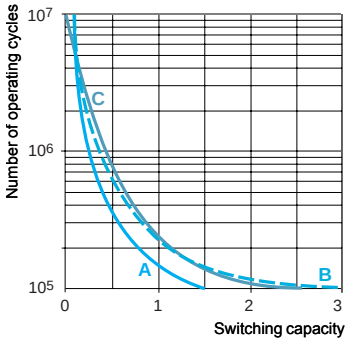
Zelio Relay - plug-in relays
Miniature relays

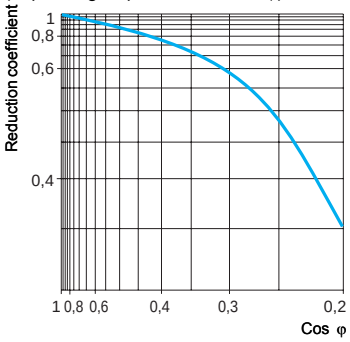
Relay type				RXL 2A12B●●●	RXL 3A10B●●●	RXL 4A06B●●●	RXL 4G06B●●●
Contact characteristics							
Number and type of contacts				2 C/O	3 C/O	4 C/O	
Contact materials				AgNi			AgNi/AU 5 µ
Conventional rated thermal current (Ith)	For temperature ≤ 40 °C		**A**	12	10	6	
Maximum operating rate In operating cycles/h	No-load			18 000			
	Under load			1200			
Switching voltage	Minimum		**V**	5			
	Maximum		**V**	∼ 250, ⎓ 250			
Switching capacity	Minimum		**mA**	5	5	5	2
	Maximum		**VA**	3000	2500	1500	1500
Coil characteristics							
Rated voltage (Un)		∼	**V**	24…230, 50/60 Hz			
		⎓	**V**	12…110			
Average consumption		∼	**VA**	1.6			
		⎓	**W**	0.9			
Permissible voltage variation				0.8…1.1 Un (50/60 Hz or ⎓)			
Drop-out voltage threshold		∼		≥ 0.15 Un			
		⎓		≥ 0.1 Un			
Environment							
Conforming to standards	Standard version			IEC 61810-1			
Product certifications (pending)	Standard version			UL, CSA			
Ambient air temperature around the device	Storage		**°C**	- 40…+ 85			
	Operation		**°C**	⎓ - 40…+ 70, ∼ - 40...+ 55			
Vibration resistance	Conforming to IEC 68-2-6			> 5 gn (10…150 Hz)			
Degree of protection				IP 40			
Shock resistance				10 gn (closing), 5 gn (opening)			
Mechanical durability	In millions of operating cycles			≥ 20		≥ 20	
Operating time (response time)	Between coil energisation and making of the On-delay contact	∼	**ms**	About 12			
		⎓	**ms**	About 12			
	Between coil de-energisation and making of the Off-delay contact	∼	**ms**	About 12			
		⎓	**ms**	About 4			
Electrical durability In millions of operating cycles/h	Resistive load			12 A - 250 V : ≥ 0.1	10 A - 250 V : ≥ 0.1	6 A - 250 V : ≥ 0.1	
	Inductive load			See curves below			
Insulation characteristics							
Rated insulation voltage (Ui)	Conforming to IEC 947		**V**	250			
Insulation class	Conforming to VDE 0110			C 250		B 250	
Dielectric strength (rms voltage)	Between coil and contact	∼	**V**	2500			
	Between poles		**V**	2500		2000	
	Between contacts	∼	**V**	1500			

Electrical durability of contacts
Resistive load ∼



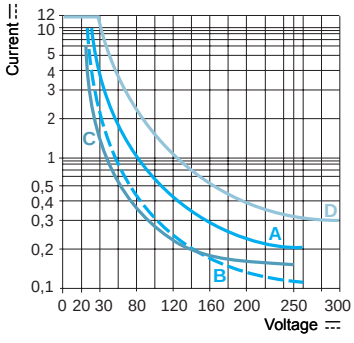
A ***RXL 4***
B ***RXL 2***
C ***RXL 3***

