SIEMENS

Data sheet

6ES7132-6BH01-2BA0



SIMATIC ET 200SP, Digital output module, DQ 16x 24V DC/0.5A STANDARD, Source output (PNP,P-switching) Packing unit: 10 pieces, fits to BU-type A0, Colour Code CC00, substitute value output, module diagnostics for: short-circuit to L+ and ground, wire break, supply voltage

| Product type designation DQ 16k24 VDC/0.5 A ST HW functional status From FS03 Fittmware version V0.0 • FW update possible No usable BaseUnits BU type A0 Color code for module-specific color identification plate CC00 Product function CC00 • I&M data Yes; I&M0 to I&M3 • Isochronous mode No Engineering with STEP 7 TA Portal configurable/integrated from version • STEP 7 configurable/integrated from version V5.5 SP3 • PCS 7 configurable/integrated from version V5.5 SP3 • PROFINET from GSD version/GSD revision GSDML V2.3 Operating mode Vers • DQ Yes Input curront Concol Cu | General information | |
|---|---|--|
| Firmware version V0.0 • FW update possible No usable BaseUnits BU type A0 Color code for module-specific color identification plate CC00 Product function CC00 • I&M data Yes; I&M0 to I&M3 • Isochronous mode No • STEP 7 TIA Portal configurable/integrated from version V5.5 SP3 • PCF 7 configurable/integrated from version V5.5 SP3 • PCF 7 configurable/integrated from version V6.1 SP1 • PROFINET from GSD version/GSD revision One GSD file each, Revision 3 and 5 and higher • PROFINET from GSD version/GSD revision GSDML V2.3 Operating mode Yes • DQ Yes • PWM No • No No • Supply voltage Zet V permissible range, upper limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Rated value (DC) 24 V Power loss, typ. 1 W < | Product type designation | DQ 16x24 VDC/0.5 A ST |
| • FW update possible No usable BaseUnits BU type A0 Color code for module-specific color identification plate CC00 Product function CC0 • Isochronous mode No • Isochronous mode No • STEP 7 TIA Portal configurable/integrated from version V14 • STEP 7 configurable/integrated from version V5.5 SP3 • PCS 7 configurable/integrated from version V1.1 SP1 • ROFINET from GSD version/GSD revision One GSD file each, Revision 3 and 5 and higher • PROFINET from GSD version/GSD revision GSDML V2.3 Operating mode - • DQ Yes • Matter anage, lowper limit (DC) 24 V | HW functional status | From FS03 |
| usable BaseUnits BU type A0 Color code for module-specific color identification plate CC00 Product function CC00 • (BM data Yes; IBM0 to IBM3 • (Spectronous mode No Engineering with Yes; TA Portal configurable/integrated from version • STEP 7 TIA Portal configurable/integrated from version V5.5 SP3 • PCS 7 configurable/integrated from version V8.1 SP1 • PROFIBUS from GSD version/GSD revision One GSD file each, Revision 3 and 5 and higher • PROFINET from GSD version/GSD revision GBDML V2.3 Operating mode • • DQ Yes • DQ with energy-saving function No • DQ with energy-saving function No • DQ with energy-saving function No • MSO No Supply voltage Rated value (DC) permissible range, lower limit (DC) 24 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. Current consumption, max. 60 mA; without load <tr< td=""><td>Firmware version</td><td>V0.0</td></tr<> | Firmware version | V0.0 |
| Color code for module-specific color identification plate CC00 Product function • • I&M data Yes; I&M0 to I&M3 • Isochronous mode No Engineering with • • STEP 7 TIA Portal configurable/integrated from version V5.5 SP3 • PCS 7 configurable/integrated from version V5.5 SP3 • PCS 7 configurable/integrated from version V6.1 SP1 • PROFINET from GSD version/GSD revision GSD file each, Revision 3 and 5 and higher • PROFINET from GSD version/GSD revision GSD file each, Revision 3 and 5 and higher • DQ Yes • MSO No • Supply voltage Input current Rated value (DC) 24 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. <td< td=""><td> FW update possible </td><td>No</td></td<> | FW update possible | No |
