

UG

Vendor ID 310 / 0x0136 - Bytes: 01 54 / 0x01 0x36
 Device ID 703 / 0x0002BF - Bytes: 00 02 191 / 0x00 0x02 0xBF
 Vendor name ifm electronic gmbh
 Vendor text www.ifm.com
 Vendor URL <http://www.ifm.com/ifmgb/web/io-link-download.htm>

**Communication**

IO-Link revision V1.1
 Bit rate COM2
 Minimum cycle time 3.200 ms
 SIO mode supported Yes

Features

Block parametrization Yes
 Data storage Yes

Device variant

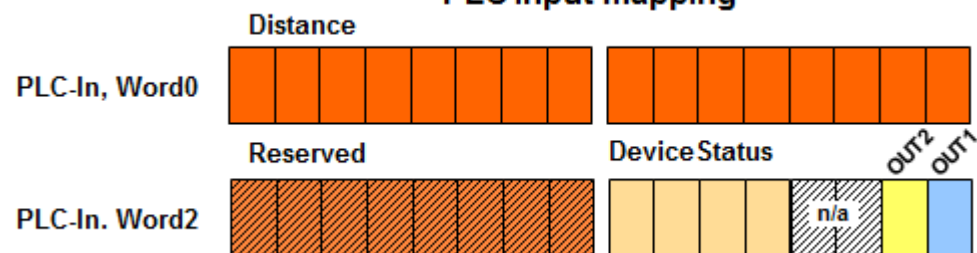
UGT205		<p>Wiring diagram for UGT205 showing a 4-pin connector. Pin 1 is connected to L+, pin 2 to L-, pin 3 to a common ground, and pin 4 to a common ground. A switch is connected between pins 3 and 4.</p>	<p>Photograph showing several UGT205 device variants in different colors (orange, silver, black) and sizes.</p>
UGT511		<p>Wiring diagram for UGT511 showing a 4-pin connector. Pin 1 is connected to L+, pin 2 to L-, pin 3 to a common ground, and pin 4 to a common ground. A switch is connected between pins 3 and 4.</p>	<p>Photograph showing several UGT511 device variants in different colors (orange, silver, black) and sizes.</p>

Process data
(Process data input)

Total bit length = 32

Name	Description	Data type	Bit offset	Bit length	Value range	Gradient	Offset	Unit
PDV1	Current process data 1	IntegerT	16	16	100 to 1700 (-32760) UL (32760) OL	1	0	mm
Device status	Current device status, a copy of the variable [Device Status] in the process data channel	UIntegerT	4	4	(0) Device is OK (1) Maintenance required (2) Out of specification (3) Functional check (4) Failure			
OUT2	Status depends on [OU2]	BooleanT	1		(false) inactive (true) active			
OUT1	Status depends on SSC1-Config.Logic and SSC1-Config.Mode	BooleanT	0		(false) inactive (true) active			

PLC input mapping



Variables

Name	Description	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
Standard Command		2	Sub 0	UIntegerT	8 Bit	wo		(130) Restore Factory Settings (65) Teach SP1 (66) Teach SP2 (240) IO-Link 1.1 system test command 240, Event 8DFE appears (241) IO-Link 1.1 system test command 241, Event 8DFE disappears (242) IO-Link 1.1 system test command 242, Event 8DFF appears (243) IO-Link 1.1 system test command 243, Event 8DFF disappears			
Device Access Locks		12	Sub 0	RecordT	16 Bit	rw					
<i>Data Storage</i>	Unlocked: Parameter are saved in IO-Link masters memory. Locked: Saving of parameters in the IO-Link master is not possible. [INFO] Concerning this parameter, IO-Link master and device have to be configured the same way. An activated DataStorage within the masters		bitOffs 1	BooleanT	1 Bit		(false)	(false) Unlocked (true) Locked			

