



8019762 0319

WL12GC-3_A71

203995771
9243591 139J

Australia Phone +61 3 9467 0800
Belgium/Luxembourg Phone +32 (0)2 468 55 66
Brazil Phone +55 11 9215-4900
Canada Phone +1 905 771 14 44
China Phone +86 400 121 000
Denmark Phone +45 45 82 64 00
Deutschland Phone +49 211 5361 301
España Phone +34 93 480 31 00
France Phone +33 1 64 62 39 00
Great Britain Phone +44 (0)1777 831521
India Phone +91-22-4033 8333
Israel Phone +972-4-6801000
Italien Phone +39 02 27 43 41
Japan Phone +81 (03) 5309 2112
Magyarország Phone +36 1 371 2680
Niederland Phone +31 (0)30 229 25 44
SICK AG, Erwin-Sick-Strasse 1, D.79183 Waldkirch

Osterreich Phone +43 (0)22 36 62 28 8-0
Norge Phone +47 67 61 50 00
Polska Phone +49 22 837 40 50
România Phone +40 356 171 120
Rusia Phone +7 495 775-09-30
Schweiz Phone +41 41 619 29 39
Sverige Phone +46 8744 3732
Sveitslön Phone +386 (0)47 69 990
Sveitslön Phone +27 11 472 3733
South Korea Phone +82 2 786 6321/4
Suomi Phone +358 9 25 15 800
Sverige Phone +46 10 110 10 00
Taiwan Phone +886-2-2375-0288
Türkiye Phone +90 (216) 538 50 00
United Arab Emirates Phone +971 (0)4 5865 878
USA/Mexico Phone +1 (952) 941-6780

Please find detailed addresses and additional representatives and agencies in all major industrial nations at www.sick.com

More representatives and agencies at www.sick.com - Subject to change without notice - The specified product features and technical data do not represent any guarantee.

Weitere Niederlassungen finden Sie unter www.sick.com - Irrtümer und Änderungen vorbehalten! - Angegebene Produkteigenschaften und technische Daten stellen keine Garantieerklärung dar.

Plus de représentations et d'agences à l'adresse www.sick.com - Sujet à modification sans préavis - Les caractéristiques de produit et techniques indiquées ne constituent pas de déclaration de garantie.

Para mais representantes e agências, consulte www.sick.com - Alterações poderão ser feitas sem prévio aviso - As características do produto e os dados técnicos apresentados não constituem declaração de garantia.

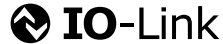
Flere representanter og agenturer på www.sick.com - Med forbehold for ændringer og fejl - De angivne produktbeskrivelser og tekniske data udgør ikke nogen garantierklæring.

Altri rappresentanti ed agenzie si trovano su www.sick.com - Contenuti soggetti a modifiche senza preavviso - Le caratteristiche del prodotto e i dati tecnici non rappresentano una dichiarazione di garanzia.

Meer vestigingen en vertegenwoordigingen vindt u op www.sick.com - Wijzigingen en correcties vorbehalten - Aangegeven producteigenschaften en technische gegevens vormen geen garantieverklaring.

Más representantes y agencias en www.sick.com - Sujeto a cambio sin previo aviso - Las características y los datos técnicos especificados no constituyen ninguna declaración de garantía.

欲了解更多代表机构和代理商信息，请登录 www.sick.com - 如有更改，恕不另行通知 - 对所给出的产品特性和技术参数之正确性不予保证。



Please note the validity of the additional operating instructions for automation functions

ENGLISH

1. Physical layer

Note: The IO-Link Device's max. current consumption (inclusive load current) shall not exceed the master port's max. output power current.

| | |
|---------------------------|----------|
| SIO Modus | yes |
| Min Cycle Time | 2.3 ms |
| Baudrate ² | COM2 |
| Process Data Length (IN) | 2 Byte |
| IODD version | V1.19790 |
| Valid for IO-Link version | 1.1.0 |

2. Process data

Record: 2 Byte

| | | | | | | | | |
|---------------|---------------------|----|----|----|----|----|---|---|
| Bitoffset | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 |
| Byte 0 | cntval | | | | | | | |
| Type/Subindex | Unsigned Integer 14 | | | | | | | |

| | | | | | | | | | |
|---------------|---------------------|---|---|---|---|---------|------|---------|---|
| Bitoffset | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | |
| Byte 1 | cntval | | | | | Bit1 | Bit0 | | |
| Type/Subindex | Unsigned Integer 14 | | | 3 | | Boolean | 2 | Boolean | 1 |

3. Service data

The following ISDUs will not be saved via Data-Storage: Profile Characteristic, Teach-In Channel, Teach-In State, Setpoint 1, Q1 configuration, Setpoint 2, Q2 configuration, Device / function name, Sender configuration, Quality of teach, Quality of run, Current receiver level (live), Upper Threshold (switch-on) dynamic, Lower Threshold (switch-off) dynamic, Counter Version, Debounce Version, Quality D1, Quality D2 and SLTI Version

| IO-Link specific | | | | | | | |
|------------------|-------------------------------|-----------------|---------|---------------------|---------------|---|---------------|
| Index dec (hex) | Name | Format (Offset) | Length | Access ¹ | Default Value | Value / Range | Remark [Unit] |
| 0 (0x00) | Direct Parameters 1 | Record | 16 Byte | rw | | | |
| 1 (0x01) | Direct Parameters 2 | Record | 16 Byte | rw | | | |
| 12 (0x0C) | Device Access Locks | Record | 2 Byte | rw | | | |
| 1 (0x01) | Parameter (write) Access Lock | Bit (0) | 1 Bit | rw | | | |
| 2 (0x02) | Data Storage Lock | Bit (1) | 1 Bit | rw | | | |
| 3 (0x03) | Local Parameterization Lock | Bit (2) | 1 Bit | rw | | | |
| 4 (0x04) | Local User Interface Lock | Bit (3) | 1 Bit | rw | | | |
| 16 (0x10) | Vendor Name | String | 7 Byte | ro | SICK AG | | |
| 18 (0x12) | Product Name | String | 18 Byte | ro | | | |
| 19 (0x13) | Product ID | String | 13 Byte | ro | | | |
| 20 (0x14) | Product Text | String | 45 Byte | ro | | | |
| 21 (0x15) | Serial Number | String | 8 Byte | ro | | | |
| 22 (0x16) | Hardware Version | String | 4 Byte | ro | | | |
| 23 (0x17) | Firmware Version | String | 19 Byte | ro | | | |
| 24 (0x18) | Application Specific Tag | String | 32 Byte | rw | ***** | | |
| 36 (0x24) | Device Status | UInt | 8 Bit | ro | | 0 = Device is OK 1 = Maintenance required 2 = Out of specification 3 = Functional check 4 = Failure 5...255 = Reserved | |
| 40 (0x28) | Process Data Input | PD In | 2 Byte | ro | | | |

