

E-T-A Smart Power Protection Relay Type E-1048-8I. Multi-function compact power controller.



Technical Information

E-T-A Smart Power Protection Relay

Type E-1048-8I. (INLINE).

The Smart Power Protection Relay E-1048-8I is a true alternative to electro-mechanical d.c. relays and fuses. It combines the functions of a solid state relay and over-current protection for all DC 12 V and DC 24 V supply voltages. Requiring only a very low control current and with minimal current consumption with load off, the E-1048-8I is ideally suited for use in battery-buffered on-board electrical systems.

Optionally available functions provide essential additional information such as LED indication and status outputs for control or group fault signals in the event of over-current or wire breakage in the load circuit. The full-feature "deluxe" version provides a 0 – 5 V analogue output proportional to the load current, which can readily be incorporated into the power management of the overall system. The 7-pin INLINE

version plugs into an E-T-A type 17-P10-Si EN rail mounting socket. It offers three vital functions – switching, protection and monitoring – in a single device, thereby eliminating a number of terminations which are always a potential source of failure in on-board electrical systems or control cabinets.

Technical data

Rated voltage U_N	DC 12 V/24 V (9...32 V)
Current rating range I_N	1 A/2 A/3 A/5 A/7,5 A/10 A/15 A/20 A
Load output	power MOSFET, high side switching, internal current limitation
Current consumption I_0 (load off)	< 1 mA
Overload disconnection	typically $1.3 \times I_N$ after typically 200 ms (standard)
Control voltage I_{N+}	0...5 V = "OFF", / 8.5...32 V = "ON"
Control current I_E	1...10 mA
Control signal AS (option)	transistor output minus switching (LSS), short circuit and overload proof, max. 2 A
Group fault signal (option)	transistor output minus switching (LSS), short circuit and overload proof, max. 2 A
Analogue output U(I)	Analogue output ($1 \text{ V} = 0.2 \times I_N$)
Visual status indication (option)	LED yellow = AS / LED red = SF
Ambient temperature	-40...+85 °C (70 °C at $I_N = 20 \text{ A}$)
Vibration	6 g eff. (10 Hz...2000 Hz)
Shock	25 g/11 ms
Mounting	on E-T-A plug-in type socket 17-P10-Si (max. 16 A) or on printed circuit boards

Features and benefits

- Three functions in a single device:
 - electronic relay
 - electronic overcurrent protection
 - indication and diagnostic functions
- CE marking according to EMC directive
- Colour coded label indicating current rating




Circuit Protection & Control