Variables

Name	Description	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
Device Access Locks		12	Sub 0	RecordT	16 Bit	rw					
	configuration, indicates the devices DataStorageLock to be 'Unlocked'.										
<i>Local Parameterization</i>			bitOffs 2	BooleanT	1 Bit		(false)	(false) Unlocked (true) Locked			
Vendor Name	Name of the vendor of the device.	16	Sub 0	StringT	max 19 Byte	ro	ifm electronic gmbh				
Vendor Text	Additional information of the devices vendor.	17	Sub 0	StringT	max 11 Byte	ro	www.ifm.com				
Product Name		18	Sub 0	StringT	max 6 Byte	ro					
Product ID		19	Sub 0	StringT	max 6 Byte	ro					
Product Text		20	Sub 0	StringT	max 26 Byte	ro	Ultrasonic Distance Sensor				
Serial Number		21	Sub 0	StringT	max 16 Byte	ro					
Hardware Version		22	Sub 0	StringT	max 2 Byte	ro					
Firmware Version		23	Sub 0	StringT	max 16 Byte	ro					
Application Specific Tag	A freely defined text can be assigned.	24	Sub 0	StringT	max 32 Byte	rw	***				
Device Status		36	Sub 0	UIntegerT	8 Bit	ro	(0) Device is OK	(0) Device is OK (1) Maintenance required			

Variables

Name	Description	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
Device Status		36	Sub 0	UIntegerT	8 Bit	ro	(0) Device is OK	(2) Out of specification (3) Functional check (4) Failure 5 to 255 (Reserved)			
Detailed Device Status		37	Sub 0		24 Byte	ro	00 00 00 h				
TI Select	Teach selection	58	Sub 0	UIntegerT	8 Bit	rw	(1) SSC1	(1) SSC1 (2) SSC2			
TI Result	Teach result	59	Sub 0	RecordT	8 Bit	ro					
<i>State</i>	Current teach state		bitOffs 0	UIntegerT	4 Bit		(0) Idle	(0) Idle (1) SP1 Success (2) SP2 Success (3) SP12 Success (5) Busy (7) Error			
SSC1 Param	Switching signal channel 1, parameter	60		RecordT	32 Bit	rw					
<i>SP1</i>	Setpoint 1		Sub 1	IntegerT	16 Bit		(1600)	150 to 1600	1	0	mm
<i>SP2</i>	Setpoint 2		Sub 2	IntegerT	16 Bit		(150)	150 to 1600	1	0	mm
SSC1 Config	Switching signal channel 1, configuration	61		RecordT	32 Bit	rw					
<i>Logic</i>	Setpoint logic / State for target detected		Sub 1	UIntegerT	8 Bit		(0) High active	(0) High active (1) Low active			
<i>Mode</i>	Setpoint mode		Sub 2	UIntegerT	8 Bit		(2) Window	(1) 1Point (2) Window (3) 2Point			

Variables

Name	Description	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
SSC1 Config	Switching signal channel 1, configuration	61		RecordT	32 Bit	rw					
Hyst	Setpoint hysteresis		Sub 3	IntegerT	16 Bit		(5)	1 to 50	1	0	mm
SSC2 Param	Switching signal channel 2, parameter	62		RecordT	32 Bit	rw					
SP1	Setpoint 1		Sub 1	IntegerT	16 Bit		(1600)	150 to 1600	1	0	mm
SP2	Setpoint 2		Sub 2	IntegerT	16 Bit		(150)	150 to 1600	1	0	mm
SSC2 Config	Switching signal channel 2, configuration	63		RecordT	32 Bit	rw					
Logic	Setpoint logic / State for target detected		Sub 1	UIntegerT	8 Bit		(0) High active	(0) High active (1) Low active			
Mode	Setpoint mode		Sub 2	UIntegerT	8 Bit		(2) Window	(1) 1Point (2) Window (3) 2Point			
Hyst	Setpoint hysteresis		Sub 3	IntegerT	16 Bit		(5)	1 to 50	1	0	mm
SSC1 Switch-On delay	Switchching signal channel 1, Switch-On delay	370	Sub 0	UIntegerT	16 Bit	rw	0	0 to 2000	1	0	ms
SSC1 Switch-Off delay	Switchching signal channel 1, Switch-Off delay	371	Sub 0	UIntegerT	16 Bit	rw	0	0 to 2000	1	0	ms
SSC2 Switch-On delay	Switchching signal channel 2, Switch-On delay	372	Sub 0	UIntegerT	16 Bit	rw	0	0 to 2000	1	0	ms
SSC2 Switch-Off delay	Switchching signal channel 2, Switch-Off delay	373	Sub 0	UIntegerT	16 Bit	rw	0	0 to 2000	1	0	ms
FILT	Filter or response time of the measured signal, LOW indicates fast, HIGH indicates slow response	515	Sub 0	UIntegerT	8 Bit	rw	(2) MEdI	(0) OFF			

