

# Easy operation with maximum benefits

The Eaton EZ intelligent relays provide basic functions that users could only implement previously with individually installed and wired devices. The EZD multi-function displays offer powerful visualization functions.





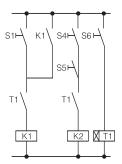


Because of the extensive EZ product range, users can always find the best solution for their needs. Solutions can be as simple as a compact stand-alone intelligent relay with a few timing relays and a timer switch, or as complex as a large-scale network of EZ intelligent relays that are processing several hundred I/O with local and remote expansion modules and graphic visualization. The need for user-friendly operation and programming is consistently met and forms the basis for the outstanding features found in the EZ family of products. Eaton's EZ line really is easy to use. In association with EZD, it offers everything you need from a state-of-the-art automation system: flexible networking, local and remote expansion modules, visualization, scalability.

### Simplicity and user-friendly operation

EZ and EZD products are known for their user-friendly operation and programming. Every rung or circuit connection is wired just like you remember: Contact - Contact - Contact -Coil - Done! The devices allow the "wiring" of 128 or 256 rungs or circuit connections. Series and parallel connections, which make up a major part of a control circuit, are easily created without previous programming knowledge. Ready-to-use function blocks are simply integrated in the wiring with coils, and contacts are provided for additional functions.









#### **Everything needed is built-in**

Depending on the device selected, EZ and EZD products provide users with timing relays, flash relays, counters, comparators, timer switches and other ready-to-use functions. The circuit diagram display of serial and parallel connections, unlike the display of AND and OR operations in a function block diagram, offers a more manageable display of the circuit. Every EZ and EZD intelligent relay features an integrated power flow display to ensure safe operation during commissioning and helps identify errors in the circuit diagram. For ease-of-use, energized rungs are highlighted, and non-energized rungs are dimmed.

#### Security means safety

The finished circuit diagram is stored internally and can also be saved externally on a memory module (EEPROM) for transport, security and backup. Multi-level password protection secures your circuit diagram from unauthorized viewing, editing, copying or deleting.







### **Technical overview:** The right device for every application

#### **EZ500 intelligent relay**

For controlling small applications with up to 12 input/output signals

#### **EZ700 intelligent relay**

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For controlling medium-sized applications with up to 40 input/output signals

• 12 digital inputs

6 digital relay out-

#### EZ800 intelligent relay

For controlling large-scale applications with up to 300 input/output signals

12 digital inputs

· 6 digital relay out-

8 transistor

256 rungs of 4

contacts and 1

32 operating and

message texts

coil each

outputs

puts or optionally

#### **EZD** intelligent relay

For controlling large-scale applications with powerful visualization functions



8 digital inputs

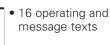


 4 digital inputs or optionally



4 transistor outputs

 128 rungs of 3 contacts and 1 coil each



message texts

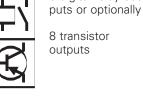


TEXT

 2 analog inputs (10-bit) optional (not with 230 VAC



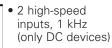
 2 high-speed inputs, 1 kHz (only DC devices)



- 128 rungs of 3 contacts and 1 coil each
- 16 operating and message texts



(10-bit) optional (not with 230 VAC)



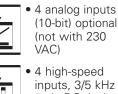
- 1 digital expan-
- sion or network connection



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inputs, 3/5 kHz (only DC devices)

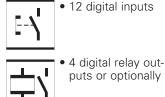




1 digital expansion or network connection



1 analog input (10 bit)



puts or optionally

4 transistor outputs



- 256 rungs of 4 contacts and 1 coil each
- 24 KB mask memory on a fully graphical, VISU backlit display (64 x 132 pixels)
  - 4 analog inputs (10-bit) optional (not with 230 V AC)



- inputs, 3/5 kHz (only DC devices)
- 1 digital expansion or network connection

















#### EZ800 and EZD intelligent relays

The EZ800 and EZD intelligent relays provide expanded capabilities. Users can network up to eight modules to easily support applications with over 300 I/O points. A control system can be designed by using a single local program or by using several programs on different distributed devices. Up to 1000 meters can be covered by the network. The intelligent relays can also be easily integrated with higherlevel automation networks such as PROFIBUS-DP, CANopen, DeviceNet and AS-Interface.

#### **EZD** multi-function display

The EZD supports all of the functions of the EZ800 and provides a full graphical display. It replaces the 7-segment display and indicates fault messages and operating steps graphically or in plain text. The function buttons on the EZD can be used to display and modify set points during operation. High-speed signal counting, frequency measurement and incremental encoder processing can all be seamlessly implemented with an EZ800 or an EZD.



