IO-Link Parameter Datasheet

Signal lamp

VAZ-CLAMP-40MM-IO

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General Information

Device Identification	
Vendor ID	1 (0x0001)
Device ID	983809 (0x0F0301)

Features	
Data Storage	Yes
Block Parameterization	Yes

Communication Characteristics	
IO-Link revision	V1.1 (specification V1.1.2)
IO-Link backward compatibility	n/a
Data transmission rate	COM2 (38.4 kbit/s)
Min. cycle time	5 ms
Process data input	n/a
Process data output	16 bit
SIO mode support	n/a
Compatible master port type	Class A, Class B (see NOTE)

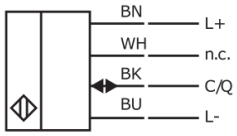
NOTE: For use at master with port class B, use 3-pole adapter or 3-wire cable.

Profile	

Supported Product Variants

Product ID	*Product Name*	*Description*	*Connector*
324822	VAZ-CLAMP-40MM-IO	Signal lamp, diameter 40 mm, max. 5 segments, clamp	Clamp, 4-pole

Connection

Connection Diagram	*Description*
	**Clamp, 4-pole** 1: L+ 2: C/Q 3: L- 4: n.c.

Process Data

Process Data Output

Sub	Name	Data type	Length	Bitoffs.	Value	Unit	Description
.1	CSC - Segment 1	Boolean	1 bit	0	0 1		Controls the status of the segment. *Off* *On*
.2	CSC - Segment 2	Boolean	1 bit	1	0 1		Controls the status of the segment. *Off* *On*
.3	CSC - Segment 3	Boolean	1 bit	2	0 1		Controls the status of the segment. *Off* *On*
.4	CSC - Segment 4	Boolean	1 bit	3	0 1		Controls the status of the segment. *Off* *On*
.5	CSC - Segment 5	Boolean	1 bit	4	0 1		Controls the status of the segment. *Off* *On*

NOTE: The process data output content can be accessed in addition over parameter ‘Process Data Output’ at index 41 (0x29)

Parameter Data

Identification

Index	Parameter	Access	Data type	Length	Default	Description	DS	R
16 (0x10)	Vendor Name	ro	String	13 byte	Pepperl+Fuchs	The vendor name that is assigned to a Vendor ID.		
17 (0x11)	Vendor Text	ro	String	29 byte	www.pepperl-fuchs.com/io-link	Additional information about the vendor.		
18 (0x12)	Product Name	ro	String	max. 30 byte	*See table Supported Product Variants*	Complete product name.		
19 (0x13)	Product ID	ro	String	max. 16 byte	*See table Supported Product Variants*	Vendor-specific product or type identification (e.g., item number or model number).		
20 (0x14)	Product Text	ro	String	max. 30 byte	Signal Lamp	Additional product information for the device.		
21 (0x15)	Serial Number	ro	String	14 byte		Unique, vendor-specific identifier of the individual device.		
22 (0x16)	Hardware Revision	ro	String	7 byte	HW**.**	Unique, vendor-specific identifier of the hardware revision of the individual device.		
23 (0x17)	Firmware Revision	ro	String	7 byte	FW**.**	Unique, vendor-specific identifier of the firmware revision of the individual device.		
24 (0x18)	Application Specific Tag	rw	String	max. 32 byte	Your automation, our passion.	Possibility to mark a device with user- or application-specific information.	Y	F

Diagnosis

Index .sub	Parameter	Access	Data type	Length	Bitoffs.	Default	Value	Unit	Description	DS	R
74 (0x4A)	Operating Hours	ro	UInteger	32 bit			0 .. >10^6 (0 .. 2^{32}-1)	h	Shows the overall hours of operation since initial commissioning in resolution of 1 second. Calculation: gradient 0.000277778, offset 0.00		

