

Version: V1.4.1

Release Date: 2013-12-04

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PN2

Vendor ID 310 / 0x0136 - Bytes: 01 54 / 0x01 0x36
Vendor Name ifm electronic gmbh
Vendor Text www.ifm.com
Vendor URL http://www.ifm.com/ifmgb/web/io-link_down.htm
Device ID 60 / 0x00003C - Bytes: 00 00 60 / 0x00 0x00 0x3C



Communication

IO-Link Revision V1.0
Minimum Cycle Time 2.300 ms

SIO Mode Supported Yes

Device Variant

PN2024	PN2024 electronic pressure sensor -1 to 10 bar		
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Process Data
(ProcessDataIn)

Total BitLength = 16

Name	Description	Datatype	Bitoffset	Bitlength	Value Range	Gradient	Offset	Unit	Single Value
Pressure	Fig. PDV1. Current system pressure. The real pressure can be calculated as follows: $P_real = (PDV1 \gg Bitoffset) * Gradient + Offset$. ('>>' means Bitshift to the right)	IntegerT	2	14	-100 to 1000	0.01	0	bar	
Switchstate [OUT2]	Fig. BDC2. State depends on [OU2], inactive if [OU2] is set to [I] or [U].	BooleanT	1						(false) inactive (true) active
Switchstate [OUT1]	Fig. BDC1. State depends on [OU1].	BooleanT	0						(false) inactive (true) active



Variables

Name	Description	Index	Subindex bitOffset	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit	Single Value
System Command		2	Sub 0	8 Bit	wo						
Vendor Name		16	Sub 0		ro	ifm electronic gmbh					
Vendor Text		17	Sub 0		ro	www.ifm.com					
Product Name		18	Sub 0		ro	PN2024					
Serial Number		21	Sub 0		ro						
Hardware Revision		22	Sub 0		ro						
Firmware Revision		23	Sub 0		ro						
Application Specific Name		24	Sub 0	30 Byte	rw						
Process Data In		40	Sub 0		ro						
SP1	Switch point 1, [SP1] shall be greater than [rP1]	67	Sub 0	16 Bit	rw	250	-88 to 1000	0.01	0	bar	
rP1	Reset point 1, [rP1] shall be smaller than [SP1]	68	Sub 0	16 Bit	rw	230	-94 to 994	0.01	0	bar	
OU1	Output configuration 1	69	Sub 0	16 Bit	rw	4					(4) Hno (8) Hnc (16) Fno (32) Fnc
OU2	Output configuration 2	70	Sub 0	16 Bit	rw	1					(1) I (2) U (4) Hno

Variables

Name	Description	Index	Subindex bitOffset	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit	Single Value
OU2	Output configuration 2	70	Sub 0	16 Bit	rw	1					(8) Hnc (16) Fno (32) Fnc
SP2	Switch point 2, [SP2] shall be greater than [rP2]. [SP2] will only be applied if [OU2] is in switching mode	71	Sub 0	16 Bit	rw	750	-88 to 1000	0.01	0	bar	
rP2	Reset point 2, [rP2] shall be smaller than [SP2]. [rP2] will only be applied if [OU2] is in switching mode	72	Sub 0	16 Bit	rw	730	-94 to 994	0.01	0	bar	
ASP	Analog Start Point (the distance of [ASP] - [AEP] shall be at least 25% of the measurement range). [ASP] shall be smaller than [AEP]. [ASP] will only be applied if [OU2] is set to [I] or [U]	73	Sub 0	16 Bit	rw	0	-100 to 725	0.01	0	bar	
AEP	Analog End Point (the distance of [ASP] - [AEP] shall be at least 25% of the measurement range). [AEP] shall be greater than [ASP]. [AEP] will only be applied if [OU2] is set to [I] or [U]	74	Sub 0	16 Bit	rw	1000	150 to 1000	0.01	0	bar	
HI	Highest measured value	77	Sub 0	16 Bit	ro	-451	-451 to 1351	0.01	0	bar	
LO	Lowest measured value	78	Sub 0	16 Bit	ro	1351	-451 to 1351	0.01	0	bar	
COF	Zeropoint calibration (Calibration offset)	79	Sub 0	16 Bit	rw	0	-500 to 500	0.01	0	%	

