

ARE YOU SEARCHING FOR THE RIGHT CONNECTIONS? THEY'RE RIGHT HERE AT MARCONNECT.



The latest information on MARCONNECT products can be found on our website:
www.mahr.com, WebCode 213

Microsoft Excel - Mappe1

MarCom professional (DEFAULT.MCC)

Programm	Messgeräte	Einstellungen	?
4 USB-Geräte	Beschreibung Gerät, Anschlusskabel	Messwert Status	Anforderung Ziel
USB1	Fußschalter Schalter MC1	OK	Messung Nr.: 0/1
USB2	Durchmesser 1 1087 16EXu	+015.17 OK	Schalter: Fußschalter Excel: Default.xlt/Tabelle1/1
USB3	Durchmesser 2 1087 16EXu	+025.35 OK	Schalter: Fußschalter Excel: Default.xlt/Tabelle1/2
USB4	Durchmesser 3 1087 16EXu	+014.99 OK	Schalter: Fußschalter Excel: Default.xlt/Tabelle1/3

Tabelle1

Bereit

► | Our new digital hand held measuring instruments are all equipped with the flexible MarConnect interface. Regardless of which interface standard you use: Integrated Wireless, USB, Opto RS232 or Digimatic; MarConnect will always provide you with the optimal connection.

► | MarConnect. Data Processing

MarCom Professional

11- 2

Enables data acquisition via SPC software

MarCom Software

11- 4

Clear and flexible data acquisition

Overview

MarConnect Integrated Wireless

11- 6

The integrated wireless data transmission for uncomplicated and inexpensive data transmission.

MarConnect USB Ready

11- 6

Simply transmit data to a PC; can be easily adapted to become a multi device measuring station.

Radio Transmission

MarConnect Radio System FM 1

11- 8

Secure wireless data transmission

MarConnect Radio System FM 2

11- 9

Secure wireless data transmission

Overview

MarConnect Data Connection Cables

11-10

To connect Measuring Instruments to External Devices

MarConnect MarCom Professional 4.0

► | Whether you are using the tried and tested MarConnect interface or the new wireless data transmission Integrated Wireless, the MarCom software enables you to transmit data quickly and easily from a measuring station to a PC.

Inexpensive, . . .

. . . as no interface is required.

Data acquisition with MarCom Professional 4.0 now no longer requires an interface box; even so you do not lose the functionality of an interface box.



Trouble free connection to measuring . . .

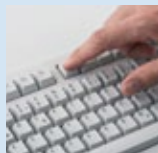
. . . instruments.

With MarCom all Mahr measuring instruments with MarConnect interfaces (RS232, USB) or Integrated Wireless can be connected; simply extend the measuring workplace with USB Hubs.



Flexible data transmission

Regardless of whether you are using a foot switch, directly on a measuring instrument, with a Timer function or with a PC keyboard: MarCom is extremely flexible and enables freely configurable measuring cycles.



Measuring instruments

USB



Integrated Wireless



RS232



Measured value

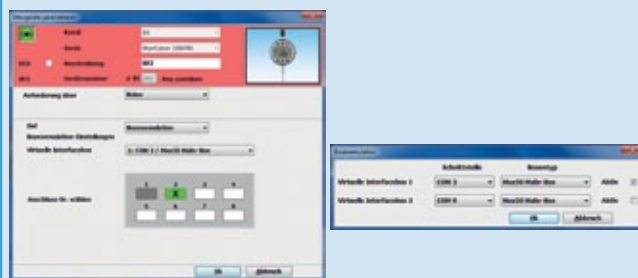
Simple connection to SPC software

MarCom 4.0

Data acquisition

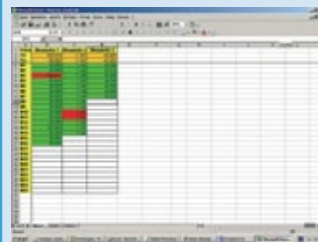
Data acquisition via SPC software

Simply connect your Mahr measuring instruments with the box emulation (Mux-50 Format) from MarCom Professional 4.0. In your SPC software select a MUX 50 compatible interface box, once selected you can start to obtain the measured values from all the connected Mahr measuring instruments.



