

MarCator 1088

► | The new Digital Indicator **MarCator** 1088. Tolerance monitoring is simplified with the changing of the color in the background lit display. | ◀

Dynamic measuring functions

- MAX-MIN memory: ideal for testing flatness and concentricity
- MAX-MIN memory: for searching the reversal point

Tolerance function: clearly visual tolerance excess due to the change of color in the background lit display.



Universal Data-Interface



- **USB**
No interface box is required! Simple and inexpensive way to set up a multiple measuring instruments via a USB hub



- **Digimatic**
To connect a Digimatic compatible evaluation instrument



- **Mahr Opto RS232C**
For direct connection to a COM port on a PC



- **Control output**
can be connected to a SPS



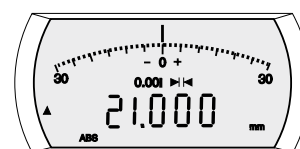
- **Absolute function:**
Digital Indicator can be set in any position to 0.000 without losing the reference to the preset value.

Protection class IP54 according to IEC 60529. Especially suited for use in a manufacturing environment (except measuring range 50 mm)



Code Initial	IP	International Protection
First Numeral	5	Dust protected
Second Numeral	4	Protection against splash water in all directions

Analog display



Readings
(switchable)
mm / inch

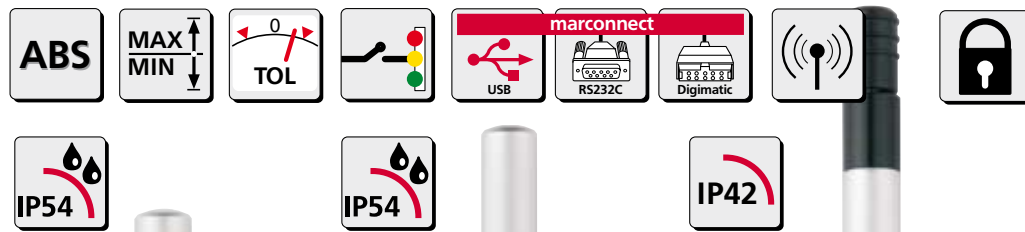
Display range
mm / inch

0.001 / .00005"
0.002 / .00001"
0.005 / .0005"
0.01 / .0001"

± 0.030 / ± .0015"
± 0.060 / ± .0030"
± 0.150 / ± .0150"
± 0.30 / ± .0150"



Digital Indicators MarCator 1088 / 1088 W, with analog display



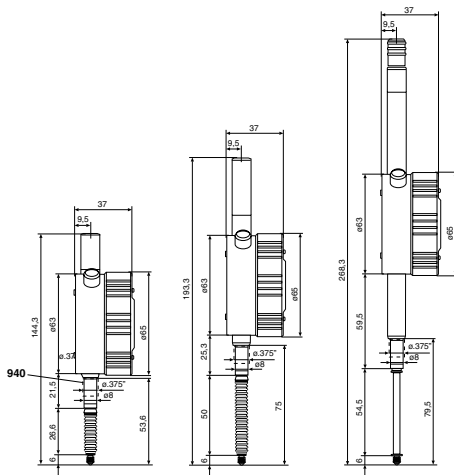
12.5 mm



25 mm



50 mm



Features

Functions:

- ON/OFF
- RESET (set digital and analog displays to zero)
- 0 - (set the analog display to zero)
- PRESET (enter any numerical values)
- DATA (data transmission)
- mm/inch-switchable
- Reversal of counting direction (switch value in digital display)
- MAX-MIN memory, ideal for searching the reversal point
- MAX-MIN memory, ideal for testing flatness and concentricity
- TOL (Enter tolerance limit values)
- LOCK: operating functions can be blocked via PC-Software
- Power supply via the main power adapter
- MarConnect data output USB, OPTO RS232C, or Digimatic
- Can be remotely operated via the interface (Opto RS232C)
- Control output compatible to Dial Comparators with limit contacts
- Operating and display unit (bezel) can be rotated 280°
- Class of protection IP54 in accordance to IEC 60529
- Operating temperature 5 - 40°C
- High contrast backlit LCD with 6.5 mm high digits
- Analog display with 4 mm pointer ensures better visual recognition, ideal when checking concentricity or flatness as well as searching for the reversal point when measuring bores
- Supplied with: Mains adapter, rubber bellows, operating instructions

Technical Data

Measuring range mm (inch)	Resolution mm/inch	Meas. force N	Span of error* mm	Protection class	Mounting shank dia.	Order no. 230 V	Order no. 115 V
12.5 (.5")	0.001 / .00005"	0.65 - 0.9	0.005	IP54	8h6	4337000	4337010
25 (1")	0.001 / .00005"	0.65 - 1.15	0.005	IP54	8h6	4337001	4337011
50 (2")	0.001 / .00005"	1.25 - 2.7	0.008	IP42	8h6	4337002	4337012

