

# Product datasheet

Specifications



## Programmable receiver - 2 relays - 24..240 V AC/DC - 2 pusbuttons - 6 LEDs

ZBRRD

### Main

Range of product	Harmony
Product or component type	Programmable receiver
Device short name	ZBRRD
Product specific application	Interface to actuators
Function of module	Bi-stable Monostable
Reset time	2 ms time delay
Transmission frequency	2405 MHz
Emission class	5M00G7W
Antenna type	Omnidirectional

### Complementary

Nominal output current	0.3 A at 48 V DC conforming to IEC 60947-5-1 3 A at 24 V DC conforming to UL 508 1.5 A at 240 V AC conforming to IEC 60947-5-1 3 A at 120 V AC conforming to IEC 60947-5-1 3 A at 240 V AC conforming to UL 508 3 A at 24 V DC conforming to CSA C22.2 No 14 3 A at 240 V AC conforming to CSA C22.2 No 14
Output type	2 relays
Output contacts	2 C/O
Input output isolation	Galvanic isolation
Time delay range	0.5 s (tolerance: - 15...15 %)
Switching capacity in VA	1250 VA
Maximum switching current	5 mA AC/DC
Maximum switching voltage	250 V AC/DC
[Us] rated supply voltage	24...240 V AC/DC 50/60 Hz - 10...10 %
Communication port protocol	Zigbee green power at 2.4 GHz conforming to IEEE 802.15.4
Maximum sensing distance	100 m in free field 25 m transmitter in a plastic box type XAL D and receiver in a metal enclosure 40 m transmitter in box type XAL D, receiver in metal enclosure and use relay-antenna
Response time	< 30 ms after transmitter clicks
Utilisation category	AC-15 : B300 conforming to IEC 60947-5-1 DC-12 conforming to IEC 60947-5-1

Maximum power consumption in W	4 W AC/DC
Breaking capacity	15 W 750 VA
Control circuit frequency	50...60 Hz +/- 10 %
Short-circuit protection	0.4 A fuse type fast blow
Operating position	Any position without derating
Electrical connection	1 conductor cable 0.14...2.5 mm² - AWG 26...AWG 14 - solid - without cable end conforming to IEC 60947-1 2 conductors cable 0.14...1.5 mm² - AWG 26...AWG 16 - solid - without cable end conforming to IEC 60947-1 1 conductor cable 0.14...4 mm² - AWG 26...AWG 12 - flexible - with cable end conforming to IEC 60947-1 2 conductors cable 0.14...1.5 mm² - AWG 26...AWG 16 - flexible - with cable end conforming to IEC 60947-1
Tightening torque	0.5...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Status LED	1 LED green for power ON 2 LEDs green for relay ON 2 LEDs green for function mode 1 LED green and yellow for reception signal
Mounting support	35 mm symmetrical DIN rail conforming to IEC 60715 Mounting plate
Rated short-duration power frequency withstand voltage	1.5 kV 50 Hz conforming to IEC 60947-5-1
[Uimp] rated impulse withstand voltage	4 kV
Surge withstand	1 kV differential mode conforming to IEC 61000-4-5 2 kV common mode conforming to IEC 61000-4-5
Max power consumption in W	1 mW
Number of channels	1
Modulation Technique	O-QPSK
Bandwidth	5 MHz
Antenna gain	0 dBi
Width	36 mm
Height	108 mm
Depth	75 mm
Net weight	0.13 kg

## Environment

Standards	CSA C22.2 No 14 IEC 60947-5-1 UL 508 IEC 60947-1
Radio agreement	RSS SRRC ANATEL ARIB T66 FCC ICASA
Product certifications	CCC UL GOST CSA C-Tick
Marking	CE
Ambient air temperature for storage	-40...70 °C