Simple acquisition in Microsoft Office Excel®

Whether you use an existing Excel template or you wish to create a customized template, the cell controller from MarCom is highly flexible.



Data acquisition with a keyboard code in

... a windows application

Do you use an application which the connection of a measuring instrument does not allow? No problem! With the keyboard emulation from MarCom the measured values will be directly sent to the active cells in the programme.

Order no.

MarCom Software 4.0

4102552

MarConnect. MarCom Software

► | Regardless of whether you use the well-established **MarConnect** interface or the new wireless transmission system Integrated Wireless, the MarCom software enables simple and fast connection data transmission from the measuring station to a PC.



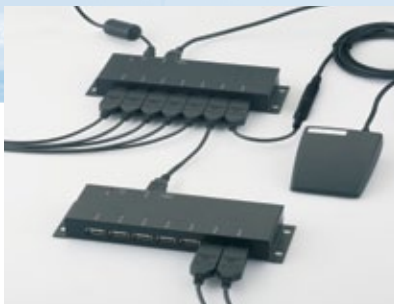
- **MarConnect Integrated Wireless - the wireless transmission system for the price of a cable.** Connect up to 8 Integrated Wireless measuring instruments with an i-Stick receiver for wireless data transmission.
- **Compatible** with all **MarConnect USB** ready measuring instruments

4 USB-Geräte	Beschreibung	Messwert	Anforderung
USB1	Schalter Messstab	OK	Messung Nr.: 0/1
USB2	Werte 1	+015.17	Excel: Default.xls/Tabelle1/1
USB3	Breite	+025.35	Excel: Default.xls/Tabelle1/2
USB4	Messstation 2	+014.99	Timer 00:00:10



- **Choose alternative methods of data transmission** either with a foot switch or a PC keyboard, with the Timer function or direct on the measuring instrument.

- **Clear and flexible data acquisition** with the easy to use **MarCom Professional Software**

