Data sheet

IO-Link

FT 25-W...

096-00024 30.04.2024-1
www.sensopart.com

GENERAL INFORMATION	
Communication mode IO-Link	COM 2
Min. cycle time	2,3 ms
SIO mode	Supported
Length process data	PD_IN 16 Bit, PD_OUT 0 Bit
Vendor ID	347 (0x015B)
Device ID	22273 (0x5701)
Data Storage	Supported - Class 2
Specification IO-Link	1.1.2

PROCESS DATA

PD_IN

Byte 0								Byte 1							
7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Energy level MSB	D6	D5	D4	D3	D2	D1	Energy level LSB	X	X	X	X	X	X	X	Switching Q1
Energy level 0 ... 255															
Switching Q1															

IDENTIFICATION DATA

Index dec / hex	Access	Data type	Length	Subindex	Description	Comment
16 / 0x10	Read	StringT	Max. 64 Byte	0	Vendor name	Sensopart Industriesensorik GmbH
17 / 0x11					Vendor text	www.sensopart.com
18 / 0x12					Product name	FT 25-W...
19 / 0x13					Product ID	607-21032 607-21033 607-21034 607-21035
20 / 0x14					Product text	12 +/- 2.5 mm, IN, Q1 Push-Pull, ...
21 / 0x15					Serial number	"Device specific"
23 / 0x17					Firmware revision	"Device specific"

PARAMETER

Index dec / hex	Access	Data type	Length	Sub-index	Default value	Data Storage	Range	Description	Comment
12 / 0x0C								Device access locks	
	Read / write	UIntegerT	16 Bit	0	0	Yes	0, 1, 2, 3, 8, 9, 10, 11	Lock functions	Bit 0=Parameter (write) access, Bit 1=Data Storage, Bit 2=Not supported, Bit 3=Local user interface --- 0=unlocked, 1=locked
24 / 0x18								Application Specific Tag	
	Read / write	StringT	32 Char	1	**********	Yes		Application Specific Tag	Free text, e.g. item designation
88 / 0x58								Operating data	
	Read	UIntegerT	32 Bit	1	"Device specific"	No		Counter operating hours	No reset possible
	Read	UIntegerT	32 Bit	2	"Device specific"	No		Counter switch cycle	No reset possible
95 / 0x5F								Electronic data sheet	
	Read	StringT	13 Char	1	12 +/- 2.5 mm	No		Measurement range	
	Read	StringT	1 Char	2	-	No		Resolution	
	Read	StringT	1 Char	3	-	No		Linearity	
	Read	StringT	1 Char	4	-	No		Hysteresis	
	Read	StringT	26 Char	5	LED, white, 400 ... 780 nm	No		Type of light and laser class	
	Read	StringT	8 Char	6	<= 30 mA	No		No-load current	
	Read	StringT	31 Char	7	W1 <= 25 000 Hz W2 <= 10 000 Hz	No		Switching frequency	
	Read	StringT	1 Char	8	-	No		Warm-up time	
	Read	StringT	11 Char	9	-20...55°C	No		Ambient temperature	
	Read	StringT	1 Char	10	-	No		Output signal	
	Read	StringT	1 Char	11	-	No		Repeatability	
96 / 0x60								Switching output Q1	
	Read / write	UIntegerT	8 Bit	1	125	Yes	3...255	Switchpoint 1	
	Read / write	UIntegerT	8 Bit	2	2	Yes	0, 1, 2	LO / DO	0=Light operation (LO), 1=Dark operation (DO), 2=Auto LO/DO via teach
	Read / write	UIntegerT	8 Bit	3	7	Yes	0...8	LED power	0=Lowest sending power, 8=Highest sending power

PARAMETER									
Index dec / hex	**Access**	**Data type**	**Length**	**Sub-index**	**Default value**	**Data Storage**	**Range**	**Description**	**Comment**
204 / 0xCC								Teach-in-status	
	Read	UIntegerT	4 Bit	1	"Device specific"	No	0, 1, 2, 3, 4, 5, 7	Teach status	0=Idle, 1=Teach successful, 2=Teach successful, 3=Teach successful, 4=Wait for command, 5=Busy, 7=Error
	Read	BooleanT	1 Bit	2	"Device specific"	No	0, 1	Teach flag SP1 -> TP1	0=-, 1=Teach successful
	Read	BooleanT	1 Bit	3	"Device specific"	No	0, 1	Teach flag SP1 -> TP2	0=-, 1=Teach successful
	Read	BooleanT	1 Bit	4	"Device specific"	No	0, 1	Teach flag SP2 -> TP1	0=-, 1=Teach successful
	Read	BooleanT	1 Bit	5	"Device specific"	No	0, 1	Teach flag SP2 -> TP2	0=-, 1=Teach successful
221 / 0xDD								Function control input	
	Read / write	UIntegerT	8 Bit	1	1	Yes	0, 1	Control input (Pin 2)	0=Control input disable, 1=Control input enable

SYSTEM COMMANDS							
Index dec / hex	**Access**	**Data type**	**Length**	**Subindex**	**Function dec / hex**	**Description**	**Comment**
2 / 0x02	Write only	UIntegerT	8 Bit	1	1 / 0x01	ParamUploadStart	
					2 / 0x02	ParamUploadEnd	
					3 / 0x03	ParamDownloadStart	
					4 / 0x04	ParamDownloadEnd	
					5 / 0x05	ParamDownloadStore	
					6 / 0x06	ParamBreak	
					64 / 0x40	Teach Apply	Adopt teach values on sensor
					65 / 0x41	Single value teach - switchingpoint 1	The switching point is on the teach value
					67 / 0x43	Two value teach - teachpoint 1 for switchpoint 1	The switching point is in the middle of both teach points
					68 / 0x44	Two value teach - teachpoint 2 for switchpoint 1	
					71 / 0x47	Dynamic teach - switchpoint 1 - start	The switching point is in the middle of the min. / max. value Teach point 1 and teach point 2 are both necessary
					72 / 0x48	Dynamic teach - switchpoint 1 - stop	
					79 / 0x4F	Teach cancel	
					160 / 0xA0	Emitter OFF	
					161 / 0xA1	Emitter ON	
					162 / 0xA2	Reset switching channel	Reset of current switching channel
					175 / 0xAF	Detect sensor	1x activated - sensor flashes 60 s, 2x activated - permanent flashing, 3x activated - stop permanent flashing
					128 / 0x80	Device Reset	The device performs a restart
					130 / 0x82	Restore factory settings	

EVENTS				
Event code	**Definition and recommended maintenance action**	**Device status value**	**Type**	**Comment**
16384 / 0x4000	Temperature fault - Overload	4	Error	Temperature absolute max. ratings
16912 / 0x4210	Device temperature overrun – Clear source of heat	2	Warning	
16928 / 0x4220	Device temperature underrun – Insulate Device	2	Warning	
20480 / 0x5000	Device hardware fault – Device exchange	4	Error	
20497 / 0x5011	Non volatile memory loss – Check batteries	4	Error	
65425 / 0xFF91	Data Storage upload request	0	Notification	

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