S3N-G03

IO-Link® parameters

v1.3

PHYSICAL LAYER

Description	
IO-Link Revision	1.1
SIO Modus	YES
Min Cycle Time	2.3 ms
Transmission Rate	38,4 kbit/s (COM2)
M-Sequence Capability	PREOPERATE: TYPE_0 OPERATE: TYPE_1_2 ISDU: supported

FEATURES

Description	
Block Parameter	YES
Data Storage	YES
Supported Access Locks	Data Storage

SERVICE DATA

The following ISDUs will not be saved via Data Storage: Device Access Locks (index 0xC), Location Tag (index 0x1A)

System Parameters							
Index (dec)	Parameter Object Name	Length	Subindex (offset)	Value/Range	Description	Data Type	Access*
0x000C (12)	Device Access Locks	2 octets		Bit 1: Data Storage (0=unlocked, 1=locked)	Standardized Device locking functions: Bit 0: Parameter (write) access (Not used) Bit 1: Data Storage Bit 2: Local parameterization (Not used) Bit 3: Local user interface (Not used) Bit 4-15: Reserved	RecordT	R/W

Identification Parameters								
Index (dec)	Parameter Object Name	Length	Subindex (offset)	Value/Range	Description	Data Type	Access*	Remark
0x0010 (16)	Vendor Name	18 octets		Datasensing S.r.l.	Informative	StringT	RO	
0x0011 (17)	Vendor Text	28 octets		Easing automation challenges	Informative	StringT	RO	
0x0012 (18)	Product Name	16 octets		S3N-PR-5-FG03-OZ (**G03 LED**) S3N-PH-5-FG03-OZ (**G03 LASER**)	Detailed product name	StringT	RO	
0x0013 (19)	Product ID	5 octets		10810 (**G03 LED**) 10890 (**G03 LASER**)	Product identification	StringT	RO	
0x0014 (20)	Product Text	20 octets		Through Beam Emitter	Optical function	StringT	RO	
0x0015 (21)	Serial Number	9 octets			Unique serial number	String	RO	
0x0016 (22)	Hardware Version	5 octets		RevAE		StringT	RO	
0x0017 (23)	Firmware Version	5 octets		e.g. 1.1.0		StringT	RO	
0x0018 (24)	Application Specific Tag	32 octets		*** (default)	Tag application defined by user	StringT	RW	Saved in non-volatile memory
0x001A (26)	Location Tag	32 octets		*** (default)	Additional tag for device function identification	StringT	RW	Saved in non-volatile memory

**RO = read only, WO = write only, R/W = read/write*

Observation/Diagnostic								
Index (dec)	**Parameter Object Name**	**Length**	**Subindex (offset)**	**Value/Range**	**Description**	**Data Type**	**Access***	**Remark**
0x0024 (36)	Device Status	1 octet		0x00 → Device is ok 0x01 → Maintenance Required 0x02 → Out of specification 0x03 → Functional Check 0x04 → Failure	Contains current status of device	UIntegerT	RO	
0x0025 (37)	Detailed Device Status	3 octets			Information about currently pending Event. Implemented as dynamic list	ArrayT	RO	
0x0044(68)	Emission Status	1 octet		0x00: Emission OFF 0x01: Emission ON	Read emission status	Boolean	RO	
0x0052 (82)	Device Temperature	2 octets 2 octets 2 octets 2 octets 2 octets	1(64) 2(48) 3(32) 4(16) 5(0)	[°C] [°C] [°C] [°C] [°C]	Temperature actual Temperature minimum Power Up Temperature maximum Power Up Temperature minimum during lifetime Temperature maximum during lifetime	IntegerT IntegerT IntegerT IntegerT IntegerT	RO RO RO RO RO	Max and min temperature during lifetime are saved in non-volatile memory every hour.
0x0053 (83)	Device Temperature Threshold	2 octets 2 octets	1(16) 2(0)	-40 [°C] (default) 130 [°C] (default)	Temperature minimum threshold Temperature maximum threshold	IntegerT IntegerT	RW RW	Saved in non-volatile memory every hour. Events are generated if the device temperature exceeds the thresholds
0x0057 (87)	Operating Hours counter	4 octets 4 octets 4 octets	1(64) 2(32) 3(0)	0…(2^32)-1	Operating Hours: device operating hours. Not resettable by user. Operating Hours Maintenance: device operating hours, reset on system command “Confirm Maintenance”. Operating Hours Power Up: Time in hours since power up.	UIntegerT UIntegerT UIntegerT	RO RO RO	 Saved in non-volatile memory Saved in non-volatile memory

Device Specific Parameters								
Index (dec)	**Parameter Object Name**	**Length**	**Subindex (offset)**	**Value/Range**	**Description**	**Data Type**	**Access***	**Remark**
0x00B5 (181)	Anti-interference filter	1 octet		0x0 = Factory filter configuration (default) 0x1= Filter configuration 1 Active 0x2 = Filter configuration 2 Active	Select antiinterference filter. If Filter X is set on G-model, the same filter shall be applied to the G-model	UIntegerT	R/W	Saved in non-volatile memory

Standard Command					
Index (dec)	**Command Name**	**Length**	**Value (dec)**	**Description**	**Access***
0x0002 (2)	Restore Factory Settings	1 octet	0x82 (130)	Restore factory settings (Device Access Locks, Application Specific Tag, Function Tag, Location Tag, Anti-interference filter, Device Temperature Threshold)	WO
0x0002 (2)	Confirm Maintenance	1 octet	0xA5 (165)	Reset Maintenance parameters (Operating Hours Maintenance, Minimum device temperature since power up, Maximum device temperature since power up, Device Status, Detailed Device Status)	WO
0x0002 (2)	Emission Toggle	1 octet	0xB0(176)	Toggle emission (see Emitter Status parameter to check the current status) (**G03 LED**)	WO

Events					
Event code (dec)	**Event name**	**Event mode**	**Event type**	**Device status**	**Remarks**
0x4220 (16928)	Temperature underrun	Appears / Disappears	Warning	Out of specification	
0x4210 (16912)	Temperature overrun	Appears / Disappears	Warning	Out of specification	
0x5100 (20736)	General power supply fault	Appears / Disappears	Error	Failure	
0x8CA0 (36000)	Laser fault	Appears / Disappears	Error	Failure	(**G03 Laser**)

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