Version V2.2.4 Release date 2015-07-20

PN7

Vendor ID	310 / 0x0136 - Bytes: 01 54 / 0x01 0x36
Device ID	311 / 0x000137 - Bytes: 00 01 55 / 0x00 0x01 0x37
Vendor name	ifm electronic gmbh
Vendor text	www.ifm.com
Vendor URL	http://www.ifm.com/ifmgb/web/io-link-download.htm

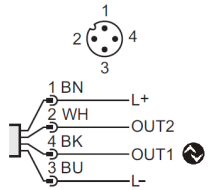
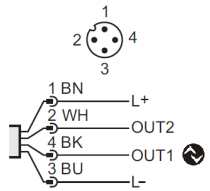
Communication

IO-Link revision	V1.1
Bit rate	COM2
Minimum cycle time	2.300 ms
SIO mode supported	Yes

Features

Block parametrization	Yes
Data storage	Yes

Device variant

PN7004	Electronic pressure monitor, -1...10 bar, Process connection G 1/4 I		
PE7004	Electronic pressure monitor, -1...10 bar, Process connection G 1/4 I, Sealing EPDM		
PN014A	Electronic pressure monitor, -1...10 bar, Approval ATEX, Process connection G 1/4 I		

Process data

Total bit length = 16

(Process data input)

Name	Description	Data type	Bit length	Value range	Gradient	Offset	Unit
Pressure	Current pressure	IntegerT	14	1051 to 3000 (OL) **-100 to 1050**	0.01	0	bar
Switchstate [OUT2].	State depends on [OU2]	BooleanT		(false) inactive (true) active			
Switchstate [OUT1].	State depends on [OU1]	BooleanT		(false) inactive (true) active			

Variables

Name	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 (240) IO-Link 1.1 system test command 240, Event 8DFE will appear (241) IO-Link 1.1 system test command 241, Event 8DFE will disappear (242) IO-Link 1.1 system test command 242, Event 8DFF will appear (243) IO-Link 1.1 system test command 243, Event 8DFF will disappear (255) Command without effect, for internal use only			
Device Access Locks										
	12	Sub 0	RecordT	16 Bit	rw					
Data Storage		bitOffs 1	BooleanT	1 Bit		(0)	(false) Unlocked (true) Locked			
Local User Interface		bitOffs 3	BooleanT	1 Bit		(0)	(false) Unlocked (true) Locked			
Vendor Name										
	16	Sub 0	StringT	64	ro	ifm electronic gmbh				
Vendor Text										
	17	Sub 0	StringT	64	ro	www.ifm.com				
Product Name										
	18	Sub 0	StringT	64	ro					
Product ID										
	19	Sub 0	StringT	64	ro					
Product Text										
	20	Sub 0	StringT	64	ro	Electronic pressure monitor				

Variables

Name	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
Serial Number										
	21	Sub 0	StringT	16	ro					
Hardware Version										
	22	Sub 0	StringT	64	ro					
Firmware Version										
	23	Sub 0	StringT	64	ro					
Application Specific Tag										
	24	Sub 0	StringT	max 16 Byte	rw					
SP1	**Switch point 1, [SP1] shall be greater than [rP1]. Please consider to the actual [rP1] value. If the [SP1] will be set below [rP1] it will be refused.**									
	65	Sub 0	IntegerT	16 Bit	rw	250	-90 to 1000	0.01	0	bar
rP1	**Reset point 1, [rP1] shall be smaller than [SP1]. Please consider to the actual [SP1] value. If the [rP1] will be set above [SP1] it will be refused.**									
	66	Sub 0	IntegerT	16 Bit	rw	230	-95 to 995	0.01	0	bar
OU1	**Output configuration [OUT 1]**									
	67	Sub 0	UIntegerT	8 Bit	rw	(3) Hno / Hysteresis fct normally open	(3) Hno / Hysteresis fct normally open (4) Hnc / Hysteresis fct normally closed (5) Fno / Window fct normally open (6) Fnc / Window fct normally closed			
SP2	**Switch point 2, [SP2] shall be greater than [rP2]. Please consider to the actual [rP2] value. If the [SP2] will be set below [rP2] it will be refused.**									
	68	Sub 0	IntegerT	16 Bit	rw	750	-90 to 1000	0.01	0	bar
rP2	**Reset point 2, [rP2] shall be smaller than [SP2]. Please consider to the actual [SP2] value. If the [rP2] will be set above [SP2] it will be refused.**									
	69	Sub 0	IntegerT	16 Bit	rw	730	-95 to 995	0.01	0	bar