| Product function I&M data Yes; I&M0 to I&M3 Sochronous mode No Engineering with STEP 7 TIA Portal configurable/integrated from version V14 STEP 7 configurable/integrated from version V5 5 SP3 PCS 7 configurable/integrated from version V8.1 SP1 PROFIBUS from GSD version/GSD revision One GSD file each, Revision 3 and 5 and higher PROFINET from GSD version/GSD revision GSDML V2.3 Operating mode • DQ Yes • DQ with energy-saving function No • PVWM No • Oversampling No • MSO No Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 60 mA; without load output voltage / header Rated value (DC) 24 V Power loss, typ. 1 W Address space per module | usable BaseUnits | BU type A0 |
| • I&M data Yes; I&M0 to I&M3 • Isochronous mode No Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 configurable/integrated from version V14 • PCS 7 configurable/integrated from version V8.1 SP1 • PROFIBUS from GSD version/GSD revision One GSD file each, Revision 3 and 5 and higher • PROFINET from GSD version/GSD revision One GSD file each, Revision 3 and 5 and higher • DQ Yes • PWM No • Oversampling No • MSO No Supply voltage Rated value (DC) permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. Current consumpti | Color code for module-specific color identification plate | CC00 |
| • Isochronous mode No Engineering with • STEP 7 TIA Portal configurable/integrated from version V14 • STEP 7 configurable/integrated from version V5.5 SP3 • PCS 7 configurable/integrated from version V8.1 SP1 • PROFIBUS from GSD version/GSD revision One GSD file each, Revision 3 and 5 and higher • PROFINET from GSD version/GSD revision One GSD file each, Revision 3 and 5 and higher • DQ Yes • MSO No Supply voltage Z4 V Permissible range, upper limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current 60 mA; without load output voltage / header | Product function | |
| Engineering with V14 • STEP 7 TIA Portal configurable/integrated from version V14 • STEP 7 configurable/integrated from version V5.5 SP3 • PCS 7 configurable/integrated from version V8.1 SP1 • PROFIBUS from GSD version/GSD revision One GSD file each, Revision 3 and 5 and higher • PROFINET from GSD version/GSD revision GSDML V2.3 Operating mode • • DQ Yes • DQ Yes • DQ Yes • DQ with energy-saving function No • Oversampling No • MSO No Supply voltage | • I&M data | Yes; I&M0 to I&M3 |
| • STEP 7 TIA Portal configurable/integrated from version V14 • STEP 7 configurable/integrated from version V5.5 SP3 • PCS 7 configurable/integrated from version V8.1 SP1 • PROFIBUS from GSD version/GSD revision One GSD file each, Revision 3 and 5 and higher • PROFINET from GSD version/GSD revision GSDML V2.3 Operating mode • DQ Yes • DQ Yes • DQ Yes • DQ No • Oversampling No • MSO No • MSO No Supply voltage 24 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. Current consumption, max. 60 mA; without load output voltage / header Rated value (DC) 24 V Power loss, typ. 1 W Address space per module 4 Weston • Address space per module 2 byte; + 2 bytes for Ql information | Isochronous mode | No |
| version VS 5 SP3 • STEP 7 configurable/integrated from version VS.5 SP3 • PCS 7 configurable/integrated from version V8.1 SP1 • PROFIBUS from GSD version/GSD revision GSD file each, Revision 3 and 5 and higher • PROFINET from GSD version/GSD revision GSDML V2.3 Operating mode Ves • DQ Yes • DQ with energy-saving function No • PWM No • Oversampling No • MSO No Supply voltage Rated value (DC) Permissible range, lower limit (DC) 19.2 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current 60 mA; without load output voltage / header Current consumption, max. Power loss, typ. 1 W Address space per module - • Address space per module 2 byte; + 2 bytes for Ql information | Engineering with | |
