6ES7131-6BF61-0AA0

## **Data sheet**



SIMATIC ET 200SP, Digital input module, DI 8x 24V DC SRC BA, type 1 (IEC 61131), source Input (NPN, M-reading) Packing unit: 1 piece, fits to BU-type A0, Colour Code CC02, input delay time 0,05..20ms, module diagnostics for: supply voltage

Product type designation  HW functional status  From FS02  Firmware version  FW update possible  usable BaseUnits  Color code for module-specific color identification plate  Product function  I&M data  Isochronous mode  Engineering with  STEP 7 TIA Portal configurable/integrated from version  FTEP 7 configurable/integrated from version  PROFIBUS from GSD version/GSD revision  PROFINET from GSD version/GSD revision  PROFINET from GSD version/GSD revision  DI  CO02  Product function  Ves; I&M0 to I&M3  No  V14  V14  V14  V5.5 SP3 /-  One GSD file each, Revision 3 and 5 and higher  GSDML V2.3  Operating mode  DI  Counter  Ves  No	General information	
Firmware version	Product type designation	DI 8x24 VDC SRC BA
	HW functional status	From FS02
usable BaseUnits  Color code for module-specific color identification plate  Product function  I&M data Isochronous mode  Engineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision  PROFINET from GSD version/GSD revision  Operating mode  DI  SU type A0  CC02  Yes; I&M0 to I&M3  No  Y14  V14  V14  V5.5 SP3 /- One GSD file each, Revision 3 and 5 and higher GSDML V2.3	Firmware version	V0.0
Color code for module-specific color identification plate  Product function  I&M data Isochronous mode  Engineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision  Operating mode  DI  CC02  Yes; I&M0 to I&M3  No  V14  V5.5 SP3 /-  V14  V5.5 SP3 /-  One GSD file each, Revision 3 and 5 and higher GSDML V2.3  Operating mode  Yes	<ul> <li>FW update possible</li> </ul>	No
Product function  I&M data  Isochronous mode  Engineering with  STEP 7 TIA Portal configurable/integrated from version  STEP 7 configurable/integrated from version  PROFIBUS from GSD version/GSD revision  PROFINET from GSD version/GSD revision  PROFINET from GSD version/GSD revision  Operating mode  DI  Yes	usable BaseUnits	BU type A0
<ul> <li>I&amp;M data</li> <li>Isochronous mode</li> <li>No</li> <li>Engineering with</li> <li>STEP 7 TIA Portal configurable/integrated from version</li> <li>STEP 7 configurable/integrated from version</li> <li>STEP 7 configurable/integrated from version</li> <li>PROFIBUS from GSD version/GSD revision</li> <li>PROFINET from GSD version/GSD revision</li> <li>Operating mode</li> <li>DI</li> <li>Yes</li> </ul>	Color code for module-specific color identification plate	CC02
<ul> <li>Isochronous mode</li> <li>Engineering with</li> <li>STEP 7 TIA Portal configurable/integrated from version</li> <li>STEP 7 configurable/integrated from version</li> <li>STEP 7 configurable/integrated from version</li> <li>PROFIBUS from GSD version/GSD revision</li> <li>PROFINET from GSD version/GSD revision</li> <li>Operating mode</li> <li>DI</li> <li>Yes</li> </ul>	Product function	
Engineering with  STEP 7 TIA Portal configurable/integrated from version STEP 7 configurable/integrated from version STEP 7 configurable/integrated from version PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision SDML V2.3  Operating mode DI  Yes	<ul> <li>I&amp;M data</li> </ul>	Yes; I&M0 to I&M3
<ul> <li>STEP 7 TIA Portal configurable/integrated from version</li> <li>STEP 7 configurable/integrated from version</li> <li>STEP 7 configurable/integrated from version</li> <li>PROFIBUS from GSD version/GSD revision</li> <li>PROFINET from GSD version/GSD revision</li> <li>Operating mode</li> <li>DI</li> <li>V5.5 SP3 / -</li> <li>One GSD file each, Revision 3 and 5 and higher</li> <li>GSDML V2.3</li> <li>Yes</li> </ul>	Isochronous mode	No
version  • STEP 7 configurable/integrated from version  • PROFIBUS from GSD version/GSD revision  • PROFINET from GSD version/GSD revision  Operating mode  • DI  V5.5 SP3 / -  One GSD file each, Revision 3 and 5 and higher  GSDML V2.3  Yes	Engineering with	
<ul> <li>PROFIBUS from GSD version/GSD revision</li> <li>PROFINET from GSD version/GSD revision</li> <li>Operating mode</li> <li>DI</li> <li>Yes</li> </ul>		V14
<ul> <li>◆ PROFINET from GSD version/GSD revision</li> <li>GSDML V2.3</li> <li>Operating mode</li> <li>◆ DI</li> <li>Yes</li> </ul>	<ul> <li>STEP 7 configurable/integrated from version</li> </ul>	V5.5 SP3 / -
Operating mode  ● DI Yes	<ul> <li>PROFIBUS from GSD version/GSD revision</li> </ul>	One GSD file each, Revision 3 and 5 and higher
• DI Yes	<ul> <li>PROFINET from GSD version/GSD revision</li> </ul>	GSDML V2.3
	Operating mode	
• Counter No	• DI	Yes
	<ul> <li>Counter</li> </ul>	No
• Oversampling No	<ul> <li>Oversampling</li> </ul>	No
• MSI	• MSI	No
Supply voltage	Supply voltage	
Rated value (DC) 24 V	Rated value (DC)	24 V
permissible range, lower limit (DC) 19.2 V	permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC) 28.8 V	permissible range, upper limit (DC)	28.8 V
Reverse polarity protection Yes	Reverse polarity protection	Yes
Encoder supply	Encoder supply	
Short-circuit protection No	Short-circuit protection	No
Power loss	Power loss	
Power loss, typ. 1.5 W	Power loss, typ.	1.5 W
Address area	Address area	
Address space per module	Address space per module	
• Inputs 1 byte	• Inputs	1 byte
Hardware configuration	Hardware configuration	
Automatic encoding Yes	Automatic encoding	Yes
Type of mechanical coding element	<ul> <li>Type of mechanical coding element</li> </ul>	type B
Selection of BaseUnit for connection variants		
• 1-wire connection BU type A0	1-wire connection	BU type A0
• 2-wire connection BU type A0	o i wild domination	5/6

