

I08H025, I08H026, I12H019, I12H020, I18H013, I18H014, I30H013, I30H014, I1QH005, I1QH006

Inductive Sensors with IO-Link V1.0.1



IO-Link

Interface Description

IO-Link

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)
I08H025	0x270801	2557953	27 08 01	39 8 1
I08H026	0x270802	2557954	27 08 02	39 8 2
I12H019	0x270C01	2558977	27 0C 01	39 12 1
I12H020	0x270C02	2558978	27 0C 02	39 12 2
I18H013	0x271201	2560513	27 12 01	39 18 1
I18H014	0x271202	2560514	27 12 02	39 18 2
I30H013	0x271E01	2563585	27 1E 01	39 30 1
I30H014	0x271E02	2563586	27 1E 02	39 30 2
I1QH005	0x272801	2566145	27 28 01	39 40 1
I1QH006	0x272802	2566146	27 28 02	39 40 2

IO-Link Version: V1.0.1
Min Cycle Time: 3,9 ms
SIO-Mode Yes
COM-Mode COM2

Process data (Length 2 bit)

Name	Bit Offset	Length	Range
Object presence	0	1 Bit	0 = false = no object 1 = true = object detected
Error indication	1	1 Bit	0 = false = no error 1 = true = error

Parameter

Name	Index (hex)	Index (dec)	Sub-index	R/W	Data type	Default value	Range
Identification							
Direct Parameters 1.Vendor ID 1	0x0000	0	8	R	UInt8		
Direct Parameters 1.Vendor ID 2	0x0000	0	9	R	UInt8		
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							
Sensor RAM-Parameter							
Parameter.Switching Distance	0x0001	1	3 (Bit 0...1)	R/W	UInt2	0	0 = Switching Distance 1 (high) 1 = Switching Distance 2 (middle) 3 = Switching Distance 3 (low)
Parameter.A1 Function	0x0001	1	3 (Bit 2)	R/W	Bool	0	0 = NO 1 = NC
Parameter.A2 Function	0x0001	1	3 (Bit 5...6)	R/W	UInt2	1	0 = Antivalent 1 = Error Output (NC) 2 = Error Output (NO) 3 = No Output
Parameter.Output Mode A1	0x0001	1	3 (Bit 3...4)	R/W	UInt2	1	0 = Push-Pull 1 = PNP 2 = NPN
Parameter.Signal Filter*	0x0001	1	3 (Bit 7)	R/W	Bool	1	0 = On (normal speed) 1 = Off (high speed)
OTP-parameter to write							
Parameter.OTP Switching Distance	0x0001	1	6 (Bit 0...1)	R/W	UInt2	2	0 = Switching Distance 1 (high) 1 = Switching Distance 2 (middle) 3 = Switching Distance 3 (low)
Parameter.OTP A1 Function	0x0001	1	6 (Bit 2)	R/W	Bool	0	0 = NO 1 = NC
Parameter.OTP A2 Function	0x0001	1	6 (Bit 5...6)	R/W	UInt2	1	0 = Antivalent 1 = Error Output (NC) 2 = Error Output (NO) 3 = No Output
Parameter.OTP Output Mode A1	0x0001	1	6 (Bit 3...4)	R/W	UInt2	1	0 = Push-Pull 1 = PNP 2 = NPN
Parameter.OTP Signal Filter*	0x0001	1	6 (Bit 7)	R/W	Bool	1	0 = On (normal speed) 1 = Off (high speed)
Parameter.OTP Access	0x0001	1	5	R/W	UInt8	0	0 = No Action 146 = Write

* Parameter not adjustable for I12H020

Notes for the use of the IODD

Sensors with IO-Link Version 1.0.1 shall only be used with the corresponding IODD V1.0.1.

IO-Link V1.0.1 is available in the following sensor revisions:

- I08H025, I08H026: from Rev. B
- I12H019: from Rev. C
- I12H020: from Rev. D
- I18H013, I18H014: from Rev. C
- I30H013, I30H014: from Rev. B
- I1QH005, I1QH006: from Rev. C

Sensor “RAM-Parameter”

The RAM-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.

Sensor “OTP-parameter to write”

The OTP parameters are stored in a non-volatile memory and are loaded to the RAM of the sensor at every start-up. The OTP-memory has limited write cycles. The wenglor sensoric GmbH can guarantee at least 10 writes to the OTP-memory at delivery.

Procedure to save parameters in the OTP-memory of the sensor:

1. Test the sensor settings via RAM-parameters within the application until the desired configuration is clear.
2. Set the desired configuration within the OTP-parameters and send it to the sensor (all parameters).
3. Afterwards set OTP-parameter “Parameter.Access” to “Write” and send it to the sensor.
4. Turn the power supply off and back on. Afterwards the sensor boots the new data from the OTP memory.
5. New configuration is stored in the sensors RAM and OTP-memory.