

Power Latching Relay EW80

- 1 pole 80A, 1 form A (NO) contact
- Polarized bistable (latching), single coil version
- Shunt implementation optional
- Various terminal configurations



Typical applications
Electricity meters, pre-paid power meters



Approvals

UL E58304; CQC 09002031473

Contact Data

Contact arrangement	1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	440VAC
Rated current	80A
Breaking capacity max.	20kVA
Contact material	AgSnO ₂
Initial voltage drop	≤80mV @ 80A
Frequency of operation with/without load	360/3600h ⁻¹

Contact ratings - UL508

Load	Cycles
80A, 250VAC, resistive, 70°C	10 ³
TV-20, 120VAC, 70°C	25x10 ³
Mechanical endurance	10 ⁶

Coil Data

Magnetic system	polarized, bistable (latching)
Coil voltage range	5 to 24VDC
Min./Max. energization duration	100ms/1min at <10% duty factor

Coil versions, bistable 1 coil

Coil code	Rated voltage VDC	Set voltage VDC	Reset voltage VDC	Coil resistance Ω±10%	Rated coil power W
B005	5	4	4	25	1
B006	6	4.8	4.8	36	1
B009	9	7.2	7.2	81	1
B012	12	9.6	9.6	144	1
B024	24	19.2	19.2	576	1

All figures are given for coil without preenergization, at ambient temperature +23°C
Max. coil power: 130% of rated coil power
Other coil voltages on request

Coil operation

coil terminals	A1	A2
Pull-in	-	+
Reset	+	-

Contact position not defined at delivery

Insulation Data

Initial dielectric strength	
between open contacts	1500V _{rms}
between contact and coil	4000V _{rms}
Initial surge withstand voltage	
between contact and coil	10000V (1.2/50μs)
Clearance/creepage	
between contact and coil	≥6/9mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 175V

Other Data

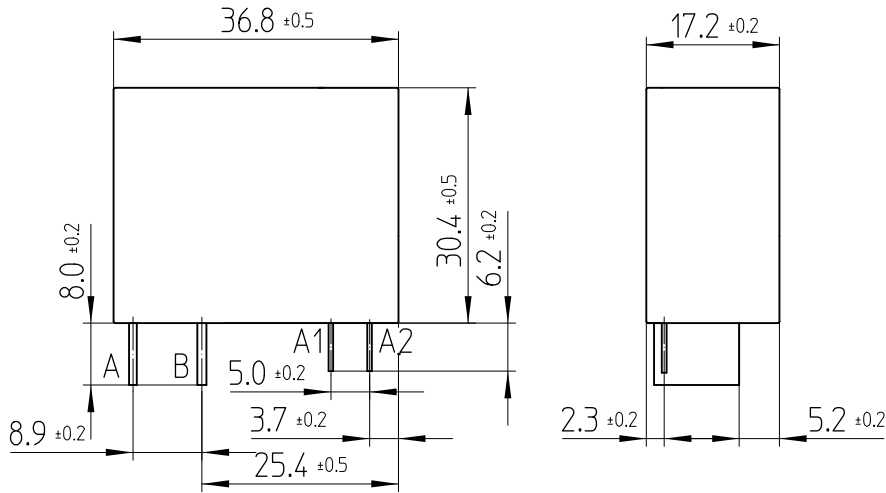
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter

Ambient temperature	-40 to 70°C
Category of environmental protection	
IEC 61810	RTI (dust protected)
Vibration resistance (functional)	1.5mm double amplitude ¹⁾
Shock resistance (functional)	50g
Shock resistance (destructive)	100g
Terminal type	Lugs and PC terminals
Weight	40g
Packaging/unit	tray/25 pcs., box/100 pcs.

