

**E-T-A**  
A globe-spanning  
network



**Europe**

- Belgium
- Bosnia/Herzegovina
- Bulgaria
- Denmark
- Germany
- Finland
- France
- Ireland
- Italy
- Croatia
- Luxemburg
- Macedonia
- Montenegro
- Netherlands
- Norway
- Austria
- Poland
- Portugal
- Russia
- Sweden
- Switzerland
- Serbia
- Slovakia
- Slovenia
- Spain
- Czech Republic
- Turkey
- Hungary
- United Kingdom

**America**

- Argentina
- Brazil
- Chile
- Canada
- Mexico
- USA

**Asia**

- Brunei
- China
- Hong Kong
- India
- Indonesia
- Japan
- Korea
- Malaysia
- Philippines
- Singapore
- Taiwan
- Thailand

**Africa**

- South Africa
- Tunisia

**Oceania**

- Australia
- New Zealand

**Product overview**  
**Relays**



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# Product overview

## Relays



		EXR10	ETR10	ESR10 Micro 10 A	ESR10 Micro 17 A	ESR10 Micro 30 A	EPR	HPR	MPR
Specification	ISO 7588 socket, ISO Mini	●	●						
	ISO 7588 socket, ISO Micro			●	●	●			
	Screw terminals						M8	M8/M10	M8/M10
	μ controller	●	●					●	
	Power MOSFETs						●		
	PROFETs	●	●	●	●	●			
	Working principle	HSS	HSS	HSS	HSS	HSS	HSS	electromechanical	electromechanical
	On-board network voltage 12 V			●	●	●		●	●
	On-board network voltage 24 V			●	●			●	●
	On-board network voltage 12 V/24 V	●	●				●		
	Max. operating voltage [V]	32	32	16 or 32	16 or 32	16	36	16 or 32	16 or 32
	Max. continuous current [A]	30	30	10	17	30	200	300	300
	Holding power at 12 V [W]	0.024	0.024	0.102	0.102	0.102	0.030	0.0 (bistable)	0.0 (bistable)
	Holding power at 24 V [W]	0.096	0.096	0.215	0.215	n.a.	0.096	0.0 (bistable)	0.0 (bistable)
	Typical voltage drop at max. cont. current [mV]	140	140	75	75	50	85	175	175
	Typical closed current [μA]	150 or 300	150 or 300	8	8	5	2	300	0
	Max. switching current [A] (inductive)	250	250	60	100	100	260	300	300
	Max. temperature range [° C]	-40 ... 85 °C	-40 ... 85 °C	-40 ... 85 °C	-40 ... 105 °C	-40 ... 85 °C	-40 ... 85 °C	-40 ... 85 °C	-40 ... 85 °C
	Number of cycles with max. continuous current	>1,000,000	>1,000,000	>1,000,000	>1,000,000	>1,000,000	>1,000,000	>1,000,000	>50,000
	Max. switching frequency [Hz] at max. continuous current	10	10	200	100	100	1	1	1
Degree of protection	IP53	IP53	IP53	IP53	IP53	IP56	IP67/IP6k9k	IP67/IP6k9k	
Functions	Silent operation	●	●	●	●	●	●		
	Overcurrent detection and disconnection (analogue electronic circuitry)	●	●				●		
	Short circuit detection and disconnection (analogue electronic circuitry)	●	●				●		
	Feedback on actual current flow	●	●						
	Wire break detection	●	●						
	ON delay	●	●					●	
	OFF delay	●	●					●	
	Low voltage detection	●						●	
Input	Level control	●	●	●	●	●	●	●	
	Pulse control	●	●					●	●
	Parameterisable control filter	●	●					●	
	Automatic reset upon restore of standard condition (low voltage detection)	●						●	
	Reset after overload or short circuit trip by switching off and on	●	●				●		
	Parameterisable re-start interlock (time slot can be specified)	●	●						
Output	Signal of group fault (voltage level)	●	●				●		
	Signal of group fault (LED)								
	Control signal (voltage level)	●	●						
	Control signal (LED)								
	Parameterisable frequency output	●	●						
	Parameterisable output of a pulse	●	●					●	