SENSOPART

Data sheet

IO-Link

FR 25-RLOx-PNSL-...

096-00018 20.02.2019-00
www.sensopart.com

GENERAL INFORMATION	
Communication mode IO-Link	COM 2
Min. cycle time	2.3 ms
SIO mode	supported
Length process data	16 Bit
Vendor ID	347 (0x01 0x5B)
Device ID	18945
Data storage	supported
Specification IO-Link	1.1

PROCESS DATA

SMART-SENSOR PROFILE

Byte 0								Byte 1							
7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Switching output Q_1

Switching output 1 - corresponds to switching output Q_1 in SIO-mode

IDENTIFICATION DATA

Index dec / hex	Access	Data type	Length		Description	Comment
16 / 0x10	Read	String	Max. 64 Byte		Vendor name	SensoPart Industriesensorik GmbH
17 / 0x11					Vendor text	www.sensopart.com
18 / 0x12					Product name	FR 25-RLOx-PNSL-...
19 / 0x32					Product ID	609-31019 609-31020 609-31021 609-31022 609-31023
20 / 0x11					Product text	0 ... 4 m, IN, Q_1 Auto / PNP / NPN, ...
23 / 0x17					Firmware revision	1.0

SMART SENSOR PROFILE PARAMETER

Index in dec / hex	Access	Data type	Length	Subindex	Default value	Range	Description	Comment
12 / 0x0C	Read / write	Uint	16 Bit		0x00 0x00	D0, D1, D3	Lock functions	D0 - parameter write access D1 - data storage lock D3 - local user interface lock
24 / 0x18	Read / write	StringT	32 characters		"****...***"		Application text	Free text, e.g. item designation
59 / 0x3B	Read	Uint	8 Bit				Teach status	
							Define switching output Q_1	
60 / 0x3C	Read / write	Uint	16 Bit	1	16	16... 990	Switching point 1	
							Set-Up switching output Q_1	
61 / 0x3D	Read / write	Uint	8 Bit	1	1	0, 1	NC / NO	0 = NC 1 = NO

PARAMETER								
Index dec / hex	**Access**	**Data type**	**Length**	**Subindex**	**Default value**	**Range**	**Description**	**Comment**
							Read operating data	
88 / 0x58	Read	Uint	32 Bit	1			Counter operating hours	No reset possible
				2			Counter switch cycle	No reset possible
							Read sensor characteristics	
95 / 0x5F	Read	String		1	0 ... 4 m		Operating range	
				5	Laser, red 650 nm, class 1		Type of light and laser class	
				6	≤ 30 mA		No-load current	
				7	Device specific		Switching frequency	
				9	-20 ... 60 °C		Ambient temperature	
							Smart functions Q_1	
208 / 0xD0	Read / write	Uint	16 Bit	1	0	0 … 65535	Counter	
				2	0	0 … 65535	On delay	in ms, adjustable in 1ms
				3	0	0 … 65535	Off delay	in ms, adjustable in 1ms
				4	0	0 … 65535	Impulse	in ms, adjustable in 1ms
				5	0	0 … 500	Monitoring frequency	in 1/10 Hz, adjustable in 0.1 Hz steps [1]
							Function switching output Q_1	
213 / 0xD5	Read / write	Uint	8 Bit	1	2	0, 1, 2, 3	PNP / NPN	0 = NPN 1 = PNP 2 = autodetect 3 = push-pull
							Control input	
221 / 0xDD	Read / write	Uint	16 Bit	1	1	0, 1	Control input PIN 2	0 = PIN 2 disable 1 = PIN 2 active
							Current energy	
206 / 0xCE	Read / write	Uint	16 Bit			0 ... 1000	Energy	

SYSTEM COMMANDS								
Index dec / hex	**Access**	**Data type**	**Length**		**Function dec / hex**	**Range**	**Description**	**Comment**
2 / 0x02	Read / write	Uint	8 Bit		64 / 0x40		Teach apply	Adopt teach values on sensor
					65 / 0x41		Single value teach - switching point 1	The switching point is on the teach value
					67 / 0x43		Two value teach - teachpoint 1 for switching point 1	The switching point is in the middle of both teachpoints
					68 / 0x44		Two value teach - teachpoint 2 for switching point 1	
					71 / 0x47		Dynamic teach - switching point 1 - start	The switching point is in the middle of the min. / max. value
					72 / 0x48		Dynamic teach - switching point 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		Reset sensor	
					130 / 0x82		Factory setting	

EVENTS				
Event	**Status value**	**Warning**		
20480 / 0x5000	4	Error	Device hardware fault	Default: deactivated [2]
20497 / 0x5011	4	Error	Non-volatile memory loss	
65425 / 0xFF91	0	Notice	Data storage - upload request	Not blockable via 0x51
16384 / 0x4000	4	Error	Temperature fault	Temperature range exceeded; default: deactivated [2]

[1] differs to real frequency ±10%
[2] For activation use function 0x51