Präzisionsmessgeräte, Sensoren
für elektrische, thermische und me

DIGIFORCE® 9306
PROFIBUS Manual

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From version PRO-V200300

Manufacturer:
burster präzisionsmeßtechnik gmbh & co kg
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Notes:

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1. User and safety instructions

1.1 Important explanations

This chapter should be read by you in any case so that the safety is secured while handling electrical devices.

This instruction manual contains important information on the right use of our instruments on PROFIBUS. It was designed for personnel that is trained on the use of electrical devices.

Qualified and trained personnel are persons who fulfill at least one of the following three conditions:

- The safety concepts of automation technology are known to you and you as part of the projecting personnel are confident when applying them.
- You are operation personnel on automated systems and you have been trained on the right use of such installations. You know how to operate the devices described in this documentation.
- You are start-up personnel or active in service and have gone through an education which enables you to repair automation systems. Furthermore, you have the authorisation to start electrical circuits and instruments acc. to the standards of safety technology, to ground and mark the system accordingly.

1.2 Intentional use of the devices

The devices described herein are to be used only for the applications previsedin this manual.

burster devices are delivered ex works with a solid firm and software configuration. Changes are only allowed as framed by the possibilities documented in the manuals. All other changes on the firm and software as well as the use in other modes than the intended will result in the immediate exclusion from warranty and claim for the company burster. If you wish to receive a changed or modified firm- or software configuration, please contact our Sales Department.

The non-erroneous and safe operation of our devices demands appropriate transport, stocking, installation and mounting as well as the careful operation and maintenance.

1.3 Notes on projecting and installation of devices

Always take note of the valid Safety and Accident prevention conditions!

The connection-, signal- and sense-line must be installed in a way that prevents an influence of electromagnetic sources with consequential malfunctions of the instrument.

Device and installations of automation technology must be installed in a way that they are sufficiently protected against unintended operation.

Safety preparations have to be met in firm- and software in order to avoid undefined conditions of the automation systems in case of a line break.

The systems that may cause harmful damage to items or even persons as a result to a malfunction must include safety precautions that would lead to a safe status in case of such happenings. This could be effected e.g. by a limit switch, mechanical barriers or similar.

1.4 Symbols

ATTENTION:
Please take note of this information by all means in order to avoid damage to the instrument.

WARNING:
Conditions which have to be respected for a non-erroneous operation.

ESD (Electrostatic Discharge)
Warning of jeopardizing the components by electrostatic discharge. Take note of instructions on handling electrostatic discharge affected elements.

Notice
Routines or consults for efficient device operation and software optimizing.

Further information
Hints on additional literature, manuals, data sheets or internet websites.

1.5 Abbreviations

BF	Bus-Error
DGND	Data transfer potential (Relational potential to VP)
GSD	Device basic data
PNO	PROFIBUS User Organisation
RTS	Request To Send
RxD/TxD-N	Receive-/ Send data -N, A-Line
RxD/TxD-P	Receive-/ Send data -P, B-Line
VP	Supply voltage plus, (+5 V) of the final resistors

2 Technical data

PROFIBUS DP system data	
Quantity devices resp. modules	126 with repeaters
Transfer media	Cu-cable acc. to EN 50 170
Max. bus segment length	100 m ... 1200 m (depending on baud rate and cable used)
Transfer rates	9,6 kBaud ... 12 MBaud (depending on cable)

Type 9306 device data			
Supported transfer rates	9,6 kBit/s	187,5 kBit/s	3.000 kBit/s
	19,2 kBit/s	500 kBit/s	6.000 kBit/s
	93,75 kBit/s	1.500 kBit/s	12.000 kBit/s
Bus connection	9-pole D-SUB socket (female)		
Ident number	05BB Hex		
GSD Data	BUR_05BB.gsd		
Address range	0 … 126		

Electrical Safety	
Wrong pin connect. protection	Yes
Air-/shorting connections	As per DIN EN 61131-2 and DIN EN 50178 excessive voltage prot. II, grade of pollution 2
Potential separation	Between Field bus and internal electronic
Test voltage	DC 500 V

Electromagnetic protection			
(Refer also to Instruction Manual of DIGIFORCE® Type 9306)			
Disturbance protection acc. EN50082-2 : 1995			
EN 61000-4-2	4 kV/8 kV	(2/4)	B
EN 61000-4-3	10 V/m 80 % AM	(3)	A
EN 61000-4-4	2 kV	(3/4)	A
EN 61000-4-6	10 V/m 80 % AM	(3)	A
Disturbance effect acc. EN50081-2 : 1994			
EN 55011	30 dBµV/m	(30 m)	
	37 dBµV/m		

Notes on CE-marking

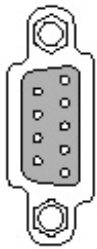
burster devices which carry the CE-sign fulfill the EU-requirements and the harmonized European standards described therein (EN).

The EU-Conformity Declarations are kept in our files for the responsible insitutions as per EU-requirements. A copy of the Conformity Declaration is in the documentation accompanying each device.

3 Installation

3.1 Connecting the Field bus lines

burster devices with PROFIBUS have a 9-pin D-Sub-socket for the field bus connection



		5	DGND
(CNTR-N)	NC*	9	4 NC* (CNTR-P)
RxD/TxD-N	RTS	8	3 RxD/TxD-P
(P24)	NC*	7	2 NC *(M24)
(Us closing resistor)	VP	6	1 Shield

Grph. 7.1: Connection wiring

* NC = no connected

3.1.1 Wiring of field bus lines

On PROFIBUS with RS 485 communication technology, all devices are connected in one line structure. The bus line consists of a twisted and shielded line pair.

The field bus line is specified as line Type A in EN 50 170 and must feature certain line parameters. The line Type B which is also mentioned in EN 50 170 is old and should not be used anymore.

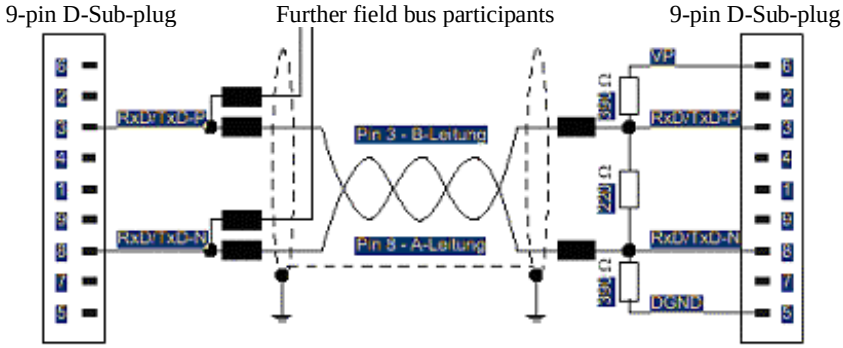
Parameter	**Value**
Wave resistance in Ω	135 ... 165 at 3 .. 30 Mhz.
Operating capacity	< 30 pF/m
Circuit resistance (Ω/km)	< 110
Jacket diameter (mm) *)	>0,64
Line diameter (mm^2) *)	>0,34

*) The used line diameter must be appropriate for the bus connector.

There are Maximum line lengths resulting for line Type A, depending on transfer speeds.

Transfer speed		**Max. bus segment length**
9,6 ... 93,75	kBaud	1200 m
187,5	kBaud	1000 m
500	kBaud	400 m
1500	kBaud	200 m
3000 / 6000 / 12000	kBaud	100 m

The connnectors offered on the market feature the possibility to connect the oncoming and leaving data cable right in the connector. Dead-end connections can be avoided this way and the bus connector can be plugged on or off the bus without interrupting the data traffic. A switchable bus connection is integrated. As a result of the capacitive load of the participant and the involved line reflection one should use connectors with integrated linear inductivity. This is imperative for transfer rates > 1.5 Mbaud.



Wiring of bus lines with bus connection

Notice

When connecting the participants wrong wiring must be avoided.

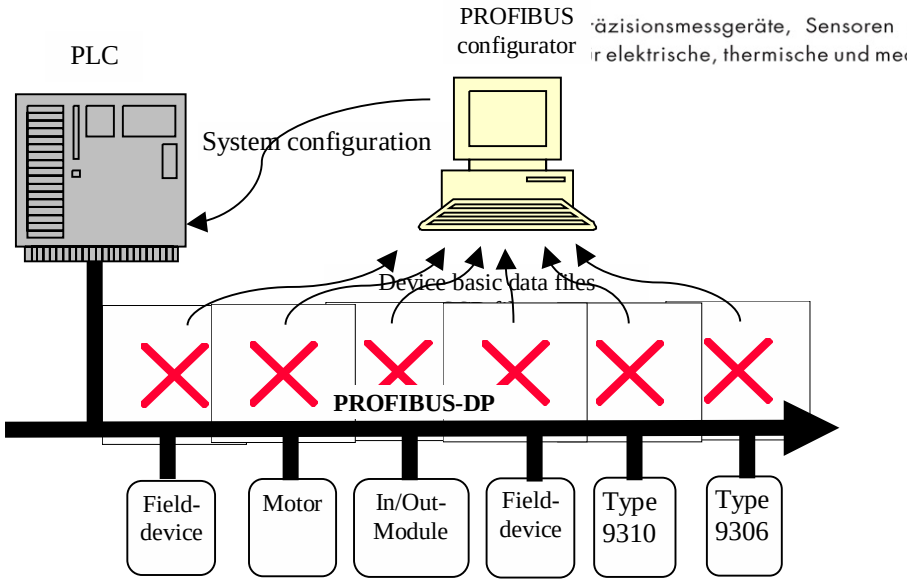
The bus connection on **start/end of the bus line** must be installed. The bus connection requires a supply voltage VP of the device. It should be secured that the slave device onto which the bus connection is installed is always supplied with voltage.

Based on the integrated linear inductivity in the connecting plugs it should be avoided that plugs are installed without connected field instruments as the missing capacity of the device might cause transfer errors.

To reach a greater stability of the system against electromagnetic radiation a shielded PROFIBUS-cable should be used. The shield should be connected well conducting on both ends on protective ground. Moreover, it is important that the cable is laid seperately from all high-power cables. For data rates $\geq$1,5 Mbit/s dead-end lines have to be avoided.

Differences in potential, caused by different net connecting knots of the diverse components, must be reduced by laying a potential-equation line.

3.2 Projecting a PROFIBUS.DP-system



3.3 Configuration menu in DIGIFORCE® Type 9306

Key F4	CONFIG →	
Menu 01	„Main menu“ General Settings	[Enter]
Menu 10	„Basic Adjustments“	press [⇓] 11 *
→ PROFIBUS configuration		[Enter]

Menu 15 „PROFIBUS configuration“		
Station address:	2	Numerical keys n1 ... 126
Internal control	Off	Off / On*
Control via	PROFIBUS	PROFIBUS / I/O-PORT
Cyclic Data exchange	Mode x	
Baud rate	19.2 kBaud	
Version COMM-card	PRO-V200300	

* Internal control. Communication processor controls meas. processor and informs status to PROFIBUS in case of error (byte 5 bit 0, see page 18)

4 PROFIBUS

4.1 Overview

PROFIBUS was developed as open field bus. It was standardized in DIN 19 245 and later on was identified as European Standard EN 50 170, Vol. 2nd. PROFIBUS is a media for pure data transfer such as e.g. RS232.

There are two different ways of communication

- Cyclic services PROFIBUS DP (Non-central periphery)
- Anticyclic services PROFIBUS DPV1 (Optional services)

PROFIBUS DP (non-central periphery) is a PROFIBUS-version which is designed for the demands of a fast, efficient data exchange between the control (PLC/PC) and non-central periphery.

Physical appearance: Similar to RS 485

A DP-system consists usually of a Master and up to 126 Slaves with repeaters. For systems with multiple Masters, every Master has his firmly consigned Slaves.

Master: A DP-Master exchanges data via PROFIBUS DP with the Slaves and controls the Bus. He transfers the data between the superior control and non-central peripherical elements.

Slave: The DP-Slaves serve as bridging elements to the Measurement technology. They prepare the input data of measurement applications for transfer to the Master and transfer the configured output data (control signals) from the Master to the measurement electronics.

The PROFIBUS uses the Master-Slave-procedure. The Master reads the input data from the Slaves in a cyclic Mode and writes the output data to the Slaves.

PROFIBUS DP Characteristics:

- Transfer rate between 9,6 kBaud and 12 MBaud
- Short reaction time and high disturbance safety
- Master- and Slave-diagnosis
- Single Slaves can fail or be switched off without any effect on the bus communication in process.
- Complete bus configuration is saved in the Master.
- Each Slave has a specific ID, depending on the manufacturer, which is given out by the Profibus User Organisation (PNO).
- The Slaves are described by their device basic data (GSD-file). This file is inported to the configuration software and makes configuration of the Slaves easier this way.

PROFIBUS DP Data exchange

The Master exchanges the same quantity of data byte subsequently (in a circle order) with each of its slaves. As a result the total cycle time remains constant.

Every Slave must answer within a certain time frame.

Theoretically, 240 byte per answer are possible.

The Slave must always respond with the same data length.

In general, the request for 240 byte takes too much time from the user‘s perspective as the total cycle time becomes too large this way. The DIGIFORCE® Type 9306 therefore offers different modified response lengths („ Mode“ see page 15).

PROFIBUS DPV1 Data exchange

With PROFIBUS DPV1, a Master can demand specific device settings in an anticyclic bus mode and read them out or put in new values for these settings. For a description see page 74th

i **Further information**

The PROFIBUS user organisation offers more documentation on their website: (PNO) www.profibus.com

4.2 General information

With PROFIBUS DP (cyclic data traffic), it must be defined during project phase how many byte are to be exchanged between Master and Slave during every cyclic request (GSD file).

The device is controlled with the information given from Master to Slave. For DIGIFORCE® Type 9306 they always consist of two byte. The meaning of these byte is described on page 13.

The information given in counter-direction from Slave to Master contain the measurement results and status information. Since the DIGIFORCE® Type 9306 is a complex measurement instrument there are a large variety of information that can be transferred. However, this does not always make sense. If, for example, only the status information is needed, it would demand unnecessary capacities to transfer more than 200 byte during one request which later on will not be considered. On the other hand there are applications where the specific measurement results of one Window need to be transferred which would not work if only the status information is available via interface.

To fulfill the possible Maximum of customers‘ requests, 17 different combinations of different measurement results were created. These combinations determine what information is sent to the Master. The information content of the versions go from sinple, short messages (e.g. Mode 1 includes only PLC and status info) up to more complex, longer messages with more information (e.g. Mode 16 contains PLC and status info, general curve data, entry, exit, min- and Maximum of Window s 1-5 – this results in 209 byte that are sent to the Master). The user can identify the suitable version for his requirements during planning of the system and later receives exactly the data he needs.

4.3 GSD-files

DIGIFORCE® devices with PROFIBUS-option are delivered with a disk on which one will find the so called device basic data BUR_05BB.gsd (GSD-file). In this GSD-file, the physical characters of the instrument are listed (baud rate, specific bit times, sent/received byte per cycle, etc.).

Structure, content and coding of this device basic data are standardized so that a projecting of any given DP-Slave is possible with projecting tools of the different manufacturers.

The GSD-file does not inform about the data to be sent nor how these should be interpreted. These elements must be obtained from the instruction manual and programmed in its Master accordingly.

4.4 Data-Conversion

4.4.1 Description of data format in this instruction manual

In this chapter the data exchange of the various modes is described in detail.
The nominations PLC-inputs and PLC-outputs refer to the DIGIFORCE® 9306. On the Master the nominations have to be vice versa.

The meaning of PLC-In / PLC-Out bits is identical to the parallel PLC I/O-ports directly on the instrument and can be taken from the instruction manuals. The mentioned float-numbers consist of 4 byte (32bit) and relate to standard IEEE-754 (refer to appendix A).

Numbers which are used without further description or together with marks as „d“ or „dez“ are *decimal numbers* (example: 1234, 1234dez, dez1234, 1234d). Numbers which are used with marks as „0x“ or „hex“ are *hexa decimal numbers* (example> 0x1234, hex1234, 1234hex, 1234h).

Numbers which are used with marks as „b“ or „bin“ are binary numbers (example: b1100, bin1100, 1100b, 1100bin).

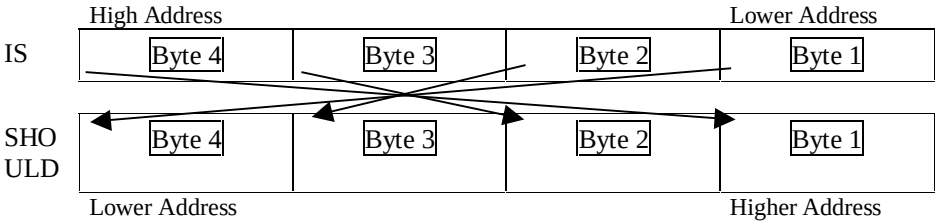
4.4.2 Problem solving when reading out float-numbers

This applies only when float-numbers have to be read out from the DIGIFORCE® 9306 (for cycl. Protocol and profi- Mode >1, all for anti-cyclic protocol).

Float-numbers (data Type REAL) must be transferred coded in four byte acc. to IEEE. Depending on the applied PLC-Type the control expects these byte in a different order.

Measures

If a completely unreasonable result should come out of the decoding of a float-number then the problem might be solved by changing the order of the four bytes.



Starting Version PRO-V200300, a fourth User-param-byte can be transferred. With the leading bit of this byte, the order of the bytes is determined for later float value transfer:

Default: (Siemens)	0xxx xxxxb
Twisted:	1xxx xxxxb

Therefore, the order of byte does not need to be changed manually.

5. PROFIBUS DP Data protocol

5.1 Transfer from Master to Slave

There are always 2 byte PLC-in-data which are transferred from the PROFIBUS-Master to DIGIFORCE®. These bits are equivalent in function to the parallel PLC inputs on DIGIFORCE® Type 9306.

5.1.1 PLC-Inputs Byte 1

PLC-inputs Byte 1		
Valid values:	RESET	Bit 0 LSB
	LTEST	Bit 1
	Reserved	Bit 2
	AUTO	Bit 3
	TARA X	Bit 4
	TARA Y	Bit 5
	Reserved	Bit 6
	Reserved	Bit 7 MSB

5.1.2 PLC-inputs Byte 2

PLC-inputs Byte 2		
Valid values:	SENSORTEST	Bit 0 LSB
	START	Bit 1
	STROBE1	Bit 2
	E0	Bit 3
	E1	Bit 4
	E2	Bit 5
	E3	Bit 6
	E4	Bit 7 MSB

In all cyclic modes there are always 2 Byte to be transferred from Master to Slave. With these two byte the device is controlled by PROFIBUS. The meaning of these two byte is the same in all 17 Modes.

5.2 Communication structure / Transfer from Slave to Master

Mode	Content	Length/Byte
1	PLC-Out	5 Byte
2	PLC-Out General curve data	5 + 44 S 49 Byte
3	PLC-Out Window 1-10 Entry/Exit	5 + 160 S 165 Byte
4	PLC-Out Window 1-10 Window -Max./Min	5 + 160 S 165 Byte
5	PLC-Out Window 1 Entry/Exit Window 1 Window -Max./Min	5 + 16 + 16 S 37 Byte
6	PLC-Out Window 1-2 Entry/Exit Window 1-2 Window -Max./Min Order: F1On/Off, F1MinMax., F2On/Off, F2MinMax.	5 + 32 + 32 S 69 Byte
7	PLC-Out Window 1-3 Entry/Exit Window 1-3 Window -Max./Min Order: refer to Mode 6	5 + 48 + 48 S 101 Byte
8	PLC-Out Window 1-4 Entry/Exit Window 1-4 Window -Max./Min Order: see Mode 6	5 + 64 + 64 S 133 Byte
9	PLC-Out Window 1-5 Entry/Exit Window 1-5 Window -Max./Min Order: see Mode 6	5 + 80 + 80 S 165 Byte
10	PLC-Out General curve data Window 1-10 Entry/Exit	5 + 44 + 160 S 209 Byte

11	PLC-Out General curve data Window 1-10 Window -Max./Min	5 + 44 + 160 S 209 Byte
12	PLC-Out General curve data Window 1 Entry/Exit Window 1 Window -Max./Min	5 + 44 + 16 + 16 S 81 Byte
13	PLC-Out General curve data Window 1-2 Entry/Exit Window 1-2 Window -Max./Min Order: see Mode 6	5 + 44 + 32 + 32 S 113 Byte
14	PLC-Out General curve data Window 1-3 Entry/Exit Window 1-3 Window -Max./Min Order: see Mode 6	5 + 44 + 48 + 48 S 145 Byte
15	PLC-Out General curve data Window 1-4 Entry/Exit Window 1-4 Window -Max./Min Order: see Mode 6	5 + 44 + 64 + 64 S 177 Byte
16	PLC-Out General curve data Window 1-5 Entry/Exit Window 1-5 Window -Max./Min Order: see Mode 6	5 + 44 + 80 + 80 S 209 Byte
17	PLC-Out Dummy-Byte 10 free choseable Float-values to NUM4	5 + 1 + 40 S 46 Byte

5.3 Content meaning of the different protocol Modes

PLC-Out:
This data relates to the PLC-output of the DIGIFORCE®. It is the description of data that is transferred from DIGIFORCE® to Master. The meaning of PLC-In / PLC-Out bits is identical to the parallel PLC I/O-ports directly at the device and can be taken from the manual of the instruments.

