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TURCK

LS-5...
Level Sensors

IO-Link Parameters – IO-Link Version 1.1

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1 About This Manual

This manual describes the parameterization of devices using IO-Link. The manual contains general information on IO-Link and a list of the available parameters.

1.1 Target groups

These instructions are aimed at qualified personal and must be carefully read by anyone mounting, commissioning, operating, maintaining, dismantling or disposing of the device.

1.2 Explanation of symbols used

The following symbols are used in these instructions:

	**DANGER** DANGER indicates a dangerous situation with high risk of death or severe injury if not avoided.
	**WARNING** WARNING indicates a dangerous situation with medium risk of death or severe injury if not avoided.
	**CAUTION** CAUTION indicates a dangerous situation of medium risk which may result in minor or moderate injury if not avoided.
	**NOTICE** NOTICE indicates a situation which may lead to property damage if not avoided.
	**NOTE** NOTE indicates tips, recommendations and useful information on specific actions and facts. The notes simplify your work and help you to avoid additional work.
▶	**CALL TO ACTION** This symbol denotes actions that the user must carry out.
⇨	**RESULTS OF ACTION** This symbol denotes relevant results of actions.

1.3 Other documents

Besides this document the following material can be found on the Internet at www.turck.com:

- Data sheet
- Instructions for use

1.4 Feedback about these instructions

We make every effort to ensure that these instructions are as informative and as clear as possible. If you have any suggestions for improving the design or if some information is missing in the document, please send your suggestions to techdoc@turck.com.

2 Notes on the Product

2.1 Product identification

This manual applies to the following level sensors:

- LS-5…

2.2 Turck service

Turck supports you with your projects, from initial analysis to the commissioning of your application. The Turck product database under **www.turck.com** contains software tools for programming, configuration or commissioning, data sheets and CAD files in numerous export formats.

The contact details of Turck subsidiaries worldwide can be found on p. [▷ 24].

3 Software-Supported IO-Link Parameterization

The ports of the IO-Link master can be configured in IO-Link mode (IOL) or in Standard IO mode (SIO).

If a port is set to SIO mode, the IO-Link master at this port behaves like a normal digital input. The connected IO-Link device transfers its conventional switching output to the IO-Link master – no communication takes place between the device and the IO-Link master.

If the port is configured in IOL mode, the IO-Link master tries to wake the connected IO-Link device via the "Wake-up Request". If the master receives a response from the IO-Link device, both devices start to communicate with each other. The communication parameters are exchanged first of all; the cyclic data exchange of the process data (process data objects) then starts.

When IO-Link communication (IOL mode) is active, both a cyclic and acyclic communication service is available.

There are two ways of setting the parameters via IO-Link:

- via on-request data objects (e.g. close to the PLC via IO-Link function block)
- via tool-based engineering via FDT/DTM (e.g. PACTware with the use of DTM or the IODD)

Device parameters (on-request data objects)

Device parameters are exchanged acyclically and on request of the IO-Link master. The IO-Link master always sends a request to the device first, then the device responds. This applies when the data is written into the device and also when read from the device. On-request data objects (ORDO) enable parameter values to be written into the device (write) or device states to be read from the device (read).

IO-Link configuration in PROFINET

SIDI (Simple IO-Link Device Integration) enables IO-Link devices in PROFINET applications to be configured directly in the programming environment (e.g. TIA Portal). The Turck IO-Link devices are integrated in the GSDML file of the TBEN, TBPN and FEN20 series IO-Link masters and can be set in the programming environment as submodules of a modular I/O system. The user has access here to all device properties and parameters.