Variables

Name	Description	Index	Subindex bitOffset	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit	Single Value
dS1	Switch-On delay [OUT1]	81	Sub 0	16 Bit	rw	0	0 to 50000	0.001	0	s	
dr1	Switch-Off delay [OUT1]	82	Sub 0	16 Bit	rw	0	0 to 50000	0.001	0	s	
dS2	Switch-On delay [OUT2]. Only takes effect if [OUT2] is in switching mode	83	Sub 0	16 Bit	rw	0	0 to 50000	0.001	0	s	
dr2	Switch-Off delay [OUT2]. Only takes effect if [OUT2] is in switching mode	84	Sub 0	16 Bit	rw	0	0 to 50000	0.001	0	s	
dAP	Damping process value, takes effect on switching output and display	86	Sub 0	16 Bit	rw	60	0 to 4000	0.001	0	s	
dAA	Damping analog output and IO-Link process value	87	Sub 0	16 Bit	rw	100	0 to 4000	0.001	0	s	
diS	Display settings	88	Sub 0	16	rw						
Display ON / OFF			bitOffs 7	Bit		false					(false) ON (true) OFF
Display rotated yes / no			bitOffs 6	Bit		false					(false) Not rotated (true) Rotated
Update rate			bitOffs 0	3 Bit		2					(1) Fast update (2) Medium update (4) Slow update
Uni	Shown unit on the sensor display	89	Sub 0	8 Bit	rw	0					(0) bar (1) MPa (2) PSI

Variables

Name	Description	Index	Subindex bitOffset	Length	Access Rights	Default	Value Range	Gradient	Offset	Unit	Single Value
S.Loc	Key modify lock, only resettable from remote	99	Sub 0	8 Bit	rw	1					(0) locked (1) unlocked
Loc	Key modify lock, resettable at the device	100	Sub 0	8 Bit	rw	1					(0) locked (1) unlocked
Message	Performs action on the sensor	241	Sub 0	8 Bit	wo	253					(246) Reset [LO] memory (247) Reset [HI] memory (253) Factory Reset

Events

Code	Name	Type	Mode	Description
0	No event	Message	AppearDisappear	-
6160	Parametrization error	Error	AppearDisappear	Reset device
35856	Range overflow	Warning	AppearDisappear	Decrease pressure
35888	Range underflow	Warning	AppearDisappear	Increase pressure
7936	Range over- / underflow	Error	AppearDisappear	Increase or decrease pressure
8003	Parametrization error SP1	Error	AppearDisappear	Reset device
8004	Parametrization error rP1	Error	AppearDisappear	Reset device
8005	Parametrization error OU1	Error	AppearDisappear	Reset device
8006	Parametrization error OU2	Error	AppearDisappear	Reset device
8007	Parametrization error SP2	Error	AppearDisappear	Reset device
8008	Parametrization error rP2	Error	AppearDisappear	Reset device
8009	Parametrization error ASP	Error	AppearDisappear	Reset device
8010	Parametrization error AEP	Error	AppearDisappear	Reset device
7938	Parametrization error distance ASP - AEP	Error	AppearDisappear	Reset device
8015	Parametrization error COF	Error	AppearDisappear	Reset device
8017	Parametrization error dS1	Error	AppearDisappear	Reset device
8018	Parametrization error dr1	Error	AppearDisappear	Reset device
8019	Parametrization error dS2	Error	AppearDisappear	Reset device
8020	Parametrization error dr2	Error	AppearDisappear	Reset device
8022	Parametrization error dAP	Error	AppearDisappear	Reset device
8023	Parametrization error dAA	Error	AppearDisappear	Reset device
8024	Parametrization error diS	Error	AppearDisappear	Reset device
8025	Parametrization error Uni	Error	AppearDisappear	Reset device
8035	Parametrization error S.Loc	Error	AppearDisappear	Reset device
8036	Parametrization error Loc	Error	AppearDisappear	Reset device