| • PCS 7 configurable/integrated from versionV8.1 SP1• PROFIBUS from GSD version/GSD revisionOne GSD file each, Revision 3 and 5 and higher• PROFINET from GSD version/GSD revisionGSDML V2.3Operating mode• DQYes• DQ with energy-saving functionNo• PWMNo• OversamplingNo• MSONoSupply voltage24 VPermissible range, lower limit (DC)28.8 VReverse polarity protectionYesInput currentCurrent consumption, max.60 mA; without loadoutput voltage / headerRated value (DC)24 VPower loss, typ.1 WAddress space per module4 VAddress space per module2 byte; + 2 bytes for Ql informationHardware configuration2 byte; + 2 bytes for Ql information | • • | V14 |
| PROFIBUS from GSD version/GSD revision PROFINET from GSD version/GSD revision GSDML V2.3 Operating mode OQ Operating mode OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Ves OQ Versampling No OV OVersampling No Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 60 mA; without load output voltage / header Rated value (DC) 24 V Power loss Power loss Power loss Power loss, typ. Address space per module Address space per module, max. 2 byte; + 2 bytes for Ql information Hardware configuration | STEP 7 configurable/integrated from version | V5.5 SP3 |
| PROFINET from GSD version/GSD revision GSDML V2.3 Operating mode DQ Yes DQ with energy-saving function No DQ with energy-saving function No OVersampling No Oversampling No Oversampling No Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 60 mA; without load output voltage / header Rated value (DC) 24 V Power loss typ. Address space per module | PCS 7 configurable/integrated from version | V8.1 SP1 |
| Operating mode Yes • DQ Yes • DQ with energy-saving function No • PWM No • Oversampling No • MSO No Supply voltage 24 V Permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. Cutrent consumption, max. 60 mA; without load output voltage / header 24 V Power loss Power loss Power loss space per module 1 W Address space per module, max. 2 byte; + 2 bytes for Ql information Hardware configuration 2 byte; + 2 bytes for Ql information | PROFIBUS from GSD version/GSD revision | One GSD file each, Revision 3 and 5 and higher |
| DQ Yes DQ with energy-saving function No DQ with energy-saving function No PWM No Oversampling No MSO No Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 60 mA; without load output voltage / header Rated value (DC) 24 V Power loss yp. 1 W Address space per module Address space per module, max. 2 byte; + 2 bytes for Ql information Hardware configuration | PROFINET from GSD version/GSD revision | GSDML V2.3 |
| • DQ with energy-saving function No • PWM No • Oversampling No • MSO No Supply voltage Rated value (DC) Permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current 60 mA; without load output voltage / header 24 V Rated value (DC) 24 V Power loss 1 W Address space per module 1 W Address space per module, max. 2 byte; + 2 bytes for Ql information Hardware configuration 2 | Operating mode | |
| • PWM No • Oversampling No • MSO No 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 60 mA; without load output voltage / header 24 V Power loss, typ. 24 V Power loss, typ. 1 W Address space per module 2 byte; + 2 bytes for QI information Hardware configuration 2 byte; + 2 bytes for QI information | • DQ | Yes |
| • OversamplingNo• MSONoSupply voltageRated value (DC)24 Vpermissible range, lower limit (DC)19.2 Vpermissible range, upper limit (DC)28.8 VReverse polarity protectionYesInput currentCurrent consumption, max.Current consumption, max.60 mA; without loadoutput voltage / header24 VRated value (DC)24 VPower loss1 WAddress space per module1 WAddress space per module, max.2 byte; + 2 bytes for Ql informationHardware configuration2 | DQ with energy-saving function | No |
| MSO No Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. 60 mA; without load output voltage / header Rated value (DC) 24 V Power loss Power loss, typ. 1 W Address area Address space per module Address space per module, max. 2 byte; + 2 bytes for QI information Hardware configuration | • PWM | No |
| Supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current 60 mA; without load Output voltage / header 60 mA; without load Rated value (DC) 24 V Power loss 9 Power loss, typ. 1 W Address area 4ddress space per module • Address space per module, max. 2 byte; + 2 bytes for Ql information Hardware configuration 1 | Oversampling | No |
| Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. Current consumption, max. 60 mA; without load output voltage / header Rated value (DC) Rated value (DC) 24 V Power loss 1 W Address area Address space per module • Address space per module, max. 2 byte; + 2 bytes for Ql information Hardware configuration 2 | • MSO | No |
| permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. Current consumption, max. 60 mA; without load output voltage / header 24 V Power loss 1 W Address area 1 W Address space per module 2 byte; + 2 bytes for Ql information Hardware configuration 2 byte; + 2 bytes for Ql information | Supply voltage | |
| permissible range, upper limit (DC) 28.8 V Reverse polarity protection Yes Input current Current consumption, max. Current consumption, max. 60 mA; without load output voltage / header Rated value (DC) Rated value (DC) 24 V Power loss 1 W Address area Address space per module • Address space per module, max. 2 byte; + 2 bytes for Ql information Hardware configuration Example of the configuration | Rated value (DC) | 24 V |
| Reverse polarity protection Yes Input current 60 mA; without load Current consumption, max. 60 mA; without load output voltage / header 60 mA; without load Rated value (DC) 24 V Power loss 7 Power loss, typ. 1 W Address area 4ddress space per module • Address space per module, max. 2 byte; + 2 bytes for QI information Hardware configuration 1 | permissible range, lower limit (DC) | 19.2 V |
| Input current Current consumption, max. 60 mA; without load output voltage / header Rated value (DC) 24 V Power loss Power loss, typ. 1 W Address area Address space per module • Address space per module, max. 2 byte; + 2 bytes for QI information Hardware configuration | permissible range, upper limit (DC) | 28.8 V |
| Current consumption, max. 60 mA; without load output voltage / header 24 V Rated value (DC) 24 V Power loss 1 W Address area 1 W Address space per module 2 byte; + 2 bytes for QI information Hardware configuration 2 byte; + 2 bytes for QI information | Reverse polarity protection | Yes |
| output voltage / header Rated value (DC) 24 V Power loss 1 Power loss, typ. 1 W Address area Address space per module • Address space per module, max. 2 byte; + 2 bytes for QI information Hardware configuration 1 | Input current | |
| Rated value (DC) 24 V Power loss 1 Power loss, typ. 1 W Address area 4 Address space per module 2 • Address space per module, max. 2 byte; + 2 bytes for QI information Hardware configuration 2 | Current consumption, max. | 60 mA; without load |
| Power loss Power loss, typ. 1 W Address area Address space per module • Address space per module, max. 2 byte; + 2 bytes for QI information Hardware configuration | output voltage / header | |
| Power loss, typ. 1 W Address area Address space per module Address space per module, max. 2 byte; + 2 bytes for QI information Hardware configuration Image: Configuration | Rated value (DC) | 24 V |
| Address area Address space per module • Address space per module, max. 2 byte; + 2 bytes for QI information Hardware configuration | Power loss | |
| Address space per module 2 byte; + 2 bytes for QI information Hardware configuration 4 byte; + 2 bytes for QI information | Power loss, typ. | 1 W |
| Address space per module, max. 2 byte; + 2 bytes for QI information Hardware configuration | Address area | |