4 IO-Link Parameters

4.1 General parameters

Parameter	Content
Vendor ID	317 (0x13D)
Device ID	589825 (0x90001)
IO-Link version	1.1
Bitrate	COM2 (38.4 kbit/s)
Minimum cycle time	16 ms
SIO supported	True
M-Sequence Capability	ISDU supported
Block Parameter	False
Data Storage	True
ProfileCharacteristic	

4.2 Process input data

Name	Byte.Bit-offset	Bit Length	Subindex access supported	Data Type	Value	Description
Q1	3.0	1	False	Boolean	False/true	
					False	Low
					True	High
Q2	3.1	1	False	Boolean	False/true	
					False	Low
					True	High
Q3	3.2	1	False	Boolean	False/true	
					False	Low
					True	High
Q4	3.3	1	False	Boolean	False/true	
					False	Low
					True	High
DeviceState	3.4	2	False	UInteger	0…2	
					0	Failure
					1	Warning
					2	OK
Reserved	1.6	12	False	Integer		
Level	0.2	14	False	UInteger	0…6005	

4.3 Standard parameters

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit-offset	Bit Length	Data Type	Value	Default	Description
Min Cycle Time	0	0x0	3	0x3	True	Read	2.0	8	UInteger			
IO-Link Version ID	0	0x0	5	0x5	True	Read	4.0	8	UInteger		17	
Vendor ID 1	0	0x0	8	0x8	True	Read	7.0	8	UInteger			
Vendor ID 2	0	0x0	9	0x9	True	Read	8.0	8	UInteger			
Device ID 1	0	0x0	10	0xA	True	Read	9.0	8	UInteger			
Device ID 2	0	0x0	11	0xB	True	Read	10.0	8	UInteger			
Device ID 3	0	0x0	12	0xC	True	Read	11.0	8	UInteger			
Standard Command	2	0x2	0	0x0	True	write	0.0	8	UInteger	0… 203		System command
										128		Device reset
										129		Application reset
										130		Restore factory settings
										165		Pulse_AutCal
										166		Pulse_Auto Tune
										167		Pulse_Reset
										170		Foam_CalEmp
										171		Foam_CalMed
										172		Foam_Reset
										180		Reserved0
										190		Reset_Level MinMax
										200		Reserved1
										201		Reserved2
										202		Reserved3
										203		Reserved4
Parameter (write) Access Lock	12	0xC	1	0x1	False	Read/ write	0.0	1	Boolean	False/ true		Device access locks
Data Storage Lock	12	0xC	2	0x2	False	Read/ write	0.1	1	Boolean	False/ true		Device access locks
Local Parameterization Lock	12	0xC	3	0x3	False	Read/ write	0.2	1	Boolean	False/ true		Device access locks
Local User Interface Lock	12	0xC	4	0x4	False	Read/ write	0.3	1	Boolean	False/ true		Device access locks
Vendor Name	16	0x10	0	0x0	True	Read	0.0	512	String		Turck	Vendor name

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit-offset	Bit Length	Data Type	Value	Default	Description
Product Name	18	0x12	0	0x0	True	Read	0.0	512	String			Manufac-turer's device designation
Product ID	19	0x13	0	0x0	True	Read	0.0	512	String			ID
Serial Number	21	0x15	0	0x0	True	Read	0.0	128	String			Device serial number
Hardware Version	22	0x16	0	0x0	True	Read	0.0	512	String			Hardware revision
Firmware Version	23	0x17	0	0x0	True	Read	0.0	512	String			Firmware revision
Application Specific Tag	24	0x18	0	0x0	True	Read/ write	0.0	128	String		***	Any user generated content
Process Data Input	40	0x28	0	0x0	True	Read	0.0	32	Process-DataIn-Union			

4.4 Parameters

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
Device Specific Tag	64	0x40	0	0x0	True	Read/ write	0.0	128	String	NaN … NaN	***	
Part Number	90	0x5A	0	0x0	True	Read	0.0	64	String	NaN … NaN		Part number
SP1/FH1	100	0x64	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005		Q1 SP1: Set-point/FH1: high limit point
RP1/FL1	101	0x65	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005		Q1 RP1: Reset-point/FL1: low limit point
OU1	102	0x66	0	0x0	True	Read/ write	0.0	8	UInteger	0…5		Q1 function
										0		Q1_Hno
										1		Q1_Hnc
										2		Q1_Fno
										3		Q1_Fnc
										4		Q1_Eno
										5		Q1_Enc
SimQ1	103	0x67	0	0x0	True	Read/ write	0.0	8	UInteger	0…2		Simulate Q1
										0		Q1Norm
										1		Q1On
										2		Q1Off
SP2/FH2	104	0x68	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005		Q2 SP2: Set-point/FH2: high limit point
RP2/FL2	105	0x69	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005		Q2 RP2: Reset-point/FL2: low limit point
OU2	106	0x6A	0	0x0	True	Read/ write	0.0	8	UInteger	0…5		Q2 function
										0		Q2_Hno
										1		Q2_Hnc
										2		Q2_Fno
										3		Q2_Fnc
										4		Q2_Eno
										5		Q2_Enc

