380
2214166	Battery eliminator for 110 V models	EKT-1237-W1
2211068	Battery charger 120 V	EBY-1016
2214167	Battery eliminator for 220 V models	EKT-1237-W2
2211071	Battery charger (EU) 220 V	EBY-1019
2211072	Battery charger (UK) 240 V	EBY-1020

Millimar 830 F

Compact Amplifier

FEATURES

- Battery operates more than 8 hours under full load
- Choice of power modules for 120 or 240 VAC operation
- ± 2 Volt analog output
- Conforms to CE Standards
- Dual input - for single or differential modes
- Normal/Reverse transducer setting
- Selectable ranges in either inch or metric units
- Calibration adjustments for each input
- Convenient, front-mounted controls
- Tilt base provides stable support and easy adjustment for best viewing angle
- **Package contains:** instruction manual, power source



TECHNICAL DATA

Order no.	2121700	2121704	2121705	2121703	2121710	2121711	2121701	2121708	2121709	
Product type	830F									
Range of analog display	μm	$\pm 100, \pm 20, \pm 10$			$\pm 200, \pm 50, \pm 10$					
Range of analog display	inch	$\pm .004", \pm .001", \pm .0002"$			$\pm .004", \pm .001", \pm .0001"$			$\pm .01", \pm .002", \pm .0004"$		
Range of analog display	arcsec								$\pm 1000 \text{ arcsec}, \pm 200 \text{ arcsec}, \pm 20 \text{ arcsec}$	
Graduation value	μm	5, 1, 0.5			10, 2.5, 0.5					
Graduation value	inch	200 μm , 50 μm , 10 μm			200 μm , 50 μm , 5 μm			500 μm , 100 μm , 20 μm		
Graduation value	arcsec								50, 10, 1	
Probe inputs	2									
Compatibility	Federal									
Response time analog display	s	0.5								
Response time analog output	s	0.015								
Data interface	none									
Analog output	± 2 VDC									
Energy supply	110 V / 60 Hz	230 V / 50 Hz, Power source	240 V / 50 Hz (UK)	110 V / 60 Hz	230 V / 50 Hz, Power source	240 V / 50 Hz (UK)	110 V / 60 Hz	230 V / 50 Hz, Power source	240 V / 50 Hz (UK)	
Power supply connection	120 V	220 V (EU)	240 V (UK)	120 V	220 V (EU)	240 V (UK)	120 V	220 V (EU)	240 V (UK)	

Order no.	Depth	Depth	Height	Height	Width	Width
	mm	inch	mm	inch	mm	inch
2121700	148	5.8"	165	6.5"	190	7.5"
2121704	148	5.8"	165	6.5"	190	7.5"
2121705	148	5.8"	165	6.5"	190	7.5"
2121703	148	5.8"	165	6.5"	190	7.5"
2121710	148	5.8"	165	6.5"	190	7.5"
2121711	148	5.8"	165	6.5"	190	7.5"
2121701	148	5.8"	165	6.5"	190	7.5"
2121708	148	5.8"	165	6.5"	190	7.5"
2121709	148	5.8"	165	6.5"	190	7.5"

ACCESSORIES

Order no.	Product name	Product type
2211067	Rechargeable battery (Ni-Cad), 4.8 V / 2.5 Ah	EBY-1015
2224530	Analog output connector	PRT-2380
2214166	Battery eliminator for 110 V models	EKT-1237-W1
2211068	Battery charger 120 V	EBY-1016
2214167	Battery eliminator for 220 V models	EKT-1237-W2
2211071	Battery charger (EU) 220 V	EBY-1019
2211072	Battery charger (UK) 240 V	EBY-1020

Millimar C 1200

Compact Amplifier



FUNCTIONS

- ON/OFF
- mm/inch
- Reversal of counting direction
- Selectable measuring range
- MAX/MIN memory for searching the reversal point
- TIR (MAX-MIN) for testing flatness and concentricity
- TOL (enter tolerance limit values)
- PRESET (for entering a numerical value)
- Selectable resolution
- Factor (adjustable)
- DATA (data transmission)
- Menu interlock



FEATURES

- High-resolution, high-contrast color display
- Fully adjustable display for ideal viewing angle
- Extremely easy to operate
- Suitable for power source or battery operation
- Suitable for mobile use with battery operation
- Compact housing
- Suitable for wall mounting
- **Package contains:** power source, instruction manual
- SoftwareMarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)

