



JX2-IO16

Quick Reference

V 3.00

Technical Data

	JX2-IO16
Module Code	2
Number of digital outputs	8
Number of digital inputs	8
Inputs - standard	Inputs 1 - 4
Inputs - fast	Inputs 5 - 8
Inputs with manual pulse stretching	All
Inputs with automatic pulse stretching	All
Inputs with single-channel counter (4 single-channel counters in parallel)	Inputs 5 - 8
Inputs with dual-channel counter (1 dual-channel counter)	Inputs 5 - 6

Register Addressing

Coding for JC-24x / NANO:

3xxz z = Register number: 0...9
 xx = IO module number - 2

Coding for JC-647/DELTA controllers equipped with JX6-SB(-I):

3m03xxz z = Register number: 0...9
 xx = IO module number - 2
 m = Submodule socket: 1...3

Coding for JC-800 controllers equipped with JX6-SB(-I):

4cm03xxz z = Register number: 0...9
 xx = IO module number - 2
 m = System bus number: 1...2
 c = Module board number: 1...3

Overview of Registers

3xx0 Status / Controller

Status bits:

- Bit 0 Manual pulse stretching - Input # 1
 0 = Manual pulse stretching disabled
 1 = Manual pulse stretching enabled
- Bit 1 Manual pulse stretching - Input # 2
- Bit 2 Manual pulse stretching - Input # 3
- Bit 3 Manual pulse stretching - Input # 4
- Bit 4 Manual pulse stretching - Input # 5
- Bit 5 Manual pulse stretching - Input # 6
- Bit 6 Manual pulse stretching - Input # 7
- Bit 7 Manual pulse stretching - Input # 8

Control bits:

- Bit 8 Time-out - Reaction (only for commissioning)
 0 = In case of timeout, the module remains accessible
 1 = In case of timeout, the module assumes stop state and has to be re-initialized
- Bit 9 Output initialization
 0 = With a warm restart, outputs are set to 0.
 1 = With a warm restart, outputs keep the last state.
- Bit 10 Counter configuration
 0 = Inputs 5 - 6 are used as single-channel counters
 1 = Input 5 + 6 are used as dual-channel counter

Status bits:

- Bit 15 Error
 0 = Module is in faultless condition
 1 = Module signals error
- Bit 16 Pulse stretching - Input # 1
 0 = Pulse stretching not enabled
 1 = Pulse stretching enabled
- Bit 17 Pulse stretching - Input # 2
- Bit 18 Pulse stretching - Input # 3
- Bit 19 Pulse stretching - Input # 4
- Bit 20 Pulse stretching - Input # 5
- Bit 21 Pulse stretching - Input # 6
- Bit 22 Pulse stretching - Input # 7
- Bit 23 Pulse stretching - Input # 8

3xx1 Manual pulse stretching - Setting

- Bit 0 Input # 1
 0 = Manual pulse stretching remains unaffected
 1 = Manual pulse stretching is enabled

- Bit 1 Input # 2
- Bit 2 Input # 3
- Bit 3 Input # 4
- Bit 4 Input # 5
- Bit 5 Input # 6
- Bit 6 Input # 7
- Bit 7 Input # 8
- 3xx2 Manual pulse stretching - Resetting
 Bit 0 Input # 1
 0 = Manual pulse stretching remains unaffected
 1 = Manual pulse stretching is disabled
- Bit 1 Input # 2
- Bit 2 Input # 3
- Bit 3 Input # 4
- Bit 4 Input # 5
- Bit 5 Input # 6
- Bit 6 Input # 7
- Bit 7 Input # 8
- 3xx3 Present input state
 Bit 0 Input # 1
 0 = not active (0 V state)
 1 = active (24 V state)
- Bit 1 Input # 2
- Bit 2 Input # 3
- Bit 3 Input # 4
- Bit 4 Input # 5
- Bit 5 Input # 6
- Bit 6 Input # 7
- Bit 7 Input # 8
- 3xx6 Single-channel counter - Counter reading of input 5
 Dual-channel counter - Counter reading (inputs 5 / 6)
- 3xx7 Single-channel counter - Counter reading of input 8
- 3xx8 Register Array: Index
- 3xx9 Register Array: Value

Register array

Index Description

1	Firmware version
2	Error
Bit 1	1 = Error in output driver circuit
Bit 2	1 = System bus communication - Timeout
Bit 7	1 = System bus communication - Data buffer overflow
3	Reserved
4	System bus communication - Timeout - Time base in ms
5	System bus communication - Timeout - Multiplier
6 - 7	Reserved
8	Counter reading difference - Input 5
9	Timebase for counter reading difference of input 5 in 10 ms
10..19	Error history (last 10 entries)
Bit 1	1 = Error in output driver circuit
Bit 2	1 = System bus communication - Timeout
Bit 7	1 = System bus communication - Data buffer overflow
20	Counter configuration
Bit 4	Input # 5
0	Configuration as regular input
1	Configuration as counter
Bit 5	Input # 6
Bit 6	Input # 7
Bit 7	Input # 8
21 - 24	Reserved
25	Single-channel counter - Counter reading of input 5 Dual-channel counter - Counter reading (inputs 5 / 6)
26	Single-channel counter - Counter reading of input 6
27	Single-channel counter - Counter reading of input 7
28	Single-channel counter - Counter reading of input 8
29	Edge evaluation - Polarity
Bit 0	Input # 1
0	Action with falling edge or 0 V state
1	Action with rising edge or 24 V state
Bit 1	Input # 2
Bit 2	Input # 3
Bit 3	Input # 4
Bit 4	Input # 5
Bit 5	Input # 6
Bit 6	Input # 7

Bit 7	Input # 8
30	Edge evaluation - Edge / State
Bit 0	Input # 1
0	Action with edge
1	Action with state
Bit 1	Input # 2
Bit 2	Input # 3
Bit 3	Input # 4
Bit 4	Input # 5
Bit 5	Input # 6
Bit 6	Input # 7
Bit 7	Input # 8
31	Automatic pulse stretching - delay time in ms - Input # 1
32	Automatic pulse stretching - delay time in ms - Input # 2
33	Automatic pulse stretching - delay time in ms - Input # 3
34	Automatic pulse stretching - delay time in ms - Input # 4
35	Automatic pulse stretching - delay time in ms - Input # 5
36	Automatic pulse stretching - delay time in ms - Input # 6
37	Automatic pulse stretching - delay time in ms - Input # 7
38	Automatic pulse stretching - delay time in ms - Input # 8
39 - 44	Reserved
45	Software filter - Delay time for input # 5
46	Software filter - Delay time for input # 6
47	Software filter - Delay time for input # 7
48	Software filter - Delay time for input # 8
49	Reserved
50	Outputs - Error mode
Bit 0	Input # 1
0	In case of timeout: Keep present state
1	In case of timeout: Set the error status
Bit 1	Input # 2
Bit 2	Input # 3
Bit 3	Input # 4
Bit 4	Input # 5
Bit 5	Input # 6
Bit 6	Input # 7
Bit 7	Input # 8
51	Outputs - Error status
Bit 0	Input # 1

0	In case of timeout: Reset output
1	In case of timeout: Set output
Bit 1	Input # 2
Bit 2	Input # 3
Bit 3	Input # 4
Bit 4	Input # 5
Bit 5	Input # 6
Bit 6	Input # 7
Bit 7	Input # 8