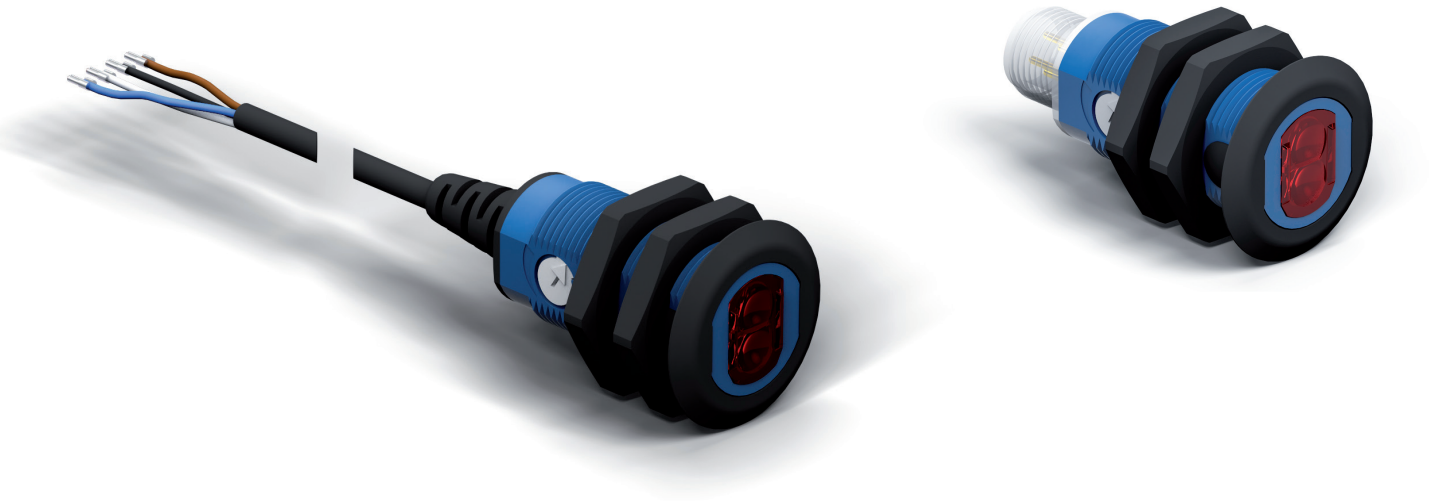
EN

OTDK502Axxxx

Reflex Sensors



IO-Link

Interface Description

Subject to change without notice
Available as PDF version only
Status: 18.11.2024
www.wenglor.com

IO-Link OTDK502Axxxx

Vendor ID

Product	hex	dec	hex (Bytes)	dec (Bytes)
wenglor sensoric GmbH	0x0057	87	00 57	0 87

Device ID

Product	hex	dec	hex (Bytes)	dec (Bytes)
OTDK502A0002	0x00001C	28	00 00 1C	0 0 28
OTDK502A0091	0x00001A	26	00 00 1A	0 0 26

IO-Link Version:	V1.1
Parameter Server / Data Storage:	No
Blockparameter:	No
MinCycleTime:	4,8 ms
SIO-Mode:	Yes
COM-Mode:	COM2
ISDU:	No
Process data In (Device to Master):	16 Bit
Process data Out (Master to Device):	—

Process data (Length: 16 Bit)

Subindex	Name	Bit Offset	Data Type	Valid for versions	Range
1	A1 Output	0	Bool	all	0 = Off 1 = On
2	Signal Warning	1	Bool	all	0 = Off 1 = On
3	---	2	---	---	---
4	---	3	---	---	---
5	Short Circuit	4	Bool	all	0 = Off 1 = On
6	---	5	---	---	---
7	Overtemperature	6	Bool	all	0 = Off 1 = On
8	Memory Busy	7	Bool	all	0 = Off 1 = On
9	Signal	8	Uint8	all	0...255