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
TYP2	107	0x6B	0	0x0	True	Read/ write	0.0	8	UInteger	0…2		Q2 Output driver
										0		Q2_PNP
										1		Q2_NPN
										2		Q2_DRV
SimQ2	108	0x6C	0	0x0	True	Read/ write	0.0	8	UInteger	0…2		Simulate Q2
										0		Q2Norm
										1		Q2On
										2		Q2Off
SP3/FH3	109	0x6D	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005		Q3 SP3: Set-point/FH3: high limit point
RP3/FL3	110	0x6E	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005		Q3 RP3: Reset-point/FL3: low limit point
OU3	111	0x6F	0	0x0	True	Read/ write	0.0	8	UInteger	0…5		Q3 function
										0		Q3_Hno
										1		Q3_Hnc
										2		Q3_Fno
										3		Q3_Fnc
										4		Q3_Eno
										5		Q3_Enc
TYP3	112	0x70	0	0x0	True	Read/ write	0.0	8	UInteger	0…2		Q3 Output driver
										0		Q3_PNP
										1		Q3_NPN
										2		Q3_DRV
SimQ3	113	0x71	0	0x0	True	Read/ write	0.0	8	UInteger	0…2		Simulate Q3
										0		Q3Norm
										1		Q3On
										2		Q3Off
SP4/FH4	114	0x72	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005		Q4 SP4: Set-point / FH4: high limit point
RP4/FL4	115	0x73	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005		Q4 RP4: Reset-point / FL4: low limit point

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
OU4	116	0x74	0	0x0	True	Read/ write	0.0	8	UInteger	0…5		Q4 function
										0		Q4_Hno
										1		Q4_Hnc
										2		Q4_Fno
										3		Q4_Fnc
										4		Q4_Eno
										5		Q4_Enc
TYP4	117	0x75	0	0x0	True	Read/ write	0.0	8	UInteger	0…2		Q4 Output driver
										0		Q4_PNP
										1		Q4_NPN
										2		Q4_DRV
SimQ4	118	0x76	0	0x0	True	Read/ write	0.0	8	UInteger	0…2		Simulate Q4
										0		Q4Norm
										1		Q4On
										2		Q4Off
QAHIGH	119	0x77	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005		QA high limit point
QALOW	120	0x78	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005		QA low limit point
QAPOL	121	0x79	0	0x0	True	Read/ write	0.0	8	UInteger	0…1		QA polarity
										0		QA_Nrm
										1		QA_Inv
QATYPE	122	0x7A	0	0x0	True	Read/ write	0.0	8	UInteger	0…4		QA Output driver
										0		4…20 mA
										1		0…10 V
										2		Auto
										3		Auto 4…20 mA
										4		Auto 0…10 V
QAFail	123	0x7B	0	0x0	True	Read/ write	0.0	8	UInteger	0…1		QA failure state
										0		3.5 mA
										1		21.5 mA

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
SimCur	124	0x7C	0	0x0	True	Read/ write	0.0	8	UInteger	0…9		Simulate QA current
										0		SimOff
										1		3.5 mA
										2		3.8 mA
										3		4.0 mA
										4		10.0 mA
										5		12.0 mA
										6		18.0 mA
										7		20.0 mA
										8		20.5 mA
										9		21.5 mA
SimVol	125	0x7D	0	0x0	True	Read/ write	0.0	8	UInteger	0…7		Simulate QA voltage
										0		SimOff
										1		0.0 V
										2		2.0 V
										3		4.0 V
										4		6.0 V
										5		8.0 V
										6		10.0 V
										7		10.5 V
DspVal	126	0x7E	0	0x0	True	Read/ write	0.0	8	UInteger	0…4		Display mode
										0		Distan
										1		QaPerc
										2		QaBarG
										3		QaSign
										4		QxSign
Filter	127	0x7F	0	0x0	True	Read/ write	0.0	8	UInteger	0… 100		Averaging filter
										0		Off
										4		400 ms
										6		600 ms
										10		1000 ms
										14		1400 ms
										20		2 s
										50		5 s
										100		10 s