| SICK device specific | | | | | | | |
|----------------------|------------------------|-----------------|---------|---------------------|---------------|--|---------------|
| Index dec (hex) | Name | Format (Offset) | Length | Access ¹ | Default Value | Value / Range | Remark [Unit] |
| 13 (0x0D) | Profile Characteristic | Array | 10 Byte | ro | | Unsigned Integer16 [5] | |
| 14 (0x0E) | PDInput Descriptor | Array | 6 Byte | ro | | Octet String [2] | |
| 15 (0x0F) | PDOutput Descriptor | Array | 3 Byte | ro | | Octet String [1] | |
| 58 (0x3A) | Teach-In Channel | UInt | 8 Bit | rw | 0 | 0...2 = Default BDC | |
| 59 (0x3B) | Teach-In State | Record | 1 Byte | ro | | | |
| 1 (0x01) | Teach Flags | Bit (4) | 1 Bit | ro | | false = Teachpoint 1 not taught true = Teachpoint 1 successfully taught | |
| 2 (0x02) | Teach State | Bit (0) | 4 Bit | ro | | 0 = IDLE 1 = SP1 SUCCESS 5 = BUSY | |
| 60 (0x3C) | Setpoint 1 | Record | 2 Byte | rw | | | |

¹ro = read only, wo = write only, rw = read/write / ro = nur lesen, wo = nur schreiben, rw = lesen/schreiben

²COM values specify the bitrate (see IO-Link specification) / COM Werte spezifizieren die Baudrate (s. IO-Link Spezifikation): COM1 (4,8 kbit/s), COM2 (38,4 kbit/s), COM3 (230,4 kbit/s)

DEUTSCH

1. Physikalische Schicht

Hinweis: Max. Stromaufnahme des IO-Link Devices (inkl. Lastströme) darf max. Ausgangsstrom des Master-Ports nicht überschreiten.

| | |
|----------------------------|----------|
| SIO Modus | ja |
| Min. Zykluszeit | 2.3 ms |
| Baudrate ² | COM2 |
| Prozessdatenlänge (IN) | 2 Byte |
| IODD Version | V1.19790 |
| Gültig für IO-Link Version | 1.1.0 |

2. Prozessdaten

Record: 2 Byte

| | | | | | | | | |
|---------------|---------------------|----|----|----|----|----|---|---|
| Bitoffset | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 |
| Byte 0 | cntval | | | | | | | |
| Type/Subindex | Unsigned Integer 14 | | | | | | | |

| | | | | | | | | | |
|---------------|---------------------|---|---|---|---|---------|------|---------|---|
| Bitoffset | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | |
| Byte 1 | cntval | | | | | Bit1 | Bit0 | | |
| Type/Subindex | Unsigned Integer 14 | | | 3 | | Boolean | 2 | Boolean | 1 |

3. Servicedaten

The following ISDUs werden nicht über Data-Storage gesichert: Profile Characteristic, Teach-in-Kanal, Teach-in-Status, Setpoint 1, Q1-Konfiguration, Setpoint 2, Q2-Konfiguration, Geräte name / -funktion, Einstellung Sender, Teach-in-Qualität, Betriebssicherheit, Aktueller Empfangssignalpegel, Einschaltsschwelle dynamisch, Ausschaltsschwelle dynamisch, Counter-Version, Debounce-Version, Qualität D1, Qualität D2 und SLTI Version

| IO-Link spezifisch | | | | | | | | | |
|--------------------|------------------------------------|-----------------|---------|----------------------|---------------|---|---------------------|--|--|
| Index dez (hex) | Name | Format (Offset) | Länge | Zugriff ¹ | Standard Wert | Wertebereich | Bemerkung [Einheit] | | |
| 0 (0x00) | Direkte Parameter 1 | Record | 16 Byte | rw | | | | | |
| 1 (0x01) | Direkte Parameter 2 | Record | 16 Byte | rw | | | | | |
| 12 (0x0C) | Gerätezugriffssperren | Record | 2 Byte | rw | | | | | |
| 1 (0x01) | Parameter (Schreib-)Zugriffssperre | Bit (0) | 1 Bit | rw | | | | | |
| 2 (0x02) | Datenspeicherungs-sperre | Bit (1) | 1 Bit | rw | | | | | |
| 3 (0x03) | Lokale Parameterisierungssperre | Bit (2) | 1 Bit | rw | | | | | |
| 4 (0x04) | Lokale Benutzerinterface-Sperre | Bit (3) | 1 Bit | rw | | | | | |
| 16 (0x10) | Herstellername | String | 7 Byte | ro | SICK AG | | | | |
| 18 (0x12) | Produktname | String | 18 Byte | ro | | | | | |
| 19 (0x13) | Produkt-ID | String | 13 Byte | ro | | | | | |
| 20 (0x14) | Produkttext | String | 45 Byte | ro | | | | | |
| 21 (0x15) | Seriennummer | String | 8 Byte | ro | | | | | |
| 22 (0x16) | Hardwareversion | String | 4 Byte | ro | | | | | |
| 23 (0x17) | Firmwareversion | String | 19 Byte | ro | | | | | |
| 24 (0x18) | Anwendungsspezifische Markierung | String | 32 Byte | rw | ***** | | | | |
| 36 (0x24) | Gerätestatus | UInt | 8 Bit | ro | | 0 = Gerät ist OK 1 = Wartung erforderlich 2 = Außerhalb der Spezifikation 3 = Funktionsprüfung 4 = Fehler 5...255 = Reserviert | | | |
| 40 (0x28) | Prozessdaten Eingang | PD In | 2 Byte | ro | | | | | |