### Communication made easy. Simple and inexpensive networking.



#### **EZ-NET**

By integrating the EZ-NET network, which allows up to eight stations consisting of EZ800 or EZD devices, communication can be accomplished up to a distance of 1000 meters. It does not matter if the devices involved are running their own programs or are only used as remote input/output modules. Furthermore, all stations can be expanded locally using the EZ-LINK interface. This enables EZ and EZD devices to be used seamlessly with applications involving 12 to more than 300 I/O points. The EZD also features the option of a simple point-topoint connection with an EZ800 or another EZD via a serial interface. Communication modules are available that allow EZ and EZD intelligent relays to be connected to AS-Interface, PROFIBUS-DP, CANopen and DeviceNet network systems.

### **Communication modules** provide automation interaction

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Device**Net** 

Communication connections to the production process give more flexibility and control.

#### Commanding, signaling, monitoring and controlling on bit level

A network connection is often worthwhile for simple operating steps often found in production processes. The Actuator-Sensor Interface, or AS-I, can provide 31 slaves simultaneously with 248 binary data items. For machine building applications, AS-I is the optimal network connection choice because input/output data can be transferred with a very fast reaction time of only 5 ms. As a result, it is possible to start up several motors simultaneously in a materials handling application.

The EZ205-ASI communication module makes network connection easy. It can be connected via the EZ-LINK connection to all expandable EZ units. The two-wire AS-I cable is simply wired to the module– that's it! Data exchange is then organized by a higher level AS-I master.

#### Transferring complex data

More powerful fieldbus systems like the PROFIBUS-DP are used for complex automation tasks. These may involve transporting large data sets, such as several analog values, setpoints, counter states or timer parameters. With PROFIBUS-DP, up to 20 bytes of data per station can be transferred with each scan, and up to 126 nodes can be linked together over a distance of 1200 meters. The EZ204-DP gateway makes EZ intelligent relays more flexible and powerful. Entire parameter sets of EZ can be read or exchanged by a network connection. If recipes require different parameter sets to be transferred to EZ, clock times, counter states, setpoints and actual values can be controlled by a suitable master on this powerful network system.

#### Connection to world standard fieldbus systems

Similar to the EZ204-DP, the EZ221-CO network communication module for CANopen and the EZ222-DN for DeviceNet offer the same functions.





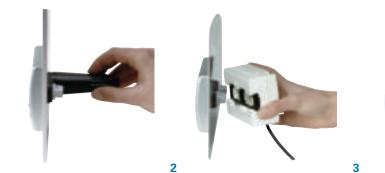
CANopen

### Stand alone EZ display with a high degree of protection

#### EZ intelligent relay with EZD display provides IP65 protection

The EZD-CP4-500 or EZD-CP4-800 supply and communication module can be combined with an EZD display and EZ intelligent relay providing users with the option of using a stand-alone display with IP65 protection for all EZ500/700 and EZ800 applications.







#### 1 & 2 Plug & play

Plug & play technology allows users to connect an EZD display (EZD-80 or EZD-80-B) to an EZ intelligent relay via an EZD-CP4 supply and communication module. The EZD-CP4 module is factory shipped with five meters of serial connection cable that can be cut to any required length allowing the display to be mounted up to five meters away from the intelligent relay.

No software or drivers are needed for the connection -EZD-CP4 is a genuine plug & play device. I/O wiring can be kept in the control panel and the EZD-CP4 simply snaps to the EZD display. When properly mounted, the display is protected to IP65. The display includes a backlight that offers optimum legibility.

Two EZ-CP4 modules are available: EZD-CP4-500 is used with all EZ500/700s and the EZD-CP4-800 is used with all EZ800 and EZD-CP8 devices.

#### 1, 3 & 4 EZD provides HMI-Control

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When an EZD display is directly connected to an EZD-CP8 with optional input/output modules, the EZD becomes a compact HMI control device. It combines the functionality of an EZ800 with powerful visualization functions. The two modules are simply plugged together.

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## More input/output

#### Central and Decentralized Expansion Made Easy

The EZ700, EZ800 and EZD accommodate I/O expansion locally or remotely using a variety of different configurations.





#### 1

By connecting an EZ618-AC-RE, EZ618-DC-RE or EZ620-DC-TE expansion module, users can create an intelligent relay with 24 inputs and up to 16 outputs. These three expansion modules are simply fitted onto the EZ controller and directly connected using the EZ-LINK interface connector.

#### 2

Alternatively, a connection can be set up using the EZ200-EZ coupling module and a 2-wire cable allowing an expansion module to be remotely mounted up to 30 meters away.