Reduction coefficient for inductive load (depending on power factor cos φ)



— ***RXL 2, RXL 3 et RXL 4***

Breaking capacity on a resistive load ⎓



A ***RXL 3*** *(T = 0 ms)*
B ***RXL 3*** *(T = 40 ms)*
C ***RXL 4***
D ***RXL 2***

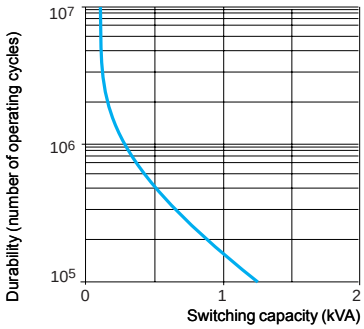
Durability (inductive load) = durability (resistive load) x reduction coefficient

References : pages 28042/4 and 28042/5
Dimensions : page 28046/2
Schemes : page 28047/2

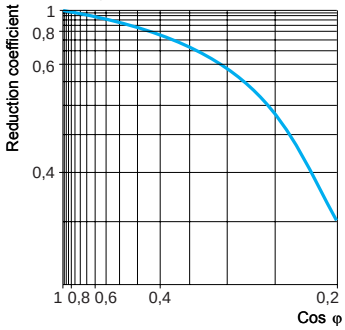
Zelio Relay - plug-in relays
Miniature relays

Relay type			RXN 21E1●●●	RXN 41G1●●●
Contact characteristics				
Number and type of contacts			2 C/O	4 C/O
Contact materials			AgNi	
Rated thermal current (Ith)	For temperature ≤ 40 °C	**A**	5	
Maximum operating rate In operating cycles/h	No-load		18 000	
	Under load		1200	
Switching voltage	Minimum	**V**	Minimum: 5, maximum: 250 ∼ , 250 ⎓	
Breaking capacity	Minimum	**mA**	10	
	Maximum	**VA**	1250	
Coil characteristics				
Rated voltage (Un)		**V**	⎓ 12…110, ∼ 24…230, 50/60 Hz	
Average consumption			⎓ 0.9 W, ∼ 1.6 VA	
Permissible voltage variation			0.8…1.1 Un (50/60 Hz or ⎓)	
Drop-out voltage threshold			⎓ ≥ 0.1 Un, ∼ ≥ 0.15 Un	
Environment				
Conforming to standards	Standard version		IEC 61810-1	
Approvals (pending)	Standard version		CSA, UL	
Ambient air temperature around the device	Storage	**°C**	- 40…+ 70	
	Operation	**°C**	- 20…+ 50	
Vibration resistance	Conforming to IEC 68-2-6		> 5 gn (30…150 Hz)	
Degree of protection			IP 40	
Shock resistance			20 gn	
Mechanical durability	In millions of operating cycles		20	
Operating time (response time)	Between coil energisation ∼ and making of the ⎓ On-delay contact	**ms**	About 12	
		ms	About 12	
	Between coil de-energisation ∼ and making ⎓ of the Off-delay contact	**ms**	About 12	
		ms	About 4	
Electrical durability In millions of operating cycles/h	Resistive load		5 A / 250 V : ≥ 0.1	
	Inductive load		See curves below	
Insulation characteristics				
Rated insulation voltage (Ui)	Conforming to IEC 947	**V**	250	
Insulation class	Conforming to VDE 0110		A 250	
Dielectric strength (rms voltage)	Between coil and contact ∼	**V**	2000	
	Between poles	**V**	2000	
	Between contacts ∼	**V**	1500	

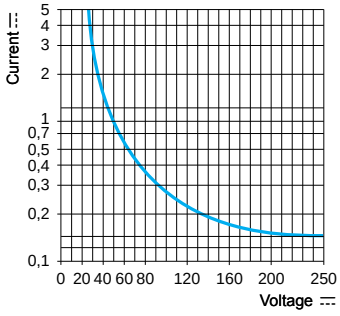
Electrical durability of contacts
Resistive load ∼