Relative humidity	90 % at -20...55 °C, without condensation conforming to ETSI EN 300 440-1
Vibration resistance	+/- 7.5 mm (f= 5...14 Hz) conforming to IEC 60068-2-6 2 gn (f= 8...150 Hz) conforming to IEC 60068-2-6
Shock resistance	10 gn (duration = 16 ms) for 6000 shocks conforming to IEC 60068-2-27
IP degree of protection	IP20 (casing) conforming to IEC 60529 IP20 (terminals)
Pollution degree	2 conforming to IEC 60664-1
Overvoltage category	II conforming to IEC 60664-1
Insulation resistance	> 500 MOhm at 500 V DC conforming to NF C 20-030
[Ui] rated insulation voltage	250 V conforming to IEC 60664-1
Electromagnetic compatibility	Immunity for industrial environments conforming to IEC 61000-6-2 Conducted and radiated emissions class B conforming to CISPR 22 Electrostatic discharge immunity test - test level: 8 kV (in free air (in insulating parts)) conforming to IEC 61000-4-2 Electrostatic discharge immunity test - test level: 6 kV (on contact (on metal parts)) conforming to IEC 61000-4-2 Susceptibility to electromagnetic fields - test level: 10 V/m (80...2000 MHz) conforming to IEC 61000-4-3 Susceptibility to electromagnetic fields - test level: 3 V/m (80...2700 MHz, distance = 20 m) conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test - test level: 2 kV (relay wires) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 2 kV (power supply wires) conforming to IEC 61000-4-4 1.2/50 µs shock waves immunity test - test level: 1 kV (differential mode) conforming to IEC 61000-4-5 1.2/50 µs shock waves immunity test - test level: 2 kV (common mode) conforming to IEC 61000-4-5 Conducted RF disturbances - test level: 10 V conforming to IEC 61000-4-6 Immunity to microbreaks and voltage drops - test level: 10 ms conforming to IEC 61000-4-11 Radiated emission conforming to ETSI EN 300 440-1 Conducted emission conforming to EN 300-489-1 Conducted emission conforming to ETSI EN 300 489-3 Radiated emission conforming to ETSI EN 300 440-2
Electrical durability	100000 cycles
Mechanical durability	1000000 cycles

## Packing Units

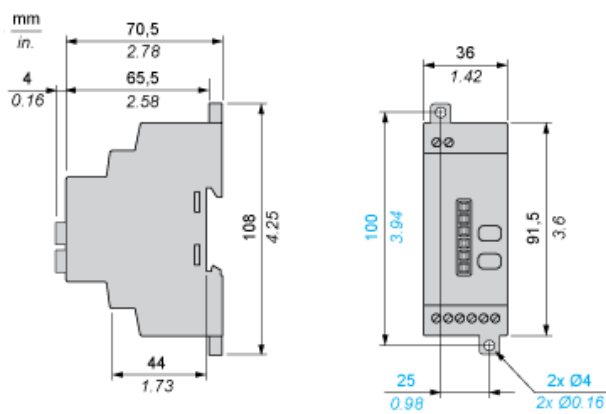
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.5 cm
Package 1 Width	7.9 cm
Package 1 Length	9.7 cm
Package 1 Weight	138.0 g
Unit Type of Package 2	S03
Number of Units in Package 2	64
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	9.541 kg

## Offer Sustainability

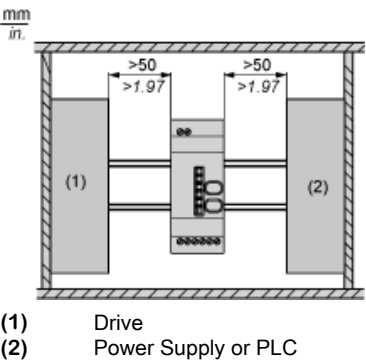
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	<a href="#">Yes</a>

Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>Contractual warranty</b>	
Warranty	18 months