#### 3

The EZ202-RE expansion module provides two additional relay outputs that can be connected directly using the EZ-LINK connector.



| Basic units                                   | 500 ba          | 500 basic units                 |           |              |             |                                     |               |              |            |              |  |
|---|-----------------|---------------------------------|-----------|--------------|-------------|-------------------------------------|---------------|--------------|------------|--------------|--|
| Application                                   | Stand-          | alone oj                        | peration  |              |             |                                     |               |              |            |              |  |
| Туре  | EZ512:4B.AC     | ESS12-AB-ACX                    | EZSIZACA  | EZ512:4C.AC  | EZ512-ACACA | EZ512,DA-AC                         | E2512.D4.ACX  | EZSIZ.DC.A   | EZ512-DCAC | EZ512-DC-ACX |  |
| Supply voltage                                | 24              | V AC                            | 1         | 00 - 240 V A | C           |                                     | V DC          |              | 24 V DC    |              |  |
| Heat dissipation                              | 5               | VA                              |           | 5 VA         |             | 2                                   | W             |              | 2W         |              |  |
| Inputs, digital                               | 8               | 8                               | 8         | 8            | 8           | 8                                   | 8             | 8            | 8          | 8            |  |
| Inputs, analog 0 - 10 V (optional)            | 2               | 2                               | -         | -            | -           | 2                                   | 2             | 2            | 2          | 2            |  |
| Outputs, digital (R=relay,T=trans.)           | 4R              | 4R                              | 4R        | 4R           | 4R          | 4R                                  | 4R            | 4R           | 4R         | 4R           |  |
| Outputs, analog 0 - 10 V                      | -               | -                               | -         | -            | -           | -                                   | -             | -            | -          | -            |  |
| LCD display / keypad                          | Yes / Yes       | - / -                           | Yes / Yes | Yes / Yes    | - / -       | Yes / Yes                           | - / -         | Yes / Yes    | Yes / Yes  | - / -        |  |
| 7-day / year time switch                      | Yes / Yes       | Yes / Yes                       | - / -     | Yes / Yes    | Yes / Yes   | Yes / Yes                           | Yes / Yes     | - / -        | Yes / Yes  | Yes / Yes    |  |
| Continuous current outputs [1]                | 8A              | 8A                              | 8A        | 8A           | 8A          | 8A                                  | 8A            | 8A           | 8A         | 8A           |  |
| Short-circuit proof with power factor 1       |                 |                                 |           |              | Line pro    | tection B16, 6                      | 600 A         |              |            |              |  |
| Short-circuit proof with power factor 0.7 0.7 |                 |                                 |           |              | Line pro    | tection B16, 9                      | 00 A          |              |            |              |  |
| Connection cables                             |                 |                                 |           |              |             | 4.0 mm2 (AW<br>2.5 mm² (AWG         |               |              |            |              |  |
| Degree of protection                          |                 |                                 |           |              |             | IP 20                               | D             |              |            |              |  |
| RFI suppression                               |                 |                                 |           | E            | N 55011, EN | 55022 Class                         | B, IEC 61000- | 6-1, 2, 3, 4 |            |              |  |
| Ambient operating temperature                 | - 25 °C + 55 °C |                                 |           |              |             |                                     |               |              |            |              |  |
| Transport and storage temperature             |                 | - 40 °C + 70 °C                 |           |              |             |                                     |               |              |            |              |  |
| Certification, standards                      |                 | EN 50178, IEC/EN 60947, UL, CSA |           |              |             |                                     |               |              |            |              |  |
| Mounting                                      |                 |                                 |           | or           |             | o-hat rail to DII<br>ting with EZB4 |               |              |            |              |  |
| Dimensions (W x H x D) mm                     |                 |                                 |           |              |             | 71.5 x 90 x                         | 58 mm         |              |            |              |  |

[1] Relay = 8 A (10 A to UL) with resistive load, 3 A with inductive load/transistor outputs = 0.5 A / 24 V DC, max 4 outputs switchable in parallel.

[2] With backlight in continuous operation - 10 °C ... 0 °C.

[3] In stand-alone operation the EZD-...CP8-... CPU slices can also be mounted on a DIN 50022 top-hat rail, 35 mm or as screw mounting with EZB4-101-GF1 fixing brackets.