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
SimLev	128	0x80	0	0x0	True	Read/ write	0.0	8	UInteger	0…5		Simulate level
										0		SimOff
										1		0 %
										2		25 %
										3		50 %
										4		75 %
										5		100 %
Profile Version	205	0xCD	0	0x0	True	Read	0.0	32	String	NaN … NaN		
Lock	300	0x12C	0	0x0	True	Read/ write	0.0	1	Boolean	False/ true		Menu password protection
										False		Inactive
										True		Active
Unit	301	0x12D	0	0x0	True	Read/ write	0.0	8	UInteger	0…1		Display level unit
										0		mm
										1		Inch
Offset	302	0x12E	0	0x0	True	Read/ write	0.0	16	UInteger	0… 3000	0	Level offset
Mode	303	0x12F	0	0x0	True	Read/ write	0.0	8	UInteger	0…1		Algorithm mode
										0		Pulse
										1		Foam
MeasMd	304	0x130	0	0x0	True	Read/ write	0.0	8	UInteger	0…3		Measuring mode
										0		mode-1
										1		HiSpd
										2		HiAcc
										3		mode-2
MaxCoL	305	0x131	0	0x0	True	Read/ write	0.0	8	UInteger	2…50		Maximum change of level
										2		2 cm/s
										5		5 cm/s
										10		10 cm/s
										50		AnySpeed
TrsHld	310	0x136	0	0x0	True	Read/ write	0.0	16	UInteger	20… 500	100	Threshold for pulse detection
CalRng	311	0x137	0	0x0	True	Read/ write	0.0	16	UInteger	95… 6005	6005	AutCal range

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
MaskZn	312	0x138	0	0x0	True	Read/ write	0.0	16	UInteger	0… 6005	0	Masked zone range
MaskTr	313	0x139	0	0x0	True	Read/ write	0.0	16	UInteger	10… 500	50	Masking threshold
Limit	320	0x140	0	0x0	True	Read/ write	0.0	8	UInteger	20… 100	90	Foam algorithm detection limit
Length	330	0x14A	0	0x0	True	Read/ write	0.0	16	UInteger	95… 6005		Probe length
CblLen	331	0x14B	0	0x0	True	Read/ write	0.0	16	UInteger	200… 3500		Coaxial cable length
Type	332	0x14C	0	0x0	True	Read/ write	0.0	8	UInteger	0…1		Probe type
										0		Rod
										1		Rope
CalSta	342	0x156	0	0x0	True	Read	0.0	8	UInteger	0…3		Calibration status
										0		NoCal
										1		AutCal
										2		FomCal
										3		CalMis
SigQa1	350	0x15E	0	0x0	True	Read	0.0	8	UInteger	NaN … NaN		Signal quality 1
SigQa2	351	0x15F	0	0x0	True	Read	0.0	8	UInteger	NaN … NaN		Signal quality 2
SigQa3	352	0x160	0	0x0	True	Read	0.0	8	UInteger	NaN … NaN		Signal quality 3
SupplyVoltage	360	0x168	0	0x0	True	Read	0.0	16	UInteger	NaN … NaN		Sensor supply voltage
SensorTem-perature	361	0x169	0	0x0	True	Read	0.0	16	Integer	NaN … NaN		Internal elec-tronics tem-perature
PowerUp-Counter	362	0x16A	0	0x0	True	Read	0.0	32	UInteger	NaN … NaN		Power up counter
Operating-Time	363	0x16B	0	0x0	True	Read	0.0	32	UInteger	NaN … NaN		Run time
SystemState	364	0x16C	1	0x1	False	Read	2.0	2	UInteger	0…2		System monitor
										0		Failure
										1		Warning
										2		OK