Octet 0

Subindex	9							
Bit Offset	15	14	13	12	11	10	9	8

Octet 1

Subindex	8	7	6	5	4	3	2	1
Bit Offset	7	6	5	4	3	2	1	0

Parameter

Name	Index (hex)	Index (dec)	Sub-index	R/W	Data type	Default value	Range
Identification							
Parameter.Serial number	0x0001	**1**	12…15	R	Uint32		
Direct Parameters 1.Vendor ID 1	0x0000	**0**	8	R	Uint8	0	
Direct Parameters 1.Vendor ID 2	0x0000	**0**	9	R	Uint8	87	
Direct Parameters 1.Device ID 1	0x0000	**0**	10	R	Uint8	-	
Direct Parameters 1.Device ID 2	0x0000	**0**	11	R	Uint8	-	
Direct Parameters 1.Device ID 3	0x0000	**0**	12	R	Uint8	-	
Parameter							
Write parameters to OTP memory	0x0001	**1**	16	R/W	Uint8	0 = No action	0 = No action 148 = Write parameters
Counter OTP memory	0x0001	**1**	5	R	Uint8	0	0...255
OFF Delay	0x0001	**1**	4 (Bit0…2)	R/W	Uint3	0 = Off	0 = Off 1 = 2 ms 2 = 5 ms 3 = 10 ms 4 = 20 ms 5 = 50 ms 6 = 100 ms 7 = 200 ms
ON Delay	0x0001	**1**	4 (Bit3…5)	R/W	Uint3	0 = Off	0 = Off 1 = 2 ms 2 = 5 ms 3 = 10 ms 4 = 20 ms 5 = 50 ms 6 = 100 ms 7 = 200 ms
Operating Mode	0x0001	**1**	4 (Bit7)	R/W	Bool	0 = Standard	0 = Standard 1 = Speed
Switch Point	0x0001	**1**	3	R/W	Uint8	248	0…248
A1 NO/NC	0x0001	**1**	1 (Bit0)	R/W	Bool	0 = NO	0 = NO 1 = NC
A2 Pin Function	0x0001	**1**	2 (Bit1...2)	R/W	Uint2	0 = Antivalent	0 = Antivalent 1 = Error NO 2 = Error NC 3 = Deactivated
PNP/NPN/Push-Pull	0x0001	**1**	2 (Bit3...4)	R/W	Uint2	1 = PNP	0 = Push-Pull 1 = PNP 2 = NPN
Source Switch Point	0x0001	**1**	2 (Bit5)	R/W	Bool	0 = Potentiometer	0 = Potentiometer 1 = IO-Link
Hysteresis	0x0001	**1**	2 (Bit6)	R/W	Bool	1 = Large	0 = Small 1 = Large
Emitted Light	0x0001	**1**	2 (Bit7)	R/W	Bool	0 = ON	0 = ON 1 = OFF

Notes for the use of the IODD

RAM-memory
The changed parameters are stored in the volatile memory of the sensor. This could be used for testing and if the configuration of the sensor changes often (e. g. for different production batches).

Changes have the following effects:
• Sensor behavior is adjusted immediately without a restart according to the changed parameter.
• In case of a sensor restart (e. g. by turning power off and on) the settings are lost.
• Changes have no effects on the OTP-memory of the sensor.

OTP-memory
By writing the parameters, they are stored in the non-volatile memory. At every start-up the OTP parameters are loaded to the RAM of the sensor. The OTP-memory has limited write cycles. The wenglor sensoric GmbH can guarantee at least 240 writes to the OTP-memory at delivery.
The current number of writes is readable from the parameter “Counter OTP memory”.

Procedure to save parameters in the OTP-memory of the sensor:
1. Test the sensor settings within the application until the desired configuration is clear.
2. Set the parameter “Write parameters to OTP memory” to “write parameters” and send it to the sensor.
3. The configuration is applied directly, and after a restart it is loaded from the OTP-memory.
4. New configuration is stored in the sensors RAM and OTP-memory.