EZ719-AC-RCX

EZ721-DC-TC

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|  |              |                     | 700 bas         | sic units   | •           |                |                                   |                    |                        |              |              |                |  |  |  |
|--|--------------|---------------------|-----------------|-------------|-------------|----------------|-----------------------------------|--------------------|------------------------|--------------|--------------|----------------|--|--|--|
|  |              | Expandable (EZ2EZ6) |                 |             |             |                |                                   |                    |                        |              |              |                |  |  |  |
|  | Ezsiz-DC. TC | EZ512DC.TCY         | EZ719.4B.AC     | EZTIONABACK | EZ719.4C.AC | EZ719.4C.RCX   | EZ719.DA.AC                       | EZ719-DA.RCX       | EZ719. DC.AC           | EZ719.DC.ACX | EZZZ, DC. JC | EZZZ1, DC. TCX |  |  |  |
|  |              |                     | 24              | V AC        | 100 - 24    |                |                                   | V DC               |                        |              | V CD         |                |  |  |  |
|  |              |                     | 7               | VA          | 10          | VA             | 3.5                               | 5 W                |                        | 3.5          | 5 W          |                |  |  |  |
|  | 8            | 8                   | 12              | 12          | 12          | 12             | 12                                | 12                 | 12                     | 12           | 12           | 12             |  |  |  |
|  | 2            | 2                   | 4               | 4           | -           | -              | 4                                 | 4                  | 4                      | 4            | 4            | 4              |  |  |  |
|  | 4T           | 4T                  | 6R              | 6R          | 6R          | 6R             | 6R                                | 6R                 | 6R                     | 6R           | 6R           | 8T             |  |  |  |
|  | -            | -                   | -               | -           | -           | -              | -                                 | -                  | -                      | -            | -            | -              |  |  |  |
|  | Yes / Yes    | - / -               | Yes / Yes       | - / -       | Yes / Yes   | - / -          | Yes / Yes                         | - / -              | Yes / Yes              | - / -        | Yes / Yes    | - / -          |  |  |  |
|  | Yes / Yes    | Yes / Yes           | Yes / Yes       | Yes / Yes   | Yes / Yes   | Yes / Yes      | Yes / Yes                         | Yes / Yes          | Yes / Yes              | Yes / Yes    | Yes / Yes    | Yes / Ye       |  |  |  |
|  | 0.5A         | 0.5A                | 8A              | 8A          | 8A          | 8A             | 8A                                | 8A                 | 8A                     | 8A           | 8A           | 0.5 A          |  |  |  |
|  | -            | -                   |                 |             | L           | ine protection | B16, 600 A                        |                    |                        |              | -            | -              |  |  |  |
|  | -            | -                   |                 |             | L           | ine protection | B16, 900 A                        |                    |                        |              | -            | -              |  |  |  |
|  |              |                     |                 |             |             |                | 2 - 4.0 mm2 (<br>2 - 2.5 mm² (A   |                    |                        |              |              |                |  |  |  |
|  |              |                     |                 |             |             |                | IF                                | <sup>&gt;</sup> 20 |                        |              |              |                |  |  |  |
| EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4 |              |                     |                 |             |             |                |                                   |                    |                        |              |              |                |  |  |  |
|  |              |                     | - 25 °C + 55 °C |             |             |                |                                   |                    |                        |              |              |                |  |  |  |
| - 40 °C + 70 °C                                    |              |                     |                 |             |             |                |                                   |                    |                        |              |              |                |  |  |  |
|  |              |                     |                 |             |             |                | EN 50178, IEC/EN 60947, UL, CSA   |                    |                        |              |              |                |  |  |  |
|  |              |                     |                 |             |             |                | top-hat rail to<br>ounting with E |                    | 35 mm<br>fixing bracke | ets          |              |                |  |  |  |
|  |              |                     |                 |             |             |                | 107.5 x 9                         | 90 x 58 mm         |                        |              |              |                |  |  |  |