Parameterization & Configuration

Index .sub	Parameter	Access	Data type	Length	Bitoffs.	Default	Value	Unit	Description	DS	R
12 (0x0C)	Device Access Locks	rw	Record S0	2 byte					The access to the device parameters can be restricted by setting appropriate flags within this parameter.	Y	F
.1	Parameter Write Access	rw	Boolean	1 bit	0	0	*0* *1*		This lock prevents the write access to all read/write parameters of the device except for the parameter 'Device Access Locks'. **Note: Setting this feature to 'Locked', may lead to an unexpected system behavior, as any user application or engineering tool will not have write permissions for device configuration settings.** *Unlocked* *Locked*	Y	F
.2	Data Storage	rw	Boolean	1 bit	1	0	*0* *1*		This lock prevents the write access to the device parameters via the data storage mechanism. **Note: This feature is implemented only for compatibility reasons. Do not set this flag to 'Locked', as this will inhibit the function Data Storage between master and device and lead to an unintended system behavior.** *Unlocked* *Locked*	Y	F

Observation

Index .sub	Parameter	Access	Data type	Length	Bitoffs.	Default	Value	Unit	Description	DS	R
41 (0x29)	PD Output	ro	Record	16 bit					Last valid process output data written to the device. *See Process Data Output*		

NOTE 1: The parameter data provide the attributes DS (Data Storage) and R (Reset behavior). The following rules apply:
DS: Parameter marked with 'Y' (yes) are exchanged with the master via the data storage mechanism.
R: Parameter marked with 'F' are reset to the default value upon reception of the command 'Restore Factory Settings'.

NOTE 2: Parameter with datatype Record or Array, which are marked with 'S0' can only be accessed over subindex 0 (whole parameter object). Subindex access to single items is not possible.

Command Interface

Index	*Parameter*	*Access*	*Data type*	*Length*	*Value*	*Description*
2 (0x02)	System Command	wo	UInteger	8 bit	See command value	Command interface for applications. A positive acknowledge indicates the complete and correct finalization of the requested function.

Command Value	*Command*	*Description*
130 (0x82)	Restore Factory Settings	The parameter of the device are reset to factory settings. Note: A download of the data storage may be executed on the next power cycle and overwrite the factory default settings!

Error Codes

Code	*Additional code*	*Name*	*Description*
128 (0x80)	17 (0x11)	Index not available	Read or write access attempt to a non-existing index.
128 (0x80)	18 (0x12)	Subindex not available	Read or write access attempt to a non-existing subindex of an existing index.
128 (0x80)	32 (0x20)	Service temporarily not available	Parameter not accessible due to the current state of the technology-specific application.
128 (0x80)	33 (0x21)	Service temporarily not available - local control	Parameter not accessible. The device is currently in an ongoing, locally controlled operation.
128 (0x80)	34 (0x22)	Service temporarily not available - device control	Parameter not accessible. The technology-specific application is currently in a remotely triggered operation.
128 (0x80)	35 (0x23)	Access denied	Write access to a read-only parameter or read access to write-only parameter.
128 (0x80)	48 (0x30)	Parameter value out of range	Written parameter value is outside of the permitted value range.
128 (0x80)	49 (0x31)	Parameter value above limit	Written parameter value is above its specified value range.
128 (0x80)	50 (0x32)	Parameter value below limit	Written parameter value is below its specified value range.
128 (0x80)	51 (0x33)	Parameter length overrun	Written parameter is longer than specified.
128 (0x80)	52 (0x34)	Parameter length underrun	Written parameter is shorter than specified.
128 (0x80)	53 (0x35)	Function not available	Written command is not supported by the technology-specific application.
128 (0x80)	54 (0x36)	Function temporarily unavailable	Written command is unavailable due to the current state of the technology-specific application.
128 (0x80)	64 (0x40)	Invalid parameter set	Written single parameter value collides with other existing parameter settings.
128 (0x80)	65 (0x41)	Inconsistent parameter set	Parameter set inconsistencies at the end of block parameter transfer. Device plausibility check failed.