SENSOPART

Data sheet

IO-Link

# FT 25-RGBx-GSL-...

096-00016 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 | 22529 |
| 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 |
| E MSB | D6 | D5 | D4 | D3 | D2 | D1 | E LSB | X | X | X | X | X | X | X | Switching output $Q_1$ |
| Energy value 0 ... 255 | | | | | | | | | | | | | | | |
| Switching output 1 (physical) | | | | | | | | | | | | | | | |

## 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-RGB1-GSL-KL4<br>FT 25-RGB1-GSL-M4M<br>FT 25-RGB2-GSL-M4<br>FT 25-RGB2-GSL-KL4 |
| 19 / 0x32 | | | | | Product ID | 607-21036<br>607-21037<br>607-21038<br>607-21039 |
| 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<br>D1 - data storage lock<br>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-in status | |

## PARAMETER

| Index dec / hex | Access | Data type | Length | Subindex | Default value | Range | Description | Comment |
|---|---|---|---|---|---|---|---|---|
| 88 / 0x58 | | | | | | | Read operating data | |
| | Read | Uint | 32 Bit | 1 | | | Counter operating hours | No reset possible |
| | | | | 2 | | | Counter switch cycle | No reset possible |
| 95 / 0x5F | | | | | | | Read sensor characteristics | |
| | Read | String | | 1 | 12 ± 3 mm | | Operating range | |
| | | | | 5 | LED red, 633 nm<br>LED green, 525 nm<br>LED blue, 460 nm | | Type of light | |
| | | | | 6 | ≤ 30 mA | | No-load current | |
| | | | | 7 | Device specific | | Switching frequency | |
| | | | | 9 | -20 … 55 °C | | Ambient temperature | |
| 96 / 0x60 | | | | | | | Switching outputs settings $Q_1$ | |
| | Read / write | Uint | 8 Bit | 1 | 41 | 0 ... 255 | Switching point | |
| | | | | 2 | 2 | 0, 1, 2 | Light operation<br>Dark operation | 0 = light operation (LO)<br>1 = dark operation (DO)<br>2 = auto DO/LO via teach |
| | | | | 3 | 7 | 0, 1, 2, 3, 4, 5, 6, 7, 8 | LED-Power | 0 = lowest sending power<br>8 = highest sending power |
| | | | | 4 | 1 | 0, 1, 2 | Type of LED | 0 = red<br>1 = green<br>2 = blue |

| 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<br>2x activated - permanent flashing<br>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 [1] |
| 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 [1] |

[1] For activation use function 0x51