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
SC-Q2	364	0x16C	2	0x2	False	Read	2.2	1	Boolean	False/ true		System monitor
										False		-
										True		Active
SC-Q3	364	0x16C	3	0x3	False	Read	2.3	1	Boolean	False/ true		System monitor
										False		-
										True		Active
SC-Q4	364	0x16C	4	0x4	False	Read	2.4	1	Boolean	False/ true		System monitor
										False		-
										True		Active
SC-Qa	364	0x16C	5	0x5	False	Read	1.5	1	Boolean	False/ true		System monitor
										False		-
										True		Active
QaOvf	364	0x16C	6	0x6	False	Read	1.6	1	Boolean	False/ true		System monitor
										False		-
										True		Active
reserved	364	0x16C	7	0x7	False	Read	1.7	1	Boolean	False/ true		System monitor
										False		-
										True		Active
reserved	364	0x16C	8	0x8	False	Read	1.0	1	Boolean	False/ true		System monitor
										False		-
										True		Active
InvEc	364	0x16C	9	0x9	False	Read	1.1	1	Boolean	False/ true		System monitor
										False		-
										True		Active
Cable	364	0x16C	10	0xA	False	Read	1.2	1	Boolean	False/ true		System monitor
										False		-
										True		Active
Range	364	0x16C	11	0xB	False	Read	1.3	1	Boolean	False/ true		System monitor
										False		-
										True		Active
MaskZ	364	0x16C	12	0xC	False	Read	1.4	1	Boolean	False/ true		System monitor
										False		-
										True		Active

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
Temp	364	0x16C	13	0xD	False	Read	0.5	1	Boolean	False/ true		System monitor
										False		-
										True		Active
reserved	364	0x16C	14	0xE	False	Read	0.6	1	Boolean	False/ true		System monitor
										False		-
										True		Active
reserved	364	0x16C	15	0xF	False	Read	0.7	1	Boolean	False/ true		System monitor
										False		-
										True		Active
reserved	364	0x16C	16	0x10	False	Read	0.0	1	Boolean	False/ true		System monitor
										False		-
										True		Active
reserved	364	0x16C	17	0x11	False	Read	0.1	1	Boolean	False/ true		System monitor
										False		-
										True		Active
reserved	364	0x16C	18	0x12	False	Read	0.2	1	Boolean	False/ true		System monitor
										False		-
										True		Active
reserved	364	0x16C	19	0x13	False	Read	0.3	1	Boolean	False/ true		System monitor
										False		-
										True		Active
reserved	364	0x16C	20	0x14	False	Read	0.4	1	Boolean	False/ true		System monitor
										False		-
										True		Active
Minimum-Level	365	0x16D	0	0x0	True	Read	0.0	16	UInteger	0… 6005		Minimum level since power up/last reset
Maximum-Level	366	0x16E	0	0x0	True	Read	0.0	16	UInteger	0… 6005		Maximum level since power up/last reset
InputData	380	0x17C	0	0x0	False	Read/ write	31.0	8	UInteger	NaN … NaN		Input data

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Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
InputData	380	0x17C	1	0x1	False	Read/ write	30.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	2	0x2	False	Read/ write	29.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	3	0x3	False	Read/ write	28.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	4	0x4	False	Read/ write	27.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	5	0x5	False	Read/ write	26.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	6	0x6	False	Read/ write	25.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	7	0x7	False	Read/ write	24.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	8	0x8	False	Read/ write	23.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	9	0x9	False	Read/ write	22.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	10	0xA	False	Read/ write	21.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	11	0xB	False	Read/ write	20.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	12	0xC	False	Read/ write	19.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	13	0xD	False	Read/ write	18.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	14	0xE	False	Read/ write	17.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	15	0xF	False	Read/ write	16.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	16	0x10	False	Read/ write	15.0	8	UInteger	NaN … NaN		Input data