5.3.1 PLC-outputs byte 1 (PLC signal wires IO/NIO, Ready etc.)

PLC-outputs byte 1		
Valid values:	STROBE2	Bit 0 LSB
	READY	Bit 1
	IO	Bit 2
	NIO	Bit 3
	IO-ST	Bit 4
	NIOA	Bit 5
	PF/S5	Bit 6
	A0	Bit 7 MSB

5.3.2 PLC-outputs byte 2 (Program-addressing, Switch points)

PLC-outputs byte 2		
Valid values:	A1	Bit 0 LSB
	A2	Bit 1
	A3	Bit 2
	A4	Bit 3
	S1	Bit 4
	S2	Bit 5
	S3	Bit 6
	S4	Bit 7 MSB

5.3.3 PLC-outputs byte 3 (NOK/OK of single Window s)

PLC-outputs byte 3		
Valid values:	NOKF8	Bit 0 LSB
	NOKF7	Bit 1
	NIOF6	Bit 2
	NIOF5	Bit 3
	NIOF4	Bit 4
	NIOF3	Bit 5
	NOKF2	Bit 6
	NIOF1	Bit 7 MSB

5.3.4 PLC-outputs byte 4 Device status (status)

Device status (byte 4)		Wert
Valid values:	Status: ready	1
	Status: no trigger	2
	Status: measurement	3
	Status: tare X	4
	Status: tare Y	5
	Status: X > start	6
	Status: Y > start	7
	Status: no trigger	8
	Status: S-test / X-sensor NOK	9
	Status: S-test / Y-sensor NOK	10
	Status: start <> 0	11
	Status: S-test / XY-sensor NOK	12
	Status: sensor test	13
	Status: print	14
	Status: send_dat / (print)	15
	Error: PC-communication	16
	Error: cal-error	17
	Status: Field bus configuration menu	18
	PLC-outputs invalid	255

5.3.5 PLC-outputs byte 5 hardware status (error code)

Hardware status		
Valid values:	Internal Hardware-error	Bit 0 LSB
	Reserved	Bit 1
	Reserved	Bit 2
	Reserved	Bit 3
	Reserved	Bit 4
	Reserved	Bit 5
	Reserved	Bit 6
	Reserved	Bit 7 MSB

If bit 0 of this byte is set =1, then the internal control of the communication processor shows an error. Please note during evaluation of this bit that it might mean the non-functioning of the measurement processor, it might, however, also mean that a very long measurement is taking place. The bit can only be set if the criteria „internal control“ in the PROFIBUS-Menu is set „On“.

The rest of this byte is temporarily not used and reserved.

5.4 Communication structure / File compilation

5.4.1 General curve data:

Unit x Axis		Null set char-string; Length 6 Byte
Unit y Axis		Null set char-string; Length 6 Byte
Last curve value	(X-coordinate)	4-Byte-float-number (refer to appendix A)
Last curve value	(Y-coordinate)	4-Byte-float-number (")
Max. X of total curve	(X-coordinate)	4-Byte-float-number (")
Max. X of total curve	(Y-coordinate)	4-Byte-float-number (")
Max. Y of total curve	(X-coordinate)	4-Byte-float-number (")
Max. Y of total curve	(Y-coordinate)	4-Byte-float-number (")
Min. Y of total curve	(X-coordinate)	4-Byte-float-number (")
Min. Y of total curve	(Y-coordinate)	4-Byte-float-number (")

The unit strings are set to null. (For some software versions the last two byte are even set to 0x0)

5.4.2 Entry/Exit :

For Pass-Through Window , Online Window , Hysteresis and Gradient Window :

Window Entry (X-Coordinate)	4-Byte-float-number (refer to appendix A)
Window Entry (Y-Coordinate)	4-Byte-float-number (")
Window Exit (X-Coordinate)	4-Byte-float-number (")
Window Exit (Y-Coordinate)	4-Byte-float-number (")

For Block Window :

Window entry (X-coordinate)	4-Byte-float-number (refer to appendix A)
Window entry (Y-coordinate)	4-Byte-float-number (")
Don't care	4-Byte-float-number (")
Don't care	4-Byte-float-number (")

5.4.3 Min/Max.:

For Pass-Through Window , Online Window :

Maximum in Window (X-coordinate)	4-Byte-float-number (refer to appendix A)
Maximum in Window (Y-coordinate)	4-Byte-float-number (")
Minimum in Window (X-coordinate)	4-Byte-float-number (")
Minimum in Window (Y-coordinate)	4-Byte-float-number (")

For Block Window

Block value (X-coordinate)	4-Byte-float-number (refer to appendix A)
Block value (Y-coordinate)	4-Byte-float-number (")
Don't care	4-Byte-float-number (")
Don't care	4-Byte-float-number (")

For Hysteresis Window

Y difference from hysteresis Window	4-Byte-float-number (refer to appendix A)
Don't care	4-Byte-float-number (")
Don't care	4-Byte-float-number (")
Don't care	4-Byte-float-number (")

For Gradient Window

Calculated ascend gradient Window	4-Byte-float-number (refer to appendix A)
Don't care	4-Byte-float-number (")
Don't care	4-Byte-float-number (")
Don't care	4-Byte-float-number (")

5.4.4 Free selectable float values:

For the indication in measurement menu NUM4, 10 given float numbers can be chosen from the measurement results (please refer to manual). These are transferred in the same sequence as defined in the display.

If no number value has been chosen and no measurement value is present at that time a 0,0 (0x00 0x00 0x00 0x00) is transferred.

So there are always 10 x 4 byte to be transferred for 10 values.

1st value (NUM4 line 1)	4-Byte-float-number (refer to appendix A)
2nd value (NUM4 line 2)	4-Byte-float-number (")
3rd value (NUM4 line 3)	4-Byte-float-number (")
4th value (NUM4 line 4)	4-Byte-float-number (")
5th value (NUM4 line 5)	4-Byte-float-number (")
6th value (NUM4 line 6)	4-Byte-float-number (")
7th value (NUM4 line 7)	4-Byte-float-number (")
8th value (NUM4 line 8)	4-Byte-float-number (")
9th value (NUM4 line 9)	4-Byte-float-number (")
10th value (NUM4 line 10)	4-Byte-float-number (")

5.5 Byte-Reference list

5.5.1 Mode 1 (PLC-Out)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs byte 1	5.1.1	
1	PLC-Inputs byte 2	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs byte 1	5.3.1	
1	PLC-Outputs byte 2	5.3.2	
2	PLC-Outputs byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	

5.5.2 Mode 2 (PLC-Out, General Curve Data)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs Byte 1	5.1.1	
1	PLC-Inputs Byte 2	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs (1st Byte)	5.3.1	
1	PLC-Outputs (2nd Byte)	5.3.2	
2	PLC-Outputs (3rd Byte)	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Unit X-Axis (1st Byte)	5.4.1	General curve data: Unit X
6	Unit X-Axis (2nd Byte)	5.4.1	
7	Unit X-Axis (3rd Byte)	5.4.1	
8	Unit X-Axis (4th Byte)	5.4.1	
9	Unit X-Axis (5th Byte)	5.4.1	
10	Unit X-Axis (6th Byte)	5.4.1	

11	Unit Y-Axis (1st Byte)	5.4.1	General curve data:
12	Unit Y-Axis (2nd Byte)	5.4.1	Unit Y
13	Unit Y-Axis (3rd Byte)	5.4.1	
14	Unit Y-Axis (4th Byte)	5.4.1	
15	Unit Y-Axis (5th Byte)	5.4.1	
16	Unit Y-Axis (6th Byte)	5.4.1	
17	Last Point; X-coord. (1st Byte)	5.4.1	General curve data:
18	Last Point; X-coord. (2nd Byte)	5.4.1	Last curve value
19	Last Point; X-coord. (3rd Byte)	5.4.1	X-coordinate
20	Last Point; X-coord. (4th Byte)	5.4.1	(32-Bit-float)
21	Last Point; Y-coord. (1st Byte)	5.4.1	General curve data:
22	Last Point; Y-coord. (2nd Byte)	5.4.1	Last curve value
23	Last Point; Y-coord. (3rd Byte)	5.4.1	Y-coordinate
24	Last Point; Y-coord. (4th Byte)	5.4.1	(32-Bit-float)
25	Max. displacem.; X-coord. (1st Byte)	5.4.1	General curve data:
26	Max. displacem.; X-coord. (2nd Byte)	5.4.1	Maximum displacement
27	Max. displacem.; X-coord. (3rd Byte)	5.4.1	X-coordinate
28	Max. displacem.; X-coord. (4th Byte)	5.4.1	(32-Bit-float)
29	Max. displacem.; Y-coord. (1st Byte)	5.4.1	General curve data:
30	Max. displacem.; Y-coord. (2nd Byte)	5.4.1	Maximum displacement
31	Max. displacem.; Y-coord. (3rd Byte)	5.4.1	Y-coordinate
32	Max. displacem.; Y-coord. (4th Byte)	5.4.1	(32-Bit-float)
33	AbsMax.Y; X-coord. (1st Byte)	5.4.1	General curve data:
34	AbsMax.Y; X-coord. (2nd Byte)	5.4.1	Maximum Y of total curve
35	AbsMax.Y; X-coord. (3rd Byte)	5.4.1	X-coordinate
36	AbsMax.Y; X-coord. (4th Byte)	5.4.1	(32-Bit-float)
37	AbsMax.Y; Y-coord. (1st Byte)	5.4.1	General curve data:
38	AbsMax.Y; Y-coord. (2nd Byte)	5.4.1	Maximum Y of total curve
39	AbsMax.Y; Y-coord. (3rd Byte)	5.4.1	Y-coordinate
40	AbsMax.Y; Y-coord. (4th Byte)	5.4.1	(32-Bit-float)
41	AbsMinY; X-coord. (1st Byte)	5.4.1	General curve data:
42	AbsMinY; X-coord. (2nd Byte)	5.4.1	Minimum Y of total curve
43	AbsMinY; X-coord. (3rd Byte)	5.4.1	X-coordinate
44	AbsMinY; X-coord. (4th Byte)	5.4.1	(32-Bit-float)
45	AbsMinY; Y-coord. (1st Byte)	5.4.1	General curve data:
46	AbsMinY; Y-coord. (2nd Byte)	5.4.1	Minimum Y of total curve
47	AbsMinY; Y-coord. (3rd Byte)	5.4.1	Y-coordinate
48	AbsMinY; Y-coord. (4th Byte)	5.4.1	(32-Bit-float)

5.5.3 Mode 3 (PLC-Out, Window 1-10 Entry/Exit)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Entry Window 1; X-coord. (1st Byte)	5.4.2	Window 1
6	Entry Window 1; X-coord. (2nd Byte)	5.4.2	Entry
7	Entry Window 1; X-coord. (3rd Byte)	5.4.2	X-coordinate
8	Entry Window 1; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
9	Entry Window 1; Y-coord. (1st Byte)	5.4.2	Window 1
10	Entry Window 1; Y-coord. (2nd Byte)	5.4.2	Entry
11	Entry Window 1; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
12	Entry Window 1; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
13	Exit Window 1; X-coord. (1st Byte)	5.4.2	Window 1
14	Exit Window 1; X-coord. (2nd Byte)	5.4.2	Exit
15	Exit Window 1; X-coord. (3rd Byte)	5.4.2	X-coordinate
16	Exit Window 1; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
17	Exit Window 1; Y-coord. (1st Byte)	5.4.2	Window 1
18	Exit Window 1; Y-coord. (2nd Byte)	5.4.2	Exit
19	Exit Window 1; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
20	Exit Window 1; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
21	Entry Window 2; X-coord. (1st Byte)	5.4.2	Window 2
22	Entry Window 2; X-coord. (2nd Byte)	5.4.2	Entry
23	Entry Window 2; X-coord. (3rd Byte)	5.4.2	X-coordinate
24	Entry Window 2; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
25	Entry Window 2; Y-coord. (1st Byte)	5.4.2	Window 2
26	Entry Window 2; Y-coord. (2nd Byte)	5.4.2	Entry
27	Entry Window 2; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
28	Entry Window 2; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
29	Exit Window 2; X-coord. (1st Byte)	5.4.2	Window 2
30	Exit Window 2; X-coord. (2nd Byte)	5.4.2	Exit
31	Exit Window 2; X-coord. (3rd Byte)	5.4.2	X-coordinate
32	Exit Window 2; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
33	Exit Window 2; Y-coord. (1st Byte)	5.4.2	Window 2
34	Exit Window 2; Y-coord. (2nd Byte)	5.4.2	Exit
35	Exit Window 2; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
36	Exit Window 2; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)

37	Entry Window 3; X-coord. (1st Byte)	5.4.2	Window 3
38	Entry Window 3; X-coord. (2nd Byte)	5.4.2	Entry
39	Entry Window 3; X-coord. (3rd Byte)	5.4.2	X-coordinate
40	Entry Window 3; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
41	Entry Window 3; Y-coord. (1st Byte)	5.4.2	Window 3
42	Entry Window 3; Y-coord. (2nd Byte)	5.4.2	Entry
43	Entry Window 3; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
44	Entry Window 3; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
45	Exit Window 3; X-coord. (1st Byte)	5.4.2	Window 3
46	Exit Window 3; X-coord. (2nd Byte)	5.4.2	Exit
47	Exit Window 3; X-coord. (3rd Byte)	5.4.2	X-coordinate
48	Exit Window 3; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
49	Exit Window 3; Y-coord. (1st Byte)	5.4.2	Window 3
50	Exit Window 3; Y-coord. (2nd Byte)	5.4.2	Exit
51	Exit Window 3; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
52	Exit Window 3; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
53	Entry Window 4; X-coord. (1st Byte)	5.4.2	Window 4
54	Entry Window 4; X-coord. (2nd Byte)	5.4.2	Entry
55	Entry Window 4; X-coord. (3rd Byte)	5.4.2	X-coordinate
56	Entry Window 4; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
57	Entry Window 4; Y-coord. (1st Byte)	5.4.2	Window 4
58	Entry Window 4; Y-coord. (2nd Byte)	5.4.2	Entry
59	Entry Window 4; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
60	Entry Window 4; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
61	Exit Window 4; X-coord. (1st Byte)	5.4.2	Window 4
62	Exit Window 4; X-coord. (2nd Byte)	5.4.2	Exit
63	Exit Window 4; X-coord. (3rd Byte)	5.4.2	X-coordinate
64	Exit Window 4; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
65	Exit Window 4; Y-coord. (1st Byte)	5.4.2	Window 4
66	Exit Window 4; Y-coord. (2nd Byte)	5.4.2	Exit
67	Exit Window 4; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
68	Exit Window 4; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
69	Entry Window 5; X-coord. (1st Byte)	5.4.2	Window 5
70	Entry Window 5; X-coord. (2nd Byte)	5.4.2	Entry
71	Entry Window 5; X-coord. (3rd Byte)	5.4.2	X-coordinate
72	Entry Window 5; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
73	Entry Window 5; Y-coord. (1st Byte)	5.4.2	Window 5
74	Entry Window 5; Y-coord. (2nd Byte)	5.4.2	Entry
75	Entry Window 5; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
76	Entry Window 5; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
77	Exit Window 5; X-coord. (1st Byte)	5.4.2	Window 5
78	Exit Window 5; X-coord. (2nd Byte)	5.4.2	Exit
79	Exit Window 5; X-coord. (3rd Byte)	5.4.2	X-coordinate
80	Exit Window 5; X-coord. (4th Byte)	5.4.2	(32-Bit-float)

81	Exit Window 5; Y-coord. (1st Byte)	5.4.2	Window 5
82	Exit Window 5; Y-coord. (2nd Byte)	5.4.2	Exit
83	Exit Window 5; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
84	Exit Window 5; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
85	Entry Window 6; X-coord. (1st Byte)	5.4.2	Window 6
86	Entry Window 6; X-coord. (2nd Byte)	5.4.2	Entry
87	Entry Window 6; X-coord. (3rd Byte)	5.4.2	X-coordinate
88	Entry Window 6; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
89	Entry Window 6; Y-coord. (1st Byte)	5.4.2	Window 6
90	Entry Window 6; Y-coord. (2nd Byte)	5.4.2	Entry
91	Entry Window 6; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
92	Entry Window 6; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
93	Exit Window 6; X-coord. (1st Byte)	5.4.2	Window 6
94	Exit Window 6; X-coord. (2nd Byte)	5.4.2	Exit
95	Exit Window 6; X-coord. (3rd Byte)	5.4.2	X-coordinate
96	Exit Window 6; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
97	Exit Window 6; Y-coord. (1st Byte)	5.4.2	Window 6
98	Exit Window 6; Y-coord. (2nd Byte)	5.4.2	Exit
99	Exit Window 6; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
100	Exit Window 6; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
101	Entry Window 7; X-coord. (1st Byte)	5.4.2	Window 7
102	Entry Window 7; X-coord. (2nd Byte)	5.4.2	Entry
103	Entry Window 7; X-coord. (3rd Byte)	5.4.2	X-coordinate
104	Entry Window 7; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
105	Entry Window 7; Y-coord. (1st Byte)	5.4.2	Window 7
106	Entry Window 7; Y-coord. (2nd Byte)	5.4.2	Entry
107	Entry Window 7; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
108	Entry Window 7; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
109	Exit Window 7; X-coord. (1st Byte)	5.4.2	Window 7
110	Exit Window 7; X-coord. (2nd Byte)	5.4.2	Exit
111	Exit Window 7; X-coord. (3rd Byte)	5.4.2	X-coordinate
112	Exit Window 7; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
113	Exit Window 7; Y-coord. (1st Byte)	5.4.2	Window 7
114	Exit Window 7; Y-coord. (2nd Byte)	5.4.2	Exit
115	Exit Window 7; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
116	Exit Window 7; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
117	Entry Window 8; X-coord. (1st Byte)	5.4.2	Window 8
118	Entry Window 8; X-coord. (2nd Byte)	5.4.2	Entry
119	Entry Window 8; X-coord. (3rd Byte)	5.4.2	X-coordinate
120	Entry Window 8; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
121	Entry Window 8; Y-coord. (1st Byte)	5.4.2	Window 8
122	Entry Window 8; Y-coord. (2nd Byte)	5.4.2	Entry
123	Entry Window 8; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
124	Entry Window 8; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)

125	Exit Window 8; X-coord. (1st Byte)	5.4.2	Window 8
126	Exit Window 8; X-coord. (2nd Byte)	5.4.2	Exit
127	Exit Window 8; X-coord. (3rd Byte)	5.4.2	X-coordinate
128	Exit Window 8; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
129	Exit Window 8; Y-coord. (1st Byte)	5.4.2	Window 8
130	Exit Window 8; Y-coord. (2nd Byte)	5.4.2	Exit
131	Exit Window 8; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
132	Exit Window 8; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
133	Entry Window 9; X-coord. (1st Byte)	5.4.2	Window 9
134	Entry Window 9; X-coord. (2nd Byte)	5.4.2	Entry
135	Entry Window 9; X-coord. (3rd Byte)	5.4.2	X-coordinate
136	Entry Window 9; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
137	Entry Window 9; Y-coord. (1st Byte)	5.4.2	Window 9
138	Entry Window 9; Y-coord. (2nd Byte)	5.4.2	Entry
139	Entry Window 9; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
140	Entry Window 9; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
141	Exit Window 9; X-coord. (1st Byte)	5.4.2	Window 9
142	Exit Window 9; X-coord. (2nd Byte)	5.4.2	Exit
143	Exit Window 9; X-coord. (3rd Byte)	5.4.2	X-coordinate
144	Exit Window 9; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
145	Exit Window 9; Y-coord. (1st Byte)	5.4.2	Window 9
146	Exit Window 9; Y-coord. (2nd Byte)	5.4.2	Exit
147	Exit Window 9; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
148	Exit Window 9; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
149	Entry Window 10; X-coord. (1st Byte)	5.4.2	Window 10
150	Entry Window 10; X-coord.(2nd Byte)	5.4.2	Entry
151	Entry Window 10; X-coord. (3rd Byte)	5.4.2	X-coordinate
152	Entry Window 10; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
153	Entry Window 10; Y-coord. (1st Byte)	5.4.2	Window 10
154	Entry Window 10; Y-coord.(2nd Byte)	5.4.2	Entry
155	Entry Window 10; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
156	Entry Window 10; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)
157	Exit Window 10; X-coord. (1st Byte)	5.4.2	Window 10
158	Exit Window 10; X-coord. (2nd Byte)	5.4.2	Exit
159	Exit Window 10; X-coord. (3rd Byte)	5.4.2	X-coordinate
160	Exit Window 10; X-coord. (4th Byte)	5.4.2	(32-Bit-float)
161	Exit Window 10; Y-coord. (1st Byte)	5.4.2	Window 10
162	Exit Window 10; Y-coord. (2nd Byte)	5.4.2	Exit
163	Exit Window 10; Y-coord. (3rd Byte)	5.4.2	Y-coordinate
164	Exit Window 10; Y-coord. (4th Byte)	5.4.2	(32-Bit-float)

5.5.4 Mode 4 (PLC-Out, Window 1-10 Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Max. Window 1; X-coord. (1st Byte)	5.4.3	Window 1
6	Max. Window 1; X-coord. (2nd Byte)	5.4.3	Local Maximum in Window
7	Max. Window 1; X-coord. (3rd Byte)	5.4.3	X-coordinate
8	Max. Window 1; X-coord. (4th Byte)	5.4.3	(32-Bit-float)
9	Max. Window 1; Y-coord. (1st Byte)	5.4.3	Window 1
10	Max. Window 1; Y-coord. (2nd Byte)	5.4.3	Local Maximum in Window
11	Max. Window 1; Y-coord. (3rd Byte)	5.4.3	Y-coordinate
12	Max. Window 1; Y-coord. (4th Byte)	5.4.3	(32-Bit-float)
13	Min. Window 1; X-coord. (1st Byte)	5.4.3	Window 1
14	Min. Window 1; X-coord. (2nd Byte)	5.4.3	Local Minimum in Window
15	Min. Window 1; X-coord. (3rd Byte)	5.4.3	X-Coordinate
16	Min. Window 1; X-coord. (4th Byte)	5.4.3	(32-Bit-float)
17	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
18	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
19	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
20	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
21	Max. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
22	Max. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
23	Max. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
24	Max. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
25	Max. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
26	Max. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
27	Max. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
28	Max. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
29	Min. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
30	Min. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
31	Min. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
32	Min. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
33	Min. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
34	Min. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
35	Min. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
36	Min. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