¹⁾ 10...55Hz

Power Latching Relay EW80 (Continued)

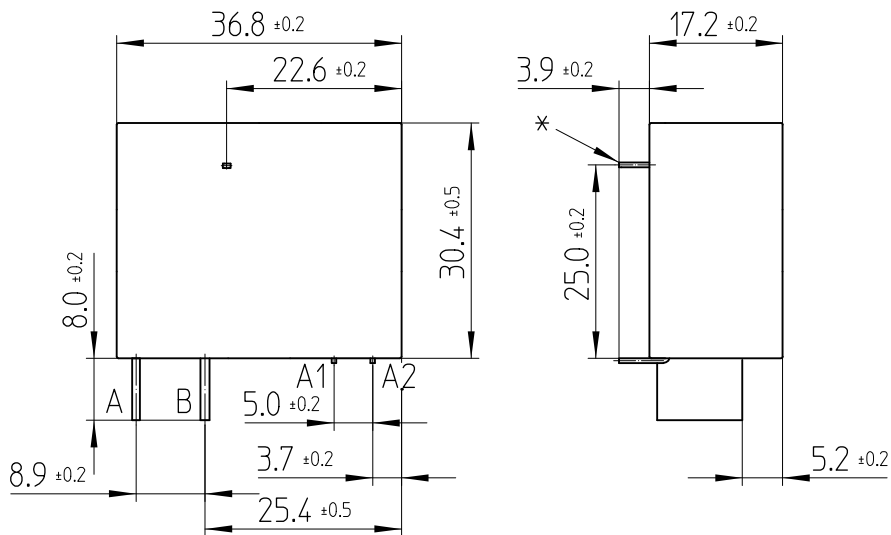
Dimensions



Vertical version, straight terminals

Contact terminals:
A: 11x1.0mm
B: 11x1.2mm

Coil terminals:
0.6 x0.6mm

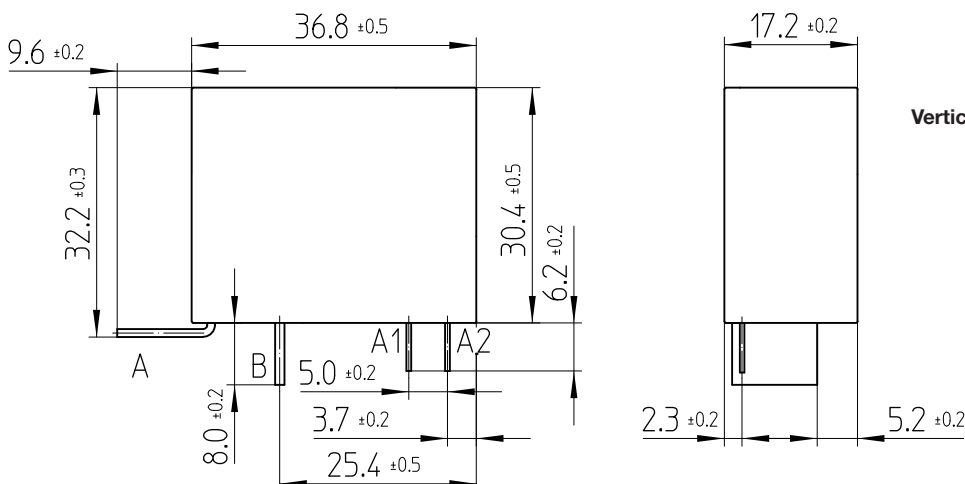


Horizontal version, straight terminals

Contact terminals:
A: 11x1.0mm
B: 11x1.2mm

Coil terminals:
0.6 x0.6mm

* auxiliary solder point 0.6 x1.0



Vertical version, angled terminals

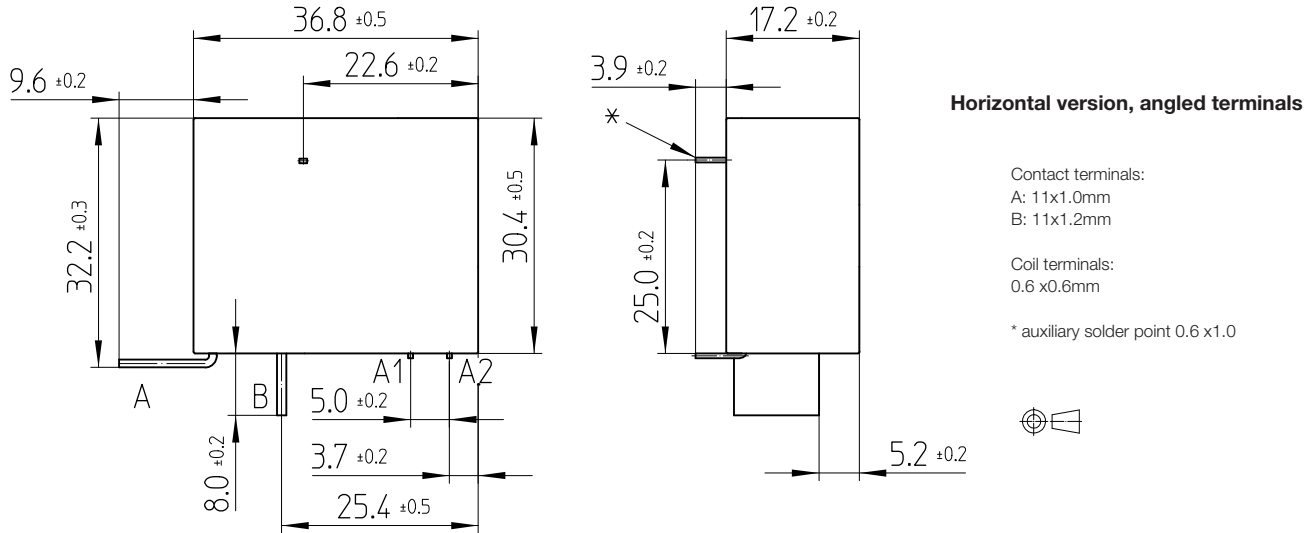
Contact terminals:
A: 11x1.0mm
B: 11x1.2mm

Coil terminals:
0.6 x0.6mm



Power Latching Relay EW80 (Continued)

Dimensions



Product code structure

Typical product code

EW 80 -1A 3 -B012 D 0 0

Type	EW Power Latching Relay EW
Version	80 80A, vertical version 81 80A, horizontal version
Contact arrangement	1A 1 form A (NO) contact
Contact material	3 AgSnO ₂
Coil	Coil code: please refer to coil versions table
Category of environmental protection	D Standard version (dust protected)