| SICK spezifisch | | | | | | | | | |
|-----------------|------------------------|-----------------|---------|----------------------|---------------|---|---------------------|--|--|
| Index dez (hex) | Name | Format (Offset) | Länge | Zugriff ¹ | Standard Wert | Wertebereich | Bemerkung [Einheit] | | |
| 13 (0x0D) | Profile Characteristic | Array | 10 Byte | ro | | Unsigned Integer16 [5] | | | |
| 14 (0x0E) | PDInput Descriptor | Array | 6 Byte | ro | | Octet String [2] | | | |
| 15 (0x0F) | PDOutput Descriptor | Array | 3 Byte | ro | | Octet String [1] | | | |
| 58 (0x3A) | Teach-in-Kanal | UInt | 8 Bit | rw | 0 | 0...2 = Standard-BDC | | | |
| 59 (0x3B) | Teach-in-Status | Record | 1 Byte | ro | | | | | |
| 1 (0x01) | Teach Flags | Bit (4) | 1 Bit | ro | | false = Teachpunkt 1 nicht gesetzt true = Teachpunkt 1 gesetzt | | | |
| 2 (0x02) | Teach Status | Bit (0) | 4 Bit | ro | | 0 = Bereit 1 = SP1 erfolgreich 5 = In Arbeit | | | |
| 60 (0x3C) | Setpoint 1 | Record | 2 Byte | rw | | | | | |

SICK

8019762 0319

WL12GC-3_A71

203995771
9243591 139J

| | |
|--|---|
| <p>Australia Phone +61 3 9457 0800</p> <p>Belgium/Luxembourg Phone +32 (0)2 468 55 66</p> <p>Brazil Phone +55 11 5215-9900</p> <p>Canada Phone +1 905 771 14 44</p> <p>China Phone +86 400 121 000 +852 2553 6300</p> <p>Danmark Phone +45 45 82 64 00</p> <p>Deutschland Phone +49 211 5301 301</p> <p>España Phone +34 93 480 31 00</p> <p>France Phone +33 1 64 62 39 00</p> <p>Great Britain Phone +44 (0)1727 831521</p> <p>India Phone +91-22-4033 8333</p> <p>Italy Phone +39 02 27 43 41</p> <p>Japan Phone +81 (03) 5309 2112</p> <p>Magnesium Phone +36 1 371 2680</p> <p>Niederland Phone +31 (0)30 229 25 44</p> <p>SICK AG, Erwin-Sick-Strasse 1, D.79183 Waldkirch</p> | <p>Osterreich Phone +43 (0)22 36 62 28 8-0</p> <p>Norge Phone +47 67 61 61 00</p> <p>Polina Phone +48 22 837 40 50</p> <p>România Phone +40 356 171 120</p> <p>Schweden Phone +7 495 775 05 30</p> <p>Schweiz Phone +41 41 619 29 39</p> <p>Sveits Phone +41 41 619 29 39</p> <p>Sveits Phone +41 41 619 29 39</p> <p>South Korea Phone +82 2 786 6321/4</p> <p>Spain Phone +358 9 25 15 800</p> <p>Sri Lanka Phone +91 (0)21 528 50 00</p> <p>Taiwan Phone +886 2 2375 6288</p> <p>Türkiye Phone +90 (216) 536 50 00</p> <p>United Arab Emirates Phone +971 (0)4 5855 878</p> <p>USA/Mexico Phone +1 2952 941 6780</p> |
|--|---|

Please find detailed addresses and additional representatives and agencies in all major industrial nations at www.sick.com

8219483

More representatives and agencies at www.sick.com - Subject to change without notice - The specified product features and technical data do not represent any guarantee.

Weitere Niederlassungen finden Sie unter www.sick.com - Irrtümer und Änderungen vorbehalten - Angegebene Produkteigenschaften und technische Daten stellen keine Garantieerklärung dar.

Plus de représentations et d'agences à l'adresse www.sick.com - Sujet à modification sans préavis - Les caractéristiques de produit et techniques indiquées ne constituent pas de déclaration de garantie.

Para mais representantes e agências, consulte www.sick.com - Alterações poderão ser feitas sem prévio aviso - As características do produto e os dados técnicos apresentados não constituem declaração de garantia.

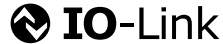
Flere representanter og agenturer på www.sick.com - Med forbehold for ændringer og fejl - De angivne produktdata og tekniske data udgør ikke nogen garantierklæring.

Altri rappresentanti ed agenzie si trovano su www.sick.com - Contenuti soggetti a modifiche senza preavviso - Le caratteristiche del prodotto e i dati tecnici non rappresentano una dichiarazione di garanzia.

Meer vestigingen en vertegenwoordigingen vindt u op www.sick.com - Wijzigingen en correcties voorbehouden - Aangegeven producteigenschappen en technische gegevens vormen geen garantieverklaring.

Más representantes y agencias en www.sick.com - Sujeto a cambio sin previo aviso - Las características y los datos técnicos especificados no constituyen ninguna declaración de garantía.