37	Max. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
38	Max. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
39	Max. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
40	Max. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
41	Max. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
42	Max. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
43	Max. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
44	Max. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
45	Min. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
46	Min. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
47	Min. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
48	Min. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
49	Min. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
50	Min. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
51	Min. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
52	Min. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
53	Max. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
54	Max. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
55	Max. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
56	Max. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
57	Max. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
58	Max. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
59	Max. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
60	Max. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
61	Min. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
62	Min. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
63	Min. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
64	Min. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
65	Min. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
66	Min. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
67	Min. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
68	Min. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
69	Max. Window 5; X-Coord. (1st Byte)	5.4.3	Window 5
70	Max. Window 5; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
71	Max. Window 5; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
72	Max. Window 5; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
73	Max. Window 5; Y-Coord. (1st Byte)	5.4.3	Window 5
74	Max. Window 5; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
75	Max. Window 5; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
76	Max. Window 5; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
77	Min. Window 5; X-Coord. (1st Byte)	5.4.3	Window 5
78	Min. Window 5; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
79	Min. Window 5; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
80	Min. Window 5; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)

81	Min. Window 5; Y-Coord. (1st Byte)	5.4.3	Window 5
82	Min. Window 5; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
83	Min. Window 5; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
84	Min. Window 5; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
85	Max. Window 6; X-Coord. (1st Byte)	5.4.3	Window 6
86	Max. Window 6; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
87	Max. Window 6; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
88	Max. Window 6; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
89	Max. Window 6; Y-Coord. (1st Byte)	5.4.3	Window 6
90	Max. Window 6; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
91	Max. Window 6; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
92	Max. Window 6; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
93	Min. Window 6; X-Coord. (1st Byte)	5.4.3	Window 6
94	Min. Window 6; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
95	Min. Window 6; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
96	Min. Window 6; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
97	Min. Window 6; Y-Coord. (1st Byte)	5.4.3	Window 6
98	Min. Window 6; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
99	Min. Window 6; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
100	Min. Window 6; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
101	Max. Window 7; X-Coord. (1st Byte)	5.4.3	Window 7
102	Max. Window 7; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
103	Max. Window 7; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
104	Max. Window 7; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
105	Max. Window 7; Y-Coord. (1st Byte)	5.4.3	Window 7
106	Max. Window 7; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
107	Max. Window 7; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
108	Max. Window 7; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
109	Min. Window 7; X-Coord. (1st Byte)	5.4.3	Window 7
110	Min. Window 7; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
111	Min. Window 7; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
112	Min. Window 7; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
113	Min. Window 7; Y-Coord. (1st Byte)	5.4.3	Window 7
114	Min. Window 7; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
115	Min. Window 7; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
116	Min. Window 7; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
117	Max. Window 8; X-Coord. (1st Byte)	5.4.3	Window 8
118	Max. Window 8; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
119	Max. Window 8; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
120	Max. Window 8; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
121	Max. Window 8; Y-Coord. (1st Byte)	5.4.3	Window 8
122	Max. Window 8; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
123	Max. Window 8; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
124	Max. Window 8; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

125	Min. Window 8; X-Coord. (1st Byte)	5.4.3	Window 8
126	Min. Window 8; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
127	Min. Window 8; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
128	Min. Window 8; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
129	Min. Window 8; Y-Coord. (1st Byte)	5.4.3	Window 8
130	Min. Window 8; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
131	Min. Window 8; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
132	Min. Window 8; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
133	Max. Window 9; X-Coord. (1st Byte)	5.4.3	Window 9
134	Max. Window 9; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
135	Max. Window 9; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
136	Max. Window 9; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
137	Max. Window 9; Y-Coord. (1st Byte)	5.4.3	Window 9
138	Max. Window 9; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
139	Max. Window 9; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
140	Max. Window 9; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
141	Min. Window 9; X-Coord. (1st Byte)	5.4.3	Window 9
142	Min. Window 9; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
143	Min. Window 9; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
144	Min. Window 9; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
145	Min. Window 9; Y-Coord. (1st Byte)	5.4.3	Window 9
146	Min. Window 9; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
147	Min. Window 9; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
148	Min. Window 9; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
149	Max. Window10; X-Coord. (1st Byte)	5.4.3	Window 10
150	Max. Window10; X-Coord.(2nd Byte)	5.4.3	Local Maximum in Window
151	Max. Window10; X-Coord.(3rd Byte)	5.4.3	X-Coordinate
152	Max. Window10; X-Coord.(4th Byte)	5.4.3	(32-Bit-float)
153	Max. Window10; Y-Coord.(1st Byte)	5.4.3	Window 10
154	Max. Window10; Y-Coord.(2nd Byte)	5.4.3	Local Maximum in Window
155	Max. Window10; Y-Coord.(3rd Byte)	5.4.3	Y-Coordinate
156	Max. Window10; Y-Coord.(4th Byte)	5.4.3	(32-Bit-float)
157	Min. Window 10;X-Coord. (1st Byte)	5.4.3	Window 10
158	Min. Window 10;X-Coord.(2nd Byte)	5.4.3	Local Minimum in Window
159	Min. Window 10;X-Coord. (3rd Byte)	5.4.3	X-Coordinate
160	Min. Window 10;X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
161	Min. Window 10;Y-Coord. (1st Byte)	5.4.3	Window 10
162	Min. Window 10;Y-Coord.(2nd Byte)	5.4.3	Local Minimum in Window
163	Min. Window 10;Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
164	Min. Window 10;Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.5 Mode 5 (PLC-Out, Window 1 ENTRY/EXIT + Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
6	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
7	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
8	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
9	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
10	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
11	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
12	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
13	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
14	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
15	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
16	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
17	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
18	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
19	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
20	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
21	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
22	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
23	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
24	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
25	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
26	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
27	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
28	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
29	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
30	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
31	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
32	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
33	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
34	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
35	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
36	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.6 Mode 6 (PLC-Out, Window 1-2 ENTRY/EXIT + Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
6	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
7	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
8	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
9	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
10	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
11	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
12	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
13	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
14	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
15	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
16	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
17	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
18	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
19	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
20	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
21	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
22	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
23	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
24	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
25	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
26	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
27	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
28	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
29	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
30	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
31	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
32	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
33	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
34	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
35	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
36	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

37	Entry Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
38	Entry Window 2; X-Coord.(2nd Byte)	5.4.2	Entry
39	Entry Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
40	Entry Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
41	Entry Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
42	Entry Window 2; Y-Coord.(2nd Byte)	5.4.2	Entry
43	Entry Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
44	Entry Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
45	Exit Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
46	Exit Window 2; X-Coord. (2nd Byte)	5.4.2	Exit
47	Exit Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
48	Exit Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
49	Exit Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
50	Exit Window 2; Y-Coord. (2nd Byte)	5.4.2	Exit
51	Exit Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
52	Exit Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
53	Max. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
54	Max. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
55	Max. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
56	Max. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
57	Max. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
58	Max. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
59	Max. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
60	Max. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
61	Min. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
62	Min. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
63	Min. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
64	Min. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
65	Min. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
66	Min. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
67	Min. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
68	Min. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.7 Mode 7 (PLC-Out, Window 1-3 ENTRY/EXIT + Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
6	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
7	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
8	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
9	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
10	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
11	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
12	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
13	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
14	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
15	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
16	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
17	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
18	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
19	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
20	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
21	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
22	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
23	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
24	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
25	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
26	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
27	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
28	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
29	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
30	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
31	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
32	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
33	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
34	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
35	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
36	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

37	Entry Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
38	Entry Window 2; X-Coord.(2nd Byte)	5.4.2	Entry
39	Entry Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
40	Entry Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
41	Entry Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
42	Entry Window 2; Y-Coord.(2nd Byte)	5.4.2	Entry
43	Entry Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
44	Entry Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
45	Exit Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
46	Exit Window 2; X-Coord. (2nd Byte)	5.4.2	Exit
47	Exit Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
48	Exit Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
49	Exit Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
50	Exit Window 2; Y-Coord. (2nd Byte)	5.4.2	Exit
51	Exit Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
52	Exit Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
53	Max. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
54	Max. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
55	Max. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
56	Max. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
57	Max. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
58	Max. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
59	Max. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
60	Max. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
61	Min. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
62	Min. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
63	Min. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
64	Min. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
65	Min. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
66	Min. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
67	Min. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
68	Min. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
69	Entry Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
70	Entry Window 3; X-Coord.(2nd Byte)	5.4.2	Entry
71	Entry Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
72	Entry Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
73	Entry Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
74	Entry Window 3; Y-Coord.(2nd Byte)	5.4.2	Entry
75	Entry Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
76	Entry Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
77	Exit Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
78	Exit Window 3; X-Coord. (2nd Byte)	5.4.2	Exit
79	Exit Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
80	Exit Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)

81	Exit Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
82	Exit Window 3; Y-Coord. (2nd Byte)	5.4.2	Exit
83	Exit Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
84	Exit Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
85	Max. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
86	Max. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
87	Max. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
88	Max. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
89	Max. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
90	Max. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
91	Max. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
92	Max. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
93	Min. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
94	Min. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
95	Min. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
96	Min. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
97	Min. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
98	Min. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
99	Min. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
100	Min. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.8 Mode 8 (PLC-Out, Window 1-4 ENTRY/EXIT + Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	**5.1.1**	
1	PLC-Inputs (2nd Byte)	**5.1.2**	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
6	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
7	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
8	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
9	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
10	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
11	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
12	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)

13	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
14	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
15	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
16	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
17	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
18	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
19	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
20	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
21	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
22	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
23	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
24	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
25	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
26	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
27	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
28	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
29	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
30	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
31	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
32	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
33	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
34	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
35	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
36	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
37	Entry Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
38	Entry Window 2; X-Coord.(2nd Byte)	5.4.2	Entry
39	Entry Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
40	Entry Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
41	Entry Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
42	Entry Window 2; Y-Coord.(2nd Byte)	5.4.2	Entry
43	Entry Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
44	Entry Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
45	Exit Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
46	Exit Window 2; X-Coord. (2nd Byte)	5.4.2	Exit
47	Exit Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
48	Exit Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
49	Exit Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
50	Exit Window 2; Y-Coord. (2nd Byte)	5.4.2	Exit
51	Exit Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
52	Exit Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
53	Max. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
54	Max. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
55	Max. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
56	Max. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)

57	Max. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
58	Max. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
59	Max. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
60	Max. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
61	Min. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
62	Min. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
63	Min. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
64	Min. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
65	Min. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
66	Min. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
67	Min. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
68	Min. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
69	Entry Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
70	Entry Window 3; X-Coord.(2nd Byte)	5.4.2	Entry
71	Entry Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
72	Entry Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
73	Entry Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
74	Entry Window 3; Y-Coord.(2nd Byte)	5.4.2	Entry
75	Entry Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
76	Entry Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
77	Exit Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
78	Exit Window 3; X-Coord. (2nd Byte)	5.4.2	Exit
79	Exit Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
80	Exit Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
81	Exit Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
82	Exit Window 3; Y-Coord. (2nd Byte)	5.4.2	Exit
83	Exit Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
84	Exit Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
85	Max. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
86	Max. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
87	Max. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
88	Max. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
89	Max. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
90	Max. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
91	Max. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
92	Max. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
93	Min. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
94	Min. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
95	Min. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
96	Min. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)

97	Min. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
98	Min. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
99	Min. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
100	Min. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
101	Entry Window 4; X-Coord. (1st Byte)	5.4.2	Window 4
102	Entry Window 4; X-Coord.(2nd Byte)	5.4.2	Entry
103	Entry Window 4; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
104	Entry Window 4; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
105	Entry Window 4; Y-Coord. (1st Byte)	5.4.2	Window 4
106	Entry Window 4; Y-Coord.(2nd Byte)	5.4.2	Entry
107	Entry Window 4; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
108	Entry Window 4; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
109	Exit Window 4; X-Coord. (1st Byte)	5.4.2	Window 4
110	Exit Window 4; X-Coord. (2nd Byte)	5.4.2	Exit
111	Exit Window 4; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
112	Exit Window 4; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
113	Exit Window 4; Y-Coord. (1st Byte)	5.4.2	Window 4
114	Exit Window 4; Y-Coord. (2nd Byte)	5.4.2	Exit
115	Exit Window 4; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
116	Exit Window 4; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
117	Max. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
118	Max. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
119	Max. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
120	Max. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
121	Max. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
122	Max. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
123	Max. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
124	Max. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
125	Min. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
126	Min. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
127	Min. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
128	Min. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
129	Min. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
130	Min. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
131	Min. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
132	Min. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.9 Mode 9 (PLC-Out, Window 1-5 ENTRY/EXIT + Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
6	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
7	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
8	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
9	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
10	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
11	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
12	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
13	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
14	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
15	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
16	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
17	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
18	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
19	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
20	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
21	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
22	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
23	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
24	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
25	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
26	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
27	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
28	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
29	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
30	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
31	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
32	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
33	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
34	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
35	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
36	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

37	Entry Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
38	Entry Window 2; X-Coord.(2nd Byte)	5.4.2	Entry
39	Entry Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
40	Entry Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
41	Entry Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
42	Entry Window 2; Y-Coord.(2nd Byte)	5.4.2	Entry
43	Entry Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
44	Entry Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
45	Exit Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
46	Exit Window 2; X-Coord. (2nd Byte)	5.4.2	Exit
47	Exit Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
48	Exit Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
49	Exit Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
50	Exit Window 2; Y-Coord. (2nd Byte)	5.4.2	Exit
51	Exit Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
52	Exit Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
53	Max. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
54	Max. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
55	Max. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
56	Max. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
57	Max. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
58	Max. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
59	Max. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
60	Max. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
61	Min. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
62	Min. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
63	Min. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
64	Min. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
65	Min. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
66	Min. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
67	Min. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
68	Min. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
69	Entry Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
70	Entry Window 3; X-Coord.(2nd Byte)	5.4.2	Entry
71	Entry Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
72	Entry Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
73	Entry Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
74	Entry Window 3; Y-Coord.(2nd Byte)	5.4.2	Entry
75	Entry Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
76	Entry Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
77	Exit Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
78	Exit Window 3; X-Coord. (2nd Byte)	5.4.2	Exit
79	Exit Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
80	Exit Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)

81	Exit Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
82	Exit Window 3; Y-Coord. (2nd Byte)	5.4.2	Exit
83	Exit Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
84	Exit Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
85	Max. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
86	Max. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
87	Max. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
88	Max. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
89	Max. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
90	Max. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
91	Max. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
92	Max. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
93	Min. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
94	Min. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
95	Min. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
96	Min. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
97	Min. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
98	Min. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
99	Min. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
100	Min. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
101	Entry Window 4; X-Coord. (1st Byte)	5.4.2	Window 4
102	Entry Window 4; X-Coord.(2nd Byte)	5.4.2	Entry
103	Entry Window 4; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
104	Entry Window 4; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
105	Entry Window 4; Y-Coord. (1st Byte)	5.4.2	Window 4
106	Entry Window 4; Y-Coord.(2nd Byte)	5.4.2	Entry
107	Entry Window 4; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
108	Entry Window 4; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
109	Exit Window 4; X-Coord. (1st Byte)	5.4.2	Window 4
110	Exit Window 4; X-Coord. (2nd Byte)	5.4.2	Exit
111	Exit Window 4; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
112	Exit Window 4; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
113	Exit Window 4; Y-Coord. (1st Byte)	5.4.2	Window 4
114	Exit Window 4; Y-Coord. (2nd Byte)	5.4.2	Exit
115	Exit Window 4; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
116	Exit Window 4; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
117	Max. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
118	Max. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
119	Max. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
120	Max. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)

121	Max. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
122	Max. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
123	Max. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
124	Max. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
125	Min. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
126	Min. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
127	Min. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
128	Min. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
129	Min. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
130	Min. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
131	Min. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
132	Min. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
133	Entry Window 5; X-Coord. (1st Byte)	5.4.2	Window 5
134	Entry Window 5; X-Coord.(2nd Byte)	5.4.2	Entry
135	Entry Window 5; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
136	Entry Window 5; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
137	Entry Window 5; Y-Coord. (1st Byte)	5.4.2	Window 5
138	Entry Window 5; Y-Coord.(2nd Byte)	5.4.2	Entry
139	Entry Window 5; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
140	Entry Window 5; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
141	Exit Window 5; X-Coord. (1st Byte)	5.4.2	Window 5
142	Exit Window 5; X-Coord. (2nd Byte)	5.4.2	Exit
143	Exit Window 5; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
144	Exit Window 5; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
145	Exit Window 5; Y-Coord. (1st Byte)	5.4.2	Window 5
146	Exit Window 5; Y-Coord. (2nd Byte)	5.4.2	Exit
147	Exit Window 5; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
148	Exit Window 5; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
149	Max. Window 5; X-Coord. (1st Byte)	5.4.3	Window 5
150	Max. Window 5; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
151	Max. Window 5; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
152	Max. Window 5; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
153	Max. Window 5; Y-Coord. (1st Byte)	5.4.3	Window 5
154	Max. Window 5; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
155	Max. Window 5; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
156	Max. Window 5; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
157	Min. Window 5; X-Coord. (1st Byte)	5.4.3	Window 5
158	Min. Window 5; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
159	Min. Window 5; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
160	Min. Window 5; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
161	Min. Window 5; Y-Coord. (1st Byte)	5.4.3	Window 5
162	Min. Window 5; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
163	Min. Window 5; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
164	Min. Window 5; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.10 Mode 10 (PLC-Out, , General curve data, Window 1-10 E/A)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	**5.1.1**	
1	PLC-Inputs (2nd Byte)	**5.1.2**	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Unit X-Axis Byte 1	5.4.1	General curve data:
6	Unit X-Axis Byte 2	5.4.1	Unit X
7	Unit X-Axis Byte 3	5.4.1	
8	Unit X-Axis Byte 4	5.4.1	
9	Unit X-Axis Byte 5	5.4.1	
10	Unit X-Axis Byte 6	5.4.1	
11	Unit Y-Axis Byte 1	5.4.1	General curve data:
12	Unit Y-Axis Byte 2	5.4.1	Unit Y
13	Unit Y-Axis Byte 3	5.4.1	
14	Unit Y-Axis Byte 4	5.4.1	
15	Unit Y-Axis Byte 5	5.4.1	
16	Unit Y-Axis Byte 6	5.4.1	
17	Last Point; X-Coord. (1.Byte)	5.4.1	General curve data:
18	Last Point; X-Coord. (2.Byte)	5.4.1	Last curve value
19	Last Point; X-Coord. (3.Byte)	5.4.1	X-Coordinate
20	Last Point; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
21	Last Point; Y-Coord. (1.Byte)	5.4.1	General curve data:
22	Last Point; Y-Coord. (2.Byte)	5.4.1	Last curve value
23	Last Point; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
24	Last Point; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
25	Max.Displacement; X-Coord.(1.Byte)	5.4.1	General curve data:
26	Max.Displacement; X-Coord.(2.Byte)	5.4.1	Max. Displacement
27	Max.Displacement; X-Coord. 3.Byte)	5.4.1	X-Coordinate
28	Max.Displacement; X-Coord. 4.Byte)	5.4.1	(32-Bit-float)
29	Max.Displacement; Y-Coord. 1.Byte)	5.4.1	General curve data:
30	Max.Displacement; Y-Coord.(2.Byte)	5.4.1	Max. Displacement
31	Max.Displacement; Y-Coord.(3.Byte)	5.4.1	Y-Coordinate
32	Max.Displacement; Y-Coord. 4.Byte)	5.4.1	(32-Bit-float)
33	AbsMax.Y; X-Coord. (1.Byte)	5.4.1	General curve data:
34	AbsMax.Y; X-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
35	AbsMax.Y; X-Coord. (3.Byte)	5.4.1	X-Coordinate
36	AbsMax.Y; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)

37	AbsMax.Y; Y-Coord. (1.Byte)	5.4.1	General curve data:
38	AbsMax.Y; Y-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
39	AbsMax.Y; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
40	AbsMax.Y; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
41	AbsMinY; X-Coord. (1.Byte)	5.4.1	General curve data:
42	AbsMinY; X-Coord. (2.Byte)	5.4.1	Min Y of complete curve
43	AbsMinY; X-Coord. (3.Byte)	5.4.1	X-Coordinate
44	AbsMinY; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
45	AbsMinY; Y-Coord. (1.Byte)	5.4.1	General curve data:
46	AbsMinY; Y-Coord. (2.Byte)	5.4.1	Min Y of complete curve
47	AbsMinY; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
48	AbsMinY; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
49	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
50	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
51	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
52	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
53	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
54	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
55	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
56	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
57	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
58	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
59	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
60	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
61	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
62	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
63	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
64	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
65	Entry Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
66	Entry Window 2; X-Coord.(2nd Byte)	5.4.2	Entry
67	Entry Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
68	Entry Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
69	Entry Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
70	Entry Window 2; Y-Coord.(2nd Byte)	5.4.2	Entry
71	Entry Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
72	Entry Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
73	Exit Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
74	Exit Window 2; X-Coord. (2nd Byte)	5.4.2	Exit
75	Exit Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
76	Exit Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
77	Exit Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
78	Exit Window 2; Y-Coord. (2nd Byte)	5.4.2	Exit
79	Exit Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
80	Exit Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)

81	Entry Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
82	Entry Window 3; X-Coord.(2nd Byte)	5.4.2	Entry
83	Entry Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
84	Entry Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
85	Entry Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
86	Entry Window 3; Y-Coord.(2nd Byte)	5.4.2	Entry
87	Entry Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
88	Entry Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
89	Exit Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
90	Exit Window 3; X-Coord. (2nd Byte)	5.4.2	Exit
91	Exit Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
92	Exit Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
93	Exit Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
94	Exit Window 3; Y-Coord. (2nd Byte)	5.4.2	Exit
95	Exit Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
96	Exit Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
97	Entry Window 4; X-Coord. (1st Byte)	5.4.2	Window 4
98	Entry Window 4; X-Coord.(2nd Byte)	5.4.2	Entry
99	Entry Window 4; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
100	Entry Window 4; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
101	Entry Window 4; Y-Coord. (1st Byte)	5.4.2	Window 4
102	Entry Window 4; Y-Coord.(2nd Byte)	5.4.2	Entry
103	Entry Window 4; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
104	Entry Window 4; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
105	Exit Window 4; X-Coord. (1st Byte)	5.4.2	Window 4
106	Exit Window 4; X-Coord. (2nd Byte)	5.4.2	Exit
107	Exit Window 4; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
108	Exit Window 4; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
109	Exit Window 4; Y-Coord. (1st Byte)	5.4.2	Window 4
110	Exit Window 4; Y-Coord. (2nd Byte)	5.4.2	Exit
111	Exit Window 4; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
112	Exit Window 4; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
113	Entry Window 5; X-Coord. (1st Byte)	5.4.2	Window 5
114	Entry Window 5; X-Coord.(2nd Byte)	5.4.2	Entry
115	Entry Window 5; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
116	Entry Window 5; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
117	Entry Window 5; Y-Coord. (1st Byte)	5.4.2	Window 5
118	Entry Window 5; Y-Coord.(2nd Byte)	5.4.2	Entry
119	Entry Window 5; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
120	Entry Window 5; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)