TECHNICAL DATA

Order no.		5312010
Product type		C 1200
Range of digital display	µm	± 5000
Range of digital display	inch	± .19"
Range of analog display	µm	± 5000, ± 2000, ± 1000, ± 300, ± 100, ± 30, ± 10, ± 3
Range of analog display	inch	± .19", ± .07", ± .03", ± .01", ± .003", ± .001", ± .0003", ± .0001"
Resolution	µm	0.1
Resolution	inch	.000005"
Graduation value	µm	500, 200, 100, 20, 10, 2, 1, 0.2
Graduation value	inch	.019", .007", .002", .001", .0002", .0001", .00002", .00001"
Display		TFT color display, 110 mm (4.3"), 480 x 272 pixels
Probe inputs		1
Compatibility		Mahr
Measuring combination		+A, -A
Features		1
Test steps		1
Dynamic functions		Max, Min, Max-Min
Configuration		Keyboard
Data transmission rate	Hz	30
Error limit, digital display		0.3 % (min. 0.2 µm)
Error limit, analog display		0.25 % of the full scale / 0.3% of the indicated value
Data interface		Opto RS232C, USB, Digimatic, wireless
Energy supply		Power source, 230 V/115 V; 50/60 Hz, battery operation
IP protection category		IP 42

Order no.	Depth	Depth	Height	Height	Width	Width
	mm	inch	mm	inch	mm	inch
5312010	150	5.9"	170	6.69"	130	5.12"

Millimar C 1200

Compact Amplifier

ACCESSORIES

Order no.	Product name	Product type
4346023	2000 USB Data connection cable USB (2 m)	2000 USB
4346021	Digimatic data cable (2 m)	2000 d
4346020	Data connection cable RS232C (2 m)	2000 r
4102232	2000 e Transmitter for e-Stick	2000 e
4102230	e-Stick Receiver	e-Stick



2000 e



e-Stick

Millimar 832 M

Compact Amplifier



FEATURES

- Dynamics – simultaneously computes the minimum, maximum, TIR, nominal and actual gagehead signal for dynamic measurement capability
- Multi-range – three selectable ranges in inch or metric units
- Message center – display provides a simple “menu driven” setup procedure in English, French or Spanish
- RS-232 output – for communicating with data collection devices
- Two gagehead input – independent reading for providing the capability of summing diameter reading, matching clearances, runout and parallelism
- Angular units – selectable arc seconds or millirads for angular measurement applications (see Electronic Levels)
- User selectable password for full lockout capability or individual key lockout in both setup and gaging modes
- **Package contains:** instruction manual, power source



TECHNICAL DATA

Order no.	2004000	2004001	2004002	2004003	2004004
Product type	832 M				
Range of digital display	μm	$\pm 2000, \pm 200, \pm 20$			
Range of digital display	inch	$\pm .100", \pm .010", \pm .001"$			
Range of digital display	arcsec	$\pm 1000 \text{ arcsec}, \pm 200 \text{ arcsec}$			
Range of digital display	rad	$\pm 5 \text{ mrad}, \pm 1 \text{ mrad}$			
Resolution	μm	1, 0.1, 0.02			
Resolution	inch	.0001", .00001", .000001"			
Resolution	arcsec	1 arcsec, 0.1 arcsec			
Resolution	rad	0.005 mrad, 0.0005 mrad			
Graduation value	μm	0.1, 0.01, 0.001			
Graduation value	inch	.005", .0005", .00005"			
Graduation value	arcsec	50, 10			
Tolerance display		5 LEDs			
Probe inputs		2			
Compatibility		Mahr			
Measuring combination		+A, -A, +B, -B, A+B, +A-B, -A+B, -A-B			
Features		2			
Dynamic functions		Max, Min, TIR, Nominal			
Classification		5			
Response time control outputs	s	0.042			
Response time analog output	s	0.042			
Data interface:		RS-232C			
Control inputs		3, Hold/Resume, Reset/Zero, Send Data			
Control outputs		5 opto-coupled outputs			
Analog output		$\pm 5 \text{ V dc}$			
Energy supply:		110 V / 60 Hz, Power source	230 V / 50 Hz, Power source	Rechargeable battery, 10 h at full load or 120 VAC / 240 VAC 50-60 Hz via AC adapter	
Power supply connection		120 VAC	220 / 240 VAC (EU/UK)	120 VAC	220 VAC (EU) 240 VAC