| Hardware configuration | Address space per module | |
| | Address space per module, max. | 2 byte; + 2 bytes for QI information |
| | Hardware configuration | |
| | | Yes |

| Mechanical coding element | Yes |
|--|---|
| Type of mechanical coding element | Type A |
| Selection of BaseUnit for connection variants | |
| • 1-wire connection | BU type A0 |
| 2-wire connection | BU type A0 + Potential distributor module |
| 3-wire connection | BU type A0 + Potential distributor module |
| 4-wire connection | BU type A0 + Potential distributor module |
| Digital outputs | |
| Type of digital output | Source output (PNP, current-sourcing) |
| Number of digital outputs | |
| Current-sinking | No |
| Current-sourcing | Yes |
| Digital outputs, parameterizable | Yes |
| Short-circuit protection | Yes |
| Response threshold, typ. | 1 A; 0.7 to 1.3 A |
| Open-circuit detection | Yes |
| Limitation of inductive shutdown voltage to | Typ. L+ (-50 V) |
| Controlling a digital input | Yes |
| Switching capacity of the outputs | |
| • with resistive load, max. | 0.5 A |
| • on lamp load, max. | 5 W |
| Load resistance range | |
| lower limit | 48 Ω |
| upper limit | 12 kΩ |
| Output current | |
| for signal "1" rated value | 0.5 A |
| for signal "0" residual current, max. | 0.1 mA |
| Output delay with resistive load | |
| • "0" to "1", typ. | 50 µs |
| • "1" to "0", typ. | 100 µs |
| Parallel switching of two outputs | |
| • for uprating | No |
| for redundant control of a load | Yes |
| Switching frequency | |
| • with resistive load, max. | 100 Hz |
| • with inductive load, max. | 2 Hz |
| on lamp load, max. | 10 Hz |
| Total current of the outputs | 0.5.4 |
| Current per channel, max. | 0.5 A |
| Current per module, max. Total surrant of the surtruits (nor module) | 8 A |
| Total current of the outputs (per module) horizontal installation | |
| up to 40 °C, max. | 8 A |
| — up to 50 °C, max. — up to 50 °C, max. | 8 A 6 A |
| — up to 60 °C, max. — up to 60 °C, max. | 6 A 4 A |
| vertical installation | Ψ Λ. |
| — up to 30 °C, max. | 8 A |
| — up to 40 °C, max. | 6 A |
| — up to 50 °C, max. | 4 A |
| Cable length | |
| • shielded, max. | 1 000 m |
| • unshielded, max. | 600 m |
| Interrupts/diagnostics/status information | |
| Diagnostics function | Yes |
| Substitute values connectable | Yes |
| Alarms | 100 |
| Diagnostic alarm | Yes |
| Diagnoses | |
| Monitoring the supply voltage | Yes |
| Wire-break | Yes; Module-wise |
| ■ witc-bicdit | |

| Short-circuit to M | Yes; Module-wise |
|---|--|
| Short-circuit to L+ | Yes; Module-wise |
| Group error | Yes |
| Diagnostics indication LED | |
| Monitoring of the supply voltage (PWR-LED) | Yes; green PWR LED |
| Channel status display | Yes; green LED |
| for channel diagnostics | No |
| for module diagnostics | Yes; green/red DIAG LED |
| Potential separation | |
| Potential separation channels | |
| between the channels | No |
| between the channels and backplane bus | Yes |
| Isolation | |
| Isolation tested with | 707 V DC (type test) |
| Standards, approvals, certificates | |
| Suitable for safety functions | No |
| Suitable for safety-related tripping of standard modules | Yes; see FAQ Entry ID: 39198632 |
| Highest safety class achievable in safety mode | |
| Performance level according to ISO 13849-1 | PL d |
| SIL acc. to IEC 61508 | SIL 2 |
| Ambient conditions | |
| Ambient temperature during operation | |
| horizontal installation, min. | -30 °C; < 0 °C as of FS03 |
| horizontal installation, max. | 60 °C |
| vertical installation, min. | -30 °C; < 0 °C as of FS03 |
| vertical installation, max. | 50 °C |
| Altitude during operation relating to sea level | |
| Installation altitude above sea level, max. | 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. | 30 g |
| last modified: | 9/27/2021 |

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