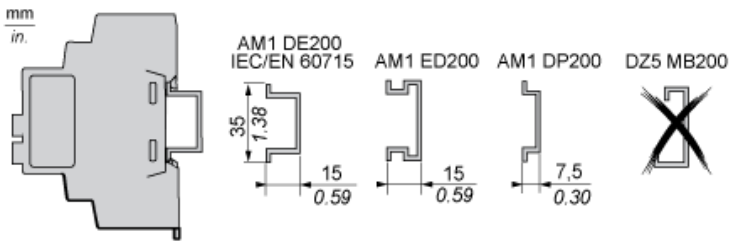
Programmable Receiver



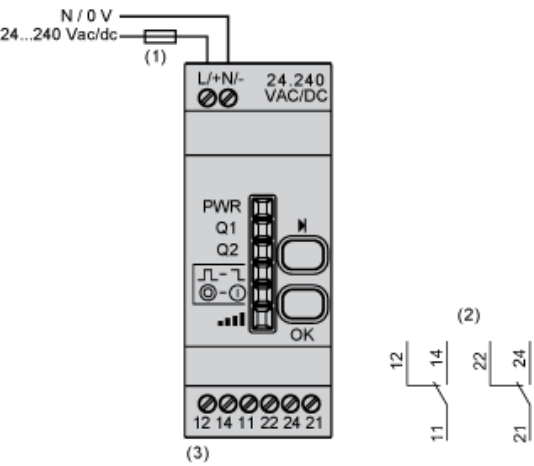
Receiver Clearance



Receiver Mounting

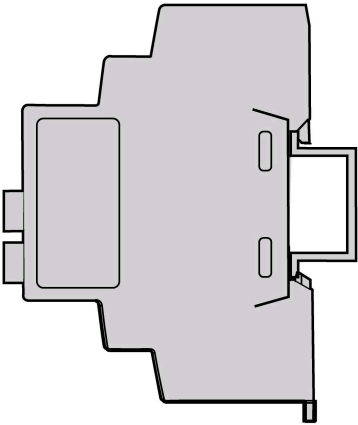
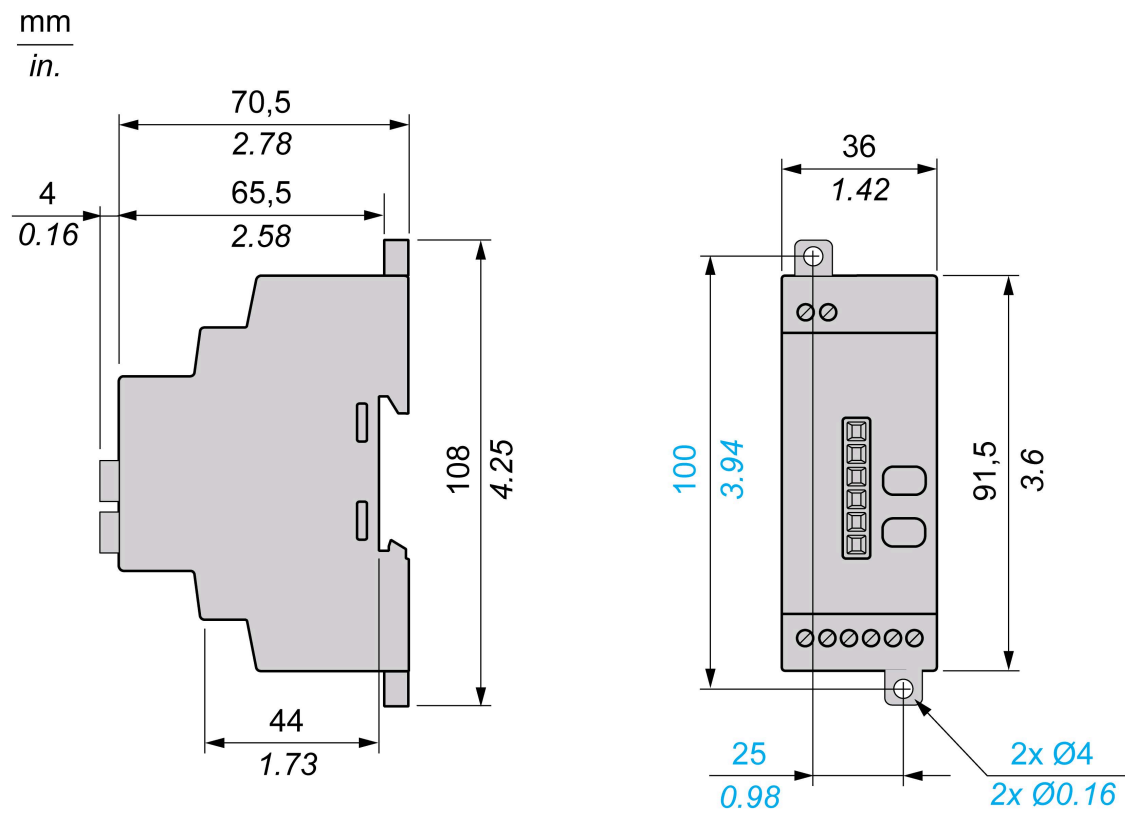