121	Exit Window 5; X-Coord. (1st Byte)	5.4.2	Window 5
122	Exit Window 5; X-Coord. (2nd Byte)	5.4.2	Exit
123	Exit Window 5; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
124	Exit Window 5; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
125	Exit Window 5; Y-Coord. (1st Byte)	5.4.2	Window 5
126	Exit Window 5; Y-Coord. (2nd Byte)	5.4.2	Exit
127	Exit Window 5; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
128	Exit Window 5; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
129	Entry Window 6; X-Coord. (1st Byte)	5.4.2	Window 6
130	Entry Window 6; X-Coord.(2nd Byte)	5.4.2	Entry
131	Entry Window 6; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
132	Entry Window 6; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
133	Entry Window 6; Y-Coord. (1st Byte)	5.4.2	Window 6
134	Entry Window 6; Y-Coord.(2nd Byte)	5.4.2	Entry
135	Entry Window 6; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
136	Entry Window 6; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
137	Exit Window 6; X-Coord. (1st Byte)	5.4.2	Window 6
138	Exit Window 6; X-Coord. (2nd Byte)	5.4.2	Exit
139	Exit Window 6; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
140	Exit Window 6; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
141	Exit Window 6; Y-Coord. (1st Byte)	5.4.2	Window 6
142	Exit Window 6; Y-Coord. (2nd Byte)	5.4.2	Exit
143	Exit Window 6; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
144	Exit Window 6; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
145	Entry Window 7; X-Coord. (1st Byte)	5.4.2	Window 7
146	Entry Window 7; X-Coord.(2nd Byte)	5.4.2	Entry
147	Entry Window 7; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
148	Entry Window 7; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
149	Entry Window 7; Y-Coord. (1st Byte)	5.4.2	Window 7
150	Entry Window 7; Y-Coord.(2nd Byte)	5.4.2	Entry
151	Entry Window 7; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
152	Entry Window 7; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
153	Exit Window 7; X-Coord. (1st Byte)	5.4.2	Window 7
154	Exit Window 7; X-Coord. (2nd Byte)	5.4.2	Exit
155	Exit Window 7; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
156	Exit Window 7; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
157	Exit Window 7; Y-Coord. (1st Byte)	5.4.2	Window 7
158	Exit Window 7; Y-Coord. (2nd Byte)	5.4.2	Exit
159	Exit Window 7; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
160	Exit Window 7; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
161	Entry Window 8; X-Coord. (1st Byte)	5.4.2	Window 8
162	Entry Window 8; X-Coord.(2nd Byte)	5.4.2	Entry
163	Entry Window 8; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
164	Entry Window 8; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)

165	Entry Window 8; Y-Coord. (1st Byte)	5.4.2	Window 8
166	Entry Window 8; Y-Coord.(2nd Byte)	5.4.2	Entry
167	Entry Window 8; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
168	Entry Window 8; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
169	Exit Window 8; X-Coord. (1st Byte)	5.4.2	Window 8
170	Exit Window 8; X-Coord. (2nd Byte)	5.4.2	Exit
171	Exit Window 8; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
172	Exit Window 8; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
173	Exit Window 8; Y-Coord. (1st Byte)	5.4.2	Window 8
174	Exit Window 8; Y-Coord. (2nd Byte)	5.4.2	Exit
175	Exit Window 8; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
176	Exit Window 8; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
177	Entry Window 9; X-Coord. (1st Byte)	5.4.2	Window 9
178	Entry Window 9; X-Coord.(2nd Byte)	5.4.2	Entry
179	Entry Window 9; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
180	Entry Window 9; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
181	Entry Window 9; Y-Coord. (1st Byte)	5.4.2	Window 9
182	Entry Window 9; Y-Coord.(2nd Byte)	5.4.2	Entry
183	Entry Window 9; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
184	Entry Window 9; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
185	Exit Window 9; X-Coord. (1st Byte)	5.4.2	Window 9
186	Exit Window 9; X-Coord. (2nd Byte)	5.4.2	Exit
187	Exit Window 9; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
188	Exit Window 9; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
189	Exit Window 9; Y-Coord. (1st Byte)	5.4.2	Window 9
190	Exit Window 9; Y-Coord. (2nd Byte)	5.4.2	Exit
191	Exit Window 9; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
192	Exit Window 9; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
193	Entry Window 10;X-Coord.(1st Byte)	5.4.2	Window 10
194	Entry Window10;X-Coord.(2nd Byte)	5.4.2	Entry
195	Entry Window 10;X-Coord.(3rd Byte)	5.4.2	X-Coordinate
196	Entry Window 10;X-Coord.(4th Byte)	5.4.2	(32-Bit-float)
197	Entry Window 10;Y-Coord.(1st Byte)	5.4.2	Window 10
198	Entry Window10;Y-Coord.(2nd Byte)	5.4.2	Entry
199	Entry Window 10;Y-Coord.(3rd Byte)	5.4.2	Y-Coordinate
200	Entry Window 10;Y-Coord.(4th Byte)	5.4.2	(32-Bit-float)
201	Exit Window 10;X-Coord. (1st Byte)	5.4.2	Window 10
202	Exit Window 10;X-Coord. (2nd Byte)	5.4.2	Exit
203	Exit Window 10;X-Coord. (3rd Byte)	5.4.2	X-Coordinate
204	Exit Window 10;X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
205	Exit Window 10;Y-Coord. (1st Byte)	5.4.2	Window 10
206	Exit Window 10;Y-Coord. (2nd Byte)	5.4.2	Exit
207	Exit Window 10;Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
208	Exit Window 10;Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)

5.5.11 Mode 11 (PLC-Out, General curve data, Window 1-10 Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Unit X-Axis Byte 1	5.4.1	General curve data:
6	Unit X-Axis Byte 2	5.4.1	Unit X
7	Unit X-Axis Byte 3	5.4.1	
8	Unit X-Axis Byte 4	5.4.1	
9	Unit X-Axis Byte 5	5.4.1	
10	Unit X-Axis Byte 6	5.4.1	
11	Unit Y-Axis Byte 1	5.4.1	General curve data:
12	Unit Y-Axis Byte 2	5.4.1	Unit Y
13	Unit Y-Axis Byte 3	5.4.1	
14	Unit Y-Axis Byte 4	5.4.1	
15	Unit Y-Axis Byte 5	5.4.1	
16	Unit Y-Axis Byte 6	5.4.1	
17	Last Point; X-Coord. (1.Byte)	5.4.1	General curve data:
18	Last Point; X-Coord. (2.Byte)	5.4.1	Last curve value
19	Last Point; X-Coord. (3.Byte)	5.4.1	X-Coordinate
20	Last Point; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
21	Last Point; Y-Coord. (1.Byte)	5.4.1	General curve data:
22	Last Point; Y-Coord. (2.Byte)	5.4.1	Last curve value
23	Last Point; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
24	Last Point; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
25	Max. Displacement;X-Coord.(1.Byte)	5.4.1	General curve data:
26	Max. Displacement;X-Coord.(2.Byte)	5.4.1	Max. Displacement
27	Max. Displacement;X-Coord.(3.Byte)	5.4.1	X-Coordinate
28	Max. Displacement;X-Coord.(4.Byte)	5.4.1	(32-Bit-float)
29	Max. Displacement;Y-Coord.(1.Byte)	5.4.1	General curve data:
30	Max. Displacement;Y-Coord.(2.Byte)	5.4.1	Max. Displacement
31	Max. Displacement;Y-Coord.(3.Byte)	5.4.1	Y-Coordinate
32	Max. Displacement;Y-Coord.(4.Byte)	5.4.1	(32-Bit-float)
33	AbsMax.Y; X-Coord. (1.Byte)	5.4.1	General curve data:
34	AbsMax.Y; X-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
35	AbsMax.Y; X-Coord. (3.Byte)	5.4.1	X-Coordinate
36	AbsMax.Y; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)

37	AbsMax.Y; Y-Coord. (1.Byte)	5.4.1	General curve data:
38	AbsMax.Y; Y-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
39	AbsMax.Y; Y-Coord. (3.Byte)	5.4.1	Y-coordinate
40	AbsMax.Y; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
41	AbsMinY; X-Coord. (1.Byte)	5.4.1	General curve data:
42	AbsMinY; X-Coord. (2.Byte)	5.4.1	Min Y of complete curve
43	AbsMinY; X-Coord. (3.Byte)	5.4.1	X-Coordinate
44	AbsMinY; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
45	AbsMinY; Y-Coord. (1.Byte)	5.4.1	General curve data:
46	AbsMinY; Y-Coord. (2.Byte)	5.4.1	Min Y of complete curve
47	AbsMinY; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
48	AbsMinY; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
49	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
50	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
51	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
52	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
53	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
54	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
55	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
56	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
57	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
58	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
59	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
60	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
61	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
62	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
63	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
64	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
65	Max. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
66	Max. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
67	Max. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
68	Max. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
69	Max. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
70	Max. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
71	Max. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
72	Max. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
73	Min. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
74	Min. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
75	Min. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
76	Min. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)

77	Min. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
78	Min. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
79	Min. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
80	Min. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
81	Max. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
82	Max. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
83	Max. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
84	Max. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
85	Max. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
86	Max. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
87	Max. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
88	Max. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
89	Min. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
90	Min. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
91	Min. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
92	Min. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
93	Min. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
94	Min. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
95	Min. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
96	Min. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
97	Max. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
98	Max. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
99	Max. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
100	Max. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
101	Max. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
102	Max. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
103	Max. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
104	Max. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
105	Min. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
106	Min. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
107	Min. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
108	Min. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
109	Min. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
110	Min. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
111	Min. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
112	Min. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
113	Max. Window 5; X-Coord. (1st Byte)	5.4.3	Window 5
114	Max. Window 5; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
115	Max. Window 5; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
116	Max. Window 5; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
117	Max. Window 5; Y-Coord. (1st Byte)	5.4.3	Window 5
118	Max. Window 5; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
119	Max. Window 5; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
120	Max. Window 5; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

121	Min. Window 5; X-Coord. (1st Byte)	5.4.3	Window 5
122	Min. Window 5; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
123	Min. Window 5; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
124	Min. Window 5; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
125	Min. Window 5; Y-Coord. (1st Byte)	5.4.3	Window 5
126	Min. Window 5; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
127	Min. Window 5; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
128	Min. Window 5; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
129	Max. Window 6; X-Coord. (1st Byte)	5.4.3	Window 6
130	Max. Window 6; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
131	Max. Window 6; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
132	Max. Window 6; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
133	Max. Window 6; Y-Coord. (1st Byte)	5.4.3	Window 6
134	Max. Window 6; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
135	Max. Window 6; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
136	Max. Window 6; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
137	Min. Window 6; X-Coord. (1st Byte)	5.4.3	Window 6
138	Min. Window 6; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
139	Min. Window 6; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
140	Min. Window 6; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
141	Min. Window 6; Y-Coord. (1st Byte)	5.4.3	Window 6
142	Min. Window 6; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
143	Min. Window 6; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
144	Min. Window 6; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
145	Max. Window 7; X-Coord. (1st Byte)	5.4.3	Window 7
146	Max. Window 7; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
147	Max. Window 7; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
148	Max. Window 7; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
149	Max. Window 7; Y-Coord. (1st Byte)	5.4.3	Window 7
150	Max. Window 7; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
151	Max. Window 7; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
152	Max. Window 7; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
153	Min. Window 7; X-Coord. (1st Byte)	5.4.3	Window 7
154	Min. Window 7; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
155	Min. Window 7; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
156	Min. Window 7; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
157	Min. Window 7; Y-Coord. (1st Byte)	5.4.3	Window 7
158	Min. Window 7; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
159	Min. Window 7; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
160	Min. Window 7; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
161	Max. Window 8; X-Coord. (1st Byte)	5.4.3	Window 8
162	Max. Window 8; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
163	Max. Window 8; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
164	Max. Window 8; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)

165	Max. Window 8; Y-Coord. (1st Byte)	5.4.3	Window 8
166	Max. Window 8; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
167	Max. Window 8; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
168	Max. Window 8; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
169	Min. Window 8; X-Coord. (1st Byte)	5.4.3	Window 8
170	Min. Window 8; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
171	Min. Window 8; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
172	Min. Window 8; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
173	Min. Window 8; Y-Coord. (1st Byte)	5.4.3	Window 8
174	Min. Window 8; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
175	Min. Window 8; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
176	Min. Window 8; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
177	Max. Window 9; X-Coord. (1st Byte)	5.4.3	Window 9
178	Max. Window 9; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
179	Max. Window 9; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
180	Max. Window 9; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
181	Max. Window 9; Y-Coord. (1st Byte)	5.4.3	Window 9
182	Max. Window 9; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
183	Max. Window 9; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
184	Max. Window 9; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
185	Min. Window 9; X-Coord. (1st Byte)	5.4.3	Window 9
186	Min. Window 9; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
187	Min. Window 9; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
188	Min. Window 9; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
189	Min. Window 9; Y-Coord. (1st Byte)	5.4.3	Window 9
190	Min. Window 9; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
191	Min. Window 9; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
192	Min. Window 9; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
193	Max. Window10; X-Coord. (1st Byte)	5.4.3	Window 10
194	Max. Window10; X-Coord.(2nd Byte)	5.4.3	Local Maximum in Window
195	Max. Window10; X-Coord.(3rd Byte)	5.4.3	X-Coordinate
196	Max. Window10; X-Coord.(4th Byte)	5.4.3	(32-Bit-float)
197	Max. Window10; Y-Coord. (1st Byte)	5.4.3	Window 10
198	Max. Window10; Y-Coord.(2nd Byte)	5.4.3	Local Maximum in Window
199	Max. Window10; Y-Coord.(3rd Byte)	5.4.3	Y-Coordinate
200	Max. Window10; Y-Coord.(4th Byte)	5.4.3	(32-Bit-float)
201	Min. Window 10;X-Coord. (1st Byte)	5.4.3	Window 10
202	Min. Window 10;X-Coord.(2nd Byte)	5.4.3	Local Minimum in Window
203	Min. Window 10;X-Coord. (3rd Byte)	5.4.3	X-Coordinate
204	Min. Window 10;X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
205	Min. Window 10;Y-Coord. (1st Byte)	5.4.3	Window 10
206	Min. Window 10;Y-Coord.(2nd Byte)	5.4.3	Local Minimum in Window
207	Min. Window 10;Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
208	Min. Window 10;Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.12 Mode 12 (PLC-Out, Curve data,Win. 1 ENTRY/EXIT + Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Unit X-Axis Byte 1	5.4.1	General curve data:
6	Unit X-Axis Byte 2	5.4.1	Unit X
7	Unit X-Axis Byte 3	5.4.1	
8	Unit X-Axis Byte 4	5.4.1	
9	Unit X-Axis Byte 5	5.4.1	
10	Unit X-Axis Byte 6	5.4.1	
11	Unit Y-Axis Byte 1	5.4.1	General curve data:
12	Unit Y-Axis Byte 2	5.4.1	Unit Y
13	Unit Y-Axis Byte 3	5.4.1	
14	Unit Y-Axis Byte 4	5.4.1	
15	Unit Y-Axis Byte 5	5.4.1	
16	Unit Y-Axis Byte 6	5.4.1	
17	Last Point; X-Coord. (1.Byte)	5.4.1	General curve data:
18	Last Point; X-Coord. (2.Byte)	5.4.1	Last curve value
19	Last Point; X-Coord. (3.Byte)	5.4.1	X-Coordinate
20	Last Point; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
21	Last Point; Y-Coord. (1.Byte)	5.4.1	General curve data:
22	Last Point; Y-Coord. (2.Byte)	5.4.1	Last curve value
23	Last Point; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
24	Last Point; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
25	Max. Displacement;X-Coord.(1.Byte)	5.4.1	General curve data:
26	Max. Displacement;X-Coord.(2.Byte)	5.4.1	Max. Displacement
27	Max. Displacement;X-Coord.(3.Byte)	5.4.1	X-Coordinate
28	Max. Displacement;X-Coord.(4.Byte)	5.4.1	(32-Bit-float)
29	Max. Displacement;Y-Coord.(1.Byte)	5.4.1	General curve data:
30	Max. Displacement;Y-Coord.(2.Byte)	5.4.1	Max. Displacement
31	Max. Displacement;Y-Coord.(3.Byte)	5.4.1	Y-Coordinate
32	Max. Displacement;Y-Coord.(4.Byte)	5.4.1	(32-Bit-float)
33	AbsMax.Y; X-Coord. (1.Byte)	5.4.1	General curve data:
34	AbsMax.Y; X-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
35	AbsMax.Y; X-Coord. (3.Byte)	5.4.1	X-Coordinate
36	AbsMax.Y; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)

37	AbsMax.Y; Y-Coord. (1.Byte)	5.4.1	General curve data:
38	AbsMax.Y; Y-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
39	AbsMax.Y; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
40	AbsMax.Y; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
41	AbsMinY; X-Coord. (1.Byte)	5.4.1	General curve data:
42	AbsMinY; X-Coord. (2.Byte)	5.4.1	Min Y of complete curve
43	AbsMinY; X-Coord. (3.Byte)	5.4.1	X-Coordinate
44	AbsMinY; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
45	AbsMinY; Y-Coord. (1.Byte)	5.4.1	General curve data:
46	AbsMinY; Y-Coord. (2.Byte)	5.4.1	Min Y of complete curve
47	AbsMinY; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
48	AbsMinY; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
49	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
50	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
51	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
52	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
53	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
54	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
55	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
56	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
57	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
58	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
59	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
60	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
61	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
62	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
63	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
64	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
65	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
66	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
67	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
68	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
69	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
70	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
71	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
72	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
73	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
74	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
75	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
76	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
77	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
78	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
79	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
80	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.13 Mode 13 (PLC-Out,Curve data,Win.1-2 ENTRY/EXIT+Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Unit X-Axis Byte 1	5.4.1	General curve data:
6	Unit X-Axis Byte 2	5.4.1	Unit X
7	Unit X-Axis Byte 3	5.4.1	
8	Unit X-Axis Byte 4	5.4.1	
9	Unit X-Axis Byte 5	5.4.1	
10	Unit X-Axis Byte 6	5.4.1	
11	Unit Y-Axis Byte 1	5.4.1	General curve data:
12	Unit Y-Axis Byte 2	5.4.1	Unit Y
13	Unit Y-Axis Byte 3	5.4.1	
14	Unit Y-Axis Byte 4	5.4.1	
15	Unit Y-Axis Byte 5	5.4.1	
16	Unit Y-Axis Byte 6	5.4.1	
17	Last Point; X-Coord. (1.Byte)	5.4.1	General curve data:
18	Last Point; X-Coord. (2.Byte)	5.4.1	Last curve value
19	Last Point; X-Coord. (3.Byte)	5.4.1	X-Coordinate
20	Last Point; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
21	Last Point; Y-Coord. (1.Byte)	5.4.1	General curve data:
22	Last Point; Y-Coord. (2.Byte)	5.4.1	Last curve value
23	Last Point; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
24	Last Point; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
25	Max. Displacement;X-Coord.(1.Byte)	5.4.1	General curve data:
26	Max. Displacement;X-Coord.(2.Byte)	5.4.1	Max. Displacement
27	Max. Displacement;X-Coord.(3.Byte)	5.4.1	X-Coordinate
28	Max. Displacement;X-Coord.(4.Byte)	5.4.1	(32-Bit-float)
29	Max. Displacement;Y-Coord.(1.Byte)	5.4.1	General curve data:
30	Max. Displacement;Y-Coord.(2.Byte)	5.4.1	Max. Displacement
31	Max. Displacement;Y-Coord.(3.Byte)	5.4.1	Y-Coordinate
32	Max. Displacement;Y-Coord.(4.Byte)	5.4.1	(32-Bit-float)
33	AbsMax.Y; X-Coord. (1.Byte)	5.4.1	General curve data:
34	AbsMax.Y; X-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
35	AbsMax.Y; X-Coord. (3.Byte)	5.4.1	X-Coordinate
36	AbsMax.Y; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)

37	AbsMax.Y; Y-Coord. (1.Byte)	5.4.1	General curve data:
38	AbsMax.Y; Y-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
39	AbsMax.Y; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
40	AbsMax.Y; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
41	AbsMinY; X-Coord. (1.Byte)	5.4.1	General curve data:
42	AbsMinY; X-Coord. (2.Byte)	5.4.1	Min Y of complete curve
43	AbsMinY; X-Coord. (3.Byte)	5.4.1	X-Coordinate
44	AbsMinY; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
45	AbsMinY; Y-Coord. (1.Byte)	5.4.1	General curve data:
46	AbsMinY; Y-Coord. (2.Byte)	5.4.1	Min Y of complete curve
47	AbsMinY; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
48	AbsMinY; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
49	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
50	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
51	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
52	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
53	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
54	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
55	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
56	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
57	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
58	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
59	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
60	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
61	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
62	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
63	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
64	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
65	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
66	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
67	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
68	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
69	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
70	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
71	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
72	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
73	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
74	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
75	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
76	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)