Reduction coefficient for inductive load (depending on power factor cos φ)



Breaking capacity on a resistive load ⎓



Durability (inductive load) = durability (resistive load) x reduction coefficient

Socket type		RXZ	E1S108M	E1S111M	E1S114M	E1M114M	E1M114	7G
Socket characteristics								
Conventional rated thermal current (Ith)		**A**	12			12	7	6
Insulation class			C 250					
Degree of protection			IP 20					
Product certifications			CSA, UR					
Connection	Solid cable without cable end		2 x 2.5 mm²				2 x 1.5 mm²	2 x 2.5 mm²
	Flexible cable with or w/o cable end		2 x 1.5 mm²					
Arrangement of coil/contact terminals			Separate			Mixed		
Type of protection module			**RZM** type E				–	**RXW** type L
Relay types used			**RXL 2 RXN 21**	**RXL 3**	**RXL 4 RXN 4**	**RXL 4 RXN 4**	**RXL 2** *(1)*, **RXN 21 RXL 4, RXN 41**	**RXN 21 RXN 41**

(1) Limited to 7 A in operation.

References : pages 28042/4 and 28042/5
Dimensions : page 28046/2
Schemes : page 28047/2

Zelio Relay - plug-in relays
Miniature relays

560586

RXN 21E12BD + RXZ E1M114

1087S0-26-s

RXL 4A06B1BD + RXZ E1S114M

560588

RXL 2A12B2BD + RXZ P20 + RXZ E1S108M

560589

RXL 3A10B2BD + RZM 031RB + RXZ P10 + RXZ E1S111M

References

Relays for standard applications *(1)*

Number of C/O contacts	Conventional rated thermal current	LED	Sold in lots of	Unit reference, to be completed by adding the control voltage code (2)	Weight
	A				kg
2	5	Red	10	**RXN 21E12●●**	0.035
		Without	10	**RXN 21E11●●**	0.034
	12	Red	10	**RXL 2A12B2●●**	0.036
		Without	10	**RXL 2A12B1●●**	0.035
3	10	Red	10	**RXL 3A10B2●●**	0.036
		Without	10	**RXL 3A10B1●●**	0.035
4	5	Red	10	**RXN 41G12●●**	0.035
		Without	10	**RXN 41G11●●**	0.034
	6	Red	10	**RXL 4A06B2●●**	0.036
		Without	10	**RXL 4A06B1●●**	0.035

Relays with gold-flashed contacts *(1)*

4	6	With	10	**RXL 4G06B2●●**	0.036
		Without	10	**RXL 4G06B1●●**	0.035

Protection modules for sockets RXZ 7G

Description	Type	Voltage	Sold in lots of	Unit reference	Weight
		V			kg
Diode	**L**	⎓ 12…250	10	**RXW 040MD**	0.010

Protection modules for relay/sockets RXZ E●●●●M

Diode		⎓ 6…230	10	**RZM 040W**	0.003
Diode + green LED	**E**	⎓ 6…24	10	**RZM 031RB**	0.004
		⎓ 24…60	10	**RZM 031BN**	0.004
		⎓ 110…230	10	**RZM 031FPD**	0.004
Varistor + green LED	**E**	⎓ or ∿ 6…24	10	**RZM 021RB**	0.005
		⎓ or ∿ 24…60	10	**RZM 021BN**	0.005
		⎓ or ∿ 110…230	10	**RZM 021FP**	0.005
RC circuit	**E**	∿ 24…60	10	**RZM 041BN7**	0.010
		∿ 110…240	10	**RZM 041FU7**	0.010

(2) Standard control circuit voltages

Volts		12	24	48	110	120	230
⎓		JD	BD	ED	FD	–	–
∿ (50/60 Hz)	RXN	–	B7	E7	F7	–	P7
	RXL	–	B7	E7	–	F7	P7

For other voltages, please consult your Regional Sales Office.