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
InputData	380	0x17C	17	0x11	False	Read/ write	14.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	18	0x12	False	Read/ write	13.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	19	0x13	False	Read/ write	12.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	20	0x14	False	Read/ write	11.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	21	0x15	False	Read/ write	10.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	22	0x16	False	Read/ write	9.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	23	0x17	False	Read/ write	8.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	24	0x18	False	Read/ write	7.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	25	0x19	False	Read/ write	6.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	26	0x1A	False	Read/ write	5.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	27	0x1B	False	Read/ write	4.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	28	0x1C	False	Read/ write	3.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	29	0x1D	False	Read/ write	2.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	30	0x1E	False	Read/ write	1.0	8	UInteger	NaN … NaN		Input data
InputData	380	0x17C	31	0x1F	False	Read/ write	0.0	8	UInteger	NaN … NaN		Input data
OutputData	381	0x17D	0	0x0	False	Read	31.0	8	UInteger	NaN … NaN		Output data

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
OutputData	381	0x17D	1	0x1	False	Read	30.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	2	0x2	False	Read	29.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	3	0x3	False	Read	28.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	4	0x4	False	Read	27.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	5	0x5	False	Read	26.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	6	0x6	False	Read	25.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	7	0x7	False	Read	24.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	8	0x8	False	Read	23.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	9	0x9	False	Read	22.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	10	0xA	False	Read	21.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	11	0xB	False	Read	20.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	12	0xC	False	Read	19.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	13	0xD	False	Read	18.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	14	0xE	False	Read	17.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	15	0xF	False	Read	16.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	16	0x10	False	Read	15.0	8	UInteger	NaN … NaN		Output data

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
OutputData	381	0x17D	17	0x11	False	Read	14.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	18	0x12	False	Read	13.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	19	0x13	False	Read	12.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	20	0x14	False	Read	11.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	21	0x15	False	Read	10.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	22	0x16	False	Read	9.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	23	0x17	False	Read	8.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	24	0x18	False	Read	7.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	25	0x19	False	Read	6.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	26	0x1A	False	Read	5.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	27	0x1B	False	Read	4.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	28	0x1C	False	Read	3.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	29	0x1D	False	Read	2.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	30	0x1E	False	Read	1.0	8	UInteger	NaN … NaN		Output data
OutputData	381	0x17D	31	0x1F	False	Read	0.0	8	UInteger	NaN … NaN		Output data
UniqueID	382	0x17E	0	0x0	False	Read	7.0	8	UInteger	NaN … NaN		Unique device ID

Name	Index (dec.)	Index (hex.)	Sub-index (dec.)	Sub-index (hex.)	Subindex access supported	Access	Byte. Bit Offset	Bit Length	Data Type	Value	Default	Description
UniqueID	382	0x17E	1	0x1	False	Read	6.0	8	UInteger	NaN … NaN		Unique device ID
UniqueID	382	0x17E	2	0x2	False	Read	5.0	8	UInteger	NaN … NaN		Unique device ID
UniqueID	382	0x17E	3	0x3	False	Read	4.0	8	UInteger	NaN … NaN		Unique device ID
UniqueID	382	0x17E	4	0x4	False	Read	3.0	8	UInteger	NaN … NaN		Unique device ID
UniqueID	382	0x17E	5	0x5	False	Read	2.0	8	UInteger	NaN … NaN		Unique device ID
UniqueID	382	0x17E	6	0x6	False	Read	1.0	8	UInteger	NaN … NaN		Unique device ID
UniqueID	382	0x17E	7	0x7	False	Read	0.0	8	UInteger	NaN … NaN		Unique device ID
Reserved	383	0x17F	0	0x0	True	Read/ write	7.0	8	UInteger	NaN … NaN		Reserved
Reserved	383	0x17F	1	0x1	True	Read/ write	6.0	8	UInteger	NaN … NaN		Reserved
Reserved	383	0x17F	2	0x2	True	Read/ write	5.0	8	UInteger	NaN … NaN		Reserved
Reserved	383	0x17F	3	0x3	True	Read/ write	4.0	8	UInteger	NaN … NaN		Reserved
Reserved	383	0x17F	4	0x4	True	Read/ write	3.0	8	UInteger	NaN … NaN		Reserved
Reserved	383	0x17F	5	0x5	True	Read/ write	2.0	8	UInteger	NaN … NaN		Reserved
Reserved	383	0x17F	6	0x6	True	Read/ write	1.0	8	UInteger	NaN … NaN		Reserved
Reserved	383	0x17F	7	0x7	True	Read/ write	0.0	8	UInteger	NaN … NaN		Reserved

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