77	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
78	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
79	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
80	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
81	Entry Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
82	Entry Window 2; X-Coord.(2nd Byte)	5.4.2	Entry
83	Entry Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
84	Entry Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
85	Entry Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
86	Entry Window 2; Y-Coord.(2nd Byte)	5.4.2	Entry
87	Entry Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
88	Entry Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
89	Exit Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
90	Exit Window 2; X-Coord. (2nd Byte)	5.4.2	Exit
91	Exit Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
92	Exit Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
93	Exit Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
94	Exit Window 2; Y-Coord. (2nd Byte)	5.4.2	Exit
95	Exit Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
96	Exit Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
97	Max. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
98	Max. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
99	Max. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
100	Max. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
101	Max. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
102	Max. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
103	Max. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
104	Max. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
105	Min. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
106	Min. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
107	Min. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
108	Min. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
109	Min. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
110	Min. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
111	Min. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
112	Min. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.14 Mode 14 (PLC-Out,Curve data,Win.1-3 ENTRY/EXIT+Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Unit X-Axis Byte 1	5.4.1	General curve data:
6	Unit X-Axis Byte 2	5.4.1	Unit X
7	Unit X-Axis Byte 3	5.4.1	
8	Unit X-Axis Byte 4	5.4.1	
9	Unit X-Axis Byte 5	5.4.1	
10	Unit X-Axis Byte 6	5.4.1	
11	Unit Y-Axis Byte 1	5.4.1	General curve data:
12	Unit Y-Axis Byte 2	5.4.1	Unit Y
13	Unit Y-Axis Byte 3	5.4.1	
14	Unit Y-Axis Byte 4	5.4.1	
15	Unit Y-Axis Byte 5	5.4.1	
16	Unit Y-Axis Byte 6	5.4.1	
17	Last Point; X-Coord. (1.Byte)	5.4.1	General curve data:
18	Last Point; X-Coord. (2.Byte)	5.4.1	Last curve value
19	Last Point; X-Coord. (3.Byte)	5.4.1	X-Coordinate
20	Last Point; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
21	Last Point; Y-Coord. (1.Byte)	5.4.1	General curve data:
22	Last Point; Y-Coord. (2.Byte)	5.4.1	Last curve value
23	Last Point; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
24	Last Point; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
25	Max. Displacement;X-Coord.(1.Byte)	5.4.1	General curve data:
26	Max. Displacement;X-Coord.(2.Byte)	5.4.1	Max. Displacement
27	Max. Displacement;X-Coord.(3.Byte)	5.4.1	X-Coordinate
28	Max. Displacement;X-Coord.(4.Byte)	5.4.1	(32-Bit-float)
29	Max. Displacement;Y-Coord.(1.Byte)	5.4.1	General curve data:
30	Max. Displacement;Y-Coord.(2.Byte)	5.4.1	Max. Displacement
31	Max. Displacement;Y-Coord.(3.Byte)	5.4.1	Y-Coordinate
32	Max. Displacement;Y-Coord.(4.Byte)	5.4.1	(32-Bit-float)
33	AbsMax.Y; X-Coord. (1.Byte)	5.4.1	General curve data:
34	AbsMax.Y; X-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
35	AbsMax.Y; X-Coord. (3.Byte)	5.4.1	X-Coordinate
36	AbsMax.Y; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)

37	AbsMax.Y; Y-Coord. (1.Byte)	5.4.1	General curve data:
38	AbsMax.Y; Y-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
39	AbsMax.Y; Y-Coord. (3.Byte)	5.4.1	Y-coordinate
40	AbsMax.Y; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
41	AbsMinY; X-Coord. (1.Byte)	5.4.1	General curve data:
42	AbsMinY; X-Coord. (2.Byte)	5.4.1	Min Y of complete curve
43	AbsMinY; X-Coord. (3.Byte)	5.4.1	X-Coordinate
44	AbsMinY; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
45	AbsMinY; Y-Coord. (1.Byte)	5.4.1	General curve data:
46	AbsMinY; Y-Coord. (2.Byte)	5.4.1	Min Y of complete curve
47	AbsMinY; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
48	AbsMinY; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
49	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
50	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
51	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
52	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
53	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
54	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
55	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
56	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
57	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
58	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
59	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
60	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
61	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
62	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
63	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
64	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
65	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
66	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
67	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
68	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
69	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
70	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
71	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
72	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
73	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
74	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
75	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
76	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)

77	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
78	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
79	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
80	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
81	Entry Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
82	Entry Window 2; X-Coord.(2nd Byte)	5.4.2	Entry
83	Entry Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
84	Entry Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
85	Entry Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
86	Entry Window 2; Y-Coord.(2nd Byte)	5.4.2	Entry
87	Entry Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
88	Entry Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
89	Exit Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
90	Exit Window 2; X-Coord. (2nd Byte)	5.4.2	Exit
91	Exit Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
92	Exit Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
93	Exit Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
94	Exit Window 2; Y-Coord. (2nd Byte)	5.4.2	Exit
95	Exit Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
96	Exit Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
97	Max. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
98	Max. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
99	Max. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
100	Max. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
101	Max. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
102	Max. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
103	Max. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
104	Max. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
105	Min. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
106	Min. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
107	Min. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
108	Min. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
109	Min. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
110	Min. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
111	Min. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
112	Min. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
113	Entry Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
114	Entry Window 3; X-Coord.(2nd Byte)	5.4.2	Entry
115	Entry Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
116	Entry Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
117	Entry Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
118	Entry Window 3; Y-Coord.(2nd Byte)	5.4.2	Entry
119	Entry Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
120	Entry Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)

121	Exit Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
122	Exit Window 3; X-Coord. (2nd Byte)	5.4.2	Exit
123	Exit Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
124	Exit Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
125	Exit Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
126	Exit Window 3; Y-Coord. (2nd Byte)	5.4.2	Exit
127	Exit Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
128	Exit Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
129	Max. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
130	Max. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
131	Max. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
132	Max. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
133	Max. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
134	Max. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
135	Max. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
136	Max. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
137	Min. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
138	Min. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
139	Min. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
140	Min. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
141	Min. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
142	Min. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
143	Min. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
144	Min. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.15 Mode 15 (PLC-Out,Curve data,Win.1-4 ENTRY/EXIT+Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Unit X-Axis Byte 1	5.4.1	General curve data:
6	Unit X-Axis Byte 2	5.4.1	Unit X
7	Unit X-Axis Byte 3	5.4.1	
8	Unit X-Axis Byte 4	5.4.1	
9	Unit X-Axis Byte 5	5.4.1	
10	Unit X-Axis Byte 6	5.4.1	

11	Unit Y-Axis Byte 1	5.4.1	General curve data:
12	Unit Y-Axis Byte 2	5.4.1	Unit Y
13	Unit Y-Axis Byte 3	5.4.1	
14	Unit Y-Axis Byte 4	5.4.1	
15	Unit Y-Axis Byte 5	5.4.1	
16	Unit Y-Axis Byte 6	5.4.1	
17	Last Point; X-Coord. (1.Byte)	5.4.1	General curve data:
18	Last Point; X-Coord. (2.Byte)	5.4.1	Last curve value
19	Last Point; X-Coord. (3.Byte)	5.4.1	X-Coordinate
20	Last Point; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
21	Last Point; Y-Coord. (1.Byte)	5.4.1	General curve data:
22	Last Point; Y-Coord. (2.Byte)	5.4.1	Last curve value
23	Last Point; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
24	Last Point; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
25	Max. Displacement;X-Coord.(1.Byte)	5.4.1	General curve data:
26	Max. Displacement;X-Coord.(2.Byte)	5.4.1	Max. Displacement
27	Max. Displacement;X-Coord.(3.Byte)	5.4.1	X-Coordinate
28	Max. Displacement;X-Coord.(4.Byte)	5.4.1	(32-Bit-float)
29	Max. Displacement;Y-Coord.(1.Byte)	5.4.1	General curve data:
30	Max. Displacement;Y-Coord.(2.Byte)	5.4.1	Max. Displacement
31	Max. Displacement;Y-Coord.(3.Byte)	5.4.1	Y-Coordinate
32	Max. Displacement;Y-Coord.(4.Byte)	5.4.1	(32-Bit-float)
33	AbsMax.Y; X-Coord. (1.Byte)	5.4.1	General curve data:
34	AbsMax.Y; X-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
35	AbsMax.Y; X-Coord. (3.Byte)	5.4.1	X-Coordinate
36	AbsMax.Y; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
37	AbsMax.Y; Y-Coord. (1.Byte)	5.4.1	General curve data:
38	AbsMax.Y; Y-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
39	AbsMax.Y; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
40	AbsMax.Y; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
41	AbsMinY; X-Coord. (1.Byte)	5.4.1	General curve data:
42	AbsMinY; X-Coord. (2.Byte)	5.4.1	Min Y of complete curve
43	AbsMinY; X-Coord. (3.Byte)	5.4.1	X-Coordinate
44	AbsMinY; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
45	AbsMinY; Y-Coord. (1.Byte)	5.4.1	General curve data:
46	AbsMinY; Y-Coord. (2.Byte)	5.4.1	Min Y of complete curve
47	AbsMinY; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
48	AbsMinY; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
49	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
50	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
51	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
52	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)

53	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
54	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
55	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
56	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
57	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
58	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
59	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
60	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
61	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
62	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
63	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
64	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
65	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
66	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
67	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
68	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
69	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
70	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
71	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
72	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
73	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
74	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
75	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
76	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
77	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
78	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
79	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
80	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
81	Entry Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
82	Entry Window 2; X-Coord.(2nd Byte)	5.4.2	Entry
83	Entry Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
84	Entry Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
85	Entry Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
86	Entry Window 2; Y-Coord.(2nd Byte)	5.4.2	Entry
87	Entry Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
88	Entry Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
89	Exit Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
90	Exit Window 2; X-Coord. (2nd Byte)	5.4.2	Exit
91	Exit Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
92	Exit Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)

93	Exit Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
94	Exit Window 2; Y-Coord. (2nd Byte)	5.4.2	Exit
95	Exit Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
96	Exit Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
97	Max. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
98	Max. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
99	Max. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
100	Max. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
101	Max. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
102	Max. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
103	Max. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
104	Max. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
105	Min. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
106	Min. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
107	Min. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
108	Min. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
109	Min. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
110	Min. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
111	Min. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
112	Min. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
113	Entry Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
114	Entry Window 3; X-Coord.(2nd Byte)	5.4.2	Entry
115	Entry Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
116	Entry Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
117	Entry Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
118	Entry Window 3; Y-Coord.(2nd Byte)	5.4.2	Entry
119	Entry Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
120	Entry Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
121	Exit Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
122	Exit Window 3; X-Coord. (2nd Byte)	5.4.2	Exit
123	Exit Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
124	Exit Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
125	Exit Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
126	Exit Window 3; Y-Coord. (2nd Byte)	5.4.2	Exit
127	Exit Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
128	Exit Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
129	Max. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
130	Max. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
131	Max. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
132	Max. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
133	Max. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
134	Max. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
135	Max. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
136	Max. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

137	Min. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
138	Min. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
139	Min. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
140	Min. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
141	Min. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
142	Min. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
143	Min. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
144	Min. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
145	Entry Window 4; X-Coord. (1st Byte)	5.4.2	Window 4
146	Entry Window 4; X-Coord.(2nd Byte)	5.4.2	Entry
147	Entry Window 4; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
148	Entry Window 4; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
149	Entry Window 4; Y-Coord. (1st Byte)	5.4.2	Window 4
150	Entry Window 4; Y-Coord.(2nd Byte)	5.4.2	Entry
151	Entry Window 4; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
152	Entry Window 4; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
153	Exit Window 4; X-Coord. (1st Byte)	5.4.2	Window 4
154	Exit Window 4; X-Coord. (2nd Byte)	5.4.2	Exit
155	Exit Window 4; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
156	Exit Window 4; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
157	Exit Window 4; Y-Coord. (1st Byte)	5.4.2	Window 4
158	Exit Window 4; Y-Coord. (2nd Byte)	5.4.2	Exit
159	Exit Window 4; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
160	Exit Window 4; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
161	Max. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
162	Max. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
163	Max. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
164	Max. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
165	Max. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
166	Max. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
167	Max. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
168	Max. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
169	Min. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
170	Min. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
171	Min. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
172	Min. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
173	Min. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
174	Min. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
175	Min. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
176	Min. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.16 Mode 16 (PLC-Out,Curve data,Win.1-5 ENTRY/EXIT+Max./Min)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Unit X-Axis Byte 1	5.4.1	General curve data:
6	Unit X-Axis Byte 2	5.4.1	Unit X
7	Unit X-Axis Byte 3	5.4.1	
8	Unit X-Axis Byte 4	5.4.1	
9	Unit X-Axis Byte 5	5.4.1	
10	Unit X-Axis Byte 6	5.4.1	
11	Unit Y-Axis Byte 1	5.4.1	General curve data:
12	Unit Y-Axis Byte 2	5.4.1	Unit Y
13	Unit Y-Axis Byte 3	5.4.1	
14	Unit Y-Axis Byte 4	5.4.1	
15	Unit Y-Axis Byte 5	5.4.1	
16	Unit Y-Axis Byte 6	5.4.1	
17	Last Point; X-Coord. (1.Byte)	5.4.1	General curve data:
18	Last Point; X-Coord. (2.Byte)	5.4.1	Last curve value
19	Last Point; X-Coord. (3.Byte)	5.4.1	X-Coordinate
20	Last Point; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
21	Last Point; Y-Coord. (1.Byte)	5.4.1	General curve data:
22	Last Point; Y-Coord. (2.Byte)	5.4.1	Last curve value
23	Last Point; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
24	Last Point; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
25	Max. Displacement;X-Coord.(1.Byte)	5.4.1	General curve data:
26	Max. Displacement;X-Coord.(2.Byte)	5.4.1	Max. Displacement
27	Max. Displacement;X-Coord.(3.Byte)	5.4.1	X-Coordinate
28	Max. Displacement;X-Coord.(4.Byte)	5.4.1	(32-Bit-float)
29	Max. Displacement;Y-Coord.(1.Byte)	5.4.1	General curve data:
30	Max. Displacement;Y-Coord.(2.Byte)	5.4.1	Max. Displacement
31	Max. Displacement;Y-Coord.(3.Byte)	5.4.1	Y-Coordinate
32	Max. Displacement;Y-Coord.(4.Byte)	5.4.1	(32-Bit-float)
33	AbsMax.Y; X-Coord. (1.Byte)	5.4.1	General curve data:
34	AbsMax.Y; X-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
35	AbsMax.Y; X-Coord. (3.Byte)	5.4.1	X-Coordinate
36	AbsMax.Y; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)

37	AbsMax.Y; Y-Coord. (1.Byte)	5.4.1	General curve data:
38	AbsMax.Y; Y-Coord. (2.Byte)	5.4.1	Max. Y of complete curve
39	AbsMax.Y; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
40	AbsMax.Y; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
41	AbsMinY; X-Coord. (1.Byte)	5.4.1	General curve data:
42	AbsMinY; X-Coord. (2.Byte)	5.4.1	Min Y of complete curve
43	AbsMinY; X-Coord. (3.Byte)	5.4.1	X-Coordinate
44	AbsMinY; X-Coord. (4.Byte)	5.4.1	(32-Bit-float)
45	AbsMinY; Y-Coord. (1.Byte)	5.4.1	General curve data:
46	AbsMinY; Y-Coord. (2.Byte)	5.4.1	Min Y of complete curve
47	AbsMinY; Y-Coord. (3.Byte)	5.4.1	Y-Coordinate
48	AbsMinY; Y-Coord. (4.Byte)	5.4.1	(32-Bit-float)
49	Entry Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
50	Entry Window 1; X-Coord.(2nd Byte)	5.4.2	Entry
51	Entry Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
52	Entry Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
53	Entry Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
54	Entry Window 1; Y-Coord.(2nd Byte)	5.4.2	Entry
55	Entry Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
56	Entry Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
57	Exit Window 1; X-Coord. (1st Byte)	5.4.2	Window 1
58	Exit Window 1; X-Coord. (2nd Byte)	5.4.2	Exit
59	Exit Window 1; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
60	Exit Window 1; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
61	Exit Window 1; Y-Coord. (1st Byte)	5.4.2	Window 1
62	Exit Window 1; Y-Coord. (2nd Byte)	5.4.2	Exit
63	Exit Window 1; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
64	Exit Window 1; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
65	Max. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
66	Max. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
67	Max. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
68	Max. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
69	Max. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
70	Max. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
71	Max. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
72	Max. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
73	Min. Window 1; X-Coord. (1st Byte)	5.4.3	Window 1
74	Min. Window 1; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
75	Min. Window 1; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
76	Min. Window 1; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
77	Min. Window 1; Y-Coord. (1st Byte)	5.4.3	Window 1
78	Min. Window 1; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
79	Min. Window 1; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
80	Min. Window 1; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

81	Entry Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
82	Entry Window 2; X-Coord.(2nd Byte)	5.4.2	Entry
83	Entry Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
84	Entry Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
85	Entry Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
86	Entry Window 2; Y-Coord.(2nd Byte)	5.4.2	Entry
87	Entry Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
88	Entry Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
89	Exit Window 2; X-Coord. (1st Byte)	5.4.2	Window 2
90	Exit Window 2; X-Coord. (2nd Byte)	5.4.2	Exit
91	Exit Window 2; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
92	Exit Window 2; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
93	Exit Window 2; Y-Coord. (1st Byte)	5.4.2	Window 2
94	Exit Window 2; Y-Coord. (2nd Byte)	5.4.2	Exit
95	Exit Window 2; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
96	Exit Window 2; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
97	Max. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
98	Max. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
99	Max. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
100	Max. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
101	Max. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
102	Max. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
103	Max. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
104	Max. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
105	Min. Window 2; X-Coord. (1st Byte)	5.4.3	Window 2
106	Min. Window 2; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
107	Min. Window 2; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
108	Min. Window 2; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
109	Min. Window 2; Y-Coord. (1st Byte)	5.4.3	Window 2
110	Min. Window 2; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
111	Min. Window 2; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
112	Min. Window 2; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
113	Entry Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
114	Entry Window 3; X-Coord.(2nd Byte)	5.4.2	Entry
115	Entry Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
116	Entry Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
117	Entry Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
118	Entry Window 3; Y-Coord.(2nd Byte)	5.4.2	Entry
119	Entry Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
120	Entry Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
121	Exit Window 3; X-Coord. (1st Byte)	5.4.2	Window 3
122	Exit Window 3; X-Coord. (2nd Byte)	5.4.2	Exit
123	Exit Window 3; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
124	Exit Window 3; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)

125	Exit Window 3; Y-Coord. (1st Byte)	5.4.2	Window 3
126	Exit Window 3; Y-Coord. (2nd Byte)	5.4.2	Exit
127	Exit Window 3; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
128	Exit Window 3; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
129	Max. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
130	Max. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
131	Max. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
132	Max. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
133	Max. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
134	Max. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
135	Max. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
136	Max. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
137	Min. Window 3; X-Coord. (1st Byte)	5.4.3	Window 3
138	Min. Window 3; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
139	Min. Window 3; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
140	Min. Window 3; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
141	Min. Window 3; Y-Coord. (1st Byte)	5.4.3	Window 3
142	Min. Window 3; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
143	Min. Window 3; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
144	Min. Window 3; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
145	Entry Window 4; X-Coord. (1st Byte)	5.4.2	Window 4
146	Entry Window 4; X-Coord.(2nd Byte)	5.4.2	Entry
147	Entry Window 4; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
148	Entry Window 4; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
149	Entry Window 4; Y-Coord. (1st Byte)	5.4.2	Window 4
150	Entry Window 4; Y-Coord.(2nd Byte)	5.4.2	Entry
151	Entry Window 4; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
152	Entry Window 4; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
153	Exit Window 4; X-Coord. (1st Byte)	5.4.2	Window 4
154	Exit Window 4; X-Coord. (2nd Byte)	5.4.2	Exit
155	Exit Window 4; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
156	Exit Window 4; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
157	Exit Window 4; Y-Coord. (1st Byte)	5.4.2	Window 4
158	Exit Window 4; Y-Coord. (2nd Byte)	5.4.2	Exit
159	Exit Window 4; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
160	Exit Window 4; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
161	Max. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
162	Max. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
163	Max. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
164	Max. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)

165	Max. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
166	Max. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
167	Max. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
168	Max. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
169	Min. Window 4; X-Coord. (1st Byte)	5.4.3	Window 4
170	Min. Window 4; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
171	Min. Window 4; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
172	Min. Window 4; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
173	Min. Window 4; Y-Coord. (1st Byte)	5.4.3	Window 4
174	Min. Window 4; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
175	Min. Window 4; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
176	Min. Window 4; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
177	Entry Window 5; X-Coord. (1st Byte)	5.4.2	Window 5
178	Entry Window 5; X-Coord.(2nd Byte)	5.4.2	Entry
179	Entry Window 5; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
180	Entry Window 5; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
181	Entry Window 5; Y-Coord. (1st Byte)	5.4.2	Window 5
182	Entry Window 5; Y-Coord.(2nd Byte)	5.4.2	Entry
183	Entry Window 5; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
184	Entry Window 5; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
185	Exit Window 5; X-Coord. (1st Byte)	5.4.2	Window 5
186	Exit Window 5; X-Coord. (2nd Byte)	5.4.2	Exit
187	Exit Window 5; X-Coord. (3rd Byte)	5.4.2	X-Coordinate
188	Exit Window 5; X-Coord. (4th Byte)	5.4.2	(32-Bit-float)
189	Exit Window 5; Y-Coord. (1st Byte)	5.4.2	Window 5
190	Exit Window 5; Y-Coord. (2nd Byte)	5.4.2	Exit
191	Exit Window 5; Y-Coord. (3rd Byte)	5.4.2	Y-Coordinate
192	Exit Window 5; Y-Coord. (4th Byte)	5.4.2	(32-Bit-float)
193	Max. Window 5; X-Coord. (1st Byte)	5.4.3	Window 5
194	Max. Window 5; X-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
195	Max. Window 5; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
196	Max. Window 5; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
197	Max. Window 5; Y-Coord. (1st Byte)	5.4.3	Window 5
198	Max. Window 5; Y-Coord. (2nd Byte)	5.4.3	Local Maximum in Window
199	Max. Window 5; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
200	Max. Window 5; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)
201	Min. Window 5; X-Coord. (1st Byte)	5.4.3	Window 5
202	Min. Window 5; X-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
203	Min. Window 5; X-Coord. (3rd Byte)	5.4.3	X-Coordinate
204	Min. Window 5; X-Coord. (4th Byte)	5.4.3	(32-Bit-float)
205	Min. Window 5; Y-Coord. (1st Byte)	5.4.3	Window 5
206	Min. Window 5; Y-Coord. (2nd Byte)	5.4.3	Local Minimum in Window
207	Min. Window 5; Y-Coord. (3rd Byte)	5.4.3	Y-Coordinate
208	Min. Window 5; Y-Coord. (4th Byte)	5.4.3	(32-Bit-float)

5.5.17 Mode 17 (PLC-Out, Free chooseable float values)

Data from Master to Slave

Byte	Meaning	Chapter	Comments
0	PLC-Inputs (1st Byte)	5.1.1	
1	PLC-Inputs (2nd Byte)	5.1.2	