欲了解更多代表机构和代理商信息，请登录 www.sick.com - 如有更改，不另行通知 - 对所给出的产品特性和技术参数正确性不予保证。



Please note the validity of the additional operating instructions for automation functions

| ENGLISH | | | | | | | |
|----------------------|--------------------------------------|-----------------|---------|---------------------|---------------|--|---------------|
| SICK device specific | | | | | | | |
| Index dec (hex) | Name | Format (Offset) | Length | Access ¹ | Default Value | Value / Range | Remark [Unit] |
| 1 (0x01) | Upper Threshold (switch-on) | Bit (8) | 8 Bit | rw | 90 | 10...90 110...200 | [%] |
| 2 (0x02) | Lower Threshold (switch-off) | Bit (0) | 8 Bit | rw | 85 | 5...85 105...195 | [%] |
| 61 (0x3D) | Q1 configuration | Record | 4 Byte | rw | | | |
| 1 (0x01) | Logic | Bit (24) | 8 Bit | rw | 128 | 128 = Vendor specific | |
| 2 (0x02) | Mode | Bit (16) | 8 Bit | rw | 128 | 128 = Vendor specific | |
| 3 (0x03) | Hysteresis | Bit (0) | 16 Bit | rw | 0 | 0 = Autodefined hysteresis | |
| 62 (0x3E) | Setpoint 2 | Record | 2 Byte | rw | | | |
| 1 (0x01) | Upper Threshold (switch-on) | Bit (8) | 8 Bit | rw | 90 | 10...90 110...200 | |
| 2 (0x02) | Lower Threshold (switch-off) | Bit (0) | 8 Bit | rw | 85 | 5...85 105...195 | |
| 63 (0x3F) | Q2 configuration | Record | 4 Byte | rw | | | |
| 1 (0x01) | Logic | Bit (24) | 8 Bit | rw | 128 | 128 = Vendor specific | |
| 2 (0x02) | Mode | Bit (16) | 8 Bit | rw | 128 | 128 = Vendor specific | |
| 3 (0x03) | Hysteresis | Bit (0) | 16 Bit | rw | 0 | 0 = Autodefined hysteresis | |
| 64 (0x40) | Device / function name | String | 32 Byte | rw | ***** | | |
| 83 (0x53) | Detection Mode WL | UInt | 8 Bit | rw | 0 | 0 = Transparent Object Mode 1 = Transparent Foil Mode 2 = Non-transparent Mode 3 = Manual Mode | |
| 97 (0x61) | Sender configuration | UInt | 8 Bit | rw | 0 | 0 = Sender active 1 = Sender not active | |
| 112 (0x70) | Continuous threshold adaption (CTA) | UInt | 8 Bit | rw | 1 | 0 = off 1 = on - time based 2 = on - event based | |
| 113 (0x71) | Threshold Presetting | UInt | 8 Bit | rw | 0 | 0 = 10% (Transparent Mode) 1 = 18% (Transparent Mode) 2 = 40% (Transparent Mode) 3 = Non-transparent Mode 4 = Manual Mode | |
| 114 (0x72) | Quality of teach | UInt | 8 Bit | ro | | 0...100 | [%] |
| 121 (0x79) | Pin 2 configuration | UInt | 8 Bit | rw | 1 | 0 = Deactivated 1 = External input 16 = Sender off 17 = Teach-in 32 = Detection output Q/ 33 = Quality of run alarm output 34 = Switching signal QL2 | |
| 175 (0xAF) | Quality of run | UInt | 8 Bit | ro | | 0...255 | [%] |
| 176 (0xB0) | Quality of run alarm threshold | UInt | 8 Bit | rw | 50 | 0...90 | [%] |
| 180 (0xB4) | Current receiver level (live) | UInt | 8 Bit | ro | | 0...255 | [%] |
| 181 (0xB5) | Upper Threshold (switch-on) dynamic | UInt | 8 Bit | ro | | 0...255 | [%] |
| 182 (0xB6) | Lower Threshold (switch-off) dynamic | UInt | 8 Bit | ro | | 0...255 | [%] |
| 205 (0xCD) | SICK profile version | String | 4 Byte | ro | | | |
| 219 (0xDB) | Article No. | Record | 7 Byte | ro | | | |
| 1 (0x01) | Article No. IO-Link Device | Bit (0) | 7 Byte | ro | | | |
| 226 (0xE2) | System state | Record | 1 Byte | ro | | | |
| 1 (0x01) | Quality of run alarm output | Bit (1) | 1 Bit | ro | | false = Alarm not active true = Alarm active | |