Programmable Receiver

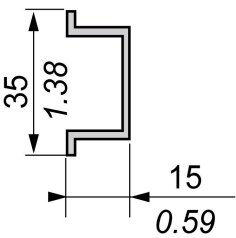


- (1)500 mA
- (2)Output contacts
- (3)Imax = 3 A

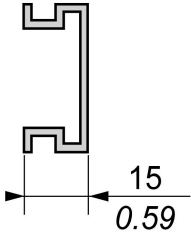
Dimensions



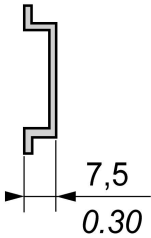
AM1 DE200  
IEC/EN 60715



AM1 ED200



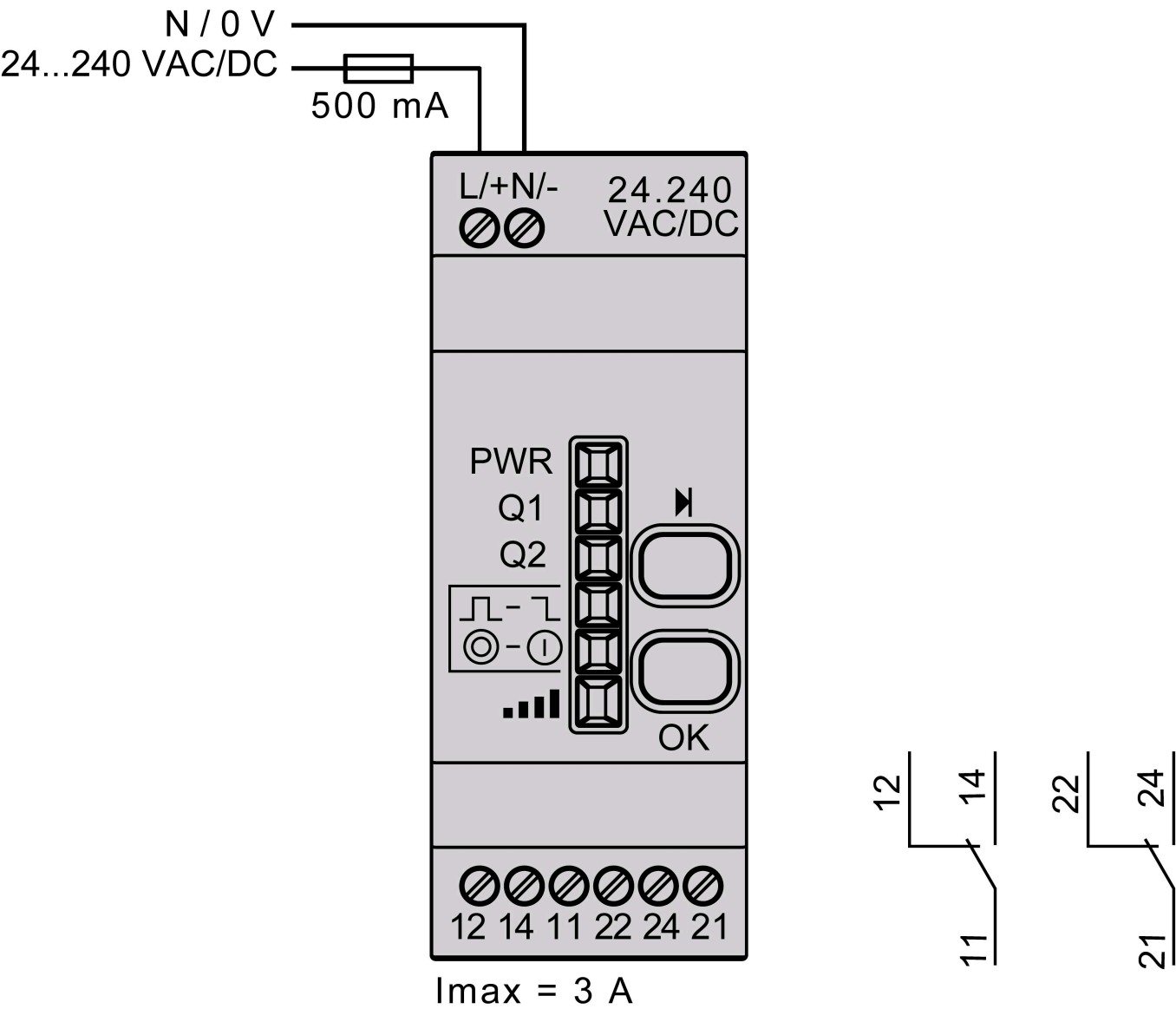
AM1 DP200



DZ5 MB200



Wiring Diagram



Recommended replacement(s)