Data from Slave to Master

Byte	Meaning	Chapter	Comments
0	PLC-Outputs Byte 1	5.3.1	
1	PLC-Outputs Byte 2	5.3.2	
2	PLC-Outputs Byte 3	5.3.3	
3	Device status	5.3.4	
4	Hardware status	5.3.5	
5	Dummy-Byte		Always 0x0
6	Float NUM4, Line 1 (1.Byte)	5.4.4	Free choseable display values:
7	Float NUM4, Line 1 (2.Byte)	5.4.4	As defined for NUM4
8	Float NUM4, Line 1 (3.Byte)	5.4.4	Line 1
9	Float NUM4, Line 1 (4.Byte)	5.4.4	(32-Bit-float)
10	Float NUM4, Line 2 (1.Byte)	5.4.4	Free choseable display values:
11	Float NUM4, Line 2 (2.Byte)	5.4.4	As defined for NUM4
12	Float NUM4, Line 2 (3.Byte)	5.4.4	Line 2
13	Float NUM4, Line 2 (4.Byte)	5.4.4	(32-Bit-float)
14	Float NUM4, Line 3 (1.Byte)	5.4.4	Free choseable display values:
15	Float NUM4, Line 3 (2.Byte)	5.4.4	As defined for NUM4
16	Float NUM4, Line 3 (3.Byte)	5.4.4	Line 3
17	Float NUM4, Line 3 (4.Byte)	5.4.4	(32-Bit-float)
18	Float NUM4, Line 4 (1.Byte)	5.4.4	Free choseable display values:
19	Float NUM4, Line 4 (2.Byte)	5.4.4	As defined for NUM4
20	Float NUM4, Line 4 (3.Byte)	5.4.4	Line 4
21	Float NUM4, Line 4 (4.Byte)	5.4.4	(32-Bit-float)
22	Float NUM4, Line 5 (1.Byte)	5.4.4	Free choseable display values:
23	Float NUM4, Line 5 (2.Byte)	5.4.4	As defined for NUM4
24	Float NUM4, Line 5 (3.Byte)	5.4.4	Line 5
25	Float NUM4, Line 5 (4.Byte)	5.4.4	(32-Bit-float)
26	Float NUM4, Line 6 (1.Byte)	5.4.4	Free choseable display values:
27	Float NUM4, Line 6 (2.Byte)	5.4.4	As defined for NUM4
28	Float NUM4, Line 6 (3.Byte)	5.4.4	Line 6
29	Float NUM4, Line 6 (4.Byte)	5.4.4	(32-Bit-float)
30	Float NUM4, Line 7 (1.Byte)	5.4.4	Free choseable display values:
31	Float NUM4, Line 7 (2.Byte)	5.4.4	As defined for NUM4
32	Float NUM4, Line 7 (3.Byte)	5.4.4	Line 7
33	Float NUM4, Line 7 (4.Byte)	5.4.4	(32-Bit-float)
34	Float NUM4, Line 8 (1.Byte)	5.4.4	Free choseable display values:
35	Float NUM4, Line 8 (2.Byte)	5.4.4	As defined for NUM4
36	Float NUM4, Line 8 (3.Byte)	5.4.4	Line 8

37	Float NUM4, Line 8 (4.Byte)	5.4.4	(32-Bit-float)
38	Float NUM4, Line 9 (1.Byte)	5.4.4	Free choseable display values:
39	Float NUM4, Line 9 (2.Byte)	5.4.4	As defined for NUM4
40	Float NUM4, Line 9 (3.Byte)	5.4.4	Line 9
41	Float NUM4, Line 9 (4.Byte)	5.4.4	(32-Bit-float)
42	Float NUM4, Line 10 (1.Byte)	5.4.4	Free choseable display values:
43	Float NUM4, Line 10 (2.Byte)	5.4.4	As defined for NUM4
44	Float NUM4, Line 10 (3.Byte)	5.4.4	Line 10
45	Float NUM4, Line 10 (4.Byte)	5.4.4	(32-Bit-float)

6. PROFIBUS DPV1

6.1 Short description

For PROFIBUS DPV1 a Master can take on selected device settings with an anticyclic bus, read them out or put in new values for these characteristics.

The addressing of single device paramters is done in two steps: the *Slot* (≈ Via Chapter) and the *Index* (≈ Input in this chapter). A simple analogy is a letter with street name and number. With the street name the part of town and the approximate neighbourhood is located whereas the house number can identify exactly the recipient‘s house. With the help of combining these two information the target can be identified exactly.

Similar coding is found on PROFIBUS DPV1. The input „LCD-contrast of display“ is found in Slot 0 / Index 6, for example. With this information these device settings can be located. They can be read out or replaced by a new value in order to change the settings.

To read out the addressed value correctly and do the right interpretations, the following information is needed:

- Variable Type and length resp. quantity of value?

U8	unsigned integer (1 Byte with 8 Bit)
String 10	String with quantity of Byte
Real32	float number with quantity of Byte
Array	Indexed Index variable with mostly 32 float values
Struct	Pre-defined structure (composition) of a variable

- Type of approach

ro	read only:	Value can only be read out,
wo	write only:	Value can only be written
rw	read&write:	Value can be read out and written

- Valid values

  admissable value range of inputs

- EVENT

  For the „EVENT“ marked Slot/Index the action as described in the list is started with a writing approach. (any given U8-Byte)

- Data format

  Hexadecimal Motorola-format (Most Significant Byte first)
  Ex. „25 80“ in Slot2, Index1 will be 0x2580 → 9600dez
  REAL32: Float number 32-Bit-float (4 Byte) acc. to IEEE-754
  For decoding refer to appendix A

6.2 Slot/Index-register

Slot	Index	Content	Type	Access	Len	In Byte
0		Basic setting				
	0/1	User language	U8	rw	1	
		Valid values:	*German*	0		
			English	1		
			French	2		
			Spanish	3		
			Italian	4		
			Portuguese	5		
			Czech	6		
	0/2	Reset	U8	rw	1	
		Valid values:	*Power-on-reset*	0		
			Manual Reset	1		
	0/3	Date	STRING10	rw	10	
		Valid values:	*Date string*	„06.03.2001“		
	0/4	Time	STRING8	rw	8	
		Valid values:	*Time string*	„13:37:57“		
	0/5	LCD-Contrast	U8	rw	1	
		Valid values:	*Contrast in %*	0 .. 99		
	0/6	Display pos/neg	U8	rw	1	
		Valid values:	*Pos. Display*	2		
			Neg. Display	3		
1		Info				
	1/1	Software version Digital board	STRING24	ro	20	Type. 10
		Valid values:	*Version-string with max. 24 signs*			
	1/2	Software version PROFIBUS	STRING24	ro	11	
		Valid values:	*Versions-String with max. 24 signs*			
	1/3	Hardware options	STRING24	ro	24	
		Valid values:	*String with max. 24 signs*			
	1/4	Serial number	STRING24	ro	24	
		Valid values:	*String with max. 24 signs*			
	1/5	Manufacturer calibration	STRING10	ro	10	
		Valid values:	Date string			

Slot	Index	Content	Type	Access	Len	In Byte
2		Serial Interface Setup (with installed PROFIBUS-module only RS232!)				
	2/1	Baud rate	U16	rw	2	
		Valid values:	*9k6*	9600		0x2580
			19k2	19200		0x4B00
			38k4	38400		0x9600
	2/2	This Index is not supported anymore				
	2/3	Parity	U8	rw	1	
		Valid values:	*Parity Even*	0		
			Parity Odd	1		
			Parity Off	2		
	2/4	Block check	U8	rw	1	
		Valid values:	*Block check off*	0		
			Block check on	1		
	2/5	RS232/485 device address	U8	rw	1	
		Valid values:	*Device address*	0 .. 99		
3		Release of display modes in Meas. Menu				
	3/1	Graphical	U8	rw	1	
		Valid values:	*Not displayed*	0		
			Displayed	1		
	3/2	Numerical 1 (Min/Max.)	U8	rw	1	
		Valid values:	*Not displayed*	0		
			Displayed	1		
	3/3	Numerical 2 (On/Off)	U8	rw	1	
		Valid values:	*Not displayed*	0		
			Displayed	1		
	3/4	Numerical 3 (Gen. Curve)	U8	rw	1	
		Valid values:	*Not displayed*	0		
			Displayed	1		
	3/5	Statistics	U8	rw	1	
		Valid values:	*Not displayed*	0		
			Displayed	1		
	3/6	No display	U8	rw	1	
		Valid values:	*Not displayed*	0		
			Displayed	1		
	3/7	Curve array	U8	rw	1	
		Valid values:	*Do not display*	0		
			Show curve array	1		

Slot	Index	Content	Type	Access	Len In Byte	
4		Access permission				
	4/1	Master password	U16	rw	2	
		Valid values:	*Password*	0000 .. 9999		
	4/2	Password User1	U16	rw	2	
		Valid values:	*Password*	0000 .. 9999		
	4/3	Password User2	U16	rw	2	
		Valid values:	*Password*	0000 .. 9999		
	4/4	Password protection	U8	rw	1	
		Valid values:	*Deactivated*	0		
			Activated	1		
	4/5	Basic setting	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		
	4/6	Channel settings	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		
	4/7	Calibration	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		
	4/8	Measurement mode	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		
	4/9	Evaluation limits	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		

Slot	Index	Content	Type	Access	Len	In Byte
	4/10	Switch points	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		
	4/11	Test Operation	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		
	4/12	Data output	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		
	4/13	Reset	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		
	4/14	Program copy	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		
	4/15	Tare function	U8	rw	1	
		Valid values:	*Neither User1 nor User2*	0		
			Only User1	1		
			Only User2	2		
			User1 and User2	3		
5		Effect Reset	U8	Where	1	EVENT
	5/0	*Valid values:*	Meas. Cal-Val	Write any given byte		

Slot	Index	Content	Type	Access	Len	In Byte
64		Configuration PLC-Inputs				
	64/1	Source for control signals	U8	rw	1	
		Valid values:	*Control via PROFIBUS*	2		
			Control via PLC-In socket	1		
6		Help texts Window 1, presently set program				
	6/1	Line1	STRING37	rw	37	
		Valid values:	*String with max. 37 signs*			
	6/2	Line2	STRING37	rw	37	
		Valid values:	*String with max. 37 signs*			
	6/3	Line3	STRING37	rw	37	
		Valid values:	*String with max. 37 signs*			
	6/4	Line4	STRING37	rw	37	
		Valid values:	*String mit Max. 37 Signs*			
	6/5	Line5	STRING37	rw	37	
		Valid values:	*String mit Max. 37 Signs*			
	6/6	Line6	STRING37	rw	37	
		Valid values:	*String mit Max. 37 Signs*			
	6/7	Line7	STRING37	rw	37	
		Valid values:	*String mit Max. 37 Signs*			
	6/8	Line8	STRING37	rw	37	
		Valid values:	*String mit Max. 37 Signs*			
	6/9	Line9	STRING37	rw	37	
		Valid values:	*String mit Max. 37 Signs*			
	6/10	Line10	STRING37	rw	37	
		Valid values:	*String mit Max. 37 Signs*			
7		Help texts Window 2, presently set Program, otherwise as Slot 8				
8		Help texts Window 3, presently set Program, otherwise as Slot 8				
9		Help texts Window 4, presently set Program, otherwise as Slot 8				
10		Help texts Window 5, presently set Program, otherwise as Slot 8				

Slot	Index	Content	Type	Access	Len In Byte
11		Help texts Window 6, presently set Program, otherwise as Slot 8			
12		Help texts Window 7, presently set Program, otherwise as Slot 8			
13		Help texts Window 8, presently set Program, otherwise as Slot 8			
14		Help texts Window 9, presently set Program, otherwise as Slot 8			
15		Help texts Window 10, presently set Program, otherwise as Slot 8			
82		READY- Mode			
	82/1	Ready- Mode	U8	rw	1
		Valid values:	READY- Mode „normal“	0	
			READY- Mode „PC-controlled“	1	
	82/2	Release READY	U8	wo	1
		Valid values:	Release READY-signal	Write any given Byte	
83		*Data container*			
	83/1	Data container A	String50	Rw	50
		Valid values:	Names with max. 50 signs		
	83/2	Data container B	String50	rw	50
		Valid values:	Names with max. 50 signs		
84		Release measurement			
	84/1	Release of Measurement	U8	rw	1
		Valid values:	Measurement on hold	0	
			Measurement released	1	
16		Program choice			
	16/1	Program number	U8	rw	1
		Valid values:	Program number	0 .. 31	
	16/2	Name of the present measurement program	String12	rw	12
		Valid values:	Names with max. 12 signs		
17		X-Channel settings			
	17/1	Sensor Type	U8	rw	1
		Valid values:	Standard signal	2	
			Potentiometer	3	
			LVDT	4	
			DVR	5	
			DC/DC	6	
			Incremental Sinus	7	
			Incremental TTL	8	
			Incremental moment	9	

Slot	Index	Content	Type	Access	Len	In Byte
	17/2	Meas. Range	U8	rw	1	
		Valid values:				
		For Potentiom., DC/DC	5V	0		
		and standard signal	10V	1		
		For LVDT, DVR	25mV	0		
			50mV	1		
			100mV	2		
			250mV	3		
			500mV	4		
			1000mV	5		
	17/3	Excitation	REAL32	rw	4	
		Valid values:				
		For Potentiom., DC/DC	5,0V	5,0		
		and standard signal	10,0V	10,0		
18		Y-Channel settings				
	18/1	Sensor Type	U8	rw	1	
		Valid values:	STRAIN GAGE	0		
			Piezo	1		
			Standard signal	2		
	18/2	Meas. range	U8	rw	1	
		Valid values:				
		For Sens. type strain gage	2mV	0		
			4mV	1		
			8mV	2		
			16mV	3		
			32mV	4		
			64mV	5		
			128mV	6		
		For Sensor type Piezo	1nC	4		
			2nC	5		
			5nC	6		
			10nC	7		
			20nC	8		
			50nC	9		
			100nC	10		
			200nC	11		
			500nC	12		
		For Sens. type Stand.sig.	3V	2		
			6V	3		
			12V	4		

Slot	Index	Content	Type	Access	Len	In Byte
	18/3	Excitation	REAL32	rw	4	
		Valid values:				
		For Sensor type STRAIN GAGE, Standard signal	2,5V 5,0V	2,5 5,0		
	18/4	Sensitivity	REAL32	rw	4	
		Valid values:				
		Only For Sensor type STRAIN GAGE	Sensitivity	0,0 .. 100,0		
	18/5		REAL32	ro	4	
		Only For Sensor type STRAIN GAGE	Level (El.) in %			
19		Calibration X-Kanal				
	19/1	Unit X-Channel	U8	rw	1	
		Valid values:	Number of unit (refer to page 106)	0 .. 42		
	19/2	Lower scale value	REAL32	rw	4	
		Valid values: *Not for incremental sensors!*	Scale value	-99999,0 .. 99999,0		
	19/3	Upper scale value	REAL32	rw	4	
		Valid values: *Not for incremental sensors!*	Scale value	-99999,0 .. 99999,0		
	19/4	Lower Calibration value	REAL32	rw	4	
		Valid values: *Not for incremental sensors!*	Calibration value	-99999,0 .. 99999,0		
	19/5	Upper Calibration value	REAL32	rw	4	
		Valid values: *Not for incremental sensors!*	Calibration value	-99999,0 .. 99999,0		
	19/6	Partition	REAL32	rw	4	
		Valid values: *Only for incremental sensors!*	Partition	0 .. 99999,0		
	19/7	Direction	U8	rw	1	
		Valid values: *Only for incremental sensors!*	Positive Negative	0 1		
	19/8	Reference marks	U8	rw	1	
		Valid values: *Only for incremental sensors!*	Reference marks off Reference marks on	0 1		

Slot	Index	Content	Type	Access	Len	In Byte
	19/9	Reference points	REAL32	rw	4	
		Valid values:	Reference points	-99999,0 ..		
		Only for incremental sensors!		99999,0		
	19/10	Incremental counter mode	U8	rw	1	
		Valid values:	Reset For Start	0		
		Only for incremental-	Set to Start value	1		
		sensors!	Neutral	2		
	19/11	Start value	REAL32	rw	4	
		Valid values:	Start value	-99999,0 ..		
		Only for incremental sensors!		99999,0		
20		*Calibration Y-Kanal*				
	20/1	Meas. unit Y-channel	U8	rw	1	
		Valid values:	Number of unit (refer to page 106)	0 .. 42		
	20/2	Lower Scaling value	REAL32	rw	4	
		Valid values:	Scaling value	-99999,0 .. 99999,0		
	20/3	Upper Scaling value	REAL32	rw	4	
		Valid values:	Scaling value	-99999,0 .. 99999,0		
	20/4	Lower Calibration value	REAL32	rw	4	
		Valid values:	Calibration value	-99999,0 .. 99999,0		
	20/5	Upper Calibration value	REAL32	rw	4	
		Valid values:	Calibration value	-99999,0 .. 99999,0		
21		User defined MaßUniten				
	21/1	User defined unit 1	STRING4	rw	4	
		Valid values:	String off Max. 4 Signs			
	21/2	User defined unit 2	STRING4	rw	4	
		Valid values:	String off Max. 4 Signs			

Slot	Index	Content	Type	Access	Len	In Byte
22		Shunt resistance				
	22/1	Choose Shunt resistance	U8	rw	1	
		Valid values:	Shunt off	0		
			59kΩ	1		
			80kΩ	2		
			100kΩ	3		
			300kΩ	4		
23		Measure Calibration value X				
	23/1	Lower Cal-Value	U8	wo	1	EVENT
		Valid values:	Measure Cal-Value	write any given byte		
	23/2	Upper Cal-Value	U8	wo	1	EVENT
		Valid values:	Measure Cal-Value	write any given byte		
24		Measure Calibration value Y				
	24/1	Lower Cal-Value	U8	wo	1	EVENT
		Valid values:	Measure Cal-Value	write any given byte		
	24/2	Upper Cal-Value	U8	wo	1	EVENT
		Valid values:	Measure Cal-Value	write any given byte		
25		Calculate calibration of X+Y (dc)		wo	1	EVENT
	25/0	*Valid values:*	Measure Cal-Value	write any given byte		
26		Sensor-Test Setup				
	26/1	Teach-in X-Channel	U8	wo	1	EVENT
		Valid values:	Measure Cal-Value	write any given byte		
	26/2	X-Channel Sensor value	REAL32	ro	4	
		Valid values:	Measured Sensor value			
	26/3	+/- Deviation X-Channel	REAL32	rw	4	
		Valid values:	Maximum +/-- deviation	-99999,0 ... 99999,0		
	26/4	Teach-in Y-Channel	U8	wo	1	EVENT
		Valid values:	Measure Cal-Value	write any given byte		
	26/5	Y-Channel Sensor value	REAL32	ro	4	
		Valid values:	Measured Sensor value			

Slot	Index	Content	Type	Access	Len	In Byte
	26/6	+/- Deviation Y-Channel	REAL32	rw	4	
		Valid values:	Max. +/-- deviation	+0,001 ... 99999,0		
27		Proof of calibration				
	27/1	Manufacturer calibration	STRING10	ro	10	
		Valid values:	Date string			
	27/2	Next manufact. Calibration	STRING10	ro	10	
		Valid values:	Date string			
	27/3	Last calibration	STRING10	ro	10	
		Valid values:	Date string			
	27/4	Calibration interval	U8	rw	1	
		Valid values:	Interval in months	1 ... 24		
	27/5	Next calibration	STRING10	ro	10	
		Valid values:	Date string			
28		Measurement mode				
	28/1	Measurement mode	U8	rw	1	
		Valid values:	$y = f_{(x)}$	0		
			$y = f_{(x,t)}$	1		
			$y = f_{(t)}$	2		
			$x = f_{(t)}$	3		
			Classify-X	4		
			Classify-Y	5		
	28/2	Sample rate	REAL32	rw	4	
		Valid values:	Time related Meas. Functions:	0,5 ... 6553,0		
		Not for Classify-functions!	Not time related Meas. Functions	0,001 ... 99999,0		
	28/3	Filter Displacement-Channel	U8	rw	1	
		Valid values:	Filter off	0		
		Not for Classify-functions!	Filter 5Hz	1		
			Filter 10Hz	2		
			Filter 25Hz	3		
			Filter 50Hz	4		
			Filter 100Hz	5		
			Filter 200Hz	6		
			Filter 400Hz	7		

Slot	Index	Content	Type	Access	Len	In Byte
	28/4	Filter Force-Channel	U8	rw	1	
		Valid values:	Filter off	0		
		Not for Classify-function!	Filter 5Hz	1		
			Filter 10Hz	2		
			Filter 25Hz	3		
			Filter 50Hz	4		
			Filter 100Hz	5		
			Filter 200Hz	6		
			Filter 400Hz	7		
	28/5	Reference	U8	rw	1	
		Valid values:	Absolute	0		
		Not for Classify-function!	X-Trigger	1		
		For y=f(t) no X-Trigger and	Y-Trigger	2		
		For x=f(t) no Y-Trigger!				
			Final force	3		
			BlockWindow	4		
	28/6	Trigger point	REAL32	rw	4	
		Valid values:	Trigger point	-99999,0 ...		
		Not for Classify-function!	(Only active for Trigger)	99999,0		
	28/7	Recording of curve	U8	rw	1	
		Valid values:	Record complete curve	0		
		Not for Classify-function!	Record curve to turning point only	1		
	28/8	Start mode	U8	rw	1	
		Valid values:	External Start	0		
		Not for Classify-function!	Start Internal X	1		
		For y=f(t) and Incremental-sensors no Internal X!	Start Internal Y	2		
		For x=f(t) and Piezo-Sensors no Internal Y!				
	28/9	Internal Start	REAL32	rw	4	
		Valid values:	Internal Start	-99999,0 ..		
		Only For Non-Classify-functions and internal start!		99999,0		
	28/10	Internal end	REAL32	rw	4	
		Valid values:	Internal Stop	-99999,0 ..		
		Only For Non-Classify-functions and internal start!		99999,0		