Order no.	Depth	Depth	Height	Height	Width	Width
	mm	inch	mm	inch	mm	inch
2004000	254	10"	143	5.63"	168	6.63"
2004001	254	10"	143	5.63"	168	6.63"
2004002	254	10"	143	5.63"	168	6.63"
2004003	254	10"	143	5.63"	168	6.63"
2004004	254	10"	143	5.63"	168	6.63"

Millimar 832 M

Compact Amplifier

ACCESSORIES

Order no.	Product name	Product type
2212852	Oil splashguard storage cover non-transparent	ECV-1276
2212858	Oil splashguard cover transparent	ECV-1285
2211464	Foot switch for hold/measure 3 m / 10 ft cable	ECB-1857
2211465	Footswitch for Dynamic Reset (15 pin connector)	ECB-1858
2211466	Foot switch for data transmit, 3 m / 10 ft	ECB-1859
2200362	Foot switch for send data (Maxµm) or dynamic reset/zeroing (832), 1.5 m / 5 ft cable	300-50
2211462	Push button for dynamic reset/zeroing, 1.5 m / 5 ft cable	ECB-1855
2211467	Push button for data transmit, 1.5 m / 5 ft cable	ECB-1860
2211481	Push button for measurement hold/measure/data transmit, 3 m / 10 ft	ECB-1868
2214163	Control box with 5 relays (120 V)	EKT-1236-W3
2214164	Control box with 5 relays (220 V)	EKT-1236-W4
2214165	Control box with 5 relays (240 V)	EKT-1236-W5
2212333	Connector, 5 pin (probe to amplifier)	ECN-1690
2212335	5 pin Amphenol connector for Millimar 832	ECN-1692
2212336	Phone plug male connector for Reset / Data	ECN-1693
2212339	9 pin RS-232 connector - male (digital output)	ECN-1695-W1
2212340	15 pin connector - male (digital I/O)	ECN-1695-W2
2211067	Rechargeable battery (Ni-Cad), 4.8 V / 2.5 Ah	EBY-1015
2010000	Plug in power supply (832 units with 3 pin connector), 120 VAC	
2120315	Battery charger for 832 Amp with 3 pin connector, 120 VAC	EBY-1028
2010001	Power supply module (832 Amp with 3 pin connector), 220/240 VAC	
2120316	Battery charger for 832 Amp with 3 pin connector, 220 VAC European connector	EBY-1029
2120317	Battery charger for 832 Amp with 3 pin connector, 240 VAC UK connector	EBY-1030

Millimar 832 F

Compact Amplifier



FEATURES

- Dynamics – simultaneously computes the minimum, maximum, TIR, nominal and actual gagehead signal for dynamic measurement capability
- Multi-range – three selectable ranges in inch or metric units
- Message center – display provides a simple “menu driven” setup procedure in English, French or Spanish
- RS-232 output – for communicating with data collection devices
- Two gagehead input – independent reading for providing the capability of summing diameter reading, matching clearances, runout and parallelism
- Angular units – selectable arcseconds or millirads for angular measurement applications (see Electronic Levels)
- User selectable password for full lockout capability or individual key lockout in both setup and gaging modes
- **Package contains:** instruction manual, power source