* in any zero point

Accessories for MarCator 1086, 1087 and 1088

Accessories for MarCator 1086 and 1087

	Order no.
Battery 3V , Type CR 2450	4884464
Data Connection Cable USB (2 m)	16 EXu 4102357
Data Connection Cable Opto RS232C (2 m), with SUB-D jack 9-pin	16 EXr 4102410
Data Connection Cable Digimatic (2 m), Flat plug 10-pin	16 EXd 4102411
Mounting Lug	1086 b 4337421

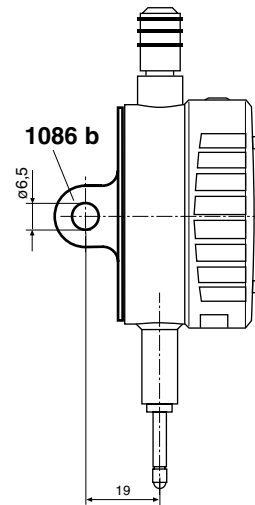
Accessories for MarCator 1088

	Order no.
Data Connection Cable USB (2 m)	2000 usb 4346023
Data Connection Cable Opto RS232C (2 m), with SUB-D jack 9-pin	2000 r 4346020
Data Connection Cable Digimatic (2 m), Flat plug 10-pin	2000 d 4346021
Cable to connect control output to an SPS	2000 sps 4346031
Mounting Lug	1085 b 4336310
Control Instrument for remote control button operation	2000 sg 4346035

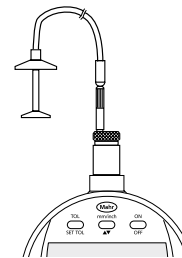
Accessories for MarCator 1086, 1087 and 1088

	Order no.
Cable Release for measuring ranges 12.5 and 25 mm	1085 a 4336311
Pneumatic Lifter for measuring ranges 12.5 and 25 mm	1082 p 4336237
Pneumatic Lifter for measuring ranges 50 and 100 mm	1082 p 4336230
Additional Accessories	Page
Contact Points	901-913 5-52
Special Holder	941 5-53
Sensor Lever	943 5-53

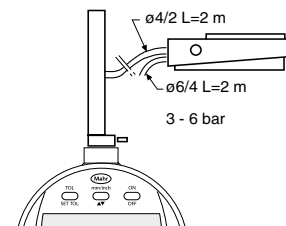
Accessories for Data Processing see Chapter 11



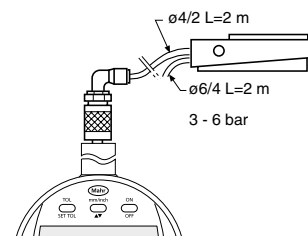
1085 a



1082 p (12,5/25)



1082 p (50/100)



Contact Points and Accessories for Dial Indicators, Dial Comparators and Probes

Standard Contact Points 901

Ball dia. 3 mm

Catalog no.		Order no.
901	with steel ball	4360001
901 H	with carbide ball	4360002
901 R	with ruby ball	4360003

Spherical Contact Points 902

Flat Contact Points 903

902 Steel	902 H Carbide contact face	903 Steel	903 H Carbide tipped
Length mm	Order no.	Order no.	Order no.
4	4360007	—	—
6	4360009	—	—
8	4360010	4360040	4360101
10	4360011	4360041	4360102
12	4360012	4360042	4360103
15	4360013	4360043	4360104
20	4360014	4360044	4360105
25	4360015	4360045	4360106
30	4360016	4360046	4360107
35	4360017	4360047	4360110
40	4360019	4360049	4360108
45	4360026	4360050	4360111
50	4360018	4360048	—
55	4360031	4360079	4360109
65	4360035		
75	4360020		
85	4360036		
95	4360029		

Ball Contact Point 906 H

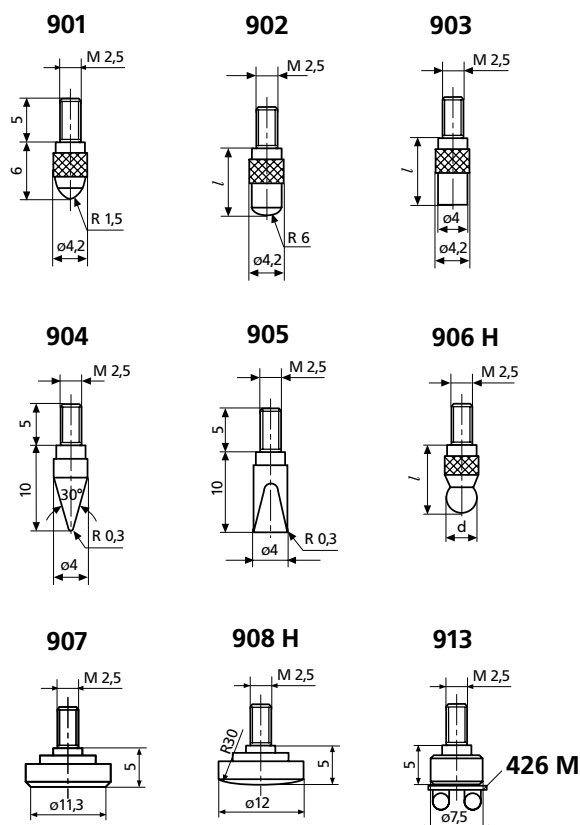
with carbide ball. accuracy ball dia. 0/-6µm