Slot	Index	Content	Type	Access	Len	In Byte
	28/11	Classify-Evaluation value	U8	rw	1	
		Valid values:	Evaluation of Minimum	0		
		Only for Classify-function!	Evaluation of Maximum	1		
			Evaluation of average values	2		
			Evaluation of present values	3		
	28/12	Classify-limit 4	REAL32	rw	4	
		Valid values:	Classify-limit K4	-99999,0 ..		
		Only For Classify-function!!		99999,0		
		Condition: K4 > K3 > K2 > K1				
	28/13	Classify-limit 3	REAL32	rw	4	
		Valid values:	Classify-limit K4	-99999,0 ..		
		Only For Classify-function!!		99999,0		
		Condition: K4 > K3 > K2 > K1				
	28/14	Classify-limit 2	REAL32	rw	4	
		Valid values:	Classify-limit K4	-99999,0 ..		
		Only For Classify-function!!		99999,0		
		Condition: K4 > K3 > K2 > K1				
	28/15	Classify-limit 1	REAL32	rw	4	
		Valid values:	Classify-limit K4	-99999,0 ..		
		Only For Classify-function!!		99999,0		
		Condition: K4 > K3 > K2 > K1				
	28/16	Check and take over Classify-limits	U8	wo	1	EVENT
		Valid values:	Check and take over Classify-limits	write any given byte		
	28/17	Setting of turning point	U8	rw	1	
		Valid values:	Turning point for X-Max.	0		
		Not for Classify-function!	Turning point for Y-Max.	1		
	28/18	Measurement time out	REAL32	rw	4	
		Valid values:	OFF	0.0		
		For Classify-function without meaning!	Value for Meas. Time out	0.1 ... 64 s		
		From version V200200				

Slot	Index	Content	Type	Access	Len	In Byte
29		Data output				
	29/1	Output interface	U8	rw	1	
		Valid values:	Printer	1		
			PC-Terminal	2		
		DIGICONTROL-software	resp. open interface protocol	3		
	29/2	Output filter	U8	rw	1	
		Valid values:	Output all	1		
			Only NOKs	2		
			Only Oks	3		
	29/3	Output interval	U16	rw	2	
		Valid values:	Output interval	0 ... 9999		
	29/4	Output curve/value	U8	rw	1	
		Valid values:	Meas. Curve is transferred	1		
			Numerical values are transferred	2		
			Curve and Numerical values are transferred	3		
	29/5	Values: Y-Minimum	U8	rw	1	
		Valid values:	Do not transfer value	0		
		Only for Output values!	Transfer value	1		

Slot	Index	Content	Type	Access	Len	In Byte
	29/6	Values: Y-Maximum	U8	rw	1	
		Valid values:		0		
		Only for output values!	Transfer value	1		
	29/7	Values: X-Maximum	U8	rw	1	
		Valid values:	Do not transfer value	0		
		Only for output values!	Transfer value	1		
	29/8	Values: Last value	U8	rw	1	
		Valid values:	Do not transfer value	0		
		Only for output values!	Transfer value	1		
	29/9	Values: Entry/Exit	U8	rw	1	
		Valid values:	Do not transfer value	0		
		Only for output values!	Transfer value	1		
	29/10	Values: Min/Max.	U8	rw	1	
		Valid values:	Do not transfer value	0		
		Only for output values!	Transfer value	1		
68		Printer Setup				
	68/1	Printer delay	U8	rw	1	
		Valid values:	Printer delay in [ms]	0 ... 99		
	68/2	Printer page length	U8	rw	1	
		Valid values:	Printer lines per page	50... 99		
	68/3	Measurement per page	U8	rw	1	
		Valid values:	New printer page for every measurement	1		
			Multiple meas. per printer page, continuous	2		
	68/4	New page start	U8	wo	1	
		Valid values:	Set internal line counter to zero	write any given byte		
30		Zoom range				
	30/1	X-min	REAL32	rw	4	
		Valid values:	Zoom Xmin	-99999,0 ..		
		Condition: XMax. >Xmin		99999,0		
	30/2	X-Max.	REAL32	rw	4	
		Valid values:	Zoom XMax.	-99999,0 ..		
		Condition: XMax. >Xmin		99999,0		
	30/3	Y-min	REAL32	rw	4	
		Valid values:	Zoom Ymin	-99999,0 ..		
		Condition: YMax. >Ymin		99999,0		

Slot	Index	Content	Type	Access	Len	In Byte
	30/4	Y-Max.	REAL32	rw	4	
		Valid values:	Zoom Ymin	-99999,0 ..		
		Condition: YMax. >Ymin		99999,0		
	30/5	Check zoom & take over	U8	wo	1	EVENT
		Valid values:	Check zoom and take over	Write any given byte		
31		Auto scale!	U8	wo	1	EVENT
	31/0	*Valid values:*	Measure Cal-Value	write any given byte		
32		Switch point 1				
	32/1	Limit	REAL32	rw	4	
		Valid values:	Switch limit	-99999,0... 99999,0		
	32/2	Channel	U8	rw	1	
		Valid values:	X	0		
			Y	1		
	32/3	High active / Low active	U8	rw	1	
		Valid values:	Low-Active	0		
			High-Active	1		
	32/4	Ref. Absolute/trigger	U8	rw	1	
		Valid values:	Reference Absolute	0		
		Only for trigger active and X-channel!	Reference trigger point	1		
33		Switch point 2	otherwise as Slot 32			
34		Switch point 3	otherwise as Slot 32			
35		Switch point 4	otherwise as Slot 32			
36		Present Measurement program, Window 1				
	36/1	Window Type	U8	rw	1	
		Valid values:	Window off	0		
			Pass-through	1		
			Hysterese	2		
			Gradient	3		
			Online	4		
			Block	5		
	36/2	Limit X-Min	REAL32	rw	4	
		Valid values:	Window Limit	-99999,0 ..		
		Only For Type Pass-through, Online and Block!		99999,0		

Slot	Index	Content	Type	Access	Len	In Byte
	36/3	Limit X-Max.	REAL32	rw	4	
		Valid values:	Window Limit	-99999,0 ..		
		Only For Type Pass-through, Online and Block!		99999,0		
	36/4	Limit Y-Min	REAL32	rw	4	
		Valid values:	Window Limit	-99999,0 ..		
		Only For Type Pass-through, Online and Block!		99999,0		
	36/5	Limit Y-Max.	REAL32	rw	4	
		Valid values:	Window Limit	-99999,0 ..		
		Only For Type Pass-through, Online and Block!		99999,0		
	36/6	Entry	U8	rw	1	
		Valid values:	Left	0		
		Only For Type Pass-through and Block!	Right	1		
			Upper	2		
			Lower	3		
			Doesn't matter	4		
	36/7	Exit	U8	rw	1	
		Valid values:	Left	0		
		Only for Type passthrough!	Right	1		
			Upper	2		
			Lower	3		
			Doesn't matter	4		
	36/8	Direction	U8	rw	1	
		Valid values:	Positive	0		
		Only For Type Pass-through and Gradient!	Negative	1		
	36/9	Hysteresis point	REAL32	rw	4	
		Valid values:	Hysteresis point	-99999,0 ..		
		Only For Type hysteresis!		99999,0		
	36/10	Min. Hysteresis	REAL32	rw	4	
		Valid values:	Minimal value	-99999,0 ..		
		Only for Type hysteresis!	Hysteresis	99999,0		
	36/11	Max. Hysteresis	REAL32	rw	4	
		Valid values:	Maximum value	-99999,0 ..		
		Only For Type hysteresis!	Hysteresis	99999,0		
	36/12	Gradient X1	REAL32	rw	4	
		Valid values:	Gradient X1	-99999,0 ..		
		Only For Type Gradient!		99999,0		

Slot	Index	Content	Type	Access	Len	In Byte
	36/13	Gradient X2	REAL32	rw	4	
		Valid values:	Gradient X2	-99999,0 ..		
		Only For Type Gradient!		99999,0		
	36/14	Minimum value Gradient	REAL32	rw	4	
		Valid values:	Miinimum value	-99999,0 ..		
		Only For Type Gradient!	Gradient	99999,0		
	36/15	Maximum value Gradient	REAL32	rw	4	
		Valid values:	Maximum value	-99999,0 ..		
		Only For Type Gradient!	Gradient	99999,0		
	36/16	Check and take over Window settings	U8	wo	1	EVENT
		Valid values: *Take over Window Data rightafter input for every single window!*	Check and take over window settings	Write any given byte		
37		Presently Measurement program, Window 2, otherwise as Slot 36				
38		Presently measurement program, Window 3, otherwise as Slot 36				
39		Presently measurement program, Window 4, otherwise as Slot 36				
40		Presently measurement program, Window 5, otherwise as Slot 36				
41		Presently measurement program, Window 6, otherwise as Slot 36				
42		Presently measurement program, Window 7, otherwise as Slot 36				
43		Presently measurement program, Window 8, otherwise as Slot 36				
44		Presently measurement program, Window 9, otherwise as Slot 36				
45		Presently measurement program, Window 10, otherwise as Slot 36				
67		Release of window statistics in actual MP				
	67/1	Statistics Window 1	U8	rw	1	
		Valid values:	Record NOK values for this window	0		
		Only when Window active and neither Entry nor Exit =doesn't matter	Record values for this window	1		
	67/2	Statistics Window 2	U8	rw	1	
		Valid values:	Record NOK values for this window	0		
		Only when Window active and neither Entry nor Exit =doesn't matter	Record values for this window	1		

Slot	Index	Content	Type	Access	Len In Byte	
	67/3	Statistics Window 3	U8	rw	1	
		Valid values:	Record values only for this window	0		
		Only when window active and neither Entry nor Exit = doesn't matter	Record values Only for this window	1		
	67/4	Statistics Window 4	U8	rw	1	
		Valid values:	Record values only for this window	0		
		Only when window active and neither Entry nor Exit = doesn't matter	Record values Only for this window	1		
	67/5	Statistics Window 5	U8	rw	1	
		Valid values:	Record values only for this window	0		
		Only when window active and neither Entry nor Exit = doesn't matter	Record values Only for this window	1		
	67/6	Statistics Window 6	U8	rw	1	
		Valid values:	Record values only for this window	0		
		Only when window active and neither Entry nor Exit = doesn't matter	Record values Only for this window	1		
	67/7	Statistics Window 7	U8	rw	1	
		Valid values:	Record values only for this window	0		
		Only when window active and neither Entry nor Exit = doesn't matter	Record values Only for this window	1		
	67/8	Statistics Window 8	U8	rw	1	
		Valid values:	Record values only for this window	0		
		Only when window active and neither Entry nor Exit = doesn't matter	Record values Only for this window	1		
	67/9	Statistics Window 9	U8	rw	1	
		Valid values:	Record values only for this window	0		
		Only when window active and neither Entry nor Exit = doesn't matter	Record values Only for this window	1		

Slot	Index	Content	Type	Access	Len	In Byte
	67/10	Statistics Window 10	U8	rw	1	
		Valid values:	Record values only for this window	0		
		Only when window active and neither Entry nor Exit = doesn't matter	Record values Only for this window	1		
46		PLC-Outputs and Statusbyte				
	46/1	PLC-Outputs Byte 1	U8	ro	1	
		Valid values:	STROBE2	Bit 0 (LSD)		
			READY	Bit 1		
			OK	Bit 2		
			NOK	Bit 3		
			OK-ST	Bit 4		
			NOKA	Bit 5		
			PF/S5	Bit 6		
			A0	Bit 7 (MSD)		
	46/2	PLC-Outputs Byte 2	U8	ro	1	
		Valid values:	A1	Bit 0 (LSD)		
			A2	Bit 1		
			A3	Bit 2		
			A4	Bit 3		
			S1	Bit 4		
			S2	Bit 5		
			S3	Bit 6		
			S4	Bit 7 (MSD)		
	46/3	PLC-Outputs Byte 3	U8	ro	1	
		Valid values:	NOKF8	Bit 0 (LSD)		
			NOKF7	Bit 1		
			NOKF6	Bit 2		
			NOKF5	Bit 3		
			NOKF4	Bit 4		
			NOKF3	Bit 5		
			NOKF2	Bit 6		
			NOKF1	Bit 7 (MSD)		
	46/4	Device status	U8	ro	1	
		Valid values:	Status: Ready	1		
			Status: No Trigger	2		
			Status: Measurement	3		
			Status: Tare X	4		
			Status: Tare Y	5		
			Status: X > Start	6		

Slot	Index	Content	Type	Access	Len In Byte
			Status: Y > Start	7	
			Status: No Trigger	8	
			Status: S-Test X-Sensor NOK	9	
			Status: S-Test Y-Sensor NOK	10	
			Status: Start <> 0	11	
			Status: S-Test XY-Sensor NOK	12	
			Status: Sensor test	13	
			Status: Printing	14	
			Status: Send_dat (Printing)	15	
			Error: PC-communication	16	
			Error: Cal-error	17	
			Status: PROFIBUS Configuration menu	18	
			PLC-Outputs invalid	255	
	46/5	Measurement	U8	ro	1
		Valid values:	Reserved	Bit 0 (LSD)	
			Reserved	Bit 1	
			Reserved	Bit 2	
			Reserved	Bit 3	
			Reserved	Bit 4	
			Reserved	Bit 5	
			Reserved	Bit 6	
			Reserved	Bit 7 (MSD)	
47		PLC-Inputs			
	47/1	PLC-Inputs	U16	wo	2
		Valid values:	SENSORTEST	Bit 0 (LSD)	
			START	Bit 1	
			STROBE1	Bit 2	
			E0	Bit 3	
			E1	Bit 4	
			E2	Bit 5	
			E3	Bit 6	
			E4	Bit 7	
			RESET	Bit 8	
			LTEST	Bit 9	
			Reserved	Bit 10	

Slot	Index	Content	Type	Access	Len In Byte
			AUTO	Bit 11	
			TARE X	Bit 12	
			TARE Y	Bit 13	
			Reserved	Bit 15	
			Reserved	Bit15(MSD)	
48		Read out measurement curve info			
	48/1	Qty. of meas. Values	U16	ro	2
		Valid values:	Qty. of meas. Values		
	48/2	Curve flag x	U8	ro	1
		Valid values:	Info, if x-values of the curve are prepared for transfer already		
			Curve not prepared	0	
			Curve prepared	1	
	48/3	Curve flag y	U8	ro	1
		Valid values:	Info, if y-values of the curve are prepared for transfer already		
			Curve not prepared	0	
			Curve prepared	1	
80		Readout meas. values X			
	80/1	X-values, Meas. Pt. 0..31	ARRAY	ro	128
		Valid values:	32 Float values for the related meas. Pts., smallest Meas. Pt. # first		
	80/2	X-values, Meas. Pt.32..63	ARRAY	ro	128
		Valid values:	32 Float values for the related meas. Pts., smallest Meas. Pt. # first		
	80/3	X-values, Meas.Pt. 64..95	ARRAY	ro	128
		Valid values:	32 Float values for the related meas. Pts., smallest Meas. Pt. # first		

Slot	Index	Content	Type	Access	Len In Byte	
	80/4	X-values,Meas.pt.96..127	ARRAY	ro	128	
		Valid values:	32 Float values for the related meas. Pts., smallest Meas. Pt. # first			
	...	*... etc.. ... until*				
	80/248	X-values, Meas. Pts. 7936..7967	ARRAY	ro	128	
		Valid values:	32 Float values for the related meas. Pts., smallest Meas. Pt. # first			
	80/249	X-values, Meas. Pts. 7968..7999	ARRAY	ro	128	
		Valid values:	32 Float values for the related meas. Pts., smallest Meas. Pt. # first			
81		Readout Meas. Values Y	Otherwise as Slot 80			
49		Window evaluation				
	49/1	Window 1	STRUCT	ro	42	
		Valid values:	Structure Window evaluation	Struct {		
			Window Entry X-Coordinate	float Entry_x;		
			Window Entry Y-Coordinate	float Entry_y;		
			Window Exit X-Coordinate (Not for Block)	float Exit_x;		
			Window Exit Y-Coordinate (Not for Block)	float Exit_y;		
			Maximum in Window X-coord. (Not for Hyst, Grad) (For Block: Block value X)	float Max._x;		
			Maximum in Window Y-Koord. (Not for Hyst, Grad) (For Block: Block value Y)	float Max._y;		

Slot	Index	Content	Type	Access	Len In Byte	
			Min. in window X-coord. (not for Block, Hyst, Grad)	float min_x;		
			Minimum in Window Y-coord. (not for Block, Hyst, Grad)	float min_y;		
			Calculated ascent Grad.Window (Only for Grad)	float steigung;		
			Y difference from HystereseWindow (Only for Hyst)	float diff_y;		
			Window Type (refer to Window Type 36/1)	char Window _Type;		
			Evaluation (0→OK, 1→NOK)	char Window _bewert;}		
	49/2	Window 2	STRUCT	ro	42	
		Valid values:	Structure Window evaluation			
	49/3	Window 3	STRUCT	ro	42	
		Valid values:	Structure Window evaluation			
	49/4	Window 4	STRUCT	ro	42	
		Valid values:	Structure Window evaluation			
	49/5	Window 5	STRUCT	ro	42	
		Valid values:	Structure Window evaluation			
	49/6	Window 6	STRUCT	ro	42	
		Valid values:	Structure Window evaluation			
	49/7	Window 7	STRUCT	ro	42	
		Valid values:	Structure Window evaluation			
	49/8	Window 8	STRUCT	ro	42	
		Valid values:	Structure Window evaluation			
	49/9	Window 9	STRUCT	ro	42	
		Valid values:	Structure Window evaluation			

Slot	Index	Content	Type	Access	Len	In Byte
	49/10	Window 10	STRUCT	ro	42	
		Valid values:	Structure Window evaluation			
70		Window 1 evaluation single values				
	70/1	Entry X-Coordinate	REAL32	ro	4	
		Valid values:	Window Entry X-Coordinate			
	70/2	Entry Y-Coordinate	REAL32	ro	4	
		Valid values:	Window Entry Y-Coordinate			
	70/3	Exit X-Coordinate	REAL32	ro	4	
		Valid values:	Window Exit X-Coordinate			
	70/4	Exit Y-Coordinate	REAL32	ro	4	
		Valid values:	Window Exit Y-Coordinate			
	70/5	Maximum X-Coordinate	REAL32	ro	4	
		Valid values:	Y-Maximum in Window X-Koord.			
	70/6	Maximum Y-Coordinate	REAL32	ro	4	
		Valid values:	Y-Maximum in Window Y-Koord.			
	70/7	Minimum X-Coordinate	REAL32	ro	4	
		Valid values:	Y-Minimum in Window X-Koord.			
	70/8	Minimum Y-Coordinate	REAL32	ro	4	
		Valid values:	Y-Minimum in Window Y-Koord.			
	70/9	Ascent	REAL32	ro	4	
		Valid values: *Only For Type Gradient!*	Ascent of curve in Window			
	70/10	Y-difference	REAL32	ro	4	
		Valid values: *Only for Type Hysteresis!*	Measured hysteresis in Window			
	70/11	Window result	U8	ro	1	
		Valid values:	OK	0		
			NOK	1		
71		Window 2 Eval. single values, otherwise as Slot		70		
72		Window 3 Eval. single values, otherwise as Slot		70		
73		Window 4 Eval. single values, otherwise as Slot		70		
74		Window 5 Eval. single values, otherwise as Slot		70		

Slot	Index	Content	Type	Access	Len	In Byte
75		Window 6 Eval. single values, otherwise as Slot		70		
76		Window 7 Eval. single values, otherwise as Slot		70		
77		Window 8 Eval. single values, otherwise as Slot		70		
78		Window 9 Eval. single values, otherwise as Slot		70		
79		Window 10 Eval. single values, otherwise as Slot		70		
50		General curve data				
	50/1	General curve data	STRUCT	ro		
		Valid values:	Structure Overall result	struct {	44	
			Unit x Axis	char Unit_x[6];		
			Unit y Axis	char Unit_y[6];		
			Last curve value X-Coordinate	float last_x;		
			Last curve value Y-Coordinate	float last_y;		
			Max. Displacement X-Coordinate	float Max.displacement_x;		
			Max. Displacement Y-Coordinate	float Max.displacement_y;		
			Max. of complete curve X-coord.	float abs_Max._x;		
			Max. of complete curve Y-coord.	float abs_Max._y;		
			Min. of complete curve X-coord.	float abs_min_x;		
			Min. of complete curve Y-coord.	float abs_min_y;}		
69		General curve data single values				
	69/1	Unit x-Axis	STRING6	ro	6	
		Valid values:	Unit string			
	69/2	Unit y-Axis	STRING6	ro	6	
		Valid values:	Unit string			
	69/3	Last value, X-Coordinate	REAL32	ro	4	
		Valid values:	Last curve value, x-Coordinate			
	69/4	Last value, X-Coordinate	REAL32	ro	4	
		Valid values:	Last curve value, y-Coordinate			

Slot	Index	Content	Type	Access	Len In Byte	
	69/5	XMax., X-Coordinate	REAL32	ro	4	
		Valid values:	Location of X-Max., X-Coordinate			
	69/6	XMax., Y-Coordinate	REAL32	ro	4	
		Valid values:	Location of X-Max., Y-Coordinate			
	69/7	YMax., X-Coordinate	REAL32	ro	4	
		Valid values:	Location of Y-Max., X-Coordinate			
	69/8	YMax., Y-Coordinate	REAL32	ro	4	
		Valid values:	Location of Y-Max., Y-Coordinate			
	69/9	Ymin, x-Coordinate	REAL32	ro	4	
		Valid values:	Location of Y-Min., X-Coordinate			
	69/10	Ymin, y-Coordinate	REAL32	ro	4	
		Valid values:	Location of Y-Min., Y-Coordinate			
51		Window Statistics				
	51/1	Total qty. meas. values	U32	ro	4	
		Valid values:	Total qty. measurements			
	51/2	Of which were NOKs	U32	ro	4	
		Valid values:	NOK in Slot 51,1			
	51/3	Partial percentage of failure on F1	REAL32	ro	4	
		Valid values:	In how many percent of measurements did the window eval. fail?	0,0 ... 100,0	(%)	
	51/4	Partial percentage of failure on F2	REAL32	ro	4	
		Valid values:	In how many percent of measurements did the window eval. fail?	0,0 ... 100,0	(%)	
	51/5	Partial percentage of failure on F3	REAL32	ro	4	
		Valid values:	In how many percent of measurements did the window eval. fail?	0,0 ... 100,0	(%)	
	51/6	Partial percentage of failure on F4	REAL32	ro	4	
		Valid values:	In how many percent of measurements did the window eval. fail?	0,0 ... 100,0	(%)	

