

FXxQxxx

Pressure Sensors with IO-Link



Interface Description

Pressure Sensor FXxQxxx

Vendor ID

Product	hex	dec	hex (Bytes)	dec (Bytes)
wenglor sensoric GmbH	0x0057	87	00 57	0 87

Device ID

Product	hex	dec	hex (Bytes)	dec (Bytes)
FX0Q	0x300000	3145728	30 00 00	48 0 0
FX1Q	0x300001	3145729	30 00 01	48 0 1
FX2Q	0x300002	3145730	30 00 02	48 0 2
FX3Q	0x300003	3145731	30 00 03	48 0 3
FX4Q	0x300004	3145732	30 00 04	48 0 4
FX5Q	0x300005	3145733	30 00 05	48 0 5
FX6Q	0x300006	3145734	30 00 06	48 0 6
FX7Q	0x300007	3145735	30 00 07	48 0 7
FX8Q	0x300008	3145736	30 00 08	48 0 8
FX9Q	0x300009	3145737	30 00 09	48 0 9

IO-Link Version	V1.1
Data Storage	Yes
Blockparameter	Yes
Min Cycle Time	3,2 ms
SIO-Mode	Yes
COM-Mode	COM2
ISDU	Yes
Process data In (Device to Master)	32 Bit
Process data Out (Master to Device)	—

Process Data (Length: 32 Bit)

Subindex	Name	Bit Offset	Length	Range
1	Output A1	0	1 Bit	0= Off 1= On
2	Output A2	1	1 Bit	0= Off 1= On
3	Overload	2	1 Bit	0= no Overload 1= Overload
4	Measured Temperature	4...15	12 Bit	−40...125 °C in 0,1 °C Resolution
5	Measured Pressure	16...31	16 Bit	Range Start...Range End

Octet 0

Subindex	31	30	29	28	27	26	25	24
Bit Offset	5							

Octet 1

Subindex	23	22	21	20	19	18	17	16
Bit Offset	5							

Octet 2

Subindex	15	14	13	12	11	10	09	08
Bit Offset	4							

Octet 3

Subindex	7	6	5	4	3	2	1	0
Bit Offset	4				—	3	2	1

Parameter

Name	Index (hex)	Index (dec)	Sub-index	R/W	Length	Data Storage	dynamic	modify others	Default value	Range
Identity										
Vendor Name	0x0010	16	0	R	String				wenglor sensoric Gmbh	
Vendor Text	0x0011	17	0	R	String				the innovative family	
Product Name	0x0012	18	0	R	String				FXxQ	
Product ID	0x0013	19	0	R	String				-	
Product Text	0x0014	20	0	R	String				Pressure Sensor	
Serial number	0x0015	21	0	R	String				-	
Hardware Revision	0x0016	22	0	R	String				-	
Firmware Revision	0x0017	23	0	R	String				-	
Application Specific Tag	0x0018	24	0	R/W	String 32 Byte	X			***	
Device Settings										
System Command	0x0002	2	0	W	Uint8			X		Factory Reset = 0x82 (130)
Device Access Locks	0x000C	12	0	R/W	Uint16	X			0	0...0x0003: Bit 0: Parameter write access Locked Bit 1: Data Storage locked
Measured Value Settings										
Units	0x0112	274	0	R/W	Uint8	X			0	0 = Bar/Celsius 1 = PSI/Celsius 2 = Megapascal/Celsius 3 = Kilopascal/Celsius 32 = Bar/Fahrenheit 33 = PSI/Fahrenheit 34 = Megapascal/Fahrenheit 35 = Kilopascal/Fahrenheit
Filter (Pressure)	0xD0	208	0	R/W	Uint8	X			2	0...10
Set Pressure to Zero	0x20A	522	0	W	Uint8					1 = Set Pressure to Zero
A1 Output										
A1, A2 NPN/PNP	0x220	544	0	R/W	Uint8	X			0	0 = PNP 1 = NPN 2 = Push-Pull
A1 Pin Function	0x40	64	0	R/W	Uint8	X			1	0 = Switching Output Temperature 1 = Switching Output Pressure
A1 NO/NC	0x210	528	0	R/W	Uint8	X			0	0 = normally open 1 = normally closed
A1 Switching Point 1 Temperature	0x271	625	0	R/W	Int16	X			6000	-4000... +12500 [1/100 °C]
A1 Switching Point 2 Temperature	0x270	624	0	R/W	Int16	X			3000	-4000... +12500 [1/100 °C]
A1 Switching Point 1 Pressure	0x273	627	0	R/W	Int16	X			Range End / 2	Range Start...Range End
A1 Switching Point 2 Pressure	0x272	626	0	R/W	Int16	X			Range End / 4	Range Start...Range End
A1 ON Delay	0x50	80	0	R/W	Uint16	X			0	0...60000 [ms]
A1 OFF Delay	0x60	96	0	R/W	Uint16	X			0	0...60000 [ms]

A2 Output										
A2 Pin Function	0x41	65	0	R/W	Uint8	X			3	0 = Switching Output Temperature 1 = Switching Output Pressure 2 = Analog Output Temperature 3 = Analog Output Pressure 4 = Remote-Switching Output 5 = Remote-Analog Output
A2 Switching Point 1 Temperature	0x281	641	0	R/W	Int16	X			6000	-4000... +12500 [1/100 °C]
A2 Switching Point 2 Temperature	0x280	640	0	R/W	Int16	X			3000	-4000... +12500 [1/100 °C]
A2 Switching Point 1 Pressure	0x283	643	0	R/W	Int16	X			Range End / 2	Range Start...Range End
A2 Switching Point 2 Pressure	0x282	642	0	R/W	Int16	X			Range End / 4	Range Start...Range End
A2 NO/NC	0x211	529	0	R/W	Uint8	X			0	0 = normally open 1 = normally closed
A2 ON Delay	0x51	81	0	R/W	Uint16	X			0	0...60000 [ms]
A2 OFF Delay	0x61	97	0	R/W	Uint16	X			0	0...60000 [ms]
A2 Analog Mode U/I	0x83	131	0	R/W	Uint8	X			1	0 = Voltage Output 1 = Current Output
A2 Analog Temperature 0 V / 4 mA	0x81	129	0	R/W	Int16	X			-4000	-4000... +12500 [1/100 °C]
A2 Analog Temperature 10 V / 20 mA	0x82	130	0	R/W	Int16	X			12500	-4000... +12500 [1/100 °C]
A2 Analog Pressure 0 V / 4 mA	0x84	132	0	R/W	Int16	X			Range Start	Range Start...Range End
A2 Analog Pressure 10 V / 20 mA	0x85	133	0	R/W	Int16	X			Range End	Range Start...Range End
A2 Remote Switching Output	0x1000	4096	0	R/W	Uint8					0 = open 1 = closed
A2 Remote Analog Output	0x1001	4097	0	R/W	Int16					0...1000

Range

Product	Range Start	Range End	Unit
FX0Q	0	4000	0,1 bar
FX1Q	-10000	10000	0,1 mbar
FX2Q	0	2500	0,1 mbar
FX3Q	0	10000	0,1 mbar
FX4Q	0	25000	0,1 mbar
FX5Q	-1000	10000	1 mbar
FX6Q	0	2500	10 mbar
FX7Q	0	4000	10 mbar
FX8Q	0	10000	10 mbar
FX9Q	0	2500	0,1 bar