

Version: V1.00.8

Release Date: 2016-03-25

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TA2

Vendor ID 310 / 0x0136 - Bytes: 01 54 / 0x01 0x36
 Vendor Name ifm electronic gmbh
 Vendor Text www.ifm.com
 Vendor URL http://http://www.ifm.com/ifmgb/web/io-link-download.htm
 Device ID 377 / 0x000179 - Bytes: 00 01 121 / 0x00 0x01 0x79



Communication

IO-Link Revision V1.1
 Bitrate COM2
 Minimum Cycle Time 2.300 ms
 SIO Mode Supported No

Features

Block parametrization Yes
 Data storage Yes

Device Variant

TA2405	Temperature transmitter, -50.0...150 °C, Length 30 mm, Process connection G 1/2, hygienisch, hygienic
TA2415	Temperature transmitter, -50.0...150 °C, Length 50 mm, Process connection G 1/2, hygienisch, hygienic
TA2435	Temperature transmitter, -50.0...150 °C, Length 100 mm, Process connection G 1/2, hygienisch, hygienic
TA2445	Temperature transmitter, -50.0...150 °C, Length 150 mm, Process connection G 1/2, hygienisch, hygienic
TA2105	Temperature transmitter, -50.0...150 °C, Length 25 mm, Process connection G 1/4, hygienisch, hygienic
TA2115	Temperature transmitter, -50.0...150 °C, Length 50 mm, Process connection G 1/4, hygienisch, hygienic
TA2135	Temperature transmitter, -50.0...150 °C, Length 100 mm, Process connection G 1/4, hygienisch, hygienic
TA2145	Temperature transmitter, -50.0...150 °C, Length 150 mm, Process connection G 1/4, hygienisch, hygienic
TA2345	Temperature transmitter, -50.0...150 °C, Length 150 mm, Process connection 1/2" NPT

This block contains a wiring diagram and a photograph of the TA2 temperature transmitters. The wiring diagram shows a 4-pin connector with terminals labeled 1 (BN), 2 (WH), 3 (BU), and 4 (BK). Terminal 1 is connected to L+, terminal 2 to OUT2, terminal 3 to L-, and terminal 4 to OUT1. A note indicates a current of 4...20 mA. The photograph shows two stainless steel transmitters of different lengths (30 mm and 150 mm) with their respective process connections.

Process Data
Process Data Input

Total BitLength = 16

Name	Description	Datatype	Bitoffset	Bitlength	Value Range	Gradient	Offset	Unit
Temperature	Current temperature	IntegerT	0	16	-500 to 1500	0.1	0	°C



Variables

Name	Description	Index	Subindex bitOffset	Data Type	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
Standard Command		2	Sub 0	UIntegerT	8 Bit	wo		(130) Restore Factory Setting (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 (255) Command without effect, for internal use only			
Device Access Lock		12	Sub 0	RecordT	16 Bit	rw					
Data Storage Lock			bitOffs 1	BooleanT	1 Bit		(0)				
Vendor Name		16	Sub 0		max 19 Byte	ro	ifm electronic gmbh				
Vendor Text		17	Sub 0		max 11 Byte	ro	www.ifm.com				
Product Name		18	Sub 0		max 6 Byte	ro					
Product ID		19	Sub 0		max 6	ro					

Variables

Name	Description	Index	Subindex bitOffset	Data Type	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
					Byte						
Product Text		20	Sub 0		max 23 Byte	ro	Temperature transmitter				
Serial Number		21	Sub 0		max 12 Byte	ro					
Hardware Version		22	Sub 0		max 2 Byte	ro					
Firmware Version		23	Sub 0		max 5 Byte	ro					
Application Specific Tag		24	Sub 0		max 16 Byte	rw	***				
Device Status		36	Sub 0	UIntegerT	8 Bit	ro	(0) Device is OK	(0) Device is OK (1) Maintenance required (2) Out of specification (3) Functional check (4) Failure 5 to 255 (Reserved)			
Detailed Device Status		37	Sub 0		15 Byte	ro	00 00 00 h				
FOU2	[OUT 2] behaviour in case of fault	532	Sub 0	UIntegerT	8 Bit	rw	(4) OFF	(2) On (4) OFF			

Variables

Name	Description	Index	Subindex bitOffset	Data Type	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
uni	Selection of unit on the sensor display	551	Sub 0	UIntegerT	8 Bit	rw	(0) °C	(0) °C (1) °F			
ou2	Output configuration [OUT 2]	590	Sub 0	UIntegerT	8 Bit	rw	(1) I / Analog signal 4...20 mA	(1) I / Analog signal 4...20 mA (10) InEG / Analog signal 20...4 mA			
ASP2	Analogue start point 2. [ASP2] must be smaller than [AEP2]. Please take into account the current [AEP2]. For information on the minimum hysteresis [ASP2] - [AEP2] please refer to the operating instructions.	630	Sub 0	IntegerT	16 Bit	rw	-500	-500 to 1450	0.1	0	°C
AEP2	Analogue end point 2. [AEP2] must be greater than [ASP2]. Please take into account the current [ASP2]. For information on the minimum hysteresis [ASP2] - [AEP2] please refer to the operating instructions.	631	Sub 0	IntegerT	16 Bit	rw	1500	-450 to 1500	0.1	0	°C
coF	Zero-point calibration (Calibration offset)	5001	Sub 0	IntegerT	16 Bit	rw	0	-100 to 100	0.1	0	°C

Events

Code	Name	Type	Description
35856 d / 8C 10 h	Process variable range over-run	Warning	Process data uncertain
35888 d / 8C 30 h	Process variable range under-run	Warning	Process data uncertain
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

ErrorCode	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