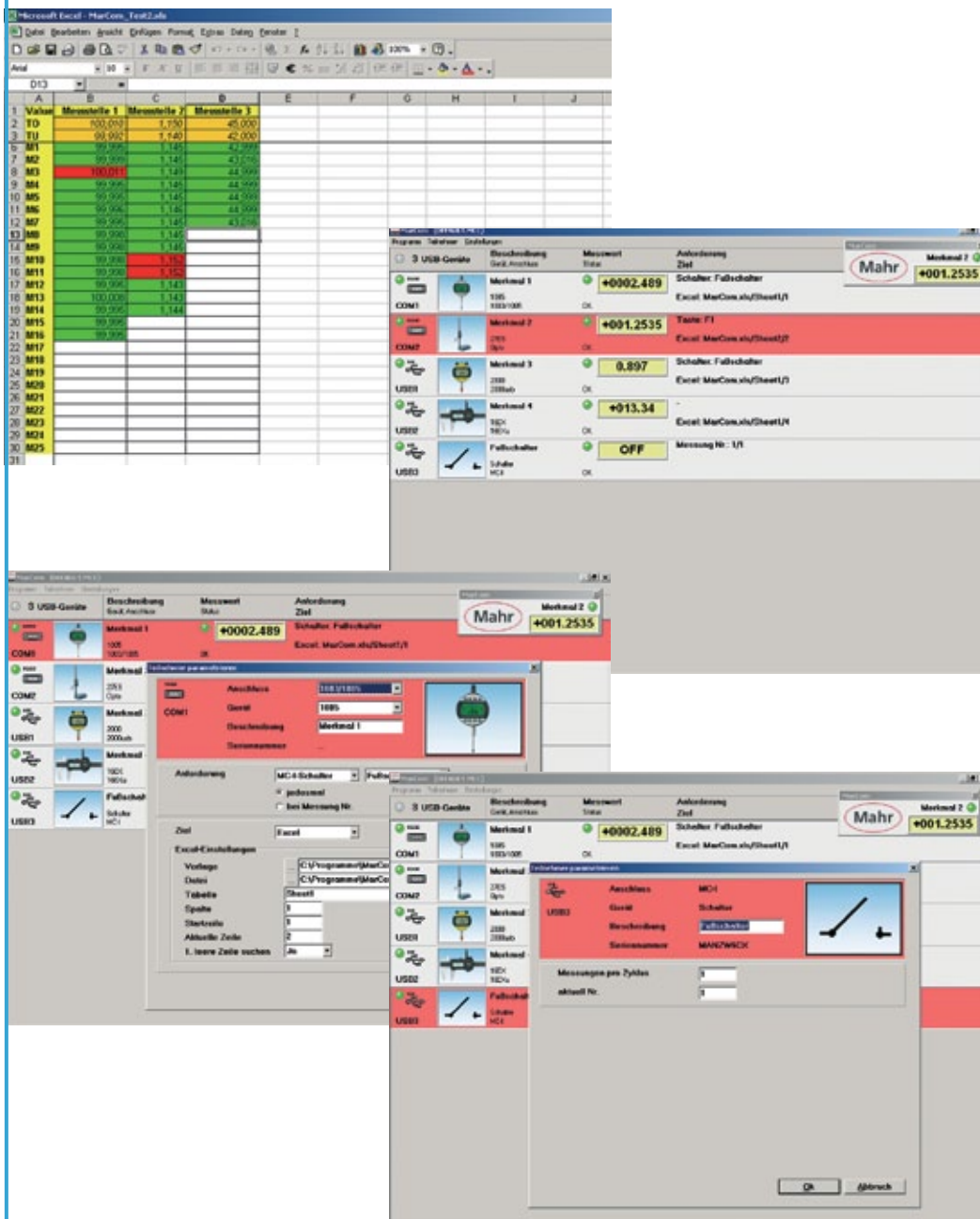


- **Easily extendable** with additional USB hubs



- **Multiple measuring station** is easily set up with a USB hub, up to 100 measuring devices can be simultaneously connected.

MarCom Software



Features

Software MarCom Professional 4.0

- Measured values can be directly transferred into either Microsoft Office Excel® (from version 97), into a text file or as a key code
- The measured values from each instrument can be sent to a different column, table or folder in Excel
- Data transmission is possible via USB and 2 serial COM interfaces
- USB hub is also suitable as a measuring instrument interface
- Connect up to 100 measuring instruments with USB data cable
- Clear portrayal of the chosen measuring instruments with the aid of icons
- Several foot switches can be connected up and freely assigned in conjunction with USB measuring instruments
- Individually define and configure measurement cycles
- There are a variety of ways to transmit data, you can either press the "Data" button on the measuring instrument or on the data cable; via a computer, timer, keyboard; or by activating a foot switch connected to a USB interface
- Text file can be edited; making translation in another language easy

Software MarCom Standard 3.1

(USB cable or the i-Stick are not included in the scope of supply)

Features and system requirements are identical to MarCom Professional, except that it only has one USB and one serial COM interface

Systemanforderung

IBM AT compatible PC
 Microsoft Office Windows® 2000, XP, Vista, 7, 8
 USB interface, higher than 1.1
 up to 10 MB
 Recommended: Microsoft Office Excel® from Version 97 onwards

Order no.

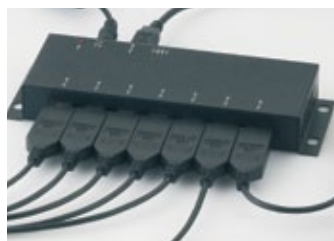
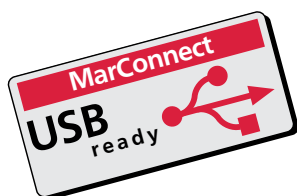
Software MarCom Professional 4.0

