

# BZ820-EV

## EVSE socket tester (single phase)



### Key features

- z Quick & easy EVSE socket testing
- z LEDs and buzzer indicate 28 fault conditions
- z High/low supply voltage indication
- z Type-2 plug connects directly to the EVSE charging point
- z Fast & easy testing for the correct wiring of L, N and PE
- z The 4 position switch simulates CP mode A, B, C and E
- z The Type-2 Connector LEDs indicate charger CP mode

The BZ820-EV is the ideal first-line tool for checking EV chargers fitted with Type-2 connectors. The unit detects 28 wiring fault conditions and also checks the voltage supply level. Correct polarity is indicated by three flashing green LEDs and a continuous audible tone. Fault conditions are clearly indicated by 3 red LEDs and a warning buzzer.

Socket polarity and earth wiring faults are identified by a combination of red LEDs. A look up chart on the tester provides basic fault diagnosis, further information is available in the product manual.

The BZ820-EV connects to an EVSE charging point using the Type-2 connector. The integral CP mode slider switch allows vehicle states to be simulated: - No vehicle connected (A), vehicle connected but not ready to charge (B) and vehicle connected and ready to charge (C). Mode C is used for testing. The additional “E” (error) setting simulates failure of the CP signal, which should cause the charger to inhibit charging. LEDs on the integral Type-2 plug show the status of the CP signal and if the voltage supply is present (L1).

### EZ820-EV Type-2 Connector mode specification

Vehicle State	State description	LED indications
A	No vehicle connected	None
B	Vehicle connected, not ready to charge	B only
C	Electric vehicle connected ready to charge (test mode)	C & L1 (single phase)
[E] Error	CP Error	None

FUNCTION	BZ820-EV
<b>ELECTRICAL</b>	
Nominal operating voltage	230V AC rms
Operating frequency	50Hz
Power consumption	<2.5W
Power	from mains socket under test
Standby	after approx. 10 minutes
Voltage low indication	<195V ± 5%
Voltage high indication	>270V ± 5%
Earth neutral voltage high indication	>30V nominal
Socket / test lead colours	L, N, PE in 3-wire cable
<b>GENERAL</b>	
Dimensions	91(L) x 80(W) x 38(D)mm
Weight	120g
<b>ENVIRONMENTAL</b>	
Location	Indoor & outdoor use in dry weather conditions only
Altitude	up to 2000m
Operating environment	-10°C to 40°C at max. 85%RH
Mains supply voltage fluctuations	± 10%
Overvoltage category	CAT III 300V
Pollution degree	2
<b>SAFETY</b>	
Conforms to	Conforms to BS EN 61010-1:2010+A1:2019 Class II, Reinforced insulation
<b>EMC</b>	
Conforms to	BS EN 61326-1

### Type-2 LED Connector Indication

Vehicle State	State description	CP-PE Resistance	CP Terminal Voltage
A	Electric vehicle not connected	Open ( $\infty$ )	±12V @ 1KHz
B	Vehicle connected, not ready to charge	2.74k $\Omega$	+9V/-12V @ 1KHz
C	Electric vehicle connected ready to charge (test mode)	882 $\Omega$	+6V/-12V @ 1KHz
[E] Error	CP Error simulation	0 $\Omega$	0V

Included  
BZ820-EV & instruction manual

Related products  
EZ890EV Advanced EVSE Socket Tester