| DEUTSCH | | | | | | | |
|-----------------|-----------------------------------|-----------------|---------|----------------------|---------------|---|---------------------|
| SICK spezifisch | | | | | | | |
| Index dez (hex) | Name | Format (Offset) | Länge | Zugriff ¹ | Standard Wert | Wertebereich | Bemerkung [Einheit] |
| 1 (0x01) | Einschaltsschwelle | Bit (8) | 8 Bit | rw | 90 | 10...90 110...200 | [%] |
| 2 (0x02) | Ausschaltsschwelle | Bit (0) | 8 Bit | rw | 85 | 5...85 105...195 | [%] |
| 61 (0x3D) | Q1-Konfiguration | Record | 4 Byte | rw | | | |
| 1 (0x01) | Logik | Bit (24) | 8 Bit | rw | 128 | 128 = Hersteller-spezifisch | |
| 2 (0x02) | Modus | Bit (16) | 8 Bit | rw | 128 | 128 = Hersteller-spezifisch | |
| 3 (0x03) | Hysterese | Bit (0) | 16 Bit | rw | 0 | 0 = Automatische Hysterese | |
| 62 (0x3E) | Setpoint 2 | Record | 2 Byte | rw | | | |
| 1 (0x01) | Einschaltsschwelle | Bit (8) | 8 Bit | rw | 90 | 10...90 110...200 | |
| 2 (0x02) | Ausschaltsschwelle | Bit (0) | 8 Bit | rw | 85 | 5...85 105...195 | |
| 63 (0x3F) | Q2-Konfiguration | Record | 4 Byte | rw | | | |
| 1 (0x01) | Logik | Bit (24) | 8 Bit | rw | 128 | 128 = Hersteller-spezifisch | |
| 2 (0x02) | Modus | Bit (16) | 8 Bit | rw | 128 | 128 = Hersteller-spezifisch | |
| 3 (0x03) | Hysterese | Bit (0) | 16 Bit | rw | 0 | 0 = Automatische Hysterese | |
| 64 (0x40) | Gerätename / -funktion | String | 32 Byte | rw | ***** | | |
| 83 (0x53) | Detektionsmodus WL | UInt | 8 Bit | rw | 0 | 0 = Transparente Objekte 1 = Transparente Folien 2 = Nicht-transparente Objekte 3 = Manuell | |
| 97 (0x61) | Einstellung Sender | UInt | 8 Bit | rw | 0 | 0 = Sender aktiv 1 = Sender nicht aktiv | |
| 112 (0x70) | Automatische Schwellennachführung | UInt | 8 Bit | rw | 1 | 0 = aus 1 = ein - zeitbasiert 2 = ein - eventbasiert | |
| 113 (0x71) | Schaltsschwellen-Modi | UInt | 8 Bit | rw | 0 | 0 = 10% (Transparente Objekte Modus) 1 = 18% (Transparente Objekte Modus) 2 = 40% (Transparente Objekte Modus) 3 = Nicht-transparente Objekte Modus 4 = Manuell | |
| 114 (0x72) | Teach-in-Qualität | UInt | 8 Bit | ro | | 0...100 | [%] |
| 121 (0x79) | Pin-2-Konfiguration | UInt | 8 Bit | rw | 1 | 0 = Deaktiviert 1 = Externer Eingang 16 = Sender Aus 17 = Teach-in 32 = Detektionsausgang Q/ 33 = Alarmausgang Betriebssicherheit 34 = Schaltsignal QL2 | |
| 175 (0xAF) | Betriebssicherheit | UInt | 8 Bit | ro | | 0...255 | [%] |
| 176 (0xB0) | Alarmschwelle Betriebssicherheit | UInt | 8 Bit | rw | 50 | 0...90 | [%] |
| 180 (0xB4) | Aktueller Empfangssignalpegel | UInt | 8 Bit | ro | | 0...255 | [%] |
| 181 (0xB5) | Einschaltsschwelle dynamisch | UInt | 8 Bit | ro | | 0...255 | [%] |
| 182 (0xB6) | Ausschaltsschwelle dynamisch | UInt | 8 Bit | ro | | 0...255 | [%] |
| 205 (0xCD) | SICK-Profilversion | String | 4 Byte | ro | | | |
| 219 (0xDB) | Artikelnummer | Record | 7 Byte | ro | | | |
| 1 (0x01) | Artikelnummer IO-Link-Gerät | Bit (0) | 7 Byte | ro | | | |
| 226 (0xE2) | Systemstatus | Record | 1 Byte | ro | | | |
| 1 (0x01) | Alarmausgang Betriebssicherheit | Bit (1) | 1 Bit | ro | | false = Alarm nicht aktiv true = Alarm aktiv | |

¹ro = read only, wo = write only, rw = read/write / ro = nur lesen, wo = nur schreiben, rw = lesen/schreiben

²COM values specify the bitrate (see IO-Link specification) / COM Werte spezifizieren die Baudrate (s. IO-Link Spezifikation): COM1 (4,8 kbit/s), COM2 (38,4 kbit/s), COM3 (230,4 kbit/s)

SICK

8019762 0319

WL12GC-3_A71

203995771
9243591 139J

| | |
|--|--|
| <p>Australia Phone +61 3 9457 0800</p> <p>Belgium/Luxembourg Phone +32 (0)2 468 55 66</p> <p>Brazil Phone +55 11 5215-9900</p> <p>Canada Phone +1 905 771 14 44</p> <p>China Phone +86 4000 121 000 +852 2353 6300</p> <p>Danmark Phone +45 45 82 64 00</p> <p>Deutschland Phone +49 211 5301 301</p> <p>España Phone +34 93 480 31 00</p> <p>France Phone +33 1 64 62 39 00</p> <p>Great Britain Phone +44 (0)1727 831211</p> <p>India Phone +91 22 4033 8333</p> <p>Italy Phone +39 02 27 43 41</p> <p>Japan Phone +81 (03) 5309 2112</p> <p>Magnetsverige Phone +36 1 371 2680</p> <p>Niederland Phone +31 (0)30 229 25 44</p> <p>SICK AG, Erwin-Sick-Strasse 1, D 79183 Waldkirch</p> | <p>Osterreich Phone +43 (0)22 36 62 28 8-0</p> <p>Norge Phone +47 67 61 51 00</p> <p>Polska Phone +48 22 837 40 50</p> <p>România Phone +40 356 171 120</p> <p>Russia Phone +7 495 775 09 30</p> <p>Schweiz Phone +41 41 619 29 39</p> <p>Svevíkingar Phone +354 6744 3732</p> <p>Svevíkingar Phone +354 6744 3732</p> <p>South Korea Phone +82 2 786 6321/4</p> <p>Suomi Phone +358 9 25 15 800</p> <p>Sverige Phone +46 10 110 10 00</p> <p>Taiwan Phone +886 2 2375 6288</p> <p>Türkiye Phone +90 (216) 538 50 00</p> <p>United Arab Emirates Phone +971 (0)4 5855 878</p> <p>USA/Mexico Phone +1 950 941 6780</p> |
|--|--|

Please find detailed addresses and additional representatives and agencies in all major industrial nations at www.sick.com

More representatives and agencies at www.sick.com - Subject to change without notice - The specified product features and technical data do not represent any guarantee.

Weitere Niederlassungen finden Sie unter www.sick.com - Irrtümer und Änderungen vorbehalten - Angegebene Produkteigenschaften und technische Daten stellen keine Garantieerklärung dar.

Plus de représentations et d'agences à l'adresse www.sick.com - Sujet à modification sans préavis - Les caractéristiques de produit et techniques indiquées ne constituent pas de déclaration de garantie.

