

Interface MC 4 / MC 10 – Description

The standard implemented software for the load of results on a RS 232 allows the data output to a laboratory computer. The data can be also be readout of the patient memory of the analyser.

Specifications of the serial interface of the PC:

- Bit rate, parity etc.: freely selectable (please see the chart)
- complete ASCII-character set
- 9-PIN D-SUB MALE

Baud	Start	Data	Parity	Stop
1200	1	7	even	2
2400	1	7	even	2
4800	1	7	even	2
9600	1	7	even	2
19200	1	7	even	2
38400	1	7	even	2
9600	1	8	none	1
19200	1	8	none	1
38400	1	8	none	1
1200	1	7	odd	2
2400	1	7	odd	2
4800	1	7	odd	2
9600	1	7	odd	2
19200	1	7	odd	2
38400	1	7	odd	2

Merlin analysers can be set for 2 different Amelung protocols whereas protocol “0” corresponds with the old Amelung coagulometers and protocol “1” is employed as of the Amelung KC Δ-series.

Current Programme “0” (old Amelung protocol)

Byte	7	6	5	4	3	2	1	0	Bit	Example	
1	0	0	0	0	0	0	1	0	STX	STX	Start of text
2									Programme	P	left-aligned
3								T			
4											
5	0	0	1	0	0	0	0	0	Blank		Blank
6									ID-No. (Patient number)	1	right-aligned
6										2	
8										3	
9										4	
10										5	
11									6		
12	0	0	1	0	0	0	0	0	Blank		Blank
13									Value 1 (sec.)		right-aligned
14										1	
15										2	
16										.	
17									3		
18	0	0	1	0	0	0	0	0	Blank		Blank
19									Value 2 (sec.)	1	right-aligned If value 2 is missing the space is filled up with "X"
20										2	
21										3	
22										.	
23									4		
24	0	0	1	0	0	0	0	0	Blank		Blank
25									Result		right-aligned
26										1	
27										2	
28										.	
29									3		
30	0	0	1	0	0	0	0	0	Blank		Blank
31									Unit		left-aligned
32										%	
33	0	0	1	0	0	0	0	0	Blank		Blank
34	0	0	0	0	0	1	0	1	Error (E)	E	with error "E" w/o error "Blank"
	0	0	1	0	0	0	0	0			
35	0	0	0	0	1	1	0	1	CR	CR	
36	0	0	0	0	1	0	1	0	LF	LF	
37	0	0	0	0	0	0	1	1	ETX	ETX	

Examples for programme:

P	T					PT
F	I	B				FIB

Examples for value and result:

1	2	0	.	5	120.5
		1	0	0	100
	1	0	.	3	10.3

Examples for unit:

%		%
G	L	g/l (gram per liter)
S		s (seconds)

The following is protocol “1” which is employed for the new Amelung coagulometers:

Current Programme “1” (KC Δ-protocol)

Byte	7	6	5	4	3	2	1	0	Bit	Example	
1	0	0	0	0	0	0	1	0	STX	STX	Start of text
2									Programme	A	left-aligned
3								P			
4								T			
5								T			
6											
7	0	0	1	0	0	0	0	0	Blank		Blank
8									ID-No. (Patient number)		right-aligned
9										1	
10										2	
11										3	
12										4	
13										5	
14										6	
15									7		
16											
17	0	0	1	0	0	0	0	0	Blank		Blank
18									Value 1 (sec.)		right-aligned
19										1	
20										2	
21										.	
22									3		
23									Blank		Blank
24									Value 2 (sec.)	1	right-aligned If value 2 is missing the space is filled up with “X”
25										2	
26										3	
27										.	
28									4		
29	0	0	1	0	0	0	0	0	Blank		Blank
30									Result		right-aligned
31										1	
32										2	
33										.	
34									3		
35	0	0	1	0	0	0	0	0	Blank		Blank
36									Unit		left-aligned
37										%	
38	0	0	1	0	0	0	0		Blank		Blank
39	0	1	0	0	0	1	0	1	Error (E)	E	with error “E” w/o error “Blank”
40	0	0	1	0	0	0	0	0			
41	0	0	0	0	1	1	0	1	CR	CR	
42	0	0	0	0	1	0	1	0	LF	LF	
43	0	0	0	0	0	0	1	1	ETX	ETX	

Examples for programme:

A	P	T	T		APTT
P	T				PT
R	A	T	I	O	RATIO

If a PT-/NT- or TT-test is carried out with INR, the data protocol is transmitted twice:

at first for PT-/ NT- or TT-test,
the for the INR-test

Examples for value and result:

	1	2	.	3	12.3
1	2	3	.	4	123.4
1	2	.	3	4	12.34
		1	0	0	100

Examples for unit:

%		%
G	L	g/l (gram per liter)
S		s (seconds)

The command for the online transmission of double determination errors (“E”) can be switched on or off in the MC 4 / MC 10-software in the menu “Online-Setup” (in the Settings Menu).