TECHNICAL DATA

Order no.	2004005	2004006	2004007	2004008	2004009
Product type	832 F				
Range of digital display	μm	$\pm 2000, \pm 200, \pm 20$			
Range of digital display	inch	$\pm .100", \pm .010", \pm .001"$			
Range of digital display	arcsec	$\pm 1000 \text{ arcsec}, \pm 200 \text{ arcsec}$			
Range of digital display	rad	$\pm 5 \text{ mrad}, \pm 1 \text{ mrad}$			
Resolution	μm	1, 0.1, 0.02			
Resolution	inch	.0001", .00001", .000001"			
Resolution	arcsec	1 arcsec, 0.1 arcsec			
Resolution	rad	0.005 mrad, 0.0005 mrad			
Graduation value	μm	0.1, 0.01, 0.001			
Graduation value	inch	.005", .0005", .00005"			
Graduation value	arcsec	50, 10			
Tolerance display	5 LEDs				
Probe inputs	2				
Compatibility	Federal				
Measuring combination	+A, -A, +B, -B, A+B, +A-B, -A+B, -A-B				
Features	2				
Dynamic functions	Max, Min, TIR, Nominal				
Classification	5				
Response time control outputs	s	0.042			
Response time analog output	s	0.042			
Data interface:	RS-232C				
Control inputs	3, Hold/Resume, Reset/Zero, Send Data				
Control outputs	5 opto-coupled outputs				
Analog output	$\pm 5 \text{ V dc}$				
Energy supply:	110 V / 60 Hz, Power source	Power source, 230 V / 50 Hz	Rechargeable battery, 10 h at full load or 120 VAC / 240 VAC 50-60 Hz via AC adapter		
Power supply connection	120 VAC	220 / 240 VAC (EU/UK)	120 VAC	220 VAC (EU)	220 / 240 VAC (EU/UK)

Order no.	Depth	Depth	Height	Height	Width	Width
	mm	inch	mm	inch	mm	inch
2004005	254	10"	143	5.63"	168	6.63"
2004006	254	10"	143	5.63"	168	6.63"
2004007	254	10"	143	5.63"	168	6.63"
2004008	254	10"	143	5.63"	168	6.63"
2004009	254	10"	143	5.63"	168	6.63"

Millimar 832 F

Compact Amplifier

ACCESSORIES

Order no.	Product name	Product type
2212852	Oil splashguard storage cover non-transparent	ECV-1276
2212858	Oil splashguard cover transparent	ECV-1285
2211464	Foot switch for hold/measure 3 m / 10 ft cable	ECB-1857
2211465	Footswitch for Dynamic Reset (15 pin connector)	ECB-1858
2211466	Foot switch for data transmit, 3 m / 10 ft	ECB-1859
2200362	Foot switch for send data (Maxµm) or dynamic reset/zeroing (832), 1.5m / 5 ft cable	300-50
2211462	Push button for dynamic reset/zeroing, 1.5 m / 5 ft cable	ECB-1855
2211467	Push button for data transmit, 1.5 m / 5 ft cable	ECB-1860
2211481	Push button for measurement hold/measure/data transmit, 3 m / 10 ft	ECB-1868
2214163	Control box with 5 relays (120 V)	EKT-1236-W3
2214164	Control box with 5 relays (220 V)	EKT-1236-W4
2214165	Control box with 5 relays (240 V)	EKT-1236-W5
2212333	Connector, 5 pin (probe to amplifier)	ECN-1690
2212335	5 pin Amphenol connector for Millimar 832	ECN-1692
2212336	Phone plug male connector for Reset / Data	ECN-1693
2212339	9 pin RS232 connector - male (digital output)	ECN-1695-W1
2212340	15 pin connector - male (digital I/O)	ECN-1695-W2
2211067	Rechargeable battery (Ni-Cad), 4.8 V / 2.5 Ah	EBY-1015
2010000	Plug in power supply (832 units with 3 pin connector), 120 VAC	
2120315	Battery charger for 832 Amp with 3 pin connector, 120 VAC	EBY-1028
2010001	Power supply module (832 Amp with 3 pin connector), 220/240 VAC	
2120316	Battery charger for 832 Amp with 3 pin connector, 220 VAC European connector	EBY-1029
2120317	Battery charger for 832 Amp with 3 pin connector, 240 VAC UK connector	EBY-1030

Millimar C 1208 M / C 1216 M / C 1216 F / C1240 M

Compact Amplifier



FEATURES

- Favorites: the SELECT button allows you to access frequently used settings directly
- Static measurements - $\pm A$, $\pm B$ and all combinations
- Dynamic measurements - Max, Min, Max-Min, Max+Min, Average
- Auto-detect mode - up to 2 gages can be connected (inductive probe)
- Programmable via built-in keyboard or RS-232 interface using MS Windows configuration software
- Backlit LCD for analog display and two line digital display
- 5 three color status lamps for warning and tolerance limits
- Up to 2 features can be displayed simultaneously
- Extra 0.01 μm resolution for a measuring range of $\pm 200 \mu\text{m}$ (C 1216, C 1240 only)
- 2 inputs for inductive probes (compatible with either Mahr/Mahr Federal probes)
- RS-232 interface
- 3 digital inputs for measuring start, master measurement, send measurement value, etc.
- 3 digital outputs for good, reject, rework, measuring time, etc.
- Analog output (C 1216, C 1240 only)
- Programmable analog output Voltage (max. $\pm 5 \text{ V}$) (C 1216, C 1240 only)
- Also compatible with Millimar 1340 high-precision probe (C 1240 only)
- **Package contains:** instruction manual, power source
- Software MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS-232 interface)