Para mais representantes e agências, consulte www.sick.com - Alterações poderão ser feitas sem prévio aviso - As características do produto e os dados técnicos apresentados não constituem declaração de garantia.

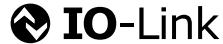
Flere representanter og agenturer på www.sick.com - Med forbehold for ændringer og fejl - De aftrykte produkttegninger og tekniske data udgør ikke nogen garantierklæring.

Altri rappresentanti ed agenzie si trovano su www.sick.com - Contenuti soggetti a modifiche senza preavviso - Le caratteristiche del prodotto e i dati tecnici non rappresentano una dichiarazione di garanzia.

Meer vestigingen en correcties voorbehouden - Aangegeven producteigenschappen en technische gegevens vormen geen garantieverklaring.

Más representantes y agencias en www.sick.com - Sujeto a cambio sin previo aviso - Las características y los datos técnicos especificados no constituyen ninguna declaración de garantía.

欲了解更多代表机构和代理商信息，请登录 www.sick.com - 如有更改，不另行通知 - 对所给出的产品特性和技术参数，其正确性不予保证。



Please note the validity of the additional operating instructions for automation functions

ENGLISH

| SICK device specific | | | | | | | |
|----------------------|------------------------|-----------------|--------|---------------------|---------------|---|---------------|
| Index dec (hex) | Name | Format (Offset) | Length | Access ¹ | Default Value | Value / Range | Remark [Unit] |
| 2 (0x02) | Detection output Q.int | Bit (0) | 1 Bit | ro | | false = No object detected true = Object detected | |
| 227 (0xE3) | Notification handling | Ulnt | 8 Bit | rw | 0 | 0 = all enabled 1 = all disabled 2 = Events enabled, PD invalid flag disabled 3 = Events disabled, PD invalid flag enabled | |
| 1000 (0x3E8) | Counter Version | String | 8 Byte | ro | | | |
| 1001 (0x3E9) | Counter Mode | Ulnt | 8 Bit | rw | 0 | 0 = up 1 = down | |
| 1002 (0x3EA) | Preset Mode | Ulnt | 8 Bit | rw | 0 | 0 = preset internal disabled 1 = preset internal enabled | |
| 1003 (0x3EB) | Preset Value | Ulnt | 16 Bit | rw | 0 | 0...16383 | |
| 1004 (0x3EC) | Comparator Value Low | Ulnt | 16 Bit | rw | 10 | 0...16383 | |
| 1005 (0x3ED) | Comparator Value High | Ulnt | 16 Bit | rw | 10 | 0...16383 | |
| 1032 (0x408) | Debounce Version | String | 8 Byte | ro | | | |
| 1033 (0x409) | Debounce Time 1 | Ulnt | 16 Bit | rw | 0 | 0...30000 | [ms] |
| 1034 (0x40A) | Quality D1 | Ulnt | 16 Bit | ro | | 0...100 | [%] |
| 1035 (0x40B) | Debounce Time 2 | Ulnt | 16 Bit | rw | 0 | 0...30000 | [ms] |
| 1036 (0x40C) | Quality D2 | Ulnt | 16 Bit | ro | | 0...100 | [%] |
| 1080 (0x438) | SLTI Version | String | 8 Byte | ro | | | |
| 1083 (0x43B) | Logic 1 | Ulnt | 8 Bit | rw | 0 | 0 = DIRECT 3 = Window Mode 4 = Hysteresis | |
| 1084 (0x43C) | Logic 2 | Ulnt | 8 Bit | rw | 0 | 0 = DIRECT 3 = Window Mode 4 = Hysteresis | |
| 1085 (0x43D) | Timer 1 Mode | Ulnt | 8 Bit | rw | 0 | 0 = deactivated 1 = T-on delay 2 = T-off delay 3 = T-on/T-off delay 4 = Impulse (one shot) | |
| 1086 (0x43E) | Timer 2 Mode | Ulnt | 8 Bit | rw | 0 | 0 = deactivated 1 = T-on delay 2 = T-off delay 3 = T-on/T-off delay 4 = Impulse (one shot) | |
| 1087 (0x43F) | Time 1 Setup | Ulnt | 16 Bit | rw | 1 | 1...30000 | [ms] |
| 1088 (0x440) | Time 2 Setup | Ulnt | 16 Bit | rw | 1 | 1...30000 | [ms] |
| 1089 (0x441) | Inverter 1 | Ulnt | 8 Bit | rw | 1 | 0 = not inverted 1 = inverted | |
| 1090 (0x442) | Inverter 2 | Ulnt | 8 Bit | rw | 1 | 0 = not inverted 1 = inverted | |

| Standard command | | | | | |
|------------------|---------------------|-------|------|--------------------------|--|
| Index dec (hex) | Access ¹ | Value | Name | Remark [Unit] | |
| 2 (0x02) | Standard Command | wo | 65 | Single Value Teach | |
| | | | 130 | Restore Factory Settings | |
| | | | 192 | Reset Counter | |
| | | | 193 | Preset Counter | |