3-wire connection	BU type A0 with AUX terminals or potential distributor module
4-wire connection	BU type A0 + Potential distributor module
Digital inputs	
Number of digital inputs	8
Digital inputs, parameterizable	Yes
Source/sink input	Sourcing
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Input voltage	
Rated value (DC)	24 V
• for signal "0"	30 V to -5 V (reference potential is L+)
• for signal "1"	-11 V to -30 V (reference potential is L+)
Input current	
• for signal "1", typ.	6 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes; 0.05 / 0.1 / 0.4 / 0.8 / 1.6 / 3.2 / 12.8 / 20 ms (in each case + delay of 30 to 500 $\mu s$ , depending on line length)
— at "0" to "1", min.	0.05 ms
— at "0" to "1", max.	20 ms
— at "1" to "0", min.	0.05 ms
— at "1" to "0", max.	20 ms
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	200 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes
<ul> <li>permissible quiescent current (2-wire sensor), max.</li> </ul>	1.5 mA
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes
Diagnoses	
<ul> <li>Diagnostic information readable</li> </ul>	Yes
<ul> <li>Monitoring the supply voltage</li> </ul>	Yes
— parameterizable	Yes
<ul> <li>Monitoring of encoder power supply</li> </ul>	No
Wire-break	No
Short-circuit	No
Diagnostics indication LED	
Monitoring of the supply voltage (PWR-LED)	N/ DIAID LED
<ul> <li>Channel status display</li> </ul>	Yes; green PWR LED
	Yes; green LED
for channel diagnostics	Yes; green LED No
<ul><li>for channel diagnostics</li><li>for module diagnostics</li></ul>	Yes; green LED
for channel diagnostics     for module diagnostics  Potential separation	Yes; green LED No
for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels	Yes; green LED No Yes; green/red DIAG LED
for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels     between the channels	Yes; green LED No Yes; green/red DIAG LED  No
for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels     between the channels     between the channels and backplane bus	Yes; green LED No Yes; green/red DIAG LED  No Yes
for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels     between the channels     between the channels and backplane bus     between the channels and the power supply of the electronics	Yes; green LED No Yes; green/red DIAG LED  No
for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels     between the channels     between the channels and backplane bus     between the channels and the power supply of the electronics  Isolation	Yes; green LED No Yes; green/red DIAG LED  No Yes No
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for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels     between the channels     between the channels and backplane bus     between the channels and the power supply of the electronics  Isolation  Isolation tested with	Yes; green LED No Yes; green/red DIAG LED  No Yes No
for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels     between the channels     between the channels and backplane bus     between the channels and the power supply of the electronics  Isolation  Isolation tested with	Yes; green LED No Yes; green/red DIAG LED  No Yes No
for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels     between the channels     between the channels and backplane bus     between the channels and the power supply of the electronics  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety functions	Yes; green LED No Yes; green/red DIAG LED  No Yes No 707 V DC (type test)
for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels     between the channels     between the channels and backplane bus     between the channels and the power supply of the electronics  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety functions	Yes; green LED No Yes; green/red DIAG LED  No Yes No 707 V DC (type test)
for channel diagnostics     for module diagnostics  Potential separation  Potential separation channels     between the channels     between the channels and backplane bus     between the channels and the power supply of the electronics  Isolation  Isolation tested with  Standards, approvals, certificates  Suitable for safety functions  Ambient conditions	Yes; green LED No Yes; green/red DIAG LED  No Yes No 707 V DC (type test)

<ul> <li>vertical installation, min.</li> </ul>	-30 °C; < 0 °C as of FS02
vertical installation, max.	50 °C
Altitude during operation relating to sea level	
<ul> <li>Installation altitude above sea level, max.</li> </ul>	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm
Weights	
Weight, approx.	28 g

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