Shunt option	0 Standard (no shunt) 1 with 175μΩ shunt 2 with 250μΩ shunt 3 with 300μΩ shunt
Contact terminal configuration	0 Angled terminals 1 Angled terminals with holes 2 Straight terminals 3 Straight terminals with holes

Product code	Version	Design	Coil	Contact terminals	Part Number
EW80-1A3-B012D02	80A, 1 form A contact, dust protected	vertical	12V bistable	straight, no holes	2071239-4
EW80-1A3-B024D02			24V bistable		2071239-5
EW80-1A3-B005D00			5V bistable	angled, no holes	2071224-1
EW80-1A3-B006D00			6V bistable		2071224-2
EW80-1A3-B009D00			9V bistable		2071224-3
EW80-1A3-B012D00			12V bistable		2071224-4
EW80-1A3-B024D00			24V bistable		2071224-5

Other types on request

This list represents the most common types and does not show all variants covered by this data sheet.

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TE Connectivity:

[EW80-1A3-B005D00](#) [EW80-1A3-B006D00](#) [EW80-1A3-B009D00](#) [EW80-1A3-B012D00](#) [EW80-1A3-B012D02](#) [EW80-1A3-B024D00](#) [EW80-1A3-B024D02](#) [EW80-1A3-B009D00,00000](#)