4102552

Software MarCom Standard 3.1

4102551

Integrated Wireless and USB ready measuring instruments



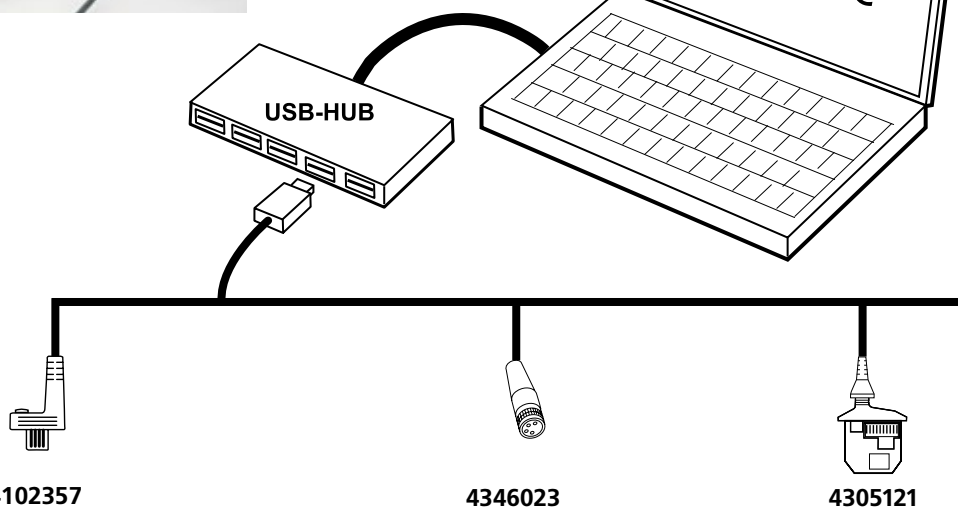
USB-HUB 7-fold industrial model
incl. USB cable for connection to
a PC and power adapter

