Version: V1.04.328140 Release Date: 2014-06-05

PN

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	453 / 0x0001C5 - Bytes: 00 01 197 / 0x00 0x01 0xC5

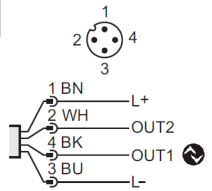
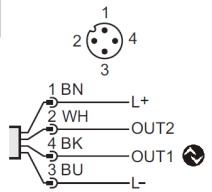
Communication

IO-Link Revision	V1.1
Bitrate	COM2
Minimum Cycle Time	2.300 ms
SIO Mode Supported	Yes

Features

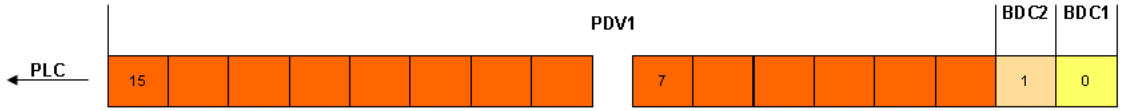
Block parametrization	Yes
Data storage	Yes

Device Variant

PN7693	Electronic pressure sensor, 0...25 bar, NPT 1/4 A		
PN7293	Electronic pressure sensor, 0...25 bar, NPT 1/4 I		

Process Data Total BitLength = 16
(Process Data Input)

Name	Description	Datatype	Bitoffset	Bitlength	Value Range	Gradient	Offset	Unit
Pressure	Current pressure	IntegerT	2	14	264 to 750 (OL) **-10 to 263**	0.1	0	bar
Switch status [OUT2].	Status depends on [OU2]	BooleanT	1		(false) inactive (true) active			
Switch status [OUT1].	Status depends on [OU1]	BooleanT	0		(false) inactive (true) active			



Variables

Name	Description	Index	Subindex bitOffset	DataType	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
Standard Command		**2**	**Sub 0**	**UIntegerT**	**8 Bit**	**wo**		(130) Restore Factory Setting (161) Reset [HI] and [LO] memory (162) Reset [LO] memory (163) Reset [HI] memory (169) Reset overload counter [HIPC] (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)				

Variables

Name	Description	Index	Subindex bitOffset	DataType	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
Device Access Lock		**12**	**Sub 0**	**RecordT**	**16 Bit**	**rw**					
Local User Interface Lock			bitOffs 3	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 Byte**	**ro**					
Product Text		**20**	**Sub 0**		**max 26 Byte**	**ro**	**Electronic pressure sensor**				
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**				
Detailed Device Status		**37**	**Sub 0**		**21 Byte**	**ro**	**00 00 00 h**				
P-n	**Output polarity for the switching outputs**	**500**	**Sub 0**	**UIntegerT**	**8 Bit**	**rw**	**(0) PnP**	(0) PnP (1) nPn			

Variables

Name	Description	Index	Subindex bitOffset	DataType	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
DAP	**Response time between process value change and change of the switching output**	**510**	**Sub 0**	**UIntegerT**	**16 Bit**	**rw**	**60**	**0 to 4000**	**0.001**	**0**	**s**
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**	(0) Loc (1) uLoc			
Uni	**Selection of unit on the sensor display**	**551**	**Sub 0**	**UIntegerT**	**8 Bit**	**rw**	**(2) psi**	(0) MPa (1) bar (2) psi			
diS	**Display settings**	**552**	**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			

Variables

Name	Description	Index	Subindex bitOffset	DataType	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
COLR	**Assignment of the display colours 'red' and 'green' within the measuring range**	**554**	**Sub 0**	**UIntegerT**	**8 Bit**	**rw**	**(2) rEd / Display colour red (independent of the measured value)**	(2) rEd / Display colour red (independent of the measured value) (3) GrEn / Display colour green (independent of the measured value) (4) r1ou / Display colour red when OUT1 switches (5) G1ou / Display colour green when OUT1 switches (6) r2ou / Display colour red when OUT2 switches (7) G2ou / Display colour green when OUT2 switches (8) r-12 / Display colour red when the measured value is between the limit values of OUT1 and OUT2 (9) G-12 / Display colour green when the measured value is between the limit			