| Basic units                                   | 800 ba       | 800 basic units |                  |               |               |                                   |                 |             |             |               |  |
|---|--------------|-----------------|------------------|---------------|---------------|-----------------------------------|-----------------|-------------|-------------|---------------|--|
| Application                                   | Expan        | dable (E        | <b>Z2, EZ6</b> . | ), netw       | orkable       | (EZ-NET)                          |                 |             |             |               |  |
| Туре  | EZBIB. AC.AC | E28194CACA      | EZBIB. DC.AC     | EZB19.DC.ACX  | EZ820.DC.AC   | E2820,DCACK                       | É2827.DC.7C     | EZ821DC.TCX | E2822.DC.7C | E2822-DC. TCY |  |
| Supply voltage                                | 100 - 24     | 40 V AC         |                  | 1             |               | 24 V                              | ' DC            | .1          | 1           | .1            |  |
| Heat dissipation                              | 10           | VA              |                  |               |               | 3.4                               | W               |             |             |               |  |
| Inputs, digital                               | 12           | 12              | 12               | 12            | 12            | 12                                | 12              | 12          | 12          | 12            |  |
| Inputs, analog 0 - 10 V (optional)            | -            | -               | 4                | 4             | 4             | 4                                 | 4               | 4           | 4           | 4             |  |
| Outputs, digital (R=relay,T=trans.)           | 6R           | 6R              | 6R               | 6R            | 6R            | 6R                                | 8T              | 8T          | 8T          | 8T            |  |
| Outputs, analog 0 - 10 V                      | -            | -               | -                | -             | 1             | 1                                 | -               | -           | 1           | 1             |  |
| LCD display / keypad                          | Yes / Yes    | - / -           | Yes / Yes        | - / -         | Yes / Yes     | - / -                             | Yes / Yes       | - / -       | Yes / Yes   | - / -         |  |
| 7-day / year time switch                      | Yes / Yes    | Yes / Yes       | Yes / Yes        | Yes / Yes     | Yes / Yes     | Yes / Yes                         | Yes / Yes       | Yes / Yes   | Yes / Yes   | Yes / Yes     |  |
| Continuous current outputs [1]                | 8A           | 8A              | 8A               | 8A            | 8A            | 8A                                | 0.5A            | 0.5A        | 0.5A        | 0.5A          |  |
| Short-circuit proof with power factor 1       |              |                 | Line protection  | on 816, 600 A | 4             |                                   | -               | -           | -           | -             |  |
| Short-circuit proof with power factor 0.7 0.7 |              |                 | Line protectic   | on 816, 900 A | 7             |                                   | -               | -           | -           | -             |  |
| Connection cables                             |              |                 |                  |               |               | AWG 22-12), so<br>NG 22-12), flex |                 |             |             |               |  |
| Degree of protection                          |              |                 |                  |               | IP            | 20                                |                 |             |             |               |  |
| RFI suppression                               |              |                 |                  | EN 55011, F   | EN 55022 Clas | iss B, IEC 6100                   | )0-6-1, 2, 3, 4 | ,<br>       |             |               |  |
| Ambient operating temperature                 |              |                 |                  |               | - 25 °C .     | + 55 °C                           |                 |             |             |               |  |
| Transport and storage temperature             |              |                 |                  |               | - 40 °C .     | + 70 °C                           |                 |             |             |               |  |
| Certification, standards                      |              |                 |                  | EN !          | 50178, IEC/EN | N 60947, UL, C                    | CSA             |             |             |               |  |
| Mounting                                      |              |                 | (                |               |               | DIN 50022, 35<br>ZB4-101-GF1 fix  |                 | 3           |             |               |  |
| Dimensions (W x H x D) mm                     |              |                 |                  |               | 107.5 x 90    | x 72 mm                           |                 |             |             |               |  |

[1] Relay = 8 A (10 A to UL) with resistive load, 3 A with inductive load/transistor outputs = 0.5 A / 24 V DC, max 4 outputs switchable in parallel.

[2] With backlight in continuous operation - 10 °C ... 0 °C.
[3] In stand-alone operation the EZD-...CP8-... CPU slices can also be mounted on a DIN 50022 top-hat rail, 35 mm or as screw mounting with EZB4-101-GF1 fixing brackets.