Variables

Name	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
OU2	**Output configuration [OUT 2]**									
	70	Sub 0	UIntegerT	8 Bit	rw	(3) Hno / Hysteresis fct normally open	(3) Hno / Hysteresis fct normally open (4) Hnc / Hysteresis fct normally closed (5) Fno / Window fct normally open (6) Fnc / Window fct normally closed (13) dESI / Diagnosis output			
Uni	**Selection of unit on the sensor display**									
	72	Sub 0	UIntegerT	8 Bit	rw	(0) bar	(0) bar (1) MPa (2) PSI			
HI	**Maximum memory value**									
	73	Sub 0	IntegerT	16 Bit	ro		1051 to 3000 (OL) **-100 to 1050**	0.01	0	bar
LO	**Minimum memory value**									
	74	Sub 0	IntegerT	16 Bit	ro		1051 to 3000 (OL) **-100 to 1050**	0.01	0	bar
dS1	**Switch-On delay [OUT 1]**									
	77	Sub 0	UIntegerT	16 Bit	rw	0	0 to 500	0.1	0	s
dr1	**Switch-OFF delay [OUT 1]**									
	78	Sub 0	UIntegerT	16 Bit	rw	0	0 to 500	0.1	0	s
dS2	**Switch-On delay [OUT 2]**									
	79	Sub 0	UIntegerT	16 Bit	rw	0	0 to 500	0.1	0	s

Variables

Name	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
dr2	**Switch-OFF delay [OUT 2]**									
	80	Sub 0	UIntegerT	16 Bit	rw	0	0 to 500	0.1	0	s
P-n	**Output polarity for the switching outputs**									
	81	Sub 0	UIntegerT	8 Bit	rw	(0) PnP	(0) PnP (1) nPn			
dAP	**Response time between process value change and change of the switching output**									
	82	Sub 0	UIntegerT	8 Bit	rw	(5) 60 ms	(0) 3 ms (1) 6 ms (2) 10 ms (3) 17 ms (4) 30 ms (5) 60 ms (6) 125 ms (7) 250 ms (8) 500 ms			
diS	**Display settings**									
	83	Sub 0	RecordT	16 Bit	rw					
Display On / OFF		bitOffs 7	BooleanT	1 Bit		(false) On	(false) On (true) OFF			
Display orientation		bitOffs 6	BooleanT	1 Bit		(false) Not rotated	(false) Not rotated (true) Rotated 180°			
Update rate		bitOffs 0	UIntegerT	6 Bit		(2) d2 / medium	(1) d1 / fast (2) d2 / medium (4) d3 / slow			
HIPP	**High pressure peak**									
	87	Sub 0	IntegerT	16 Bit	ro	-100	-100 to 3000	0.01	0	bar

Variables

Name	Index	Subindex	Data type	Length	Access rights	Default	Value range	Gradient	Offset	Unit
HIPS	**Configuration of overload counter switch point**									
	88	Sub 0	IntegerT	16 Bit	rw	1060	300 to 2000	0.01	0	bar
HIPC	**Overload counter**									
	89	Sub 0	UIntegerT	16 Bit	ro	0	0 to 32767			
Loc	**[Loc] locks the local user interface to prevent unintentional changes, [Loc] is resettable at the device**									
	95	Sub 0	UIntegerT	8 Bit	rw	(1) uLoc / unlocked	(0) Loc / locked (1) uLoc / unlocked			
Commands	**Performs action on the sensor**									
	241	Sub 0	UIntegerT	8 Bit	wo		(247) Reset [HI] memory (246) Reset [LO] memory (49) Reset high pressure peak [HIPP] (50) Reset overload counter [HIPC]			

Events

Code	Name	Type	Description
35856 d / 8C 10 h	Process variable range over-run	Warning	Process data uncertain. Note: This Event will not be transmitted via IO-Link Event mechanism. It is only available by reading Index 37 (DetailedDeviceStatus) oder 545 (BitCoded_ActiveEvents)
35888 d / 8C 30 h	Process variable range under-run	Warning	Process data uncertain. Note: This Event will not be transmitted via IO-Link Event mechanism. It is only available by reading Index 37 (DetailedDeviceStatus) oder 545 (BitCoded_ActiveEvents)
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
33025 d / 81 01 h	Parameter hidden	
33026 d / 81 02 h	Parameter currently not available	