Slot	Index	Content	Type	Access	Len	In Byte
	51/7	Partial percentage of	REAL32	ro	4	
		failure on F5 *Valid values:*	In how many percent of measurements did the window eval. fail?	0,0 ... 100,0	(%)	
	51/8	Partial percentage of	REAL32	ro	4	
		failure on F6 *Valid values:*	In how many percent of measurements did the window eval. fail?	0,0 ... 100,0	(%)	
	51/9	Partial percentage of	REAL32	ro	4	
		failure on F7 *Valid values:*	In how many percent of measurements did the window eval. fail?	0,0 ... 100,0	(%)	
	51/10	Partial percentage of	REAL32	ro	4	
		failure on F8 *Valid values:*	In how many percent of measurements did the window eval. fail?	0,0 ... 100,0	(%)	
	51/11	Partial percentage of	REAL32	ro	4	
		failure on F9 *Valid values:*	In how many percent of measurements did the window eval. fail?	0,0 ... 100,0	(%)	
	51/12	Partial percentage of	REAL32	ro	4	
		failure on F10 *Valid values:*	In how many percent of measurements did the window eval. fail?	0,0 ... 100,0	(%)	
52		Statistics Window 1				
	52/1	Qty. Meas. in Statistics	U32	ro	4	
		Valid values: *Only when Window active!*	Quantity of Measurements in Statistics Record			
	52/2	Quantity NOK of present Window	U32	ro	4	
		Valid values: *Only wenn Window active!*	Quantity of NOK-Measurements in the Statistics Record values			
	52/3	Parameter 1	REAL32	ro	4	
		Valid values: *Only if a minimum of two values is recorded!*				
		Only For Window Type Pass-through and Online!	Entry side Minimum value			
		Only For Window Type Block!	Block value X Minimum value			

Slot	Index	Content	Type	Access	Len In Byte	
		Only for Window Type Hysteresis!	Minimum value Hysteresis			
		Only For Window Type Gradient!	Minimum ascent			
	52/4	Parameter 2	REAL32	ro	4	
		Valid values: Only if a minimum of two values is recorded!				
		Only For Window Type Pass-through and Online!	Entry side Maximum value			
		Only For Window Type Block!	Block value X Maximum value			
		Only for Window Type Hysteresis!	Maximum value Hysteresis			
		Only For Window Type Gradient!	Maximum ascent			
	52/5	Parameter 3	REAL32	ro	4	
		Valid values: Only if a minimum of two values is recorded!				
		Only For Window Type Pass-through and Online!	Entry side, arithmetical average value			
		Only For Window Type Block!	Block value X, arithmetical average value			
		Only For Window Type Hysterese!	Arithmetical average value Hysteresis			
		Only For Window Type Gradient!	Arithmetical average value of meas. Gradient			
	52/6	Parameter 4	REAL32	ro	4	
		Valid values: Only if at least two values are recorded!				
		Only For Window Type Pass-through and Online!	Entry side Standard deviation			
		Only For Window Type Block!	Block value X Standard deviation			
		Only For Window Type Hysterese!	Standard deviation hysteresis			
		Only For Window Type Gradient!	Standard deviation of measured gradient			

Slot	Index	Content	Type	Access	Len In Byte	
	52/7	Parameter 5	REAL32	ro	4	
		Valid values: *Only if a minimum of two values is recorded!*				
		Only For Window Type Pass-through and Online!	Entry side cpk-value			
		Only For Window Type Block!	Block value X cpk-value			
		Only for Window Type Hysteresis!	Cpk-value Hysteresis			
		Only For Window Type Gradient!	Cpk-value of measured gradient			
	52/8	Parameter 6	REAL32	ro	4	
		Valid values: *Only if a minimum of two values is recorded!*				
		Only For Window Type Pass-through and Online!	Exit side Minimum value			
		Only For Window Type Block!	Block value Y Minimum value			
		Only for Window Type Hysteresis!	Reserved	0,0		
		Only For Window Type Gradient!	Reserved	0,0		
	52/9	Parameter 7	REAL32	ro	4	
		Valid values: *Only if a minimum of two values is recorded!*				
		Only For Window Type Pass-through and Online!	Exit side Maximum value			
		Only For Window Type Block!	Block value Y Maximum value			
		Only for Window Type Hysteresis!	Reserved	0,0		
		Only For Window Type Gradient!	Reserved	0,0		

Slot	Index	Content	Type	Access	Len In Byte
	52/10	Parameter 8	REAL32	ro	4
		Valid values: *Only if a minimum of two values is recorded!*			
		Only For Window Type Pass-through and Online!	Exit side arithmetical average value		
		Only For Window Type Block!	Block value Y arithmetical average value		
		Only for Window Type Hysteresis!	Reserved	0,0	
		Only For Window Type Gradient!	Reserved	0,0	
	52/11	Parameter 9	REAL32	ro	4
		Valid values: *Only if a minimum of two values is recorded!*			
		Only For Window Type Pass-through and Online!	Exit side Standard deviation		
		Only For Window Type Block!	Block value Y Standard deviation		
		Only for Window Type Hysteresis!	Reserved	0,0	
		Only For Window Type Gradient!	Reserved	0,0	
	52/12	Parameter 10	REAL32	ro	4
		Valid values: *Only if a minimum of two values is recorded!*			
		Only For Window Type Pass-through and Online!	Exit side cpk-value		
		Only For Window Type Block!	Block value Y cpk-value		
		Only for Window Type Hysteresis!	Reserved	0,0	
		Only For Window Type Gradient!	Reserved	0,0	
53		Statistics Window 2	otherwise as Slot 52		
54		Statistics Window 3	otherwise as Slot 52		
55		Statistics Window 4	otherwise as Slot 52		
56		Statistics Window 5	otherwise as Slot 52		
57		Statistics Window 6	otherwise as Slot 52		

Slot	Index	Content	Type	Access	Len	In Byte
58		Statistics Window 7	otherwise as Slot 52			
59		Statistics Window 8	otherwise as Slot 52			
60		Statistics Window 9	otherwise as Slot 52			
61		Statistics Window 10	otherwise as Slot 52			
85		Read Classify results	Only for Classify-X or Classify-Y!			
	85/1	Result class 0	U16	ro	2	
		Valid values:	Content of class 0			
	85/2	Result class 1	U16	ro	2	
		Valid values:	Content of class 1			
	85/3	Result class 2	U16	ro	2	
		Valid values:	Content of class 2			
	85/4	Result class 3	U16	ro	2	
		Valid values:	Content of class 3			
	85/5	Result class 4	U16	ro	2	
		Valid values:	Content of class 4			
	85/6	Last measurement value of present classification	REAL32	ro	4	
		Valid values:	Last recorded measurement value			
	85/7	Minimum of present classification	REAL32	ro	4	
		Valid values:	Present Minimum			
	85/8	Maximum of present classification	REAL32	ro	4	
		Valid values:	Present Max.imum			
	85/9	Average value of present classification	REAL32	ro	4	
		Valid values:	Present Average value			

Table Unit numbers

0 = "mN "

1 = "N "	11 = "m "	21 = "kPa "	31 = "gon "	41 = User_Unit1
2 = "kN "	12 = "inch"	22 = "MPa "	32 = "uV "	42 = User_Unit2
3 = "MN "	13 = "mil "	23 = "GPa "	33 = "mV "	
4 = "mNm "	14 = "m/s "	24 = "PSI "	34 = "V "	
5 = "Nm "	15 = "m/s2"	25 = "kPSI"	35 = "kV "	
6 = "kNm "	16 = "mbar"	26 = "MPSI"	36 = "uA "	
7 = "MNm "	17 = "bar "	27 = "mmHg"	37 = "mA "	
8 = "um "	18 = "kbar"	28 = "mWs "	38 = "A "	
9 = "mm "	19 = "Pa "	29 = "grd "	39 = "kA "	
10 = "dm "	20 = "hPa "	30 = "rad "	40 = "mV/V"	

7 Definitions

Alarm Model: Optional PROFIBUS service for anti-cyclic data traffic; is not supported by DIGIFORCE® model 9306.

ASIC: User specific switch circuit which contains partly or entirely the PROFIBUS-protocol and makes a connection to PROFIBUS realisable with only a few additional parts. In DIGIFORCE® model 9306 the Bofftein SPC 42 (Siemens-Profibus-Controller) is applied.

ASPC2: Advanced Siemens PROFIBUS Controller for 12 Mbaud; PROFIBUS-ASIC for Master applications

Bus segment: To reach the full extension of PROFIBUS and the maximum user quantity the PROFIBUS is parted in segments which are connected via repeaters for physical reasons.

DP: Decentral Periphery. PROFIBUS Protocol whose advantages lie in the fast cyclic data exchange.

DU: Data Unit (Net data to be transferred, Range of values 1... 244 Byte/Telegram).

EN 50 170: Europe wide valid standard for PROFIBUS-DP and FMS. Successor to the German national standard DIN 19245.

FDL: Fieldbus Data Link, also known as Layer 2.

FMS: Fieldbus Message Specification. Transfer protocol on PROFIBUS whose advantage lies rather in object oriented data transfer as its services have a great bandwidth. FMS can be used together with DP..

Freeze- Mode: With this command a slave is instructed to „freeze“ the inputs. Is oftentimes used for synchronization. Is not supported by DIGIFORCE® model 9306.

GSD-file: The GSD-file contains the basic device data of the product and is filled in by the manufacturer. The GSD-file usually is delivered along with the instrument on a disk and holds its technical characteristics. This file is needed for projecting.

Ident number: A 16-bit number issued by the PROFIBUS user organisation which identifies a product. It represents the GSD-file. For modular devices or devices which can be described in the same GSD-file, an ident number can be issued for the complete device series. The DIGIFORCE® model 9306 has number 0x05BB

ISO:	International Standard Organisation
LSPM2, SPM2:	PROFIBUS-ASICs for simple slave applications.
Mandatory services:	These are the services which need to be supported by every PROFIBUS-user.
Master Class 1:	A Master that executes the operational data traffic; usually a PLC or PC.
Master Class 2:	Master for Control-/Installation or Projecting tasks. It is capable usually not only of cyclic services DP but also anti-cyclic services DVP1.
Min_Slave_ Interval	Time between 2 poll cycles in the Master/Slave-Communication. Typical value from experience is approx. 2 ms. In the meantime this time has been reduced to some ,*us* with the help of powerful ASICs. With the Min_Slave_Interval the user has the possibility to control time-intensive user applications.
$Max._{tsdr}$:	The time in which the slave should answer at the latest to the request of the Master. The range lies between 60 and 800 Tbit, depending on the baud rate.
min_{tsdr}:	The time in which the Slave has to wait until he may answer to the Master‘s request. It is set to 11 Tbit by standard.
Octet:	Nomination from EN 50 170. An Octet is exactly 8 Bit.
OLM:	Optical Link Module. With OLMs redundant transfer lines can be set up. Furthermore, one can choose between RS485 and LWL technique.
Optional service:	These services can be fulfilled by a PROFIBUS-user in addition to the mandatory services (refer to SYNC and FREEZE).
OSI:	Open System Interconnect
PROFIBUS DP	PROFIBUS Decentral Periphery. PROFIBUS-Protocol, whose strength lies in fast cyclic data output.
PROFIBUS DPV1	Next to all functions of DP the PROFIBUS DPV1 features not only cyclic but anti-cyclic data exchange. This mode, however, is quite time-intensive for the Master-programmer.
PROFIBUS FMS	Field Message Specification. Transfer protocol on PROFIBUS whose advantage lies rather in object oriented data transfer as its services have a great bandwidth. FMS can be used together with DP. Is not supported by DIGIFORCE® model 9306.

PROFIBUS PA:	Process Automation. PROFIBUS-definition for the process automation acc. IEC 1158-2 and DIN E 19245 part 14th. In reference to the protocol very similar to PROFIBUS DP but has different bus physics. Application typically in the chemical industry. Is not supported by DIGIFORCE® model 9306.
PDU:	Process Data Unit. In the PDU the net data to be transferred is described.
PI:	PROFIBUS-International
Piggy back:	Electronic plug-in module on another board with a specific function. In this case, a PROFIBUS interface is named.
PNO:	PROFIBUS User organisation (Karlsruhe). Non-Profit-Lobby of PROFIBUS users.
Repeater:	... serve as signal conditioner for connection of the different bus segments.
SAP:	Service Access Point for unmistakable identification of the data to be inquired/transferred within the telegram. In every telegram there is a source SAP and a destination SAP (exception: the data output is done via default-SAP)
PLC:	Programmable Logical Control
State machine:	... or condition automat; describes the way in which a part of a PROFIBUS system must respond in various situations.
Sync- Mode:	With this command a Slave is instructed to „hold“ the outputs. This mode is an optional service and is oftentimes used for synchronization. Is not supported by DIGIFORCE® 9306.
TBit:	Time unit e.g. for the transfer of a bit on PROFIBUS (Reciprocal of the transfer rate, example 1 Tbit for 12 Mbaud = 1/12.000.000 Bit/sek = ca. 83 ns).
Token:	The active station (Master station) that is in possession of the token can execute a data output with the Slaves which are configured by it (passive stations). After a data cycle is completed, the active station hands over the token to the next active station.
Certification test:	A PROFIBUS certification test is done by specialists (of PROFIBUS user organisation PNO) and tests the conformity of an instrument to standards. Plug and Play works only with certified devices

8 Appendix A: Display of float number values

Float number values of the measurement results are transferred as 4-Byte-float-values acc. to IEEE-754-1985. The following examples are meant to explain how the 4 byte are interpreted in order to receive the float number value.

Of what components does a float number exist?

A float number value as 4-Byte-float-value consists of three elements: the sign bit (*sign*), the exponent (*ex*) and the mantisse (*mant*).

How are these components set together to form a float number?

The following equation is valid:

$$x = (-1)^{sign} * 2^{(ex-127)} * (1{,}0 + mant)$$

Equation 110.1

- The mantisse is saved without a previous „1“, therefore we write term (1,0 + *mant*)
- The exponent is shown in a bias-dislocation, therefore term (*ex*-127)

Examples:

x = -6.0 is displayed as $-1{,}5 * 2^2$, deriving from

Sign bit (*sign*):	1 (negative)		
Exponent (*ex*):	129	→ 129 – 127	= 2
Mantisse (*mant*):	0,5	→ 0,5 + 1,0	= 1,5

as a result:

$$x = (-1)^1 * 2^{(129-127)} * (1{,}0 + 0{,}5) = (-1) * 2^2 * 1{,}5 = -1{,}5 * 4 = \underline{-6{,}0}$$

x = 3.0 is displayed as $1{,}5 * 2^1$, deriving from

Sign bit (*sign*):	0 (positive)		
Exponent (*ex*):	128	→ 128 – 127	= 1
Mantisse (*mant*):	0,5	→ 0,5 + 1,0	= 1,5

as a result:

$$x = (-1)^0 * 2^{(128-127)} * (1{,}0 + 0{,}5) = (+1) * 2^1 * 1{,}5 = 1{,}5 * 2 = \underline{3{,}0}$$

x = -2,25 is displayed as $-1{,}125 * 2^1$, deriving from

Sign bit (*sign*):	1 (negative)		
Exponent (*ex*):	128	→ 128 – 127	= 1
Mantisse (*mant*):	0,125	→ 0,125+ 1,0	= 1,125

as a result:

$$x = (-1)^1 * 2^{(128-127)} * (1{,}0 + 0{,}125) = (-1) * 2^1 * 1{,}125 = -1{,}125 * 2 = \underline{-2{,}25}$$

x = -0,25 is displayed as -1,0 * 2^{-2} , deriving from
Sign bit (*sign*): 1 (negative)
Exponent (*ex*): 125 → 125 − 127 = -2
Mantisse (*mant*): 0,0 → 0,0 + 1,0 = 1,0
as a result:

$$x = (-1)^1 * 2^{(125\ -127\ )} * (1,0 + 0,0)$$
$$= (-1) * 2^{-2} * 1,0$$
$$= -1,0 * \frac{1}{2^2}$$
$$= -1,0 * \frac{1}{4}$$
$$= \underline{-0,25}$$

Coding of three formula components in the four byte

1st Byte (First Byte)							
Bit 7 MSB	Bit 6	Bit 5	Bit 4	Bit3	Bit 2	Bit 1	Bit 0 LSB
S	E_7	E_6	E_5	E_4	E_3	E_2	E_1

2nd Byte (Second Byte)							
Bit 7	Bit 6	Bit 5	Bit 4	Bit3	Bit 2	Bit 1	Bit 0
E_0	M_{22}	M_{21}	M_{20}	M_{19}	M_{18}	M_{17}	M_{16}

3rd Byte (Third Byte)							
Bit 7	Bit 6	Bit 5	Bit 4	Bit3	Bit 2	Bit 1	Bit 0
M_{15}	M_{14}	M_{13}	M_{12}	M_{11}	M_{10}	M_9	M_8

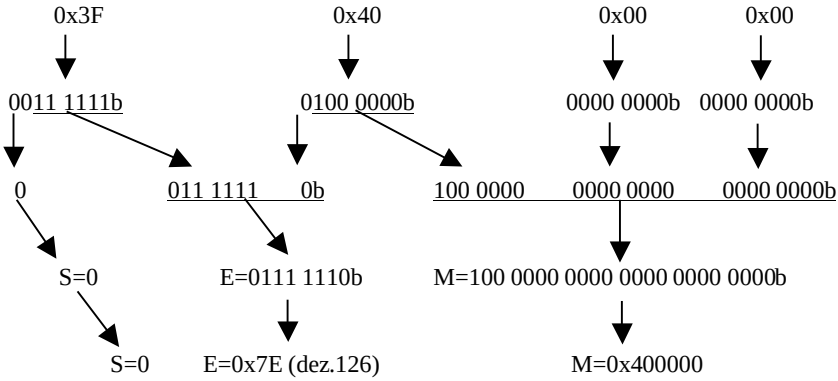
4th Byte (Fourth Byte)							
Bit 7	Bit 6	Bit 5	Bit 4	Bit3	Bit 2	Bit 1	Bit 0
M_7	M_6	M_5	M_4	M_3	M_2	M_2	M_1

- Bit S of the first byte contains the sign bit
- Bits E_7 – E0 of Byte 1 and 2 define the exponent
- Bits M22 – M0 of Byte 2 – 4 form the Mantisse

Following 4 Byte are received:

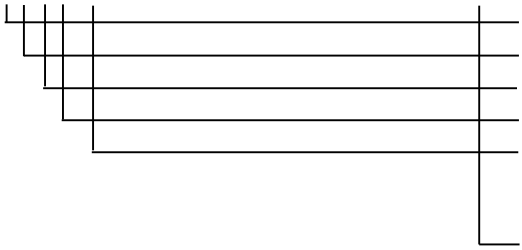
(Byte 1) (Byte 2) (Byte 3) (Byte 4)

(first received Byte) (last received Byte)



The value in the mantisse field is interpreted as decimal place in the following pattern:

1000 0000 0000 0000 0000 000b



$1 * 2^{-1}$
$0 * 2^{-2}$
$0 * 2^{-3}$
$0 * 2^{-4}$
$0 * 2^{-5}$
usw.

$0 * 2^{-23}$

With the equation 110.1 the float value can be calculated as follows:

$$x = (-1)^0 * 2^{(126-127)} * (1{,}0 + 0{,}5)$$

$$x = 1 * 2^{-1} * 1{,}5$$

$$x = \frac{1}{2^1} * 1{,}5$$

$$x = \frac{1}{2} * 1{,}5 = \underline{0{,}75}$$

The Byte-combination 0x3F 0x40 0x00 0x00 equals float value +0,75.

Notes on calculations

These calculations can be realised quite easy on binary basis with the help of bit manipulation. One can proceed in the following manner:
First, the three components sign bit, exponent and mantisse have to be created by copying and renaming of bits from these four bits.
Example: The Byte 0x3F,0x40,0x00,0x00
are described as
Sign=0, Exponent=0x7E(126dez), Mantisse =100 0000 0000 0000 0000 0000b
resp. (0x400000)

Calculation of the exponent value
by subtraction of 0x7F (127dez) from the content of the exponent field
Example: Content_exponent_field – 127dez = Exponent value
126dez – 127dez = -1

Adding the 1.0, i.e. inserting a 1 and the decimal point in front of the mantisse
Example: Mantisse was 100 0000 0000 0000 0000 0000b
new mantisse is 1.100 0000 0000 0000 0000 0000b

Taking the exponent into consideration
A negative exponent shifts the decimal point to left, a positive one to the right. If an exponent was calculated to –3, e.g., the decimal point would be shifted by three digits to the left. For a calculated exponent of +1 with one digit to the right.
Example: Mantisse was: 1.100 0000 0000 0000 0000 0000b
Exponent was: -1
new mantisse with exponent is: 0.1100 0000 0000 0000 0000 0000b

Calculation of predecimal places
The predecimal places are placed on the left side of the decimal point and are interpreted similar to the above as positive dual potentials and are then summed up:
Example: Predecimal places of : 0.1100 0000 0000 0000 0000 0000b
is 0b

$$0*2^0 + [0*2^1 + 0*2^2 + 0*2^3 \ldots] = \underline{0}$$

Calculation of postdecimal places
As for the predecimal places, the postdecimal places are represented by dual potentials, however, this time they are negative.

Example: Postdecimal places of : 0.1100 0000 0000 0000 0000 0000b

Is 1100 0000 0000 0000 0000 0000b

$$1*2^{-1} + 1*2^{-2} + 0*2^{-3} + [0*2^{-4} + 0*2^{-5} + .. = 1*0{,}5 + 1*0{,}25 + 0*0{,}125 [...] = \underline{0{,}75}$$