| EZD  |                                  |                     |             |                    |                       |               |                                  |          |               |                  |                |           |
|--|----------------------------------|---------------------|-------------|--------------------|-----------------------|---------------|----------------------------------|----------|---------------|------------------|----------------|-----------|
| Display  | y                                | Power s<br>Coupling |             | Power s            | upply / C             |               |                                  | Inputs   | / outputs     | 5                |                |           |
| EZD.80   | EZD.80.B                         | EZD.CP4.500         | EZD.CP4.800 | EZD.CP8.ME         | EZD.CP8.NT            | EZD.4C.CP8.ME | EZD-4C. CP8.NT                   | EZDACA16 | EZD.A16       | EZD.RA17         | EZD. TIB       | EZD rd 17 |
| Supply v   | iaCP                             |                     | 24 V        | DC                 |                       |               | 40 V AC                          |          | Su            | pply viaCF       | 28             | 1         |
| 3  | W                                | 1.5                 | W           | 3 V                | V                     | 8'            | VA                               |          |               | 0.5 W            |                |           |
| <br>-  | -                                | -                   | -           | -                  | -                     | -             | -                                | 12       | 12            | 12               | 12             | 12        |
| -  | -                                | -                   | -           | -                  | -                     | -             | -                                | -        | 4             | 4                | 4              | 4         |
| -  | -                                | -                   | -           | -                  | -                     | -             | -                                | 4R       | 4R            | 4R               | 4R             | 4R        |
| -  | -                                | -                   | -           | -                  | -                     | -             | -                                | -        | -             | 1                | -              | 1         |
| Yes / Yes  | Yes / Yes                        | - / -               | - / -       | - / -              | - / -                 | - / -         | - / -                            | - / -    | - / -         | - / -            | - / -          | - / -     |
| - / -  | - / -                            | - / -               | - / -       | Yes / Yes          | Yes / Yes             | Yes / Yes     | Yes / Yes                        | - / -    | - / -         | - / -            | - / -          | - / -     |
| -  | -                                | -                   | -           | -                  | -                     | -             | -                                | 8A       | 8A            | 8A               | 0.5 A          | 0.5 A     |
| -  | -                                | -                   | -           | -                  | -                     | -             | -                                | Line pr  | otection B16, | 600 A            | -              | -         |
| -  | -                                | -                   | -           | -                  | -                     | -             | -                                | Line pr  | otection B16, | 900 A            | -              | -         |
| -  | -                                |                     |             |                    |                       |               | AVVG 22-12), s<br>NG 22-12), fle |          | 0.2 -         | - 2.5 mm² (AV    | /G 22-12), fle | xible     |
| IP   | 65                               |                     | IP 20       |                    |                       |               |                                  |          |               |                  |                |           |
| EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4 |                                  |                     |             |                    |                       |               |                                  |          |               |                  |                |           |
| Clearly le<br>- 5 °C+                              |                                  |                     |             |                    |                       |               |                                  |          |               |                  |                |           |
|  |                                  |                     |             |                    | - 4                   | 40 °C + 70    | °C                               |          |               |                  |                |           |
| EN 50178, IEC/EN 60947, UL, CSA                    |                                  |                     |             |                    |                       |               |                                  |          |               |                  |                |           |
| Front mour<br>22.5 mm stan                         | nting in 2 x<br>dard drill holes |                     |             | n/<br>(snap fitted | a [3]<br>I on EZD-80; | )             |                                  |          | (snap fitte   | n/a<br>d on EZDC | P8)            |           |
| 86.5 x 86.5  | 5 x 20 mm                        | 78 x 58 x 3         | 36.2 mm     |                    | 107.5 x 90            | x 29.5 mm     |                                  |          | 88            | .1 x 90 x 25 m   | ım             |           |



| Accessories                               | Expans           | ion modu                             | les                              |                     | Expansion modules   |           |                                   |                                |          |  |  |
|---|------------------|--------------------------------------|----------------------------------|---------------------|---|-----------|-----------------------------------|--------------------------------|----------|--|--|
| Application                               |                  | inputs / o<br>90 x 58 n              | nm                               |                     | inication   |           |                                   |                                |          |  |  |
| Туре                                      | E202-AE          | EZ618-AC.AE                          | EZBIB.DC.AE                      | É2620.DC.TE         | E2200.E2  | E2204.Dp  | E2205:4S1                         | £227,CO                        | E222-DM  |  |  |
| Supply voltage                            | -                | 100-240 V AC                         |                                  | / DC                | -   | 24 V AC   | -                                 | 24 V AC                        | 24 V AC  |  |  |
| Heat dissipation                          | 1 W              | 10 VA                                | 4                                | W                   | 1 W   | 2 W       | 1 W                               | 1 W                            | 1 W      |  |  |
| Inputs, digital                           | -                | 12                                   | 12                               | 12                  | -   | -         | -                                 | -                              | -        |  |  |
| Inputs, analog 0 - 10 V (optional)        | -                | -                                    | -                                | -                   | -   | -         | -                                 | -                              | -        |  |  |
| Outputs, digital (R=relay, T=trans.)      | 2R               | 6R                                   | 6R                               | 8T                  | -   | -         | -                                 | -                              | -        |  |  |
| Outputs. anllog 0 - 10 V                  | -                | -                                    | -                                | -                   | -   | -         | -                                 | -                              | -        |  |  |
| LCD display / keypad                      | - / -            | - / -                                | - / -                            | - / -               | - / -   | -         | -                                 | -                              | -        |  |  |
| 7-day / year time switch                  | - / -            | - / -                                | - / -                            | - / -               | - / -   | -         | -                                 | -                              | -        |  |  |
| Continuous current outputs [1]            | 8A               | 8A                                   | 8A                               | 0.5 A               | -   | -         | -                                 | -                              | -        |  |  |
| Short-circuit proof with power factor 1   |                  | Line protectio                       | n B16, 600 A                     |                     | -   | -         | -                                 | -                              | -        |  |  |
| Short-circuit proof with power factor 0.7 |                  | Line protectio                       | n B16, 900 A                     |                     | -   | -         | -                                 | -                              | -        |  |  |
| Connection cables                         | 0.<br>0.2        | 2 - 4.0 mm² (A\<br>- 2.5 mm² (AV     | WG 22-12), so<br>/G 22-12), flex | lid<br>ible         | 0.2 - 4.0 mm² (AWG 22-12),<br>solid 0.2 - 2.5 mm² (AWG 22-12), flexible |           |                                   |                                |          |  |  |
| Degree of protection                      |                  | IP                                   | 20                               |                     | IP 20   |           |                                   |                                |          |  |  |
| RFI suppression                           | EN 55011,        | EN 55022 Clas                        | s B, IEC 61000                   | 0-6-1, 2, 3, 4      | EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4                      |           |                                   |                                |          |  |  |
| Ambient operating temperature             |                  | - 25 °C                              | . + 55 °C                        |                     | - 25 °C + 55 °C   |           |                                   |                                |          |  |  |
| Transport and storage temperature         |                  | - 40 °C                              | . + 70 °C                        |                     | - 40 °C + 70 °C   |           |                                   |                                |          |  |  |
| Certification, standards                  | EN               | 50178, IEC/EN                        | 1 60947, UL, C                   | CSA                 |   | EN 5017   | 8, IEC/EN 609                     | 947, UL, CSA                   |          |  |  |
| Mounting                                  | On<br>or screw m | top-hat rail to D<br>ounting with EZ | DIN 50022, 35<br>B4-101-GF1 fi>  | mm<br>king brackets | or s  | On top-ha | at rail to DIN 5<br>g with EZB4-1 | 0022, 35 mm<br>01-GF1 fixing l | orackets |  |  |