220 V
110 V

Order no.
4102553
2245786



4102220



Wireless Receiver **i-Stick**
Order no. 4102220
incl. MarCom Standard

Data Connection Cable **16 EXu**
Order no. 4102357
incl. MarCom Standard

Data Connection Cable **2000 usb**
Order no. 4346023
incl. MarCom Standard

Data Connection Cable **800 EWu**
Order no. 4305121
incl. MarCom Standard

for **MarCal.** Calipers
16 EWRi
30 EWRi



for **MarCator.** Digital Indicators
1086 Ri /
1087 Ri /
1087 BRi



for **MarCal.** Calipers
16 ER / 16 EWR
16 EWR
18 EWR
30 ER / 30 EWR / 30 EWN



for **Digimar.** Height Gage
814 SR



for **Micromar.** Micrometers
40 EWR / 40 EWS /
40 EWR / 46 EWR /
44 EWR



for **MarCator.** Digital Indicators
1075 R / 1086 R / 1087 R



für **MarSurf.** PS1



for **MarCator.** Digital Indicator
1088



for **Millimes.** Digital
Comparators
2000
2001
2100
µMaxµm //



für **Digimar.** 816 CL

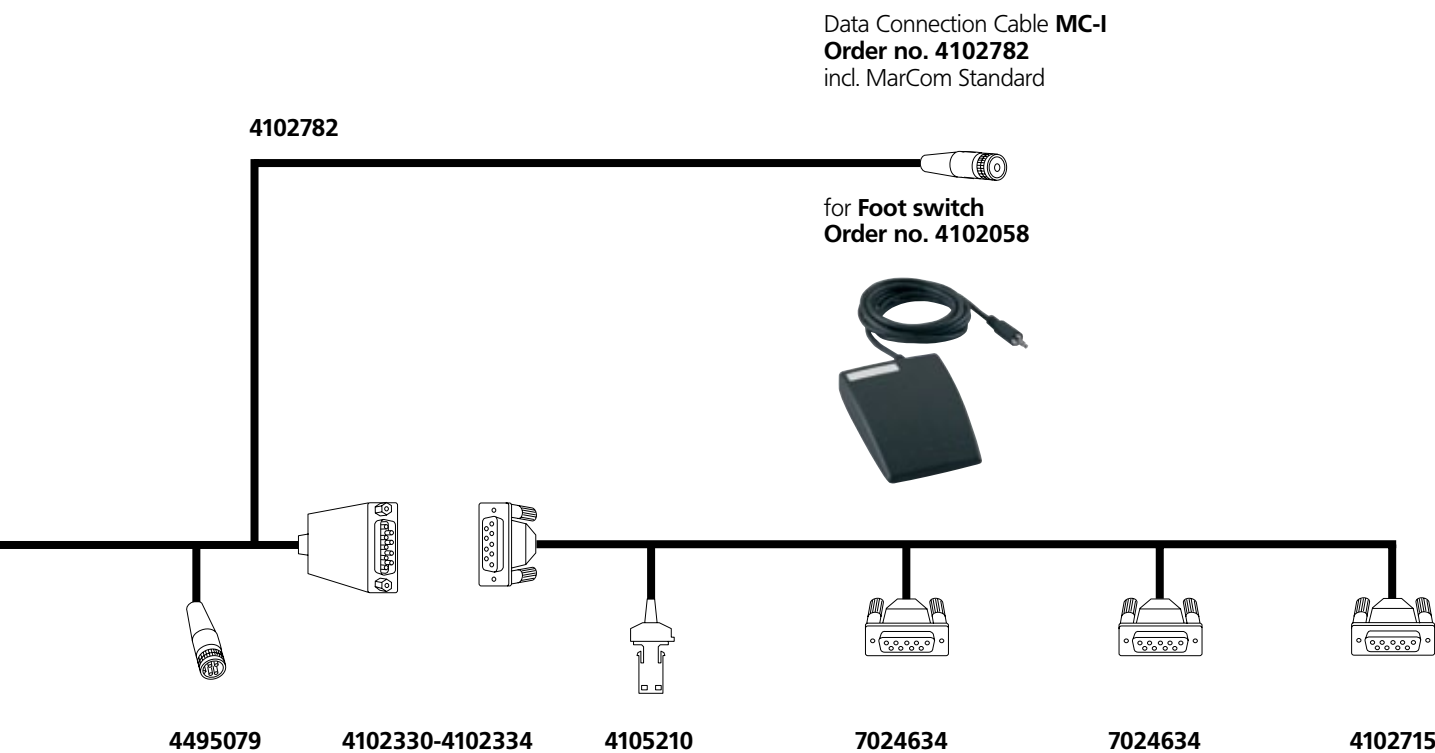


for **MarCal.** Calipers
31 EW



for **MarTest.** Test Indicators
800 EW / 800 EWL





Data Connection Cable **838 usb**
Order no. 4495079
incl. MarCom Standard

for **MaraMeter**. Indicating
Measuring Instruments
for Internal and External
Measurements
838 EI Ausführung A
838 EA Ausführung A



Adapter **RS232-USB**
Order no. 4102330 to 4102334
incl. MarCom Standard

4102330 + 4105210
for **Digimar**
M 814



for **MarTool**
106 ES



for **Multimar**
25 ES



4102331 + 7024634
for **Millimar**
C 1208
C 1216
C 1245
S 1840
X 1715
X 1745
1240



4102333 + 7024634
for **Digimar**
817 CLM



4246113
(4102334 + 4102715)
for **MarVision**
MM 320



Radio Transmission radio system FM 1*



* Only available in North America, Canada and Mexico

Note:

FM 1 and FM 2 are not compatible with one another.

Transmitter

For Measuring Instruments			Order no.
MarCal	16 ER, 16 EWR, 16 EWV, 18 EWR, 30 EWR, 30 EWN	16 EXt	4102321
Digimar	814 SR, 816 CL		
Micromar	40 EWR, 44 EX, 46 EX, 40 EWS, 40 EWV		
MarCator	1075 R, 1086 R, 1087 R		
MarCal	25 ES, 30 EWD, 31 ES, 32 ES	16 ESt	4102322
Digimar	27 ES, M 814		
MarTool	106 ES		
Millimar	C1208, C1216, C1245, S1840	RS232t	2121317
Digimar	CX2, 817 CLM		
Millimess	2000, 2001, 2010, μ Max μ mII	Mahrt	2121369
MarCator	1088, μ Max μ mII XL		

Contact Mahr Federal for transmitters to be used with: Max μ mIII, Digimatic devices, Digimatic data cables

Features

- Secure data transmission with dialogue between receiver and transmitter
- Acoustic and optical confirmation of receipt by the transmitter
- Compact transmitter is connected directly on the interface of the measuring instrument
- Power is supplied for the receiver via a USB-Interface on the PC
- Up to 120 measuring instruments can be connected to the receiver
- Radio transmission distance is from 10 m / 32.8 ft up to 200 m / 656.2 ft (depending on the environment)
- Radio frequency is 433.926 MHz

The transmission of the measured value takes place via actuation of the DATA button on the transmitter. The transmitter supplements the measured value with an address number, a communication control word and a double check sum. The special data coding and the feedback from the PC to the transmitter ensures absolute data security.