DEUTSCH

| SICK spezifisch | | | | | | | | | | |
|-----------------|--------------------------------|-----------------|--------|----------------------|---------------|--|---------------------|--|--|--|
| Index dez (hex) | Name | Format (Offset) | Länge | Zugriff ¹ | Standard Wert | Wertebereich | Bemerkung [Einheit] | | | |
| 2 (0x02) | Detektion Ausgang Q.int | Bit (0) | 1 Bit | ro | | false = Kein Objekt detektiert true = Objekt detektiert | | | | |
| 227 (0xE3) | Benachrichtigungseinstellungen | Ulnt | 8 Bit | rw | 0 | 0 = alle aktiviert 1 = alle deaktiviert 2 = Events aktiviert, PD-invalid-Flag deaktiviert 3 = Events deaktiviert, PD-invalid-Flag aktiviert | | | | |
| 1000 (0x3E8) | Counter-Version | String | 8 Byte | ro | | | | | | |
| 1001 (0x3E9) | Zählermode | Ulnt | 8 Bit | rw | 0 | 0 = aufwärts 1 = abwärts | | | | |
| 1002 (0x3EA) | Vorwahlmode | Ulnt | 8 Bit | rw | 0 | 0 = interne Vorwahl aus 1 = interne Vorwahl ein | | | | |
| 1003 (0x3EB) | Zählervorwahl | Ulnt | 16 Bit | rw | 0 | 0...16383 | | | | |
| 1004 (0x3EC) | Vergleichswert unten | Ulnt | 16 Bit | rw | 10 | 0...16383 | | | | |
| 1005 (0x3ED) | Vergleichswert oben | Ulnt | 16 Bit | rw | 10 | 0...16383 | | | | |
| 1032 (0x408) | Debounce-Version | String | 8 Byte | ro | | | | | | |
| 1033 (0x409) | Entprellzeit 1 | Ulnt | 16 Bit | rw | 0 | 0...30000 | [ms] | | | |
| 1034 (0x40A) | Qualität D1 | Ulnt | 16 Bit | ro | | 0...100 | [%] | | | |
| 1035 (0x40B) | Entprellzeit 2 | Ulnt | 16 Bit | rw | 0 | 0...30000 | [ms] | | | |
| 1036 (0x40C) | Qualität D2 | Ulnt | 16 Bit | ro | | 0...100 | [%] | | | |
| 1080 (0x438) | SLTI Version | String | 8 Byte | ro | | | | | | |
| 1083 (0x43B) | Logik 1 | Ulnt | 8 Bit | rw | 0 | 0 = DIREKT 3 = Fenster Modus 4 = Hysterese | | | | |
| 1084 (0x43C) | Logik 2 | Ulnt | 8 Bit | rw | 0 | 0 = DIREKT 3 = Fenster Modus 4 = Hysterese | | | | |
| 1085 (0x43D) | Timer 1 Modus | Ulnt | 8 Bit | rw | 0 | 0 = deaktiviert 1 = Einschaltverzögerung 2 = Ausschaltverzögerung 3 = Ein- / Ausschaltverzögerung 4 = Impuls (One Shot) | | | | |
| 1086 (0x43E) | Timer 2 Modus | Ulnt | 8 Bit | rw | 0 | 0 = deaktiviert 1 = Einschaltverzögerung 2 = Ausschaltverzögerung 3 = Ein- / Ausschaltverzögerung 4 = Impuls (One Shot) | | | | |
| 1087 (0x43F) | Zeitwert 1 | Ulnt | 16 Bit | rw | 1 | 1...30000 | [ms] | | | |
| 1088 (0x440) | Zeitwert 2 | Ulnt | 16 Bit | rw | 1 | 1...30000 | [ms] | | | |
| 1089 (0x441) | Inverter 1 | Ulnt | 8 Bit | rw | 1 | 0 = nicht invertiert 1 = invertiert | | | | |
| 1090 (0x442) | Inverter 2 | Ulnt | 8 Bit | rw | 1 | 0 = nicht invertiert 1 = invertiert | | | | |

| Standardkommando | | | | | |
|------------------|----------------------|------|------|---------------------------------------|--|
| Index dez (hex) | Zugriff ¹ | Wert | Name | Bemerkung [Einheit] | |
| 2 (0x02) | Standardkommando | wo | 65 | Einzelpunkt-Teach | |
| | | | 130 | Auslieferungszustand wiederherstellen | |
| | | | 192 | Zähler rücksetzen | |
| | | | 193 | Zähler vorwählen | |

¹ ro = read only, wo = write only, rw = read/write / ro = nur lesen, wo = nur schreiben, rw = lesen/schreiben

² COM values specify the bitrate (see IO-Link specification) / COM Werte spezifizieren die Baudrate (s. IO-Link Spezifikation): COM1 (4,8 kbit/s), COM2 (38,4 kbit/s), COM3 (230,4 kbit/s)

SICK

8019762 0319

WL12GC-3_A71

203995771
9243591 139J

| | |
|---|---|
| <p>Australia Phone +61 3 9457 0800</p> <p>Belgium/Luxembourg Phone +32 (0)2 468 55 66</p> <p>Brasil Phone +55 11 5215-4900</p> <p>Canada Phone +1 905 771 14 44</p> <p>China Phone +86 400 121 000 +852 2153 6300</p> <p>Danmark Phone +45 45 82 64 00</p> <p>Deutschland Phone +49 211 5301 301</p> <p>España Phone +34 93 480 31 00</p> <p>France Phone +33 1 64 62 39 00</p> <p>Great Britain Phone +44 (0)1727 83121</p> <p>India Phone +91-22-4033 8333</p> <p>Israel Phone +972-4-6801000</p> <p>Italia Phone +39 02 27 43 41</p> <p>Japan Phone +81 (03) 5309 2112</p> <p>Magnetsverige Phone +36 1 371 2680</p> <p>Niederland Phone +31 (0)30 229 25 44</p> <p>SICK AG, Erwin-Sick-Strasse 1, D.79183 Waldkirch</p> | <p>Osterreich Phone +43 (0)22 36 62 28 8-0</p> <p>Norge Phone +47 67 61 50 00</p> <p>Polka Phone +48 22 837 40 50</p> <p>România Phone +40 356 171 120</p> <p>Schweden Phone +7 495 775 09 30</p> <p>Singapur Phone +65 6744 3732</p> <p>Sveits Phone +386 (0)147 69 990</p> <p>South Korea Phone +82 2 786 6321/4</p> <p>Suomi Phone +358 9 25 15 800</p> <p>Sverige Phone +46 10 110 10 00</p> <p>Taiwan Phone +886 2 2375 6288</p> <p>Türkiye Phone +90 (216) 538 50 00</p> <p>United Arab Emirates Phone +971 (0)4 5565 878</p> <p>USA/Mexico Phone +1 950 941 6780</p> |
|---|---|

Please find detailed addresses and additional representatives and agencies in all major industrial nations at www.sick.com

More representatives and agencies at www.sick.com - Subject to change without notice - The specified product features and technical data do not represent any guarantee.