Variables

Name	Description	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
FILT	Filter or response time of the measured signal, LOW indicates fast, HIGH indicates slow response	515	Sub 0	UIntegerT	8 Bit	rw	(2) MEdI	(1) LOW (2) MEdI (3) HIGH			
Power cycles	Number of power cycles since delivery	541	Sub 0	UIntegerT	16 Bit	ro	0	0 to 65535	1	0	
Operating hours	Counter of the operating hours since delivery	542	Sub 0	UIntegerT	16 Bit	ro	0	0 to 65535	1	0	h
Active Events	Bit mask for current pending events	545	Sub 0	RecordT	32 Bit	ro					
<i>Bit_31</i>	Bit 31 indicates the assigned pending event		bitOffs 31	BooleanT	1 Bit		(0) noEv	(0) noEv (1) 0x8DFF			
<i>Bit_30</i>	Bit 30 indicates the assigned pending event		bitOffs 30	BooleanT	1 Bit		(0) noEv	(0) noEv (1) 0x8DFE			
<i>Bit_16</i>	Bit 16 indicates the assigned pending event		bitOffs 16	BooleanT	1 Bit		(0) noEv	(0) noEv (1) 0x4210			
<i>Bit_2</i>	Bit 2 indicates the assigned pending event		bitOffs 2	BooleanT	1 Bit		(0) noEv	(0) noEv (1) 0x7710			
Param configuration fault	Displays the wrongly set parameters	546	Sub 0			ro	0				
Loc	[Loc] locks the local user interface to prevent unintentional changes, [Loc] is resettable at the device	550	Sub 0	UIntegerT	8 Bit	rw	(1) uLoc	(1) uLoc (0) Loc			

Variables

Name	Description	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
ou2	Output configuration [OUT 2]	590	Sub 0	UIntegerT	8 Bit	rw	(2) U / Analog signal 0...10 V	(2) U / Analog signal 0...10 V (11) UnEG / Analog signal 10...0 V			
ASP2	Analogue start point 2. [ASP2] must be smaller than [AEP2]. Please take into account the current [AEP2]. For info on the minimum hysteresis [AEP2]-[ASP2] please refer to the operating instructions	630	Sub 0	IntegerT	16 Bit	rw	150	150 to 1600	1	0	mm
AEP2	Analogue end point 2. [AEP2] must be greater than [ASP2]. Please take into account the current [ASP2]. For info on the min hysteresis [AEP2]-[ASP2] please refer to the operating instructions	631	Sub 0	IntegerT	16 Bit	rw	1600	150 to 1600	1	0	mm
ECHO	Echo quality	2300	Sub 0	UIntegerT	8 Bit	ro		(0) no (1) LOW (2) Mld (3) GOOD (4) ECLT			
Background suppression	Background suppression	2301	Sub 0	UIntegerT	8 Bit	rw	(0) OFF	(0) OFF (1) On			

Events

Code	Name	Type	Description
16912 d / 42 10 h	Device temperature over-run	Warning	Clear source of heat
30480 d / 77 10 h	Short circuit	Error	Check installation
36350 d / 8D FE h	Test Event 1	Warning	Event appears by setting index 2 to value 240, Event disappears by setting index 2 to value 241
36351 d / 8D FF h	Test Event 2	Warning	Event appears by setting index 2 to value 242, Event disappears by setting index 2 to value 243

Error types

Error code	Name	Description
32768 d / 80 00 h	Device application error - no details	Service has been refused by the device application and no detailed information of the incident is available
32785 d / 80 11 h	Index not available	Access occurs to a not existing index
32786 d / 80 12 h	Subindex not available	Access occurs to a not existing subindex
32800 d / 80 20 h	Service temporarily not available	Parameter is not accessible due to the current state of the device application
32803 d / 80 23 h	Access denied	Write access on a read-only parameter
32816 d / 80 30 h	Parameter value out of range	Written parameter value is outside its permitted value range
32819 d / 80 33 h	Parameter length overrun	Written parameter length is above its predefined length
32820 d / 80 34 h	Parameter length underrun	Written parameter length is below its predefined length
32821 d / 80 35 h	Function not available	Written command is not supported by the device application
32822 d / 80 36 h	Function temporarily unavailable	Written command is not available due to the current state of the device application
32832 d / 80 40 h	Invalid parameter set	Written single parameter collides with other actual parameter settings
32833 d / 80 41 h	Inconsistent parameter set	Parameter inconsistencies were found at the end of block parameter transfer, device plausibility check failed
32898 d / 80 82 h	Application not ready	Read or write service is refused due to a temporarily unavailable application