Coil characteristics

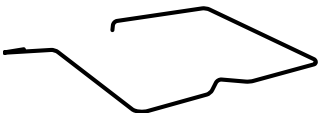
Control circuit voltage Uc	d.c. supply: Average resistance at 20 °C ± 10%	Cod.	Operating voltage limits: Min.	Max.	a.c. supply 50/60 Hz: Average resistance at 20 °C ± 15 %	Cod.	Operating voltage limits: Min.	Max.
V	Ω		V	V	Ω		V	V
RXN relays								
12	160	**JD**	9.6	13.2	–	–	–	–
24	640	**BD**	19.2	26.4	150	**B7**	19.2	26.4
48	2600	**ED**	38.4	52.8	635	**E7**	38.4	52.8
110	13 600	**FD**	88	121	–	**F7**	–	–
230	–	–	–	–	15 400	**P7**	184	253
RXL relays								
12	160	**JD**	9.6	13.2	–	–	–	–
24	640	**BD**	19.2	26.4	158	**B7**	19.2	26.4
48	2600	**ED**	38.4	52.8	640	**E7**	38.4	52.8
110	13 600	**FD**	88	121	–	–	–	–
120	–	–	–	–	3770	**F7**	96	132
230	–	–	–	–	16 100	**P7**	184	253

(1) These relays have a lockable Test button on their front face, which can be converted to non-lockable or can be eliminated; see accessories on page opposite.

Characteristics : pages 28042/2 and 28042/3
Dimensions : page 28046/2
Schemes : page 28047/2

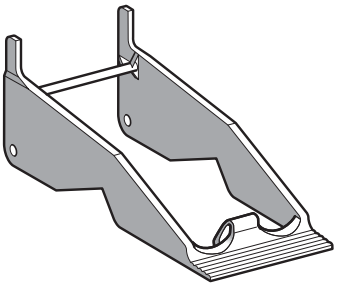
Zelio Relay - plug-in relays
Miniature relays

560590



RXZ 200

560591



RXZ R235

Sockets *(1)*

Protection module	Application	Type	I/O	Sold in lots of	Unit reference	Weight kg
Without	RXN 21, RXN 41, RXL 2A12 and RXL 4	–	Mixed	10	**RXZ E1M114**	0.048
With	RXN 21, RXN 41	L	Mixed	10	**RXZ 7G**	0.055
	RXN 21, RXL 2	E	Separate	10	**RXZ E1S108M**	0.058
	RXL 3A10	E	Separate	10	**RXZ E1S111M**	0.065
	RXN 4, RXL 4	E	Separate	10	**RXZ E1S114M**	0.070
		E *(2)*	Mixed	10	**RXZ E1M114M**	0.070

Accessories

Description	Application	Sold in lots of	Unit reference	Weight kg
Button	For non-lockable Test function	20 *(3)*	**RXZ P20**	0.001
Blanking cover	For elimination of Test function	20 *(3)*	**RXZ P10**	0.001
Metal maintaining clamps	For use on all sockets	10	**RXZ 200**	0.001
Plastic maintaining clamps	RXZ E	10	**RXZ R235**	0.005
Legends	Clip-in fixing on socket RXZ-7G	10	**RXZ 300**	0.010
	Clip-in fixing on socket RXZ-7 in place of module RXW 040MD	10	**RXZ 310**	0.011
	Clip-in fixing on socket RXZ-E, except RXZ E1M114	10	**RXZ L320**	0.001

*(1) A bag containing ten **RXZ 300** legends is supplied with sockets **RXZ 7G**.*
__RXZ E1M114__ : 7 A, ∼ 300 V.
__RXZ 7G__ : 6 A, ∼ 300 V.
__RXZ E1S●●●M__ : 12 A, ∼ 300 V.
*(2) Each socket **RXZ E1M114M** is delivered with a legend **RXZ L320**.*
(3) 10 red and 10 green.

Characteristics : pages 28042/2 and 28042/3
Dimensions : page 28046/2
Schemes : page 28047/2