Variables

Name	Description	Index	Subindex bitOffset	DataType	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
COLR	**Assignment of the display colours 'red' and 'green' within the measuring range**	**554**	**Sub 0**	**UIntegerT**	**8 Bit**	**rw**	**(2) rEd / Display colour red (independent of the measured value)**	values of OUT1 and OUT2 (10) r-cF / Display colour red when the measured value is between the freely definable limit values [cFL] and [cFH] (11) G-cF / Display colour green when the measured value is between the freely definable limit values [cFL] and [cFH]			
CFL	**Lower value for colour change.** **Parameter only active after selection of a freely definable colour window in the coLr parameter: [r-cF] or [G-cF].** **The setting range corresponds to the measuring range and its maximum limit is [cFH]**	**555**	**Sub 0**	**IntegerT**	**16 Bit**	**rw**	**0**	**0 to 249**	**0.1**	**0**	**bar**

Variables

Name	Description	Index	Subindex bitOffset	DataType	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
CFH	**Upper value for colour change.** **Parameter only active after selection of a freely definable colour window in the coLr parameter: [r-cF] or [G-cF].** **The setting range corresponds to the measuring range and its minimum limit is [cFL]**	**556**	**Sub 0**	**IntegerT**	**16 Bit**	**rw**	**250**	**1 to 250**	**0.1**	**0**	**bar**
HI	**Maximum memory value**	**560**	**Sub 0**	**IntegerT**	**16 Bit**	**ro**		264 to 750 (OL) **-10 to 263**	**0.1**	**0**	**bar**
LO	**Minimum memory value**	**561**	**Sub 0**	**IntegerT**	**16 Bit**	**ro**		264 to 750 (OL) **-10 to 263**	**0.1**	**0**	**bar**
Ou1	**Output configuration [OUT 1]**	**580**	**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			
dS1	**Switching delay for [OUT 1]**	**581**	**Sub 0**	**UIntegerT**	**16 Bit**	**rw**	**0**	**0 to 500**	**0.1**	**0**	**s**
dR1	**Switch-off delay for [OUT 1]**	**582**	**Sub 0**	**UIntegerT**	**16 Bit**	**rw**	**0**	**0 to 500**	**0.1**	**0**	**s**

Variables

Name	Description	Index	Subindex bitOffset	DataType	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
SP_FH1	Switch point 1, [SP1] must be greater than [rP1]. Please take into account the current [rP1] value. [SP1] will be refused if below [rP1].	583	Sub 0	IntegerT	16 Bit	rw	63	2 to 250	0.1	0	bar
RP_FL1	Reset point 1, [rP1] must be smaller than [SP1]. Please take into account the current [SP1] value. [rP1] will be refused if above [SP1].	584	Sub 0	IntegerT	16 Bit	rw	58	1 to 249	0.1	0	bar
Ou2	Output configuration [OUT 2]	590	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			
dS2	Switching delay for [OUT 2]	591	Sub 0	UIntegerT	16 Bit	rw	0	0 to 500	0.1	0	s
dR2	Switch-off delay for [OUT 2]	592	Sub 0	UIntegerT	16 Bit	rw	0	0 to 500	0.1	0	s
SP_FH2	Switch point 2, [SP2] must be greater than [rP2]. Please take into account the current [rP2] value. [SP2] will be refused if below [rP2].	593	Sub 0	IntegerT	16 Bit	rw	188	2 to 250	0.1	0	bar

Variables

Name	Description	Index	Subindex bitOffset	DataType	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit
RP_FL2	**Reset point 2, [rP2] must be smaller than [SP2]. Please take into account the current [SP2] value. [rP2] will be refused if above [SP2].**	**594**	**Sub 0**	**IntegerT**	**16 Bit**	**rw**	**183**	**1 to 249**	**0.1**	**0**	**bar**
HIPS	**Configuration of overload counter switch point**	**5003**	**Sub 0**	**IntegerT**	**16 Bit**	**rw**	**250**	**0 to 250**	**0.1**	**0**	**bar**
HIPC	**Overload counter**	**5004**	**Sub 0**	**UIntegerT**	**32 Bit**	**ro**		**0 to 4294967295**			

Events

Code	Name	Type	Description
20480 d / 50 00 h	Device hardware fault	Error	Device Exchange
25376 d / 63 20 h	Parameter error	Error	Check data sheet and values
30480 d / 77 10 h	Short circuit	Error	Check installation
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