| Accessories                       | Switched-mode power supply un                     | Switched-mode<br>power supply units  |  |  |  |  |  |  |
|-----------------------------------|---|--|--|--|--|--|--|--|
| Application                       |   |  |  |  |  |  |  |  |
| Туре                              | F2200,P011  | EZ400,POW  |  |  |  |  |  |  |
| Supply voltage                    | 100 - 24  | 40 V AC  |  |  |  |  |  |  |
| Maximum range                     | 85 - 26   | 4 V AC   |  |  |  |  |  |  |
| Output voltage                    | 24 V DC   | 24 V DC (+/- 3%)   |  |  |  |  |  |  |
| Output current (rated value)      | 0.25 A  | 1.25 A   |  |  |  |  |  |  |
| Overcurrent limitation form       | 0.3 A   | 1.4 A  |  |  |  |  |  |  |
| Short-circuit proof (secondary)   | Yes   | Yes  |  |  |  |  |  |  |
| Overload proof                    | Yes   | Yes  |  |  |  |  |  |  |
| Potential isolation (prim./sec.)  | Yes,<br>(to EN 6009                               | SELV<br>50, VDE 805)   |  |  |  |  |  |  |
| Others                            | Additional output voltage<br>12 DC, 20 mA         | -  |  |  |  |  |  |  |
| Connection cables                 | 0.2 - 4.0 mm² (A<br>0.2 - 2.5 mm² (AV             | WG 22-12), solid<br>VG 22-12), flexible  |  |  |  |  |  |  |
| Degree of protection              | IP  | IP 20  |  |  |  |  |  |  |
| RFI suppression                   | EN 55011, EN 55022 Class                          | EN 55011, EN 55022 Class B, IEC 61000- 6-1, 2, 3, 4  |  |  |  |  |  |  |
| Ambient operating temperature     | - 25 °C   | - 25 °C + 55 °C  |  |  |  |  |  |  |
| Transport and storage temperature | - 40 °C   | - 40 °C + 70 °C  |  |  |  |  |  |  |
| Certification, standards          | EN 50178, IEC/EN                                  | EN 50178, IEC/EN 60947, UL, CSA  |  |  |  |  |  |  |
| Mounting                          | On top-hat rail to [<br>or screw mounting with EZ | On top-hat rail to DIN 50022, 35 mm<br>or screw mounting with EZB4-101-GF1 fixing brackets |  |  |  |  |  |  |

## EZSoft the user-friendly circuit diagram editor

EZSoft makes things particularly easy for users. The graphical editor shows the circuit diagram immediately in the display format required. Selection menus and drag & drop functions simplify circuit diagram creation. Simply select contacts and coils and connect with the mouse – that's it!