TECHNICAL DATA

Order no.	5312080	5312160	5312162	5312163
Product type	C 1208 M	C 1216 M	C 1216 F	C 1240 M
Scale reading	Pointer, 61 graduations			
Digital display	7 digit LCD, 7 segments			
Range of digital display	μm	$\pm 2000, \pm 10000$	$\pm 200, \pm 2000, \pm 10000$	
Range of analog display	μm	$\pm 3, \pm 10, \pm 30, \pm 100, \pm 300, \pm 1000, \pm 3000, \pm 10000$, tolerance related		
Range of analog display	inch	$\pm .0001", \pm .0003", \pm .001", \pm .003", \pm .01", \pm .03", \pm .3", \pm .1"$, tolerance related		
Resolution	μm	0.1	0.01, 0.1	
Resolution	inch	.000005"	.000005", .000001"	
Display	Background lit LCD, 115 mm x 70 mm			
Tolerance display	5 LEDs, 3 colors			
Measuring range, inductive probe	μm	± 2000	$\pm 200, \pm 2000$	
Probe inputs	2			
Compatibility	Mahr		Federal	Mahr, Mahr 1340
Measuring combination	+A, -A, +B, -B, A+B, +A-B, -A+B, -A-B			
Features	2			
Programs	2			
Test steps	1			
Dynamic functions	Max, Min, Max-Min, (Max+Min)/2, Mean			
Configuration	PC, keyboard			
Zero setter	Zero setting at any point			
Response time digital display	s	0.1		
Response time analog display	s	0.1		
Response time control outputs	s	0.02		
Response time analog output	s	0.02		
Response time measuring value memory	s	0.01		
Data transmission rate	Hz	40		
Error limit, digital display	0.3 % (min. 0.2 μm)			
Error limit, analog display	2.5% (10 x analog display)			
Error limit, analog output	0.5 %			
Temperature coefficient	$\mu\text{m}/^\circ\text{C}$	0.005		
Data interface:	RS-232C, wireless			
Control inputs	3 optocoupler inputs, 24 V, 10 mA			
Control outputs	3 optocoupler outputs, 24 V, 100 mA			
Analog output	max. $\pm 5 \text{ V}$, sensitivity adjustable			
Energy supply:	Power source, 230 V/115 V; 50/60 Hz			
IP protection category:	IP 42			

Order no.	Depth	Depth	Height	Height	Width	Width
	mm	inch	mm	inch	mm	inch
5312080	165	6.5"	205	8.07"	160	6.29"
5312160	165	6.5"	205	8.07"	160	6.29"
5312162	165	6.5"	205	8.07"	160	6.29"
5312163	165	6.5"	205	8.07"	160	6.29"

Millimar C 1208 M / C 1216 M / C 1216 F / C1240 M

Compact Amplifier

ACCESSORIES

Order no.	Product name	Product type
5318430	Control unit with 3 push buttons	
5330955	Foot switch for input 1	
5330956	Foot switch for input 2	
5330957	Foot switch for input 3	
7032401	25 pin connector, non-wired for I/O port	
3025712	Keypad dust cover	
7024634	Data connection cable RS-232C (3 m)	
4102331	Millimar - USB Adapter cable RS-232-USB (0.2 m)	Millimar - USB
4102233	RS-232 e Transmitter for e-Stick	RS-232 e
4102230	e-Stick Receiver	e-Stick

RS232 e;RS232
f;817 f

e-Stick

Millimar 1901 TA

Amplifier with Analog Output



FEATURES

- Output voltage – ± 10 V (optional: ± 5 V / 0 V to 10 V) at end of measuring range (output Voltage can be set using jumpers)
- There is also an output signal available in the form of a current of ± 5 mA at the end of the measuring range
- Supply voltage – 24 VDC
- The housing of the 1901 TA is designed to fit inside the machine room
- Connection – One input for Mahr-compatible inductive probes
- **Package contains:** 3 pin socket plug for analog output, 3 pin coupling bushing for power supply, instruction manual