Weitere Niederlassungen finden Sie unter www.sick.com - Irrtümer und Änderungen vorbehalten - Angegebene Produkteigenschaften und technische Daten stellen keine Garantieerklärung dar.

Plus de représentations et d'agences à l'adresse www.sick.com - Sujet à modification sans préavis - Les caractéristiques de produit et techniques indiquées ne constituent pas de déclaration de garantie.

Para mais representantes e agências, consulte www.sick.com - Alterações poderão ser feitas sem prévio aviso - As características do produto e os dados técnicos apresentados não constituem declaração de garantia.

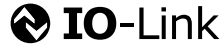
Flere representanter og agenturer på www.sick.com - Med forbehold for ændringer og fejl - De angivne produkttegnelser og tekniske data udgør ikke nogen garanti erklæring.

Altri rappresentanti ed agenzie si trovano su www.sick.com - Contenuti soggetti a modifiche senza preavviso - Le caratteristiche del prodotto e i dati tecnici non rappresentano una dichiarazione di garanzia.

Meer vestigingen en vertegenwoordigingen vindt u op www.sick.com - Wijzigingen en correcties voorbehouden - Aangegeven producteigenschappen en technische gegevens vormen geen garantieverklaring.

Más representantes y agencias en www.sick.com - Sujeto a cambio sin previo aviso - Las características y los datos técnicos especificados no constituyen ninguna declaración de garantía.

欲了解更多代表机构和代理商信息，请登录 www.sick.com - 如有更改，不另行通知 - 对所给出的产品特性和技术参数的正确性不予保证。



Please note the validity of the additional operating instructions for automation functions

ENGLISH

| Events | | | |
|----------------|--------------------------------------|--------------|---|
| Code dec (hex) | Name | Type | Remark [Unit] |
| 36000 (0x8CA0) | Short Circuit on Qx | Notification | Short circuit on outputs |
| 36001 (0x8CA1) | New parameters | Notification | Parameters have been changed |
| 36004 (0x8CA4) | Quality of run alarm | Notification | Low device performance, clean sensor |
| 36005 (0x8CA5) | Teach / value out of specified range | Notification | Teach / distance value out of specified range |
| 36006 (0x8CA6) | Value out of specified range | Notification | Setup value out of specified range |

Error

| Code dec (hex) | Additional Code | Name | Remark [Unit] |
|----------------|-----------------|-----------------------------------|---|
| 128 (0x80) | 17 (0x11) | Index not available | Access occurs to a not existing index |
| 128 (0x80) | 18 (0x12) | Subindex not available | Access occurs to a not existing subindex |
| 128 (0x80) | 32 (0x20) | Service temporarily not available | Parameter is not accessible due to the current state of the device application |
| 128 (0x80) | 35 (0x23) | Access denied | Write access on a read-only parameter |
| 128 (0x80) | 48 (0x30) | Parameter value out of range | Written parameter value is outside its permitted value range |
| 128 (0x80) | 51 (0x33) | Parameter length overrun | Written parameter length is above its pre-defined length |
| 128 (0x80) | 52 (0x34) | Parameter length underrun | Written parameter length is below its pre-defined length |
| 128 (0x80) | 64 (0x40) | Invalid parameter set | Written single parameter collides with other actual parameter settings |
| 128 (0x80) | 65 (0x41) | Inconsistent parameter set | Parameter inconsistencies were found at the end of block parameter transfer, device plausibility check failed |

DEUTSCH

| Events | | | |
|----------------|--|--------------|---|
| Code dez (hex) | Name | Typ | Bemerkung [Einheit] |
| 36000 (0x8CA0) | Kurzschluss Qx | Notification | Kurzschluss an Ausgang detektiert |
| 36001 (0x8CA1) | Neue Parameter | Notification | Parameter wurden geändert |
| 36004 (0x8CA4) | Alarmausgang Betriebssicherheit | Notification | Schlechte Geräteperformance, Sensor reinigen |
| 36005 (0x8CA5) | Teach / Wert außerhalb Wertebereich | Notification | Teach / Distanzwert außerhalb des spezifizierten Bereichs |
| 36006 (0x8CA6) | Wert außerhalb des zulässigen Bereichs | Notification | Einstellwert außerhalb des zulässigen Bereichs |

Fehlercodes

| Code dez (hex) | Additional Code | Name | Bemerkung [Einheit] |
|----------------|-----------------|---|--|
| 128 (0x80) | 17 (0x11) | Index nicht vorhanden | Zugriff auf einen nicht existierenden Index |
| 128 (0x80) | 18 (0x12) | Subindex nicht vorhanden | Zugriff auf einen nicht existierenden Subindex |
| 128 (0x80) | 32 (0x20) | Service zur Zeit nicht verfügbar | Auf den Parameter kann gerade nicht zugegriffen werden. Das Gerät erlaubt dies im aktuellen Zustand nicht |
| 128 (0x80) | 35 (0x23) | Zugriff verweigert | Schreibzugriff auf einen schreibgeschützten Parameter |
| 128 (0x80) | 48 (0x30) | Parameterwert außerhalb des gültigen Bereichs | Geschriebener Parameterwert liegt außerhalb des zulässigen Wertebereichs |
| 128 (0x80) | 51 (0x33) | Parameterlänge zu groß | Geschriebene Parameterlänge ist größer als erlaubt |
| 128 (0x80) | 52 (0x34) | Parameterlänge zu klein | Geschriebene Parameterlänge ist kleiner als erlaubt |
| 128 (0x80) | 64 (0x40) | Ungültiger Parametersatz | Geschriebener Einzelparameterwert kollidiert mit den anderen Parametereinstellungen |
| 128 (0x80) | 65 (0x41) | Inkonsistenter Parametersatz | Am Ende des Blockparametertransfers wurden Inkonsistenzen erkannt. Der Geräteplausibilitätscheck schlug fehl |