A transmission error is recognized by the dialogue between PC and transmitter.

The data transmission is then repeated up to three times automatically within a few milliseconds

When the data is successfully transmitted the green light on the transmitter flashes and a short beep is heard confirming transmission.

Receiver

Order no.

Receiver

FM 1 4102320

For USB interface includes, driver and basic Sim Key software to store measured values in an MS-Excel file.

Sim Key software keeps track of every transmitters specific RF signature and assigns a frequency so incoming data transmissions are not lost.

Also supplied with MAHR_EXDLL Software (REQUIRES DONGLE ACCESS KEY) sold separately*

MAHR_EXDLL software offers more sorting options for incoming data transmissions.

*Dongle access key

2121335



Radio transmission radio system FM 2



FM 2

FM 2 is not available in North America,
Canada and Mexico

Note:

FM 1 and FM 2 are not compatible with one another.

Features

- Wireless data transmission from a measuring instrument to a PC
- Secure data transmission due to the acknowledgement dialog of the received data from the PC to the measuring instrument
- Optical confirmation of received data on the transmitter
- TWIN receiver for USB and RS232 interfaces
- Compact transmitter without an external antenna
- Theoretically unlimited amount of measuring instruments can be connected to a receiver
- Distance of radio wave up to 100 m / 328.1 ft (depending on the working environment)
- Radio frequency is 433 MHz*
- Up to 69 channels are available per receiver, several receivers can be used at any one time
- Bi-directional radio link (remote control from measuring instruments)
- Triggering data via a hand switch is possible

* Further frequencies are available upon request

Transmitter

For Measuring Instruments			Order no.
MarCal	16 ER, 16 EWR, 16 EWW, 18 EWR, 30 ER, 30 EWN, 30 EWR	16 EXf	4102306
Digimar	814 SR		
Micromar	40 EW, 44 EX, 46 EX, 40 EWS, 40 EWW		
MarCator	1075, 1080, 1081, 1086, 1087		
MarCal	25 ES, 30 EWD, 31 ES, 32 ES	1082 f	4102307
Digimar	27 ES, M 814		
MarTool	106 ES		
Millimess	2000, 2001, 2100	2000 f	4102309
MarCator	1088		
Digimar	816 CL		
Digimar	817 CLM	817 f	4102310
Millimar	C1208, C1216, C1245, S1840	RS232 f	4102311

Further transmitters are available, see page 11-11

Receiver

	Order no.
TWIN Receiver for USB and RS232 interfaces incl. driver and basic software. Basic software consists of a software keyboard interface and software to store measured values in an MS-Excel® column	FM 2 4102305



Accessories

	Order no.
Hand switch for remote control*	HTF 1 4102314

* only in conjunction with Software Pack Plus

Software

	Order no.
Software Pack Plus to store measured data from several transmitters in separate MS-Excel® columns. Remote control with the hand switch.	4102315