In addition to the editing functions, the scaled software packages EZSoftBasic and EZSoft are available for straightforward circuit diagram input. All software includes user-friendly menus and Help screens.

EZSoft offers the following display formats for viewing, editing and printing out your program:

- IEC format, with contact and coil symbols using international standards
- EZ circuit diagram, same as what is seen when programming from the EZ front panel
- ANSI format, in compliance with American standards

EZSoft supports users who are configuring, programming and defining parameters for EZ intelligent relays and creating visualization functions for EZD displays. When intelligent relays are connected to EZ-NET, all connected devices can be accessed and their programs loaded from a single intelligent relay.

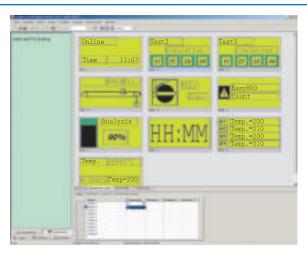


The integrated offline simulation tool allows users to test the functionality of the circuit diagram before commissioning, without the need for a connected device. The comment function for contacts, coils and function blocks helps provide a clear overview of the circuit diagram. A cover sheet with a customized company logo and different text fields, as well as the cross-reference list with comments, can turn printouts into the perfect documentation for applications.

#### **EZ** is maintenance-free

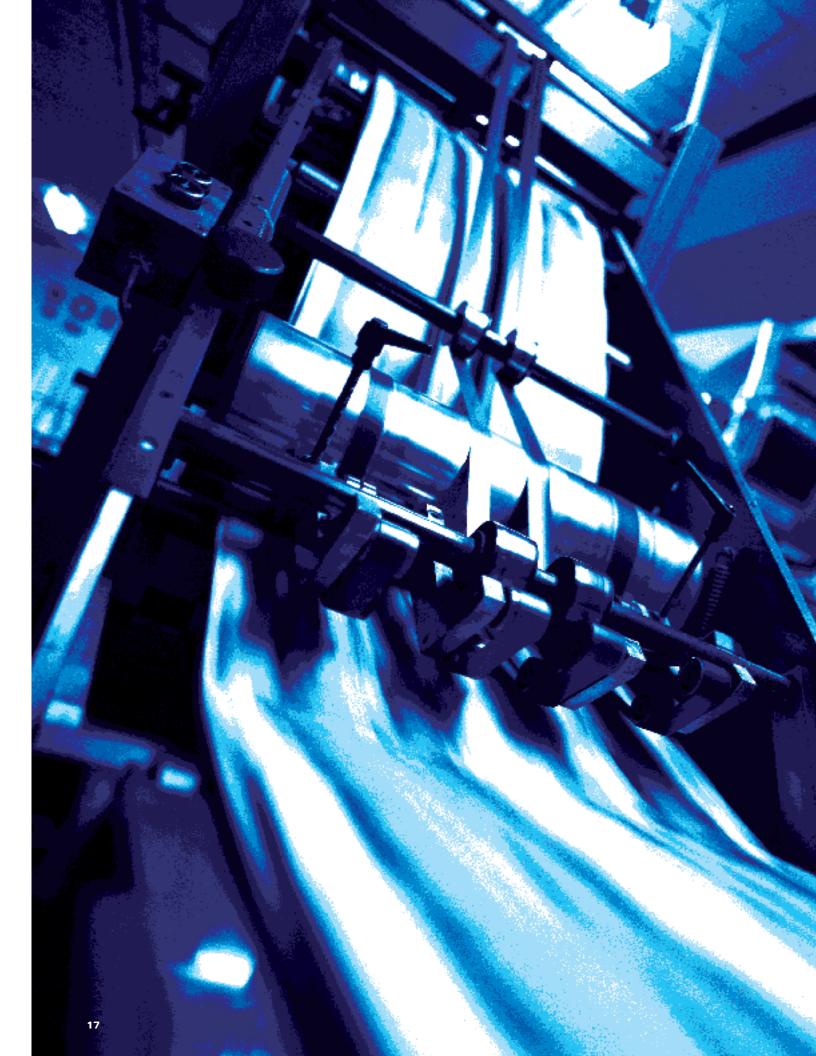
The finished program is stored in EZ's non-volatile memory until modified. Additional auxiliary power or batteries are not required. The intelligent relays are entirely maintenance-free.

Circuit diagrams and parameters are saved in the event of a power failure. If a power failure occurs, the EZ controller stores switch positions and values such as operating hours, meters, counters and timing relays. When power is restored the values are restored. This retentive feature for the different function blocks and data is available on all EZ intelligent relay models.









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