Application:

- The measuring amplifier 1901 TA is to be used in connection with an inductive probe for measurement control processes
- Provides the inductive probe with an AC Voltage and converts the carrier frequency signal into output Voltage



TECHNICAL DATA

Order no.	5319011	
Product type	1901 TA	
Display	No display, amplifier with analog output	
Measuring range, inductive probe	μm	$\pm 125, \pm 250, \pm 500, \pm 1000, \pm 2000$
Probe inputs	1	
Compatibility	Mahr	
Features	1	
Response time analog output	s	0.01
Data transmission rate	Hz	90
Error limit, analog output	$\pm 0.3\%$	
Analog output	<ul style="list-style-type: none"> • 1 output voltage: at end of range ± 10 V, option: ± 5 V / 0-10 V • 1 current output: at end of range ± 5 mA 	
Energy supply	24 V =	
IP protection category	IP 54	

Order no.	Depth		Height		Width	
	mm	inch	mm	inch	mm	inch
5319011	100	3.93"	170	6.69"	43	1.69"

Millimar S 1840 M / S 1840 F

Compact Column Amplifier



FEATURES

- Easy-to-read 3-color analog display
- Measurement in conjunction with inductive probes (e. g. Mahr P2004) or electronic plug gages, etc.
- 2 inputs for inductive probes (compatible with probes from Mahr, Federal)
- Extensive calculation of input signals - $\pm A$, $\pm B$ and all combinations
- Dynamic measurements - Max, Min, Max-Min, Average
- Programmable either via the integrated keypad or the RS-232 interface by means of MS - Windows® configuration software
- Programmable warning and tolerance limits (exceeding the limit causes the color to change from yellow to red)
- Backlit, two-line LCD for displaying measured values, help texts and units of measurement
- 1 analog output
- 3 digital inputs (e.g. measurement start, master measurement)
- 3 digital outputs for good – reject – rework, measuring time
- **Package contains:** instruction manual, power source
- SoftwareMarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS-232 interface)



TECHNICAL DATA

Order no.	5318400	5318402
Product type	S 1840 M	S 1840 F
Scale reading	$\pm .0003; .001; .003; .01; .03; .1; .3$ inch	
Digital display	7 point LCD, 7 segment	
Range of digital display	$\pm 2000, \pm 10000$	
Range of analog display	μm $\pm 10, \pm 30, \pm 100, \pm 300, \pm 1000, \pm 3000, \pm 10000$, tolerance related	
Range of analog display	inch $\pm .0003", \pm .001", \pm .003", \pm .01", \pm .03", \pm .1", \pm .3"$, tolerance related	
Resolution	μm 0.01, 0.1	
Display	101 LED elements, 3 colors	
Tolerance display	via color changes in the analog display	
Measuring range, inductive probe	μm $\pm 200, \pm 2000$	
Probe inputs	2	
Compatibility	Mahr	Federal
Measuring combination	+A, -A, +B, -B, A+B, +A-B, -A+B, -A-B	
Features	2	
Programs	2	
Test steps	1	
Dynamic functions	Max, Min, Max-Min, (Max+Min)/2, Mean	
Configuration	PC, keyboard	
Response time digital display	s	0.3
Response time analog display	s	0.02
Response time control outputs	s	0.02
Response time analog output	s	0.02
Response time measuring value memory	s	0.008
Data transmission rate	Hz	40
Error limit, digital display	0.3% (min. 0.2 μm)	
Error limit, analog display	1% (101 LEDs)	
Temperature coefficient	$\mu\text{m}/^\circ\text{C}$	0.005
Data interface	RS232C, Wireless	
Control inputs	3 optocoupler inputs, 24 V, 10 mA	
Control outputs	3 optocoupler outputs, 24 V, 100 mA	
Analog output	Max. +/-5V, sensitivity adjustable	max. +/-5V, sensitivity adjustable
Energy supply	Power source, 230 V/115 V; 50/60 Hz	
IP protection category	IP 42	

