



# FT 25-R(L)-PNSL-...

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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	18177 / 21761
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	x

Switching output Q<sub>1</sub>

Switching output 1 - corresponds to switching output Q<sub>1</sub> 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	FT 25-RL-PNSL-... FT 25-R-PNSL-...	
19 / 0x32				Product ID	609-21018 / 609-21019 / 609-21020 / 609-21021 607-21027 / 607-21028 / 607-21029 / 607-21030 / 607-21031	
20 / 0x11				Product text	Device specific	
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 <sub>1</sub>								
60 / 0x3C	Read / write	Uint	16 Bit	1	16	16 ... 990	Switching point 1	
Set-Up switching output Q <sub>1</sub>								
61 / 0x3D	Read / write	Uint	8 Bit	1	0	0, 1	NO / NC	0 = NO, 1 = NC

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	Device specific		Operating range	
				5	Device specific		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 <sub>1</sub>	
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 <sup>1)</sup>
							Function switching output Q <sub>1</sub>	
213 / 0xD5	Read / write	Uint	8 Bit	1	2	0, 1, 2	PNP / NPN	0 = NPN 1 = PNP 2 = autodetect
							Control input	
221 / 0xDD	Read / write	Uint	8 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	1		0 ... 1000	Energy	
							Gain	
222 / 0xDE	Read / write	Uint	8 Bit	1	1	0, 1	Gain	Only for FT 25-R-PNSL-... 0 = low gain 1 = high gain

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 <sup>2)</sup>
20497 / 0x5011	4	Error	Non-volatile memory loss	
65425 / 0xFF91	0	Notice	Data storage - upload request	
16384 / 0x4000	4	Error	Temperature fault	Temperature range exceeded; default: deactivated <sup>2)</sup>

<sup>1)</sup> differs to real frequency ±10%  
<sup>2)</sup> For activation use function 0x51