Ball dia. d mm	l mm	Order no.	Ball dia. d mm	l mm	Order no.
1	8.5	4360150	5.5	9	4360161
1.25	8.5	4360151	6	9	4360162
1.5	8.5	4360152	6.35 (1/4")	9	4360163
1.75	8.5	4360153	6.5	10	4360164
2	8.5	4360154	7	10	4360165
2.5	8.5	4360155	7.5	11	4360166
3	8.5	4360156	8	11	4360167
3.5	8.5	4360157	8.5	12	4360168
4	8.5	4360158	9	12	4360169
4.5	8.5	4360159	10	13	4360170
5	9	4360160			

Contact Rollers 909

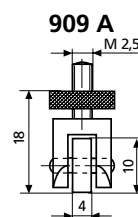
Concentricity error 3 µm

	Order no.
Cylindrical Roller	909 A 4360220
Radiused Roller, R = 5 mm	909 B 4360221



Special Contact Points

	Order no.
Conical Contact Points, Steel	904 4360130
Carbide tipped	904 H 4360131
Wedge Shaped Contact Points, Steel	905 4360140
Carbide tipped	905 H 4360141
Flat Contact Points, Steel, A = 1 cm²	907 4360200
Carbide tipped, dia. 7 mm	907 H 4360201
Spherical Contact Points, Steel	908 4360210
Carbide tipped	908 H 4360211
Flat Contact Point, for mounting Pin Gage Holder 426 M for measuring threads using three-wire method	913 4360400



Contact Points and Accessories for Dial Indicators, Dial Comparators and Probes

Measuring Attachment 910 H

	Order no.
with parallel adjustable carbide blades	910 H 4360230

Pin Contact Point 911

dia. 1 mm, flat

Length l mm	Order no.	Length l mm	Order no.
15	4360280	35	4360284
20	4360281	40	4360285
25	4360282	50	4360286
30	4360283		

Pin Contact Point 911 H

	Order no.
Carbide tipped, dia 1 mm, flat	911 H1 4360240
Carbide tipped, dia 1.5 mm, flat	911 H2 4360241

Measuring Spindle Extensions 912

Length l mm	Order no.	Length l mm	Order no.
10	4360250	35	4360254
15	4360251	50	4360255
20	4360252	75	4360256
25	4360253	100	4360257

Special Holder 941

For all types of measuring equipment
For placing a dial indicator at a certain distance or angle
Travel of the measuring spindle 3 mm
Contact Point 901 (interchangeable)

Straight Holder 941 G

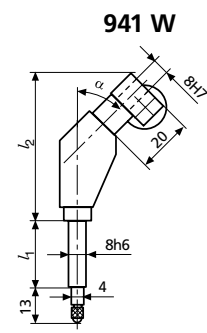
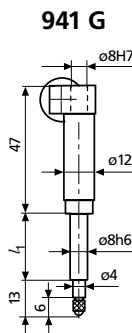
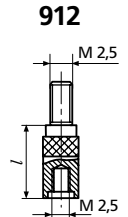
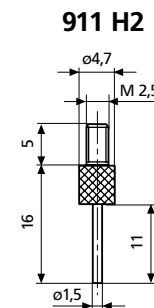
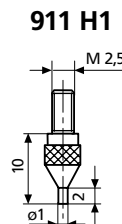
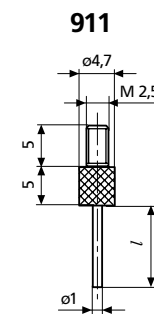
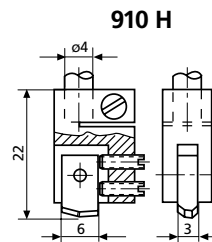
Mounting shank length l_1 mm	Order no.
25	4365000
50	4365001
75	4365002

Angular Holder 941 W

Order no.	l_2 mm	Order no.	l_2 mm	Order no.	l_2 mm
Angle $\alpha=45^\circ$		Angle $\alpha=60^\circ$		Angle $\alpha=90^\circ$	
4365010	53.7	4365020	49.3	4365030	34.5
4365011		4365021		4365031	
4365012		4365022		4365032	

Sensor Level 943

Order no.
For testing concentricity in bore holes as well as difficult to reach outside diameters To be inserted in a measuring stand with a lifting device Contact Point 901 interchangeable Travel ± 1 mm
4367000



Transmission error with the 941 W
max. 1%;
for travel 3 mm = 0.03 mm