Order no.	Depth	Depth	Height	Height	Width	Width
	mm	inch	mm	inch	mm	inch
5318400	144	5.67"	487	19.17"	47	1.85"
5318402	144	5.67"	487	19.17"	47	1.85"

ACCESSORIES

Order no.	Product name	Product type
5330901	Base Plate for up to 3 columns	
5330902	Wall mounting	
5318430	Control unit with 3 push buttons	
5330955	Foot switch for input 1	
5330956	Foot switch for input 2	
5330957	Foot switch for input 3	
7032401	25 pin connector, non-wired for I/O port	
7024634	Data connection cable RS232C (3 m)	
4102331	Millimar - USB Adapter cable RS232-USB (0.2 m)	Millimar - USB
4102233	RS232 e transmitter for e-Stick	RS232 e
4102230	e-Stick receiver	e-Stick

RS232 e;
RS232 f;817 f

e-Stick

Millimar C 1202

Compact amplifier

#ID

Digimatic

MAX
MIN

TOL

FUNCTIONS

- mm/inch
- TOL (Tolerance and Warning Limits Input)
- PRESET (for entering a numerical value)
- Mastering 1 and 2 point
- MAX/MIN memory for searching the reversal point
- (MAX-MIN) for testing flatness and concentricity
- HOLD (storage of measured values)
- Selectable resolution
- Factor (adjustable)
- Reversal of counting direction
- Control input programmable
- Measuring sequence with time control
- DATA (data transmission)
- Menu interlock

FEATURES

- Versatility for a wide range of measuring tasks.
- N 1700 modules as measuring channels for inductive and incremental probes or for pneumatic measuring equipment.
- High-resolution, high-contrast color display
- Fully adjustable display for ideal viewing angle
- Measurement values can be displayed in three ways: as a number, pointer or bar
- 1–3 features can be displayed at once
- Extremely easy to operate
- Several measuring tasks can be stored on the memory card.
- Compact housing
- Suitable for wall-mounting
- **Package contains:** power source, micro SD memory card, instruction manual, without N 1700 module (necessary optional accessory)
- **Software:** MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS-232 interface)



Application:

Indicating instrument for precise length measurements

- for connecting different sensors by way of N1700 measuring modules
 - for connecting up to 2 measuring sensors
- Please note:** N1700 measuring modules are necessary additional accessories

TECHNICAL DATA

Order no.	5312025	
Type	C 1202	
Display	TFT-Farbdisplay 110 mm (4,3"), 480 x 272 Pixel	
Range of digital display	µm	± 999 999,9
Range of analog display	µm	± 5000, ± 2000, ± 1000, ± 300, ± 100, ± 30, ± 10, ± 3
Resolution	µm	0,01, 0,1, 1
Scale graduation value	µm	500, 200, 100, 20, 10, 2, 1, 0,2
Measuring combination	+A, -A, +B, -B, A+B, +A-B, -A+B, -A-B	
Features	3	
Dynamic functions	Max, Min, TIR (Max-Min), (Max+Min)/2, Average	
Statistical functions	Length, Angle	
Configuration	Keyboard	
Data transmission rate	Hz	30
Refresh rate	fps	40
Error limit, digital display	0.3% (min. 0.2 µm); * 0,3 % (min. 0,04 µm) * with N 1702 M-HR	
Error limit, analog display	0.25% of the end scale value / 0.3% of the displayed value	
Data interface:	USB, Digimatic	
Control inputs	Control input programmable (functions and function sequences)	
Energy supply:	Power source, 230 V/115 V; 50/60 Hz	
IP protection category:	IP 42	

Order no.	Depth	Height	Width
	mm	mm	mm
5312025	130	175	145

Millimar C 1202

Compact amplifier



ACCESSORIES

Order no.	Description	Type
5331120	Module for inductive probes	N 1702 M
5331125	Module for inductive probes	N 1702 M-HR
5331121	Module for inductive probes	N 1702 T
5331122	Module for inductive probes	N 1702 U
5331155	Module for pneumatic gages	N 1701 PF-2500/5000
5331157	Module for pneumatic gages	N 1701 PF-10000
4102603	Data cable USB bi-directional (2 m)	DK-U1
4102606	Interface Adapter with Data Cable Digimatic (2 m)	DK-D1
4102058	Foot switch to trigger data transmission	16 ESf