MarConnect. Interfaces

OVERVIEW

Connect to ... Instrument	PC				
	 direct via USB and MarCom Software	 direct via RS232C and MarCom Software	 via Digi-USB 1	via T-Box	T
Foot switch	4102058+4102782 ③	4102058+4102782 ②③	4102058	4102556	
16 EWRi, 30 EWRi, 1086 Ri, 1087 Ri, 1087 BRi	i-Stick 4102220 ⑨	-----	-----	-----	
16 ER / EWR 16 E WV 18 EWR 30 ER / EWR / EWN 40 EWR, 40 EWS, 40 E WV, 46 EWR, 44 EWR 1075 R, 1086 R, 1087 R 814 SR, PS1	4102357	4102410	4102915	4102915	
2000, 2001, 2100 1088, 816 CL <i>µMaxµm II</i>	4346023	4346020	4346021	4346021	
838 EA, 838 EI (Ausf. A) 838 EA, 838 EI (Ausf. B)	4495079 -----	----- -----	4495083 4495084 ⑥	4495083 4495084 ⑥	Conta
<i>Maxµm III</i> 6 pin 10 pin	-----	2239035 2239037	----- 2239037	-----	
31 EW, 800 EW, 800 EWL	4305121	4305122	-----	-----	
25 ES 106 ES M814	4102510+4102330	4102510	-----	4102510	
1240, S1840, C1245, C1208, C1216, X1715, X1741	7024634+4102331 ⑤	7024634 ⑤	-----	4102715	
Digimar 817 CLM	7024634+4102333 ④	7024634 ④	-----	-----	

① Only available in North America, Canada and Mexico

② Foot switch; only with an additional USB Port

③ Cable length 18 cm / 7"

④ Data transmission only with the "Data" key or "automatic transmission" on the measuring instrument

⑤ Foot switch to transfer data on the measuring instrument
Millimar - Order no. 5330956 / Millimar 1240 only in conjunction
with a USB Foot switch

⑥ Data cable is included in the handle of the measuring instrument,
cable length 1.5 m / 5 ft

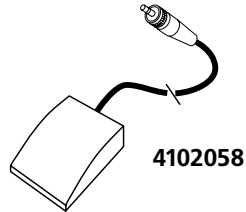
⑦ Hand switch only in conjunction with Software pack Plus

⑧ Not available for Millimar 1240

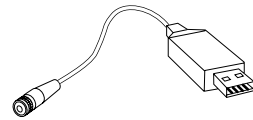
► | **MarConnect.** Regardless of which interface standard you use, whether; USB, Opto RS232 oder Digimatic, MarConnect always provides you with the optimum connection. | ◀

Transmitter ① FM 1 via USB	Transmitter FM 2 via USB or RS232
-----	4102314 ⑦
-----	-----
4102321	4102306
2121369	4102309
act Mahr Federal	----- 4102313+4495084
2121368	-----
-----	-----
4102322	4102307
2121317 ⑧	4102311 ⑧
2121317	4102310

Standard cable length 2 m



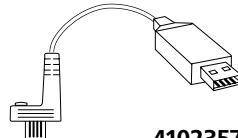
4102058



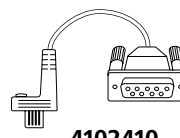
4102782 ③



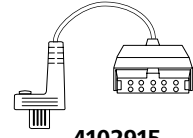
4102357 ⑨



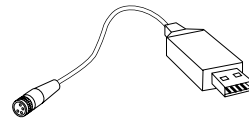
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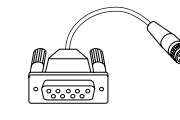
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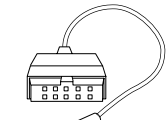
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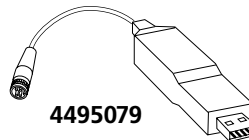
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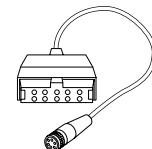
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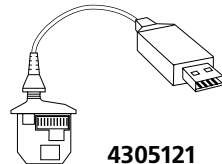
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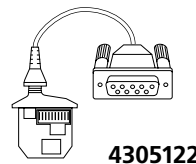
4495079



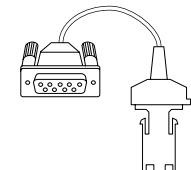
2239037 / 4495083 ⑥



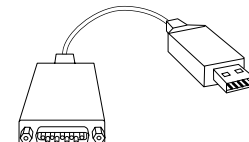
4305121



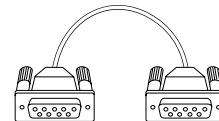
4305122



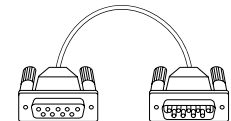
4102510



4102330 to 4102334
Cable length 1 m



4102715 / 7024634



4102711

⑨ Connect up to 8 Integrated Wireless measuring instruments per i-Stick