07DI92 Manual

Brand	-
Product Series	other
Product Type	terminals

Description

ABB Digital Input Module 07 DI 92
32 digital inputs 24 V DC, electrically isolated in groups,
CS31 system bus

Intended purpose
The digital input module 07 DI 92 is used as a remote module on the CS31 system bus. It contains 32 inputs, 24 V DC, in 4 groups with the following features:
• The 4 groups of the inputs are electrically isolated from each other and from the rest of the unit.

The module occupies two digital addresses for inputs on the CS31 system bus.
The unit works with a supply voltage of 24 V DC.
The system bus connection is electrically isolated from the rest of the unit.
Display and operating elements on the front panel
1 32 green LEDs to indicate the signal status of the inputs
3 Red LED for error messages
4 Test button
Electrical connection
The module can be mounted on a DIN rail (15 mm high) or with 4 screws. The following illustration shows the electrical connection of the input module.

Technical data 07 DI 92
In general, the technical system data listed under "System data and system configuration" in chapter 1 of volume 2 of the Advant Controller 31 system description are valid. Additional data or data which are different from the system data are listed as follows.
Technical data for the complete unit
Permissible temperature range during operation 0...55 °C
Rated supply voltage 24 V DC
Nominal signal voltage at inputs 24 V DC
Max. current consumption 0.15 A
Max. nominal load capacity for supply terminals 4.0 A
Max. power dissipation inside the unit 10 W
Protection against incorrect polarity of supply voltage yes
Conductor cross section

for removable connectors
power supply max. 2.5 mm2
CS31 system bus max. 2.5 mm2
signal terminals max. 1.5 mm2
reference potentials ZP0, ZP1, ZP2, ZP3 max. 1.5 mm2
Number of inputs 32
Electrical isolation CS31 system bus from the rest of the unit
inputs group from group, all groups from the rest of the unit
Reference potential for inputs each group has a separate reference potential
see Fig. 4.1-2
Number of interfaces 1 CS31 system bus interface
Address setting Coding switch under the cover located on the right side
of the housing
Operation and error displays a total of 33 LEDs
Technical data for the digital inputs
Number of channels per module 32
Division of channels into groups 4 groups with 8 channels each,
channels En,00...En,07 and En,08...En,15
channels En+1,00...En+1,07 and En+1,08...En+1,15
Reference potentials for the inputs ZP0, ZP1, ZP2 and ZP3
Electrical isolation group from group
all groups from the rest of the unit
Input signal delay typ. 7 ms
Signalization of the input signals one green LED per channel,
LEDs activated according to the input signal
Input signal voltage 24 V DC
0 signal - 30 V...+ 5 V
1 signal + 13 V...+ 30 V
residual ripple for 0 signal within - 30 V...+ 5 V
for 1 signal within + 13 V...+ 30 V

Input current per channel
input voltage = + 24 V typ. 7.0 mA
input voltage = + 5 V > 0.2 mA
input voltage = + 13 V > 2.0 mA
input voltage = + 30 V < 9.0 mA
Conductor cross section
for the removable terminal blocks max. 1.5 mm2 (distance between terminals 3.81 mm)
Connection to the CS31 system bus
Interface standard EIA RS-485
Electrical isolation against supply voltage, inputs and outputs
Conductor cross section
for the removable terminal blocks max. 2.5 mm2
(grid space 5.08 mm)
Mechanical data
Mounting and DIN rail according to DIN EN 50022–35, 15 mm deep.
The DIN rail is centrally positioned between upper
and lower edge of the module.
Mounting with screws 4 screws M4
Width x height x depth 120 x 140 x 85 mm
Connection method removable connectors with screw-type terminals

cross section max. 2.5 mm2
(grid space 5.08 mm)
max. 1.5 mm2
(grid space 3.81 mm)
Weight 450 g
Dimensions for installation see illustration on next page
Installation instructions
Mounting position vertical, connectors must point upward and downward
Cooling The natural convection cooling must not be obstructed
by cable ducts or other components in the cabinet
Ordering data
Module 07 DI 92 Order No. GJR5 2524 00 R0101
Scope of delivery Digital input module 07 DI 92
1 5-pin connector (grid space 5.08 mm)
1 3-pin connector (grid space 5.08 mm)
4 10-pin connectors (grid space 3.81 mm)

Technical Specifications

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Rated supply voltage 24 V DC
Nominal signal voltage at inputs 24 V DC
Max. current consumption 0.15 A
Max. nominal load capacity for supply terminals 4.0 A
Max. power dissipation inside the unit 10 W
Protection against incorrect polarity of supply voltage yes
Conductor cross section
for removable connectors
power supply max. 2.5 mm2
CS31 system bus max. 2.5 mm2
signal terminals max. 1.5 mm2
reference potentials ZP0, ZP1, ZP2, ZP3 max. 1.5 mm2
Number of inputs 32
Electrical isolation CS31 system bus from the rest of the unit
inputs group from group, all groups from the rest of the unit
Reference potential for inputs each group has a separate reference potential
see Fig. 4.1-