Kuhnke Technical Data



The following page(s) are extracted from multi-page Kuhnke product catalogues or CDROMs and any page number shown is relevant to the original document. The PDF sheets here may have been combined to provide the fullest possible technical information about the specific product(s) you have selected. In the original hard copy catalogues the data may have been in more than one section.

Hard copy product catalogues, and CDROMs have been published describing Kuhnke Pneumatics, Solenoids, Relays and Electronics; some divided into different books. A list of current publications is available on the main Kuhnke website www.kuhnke.co.uk or from our sales offices.

Contact Details

Kuhnke sales and service in the UK & Republic of Ireland.

H. Kuhnke Ltd Unit 21 Abbey Enterprise Centre Premier Way Romsey Hampshire SO51 9AQ Great Britain

T: +44 (0)1794 514445 F: +44 (0)1794 513514 Email: <u>sales@kuhnke.co.uk</u> Website: <u>www.kuhnke.co.uk</u>

Worldwide delivery service available.

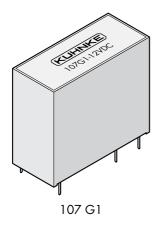
Important Note

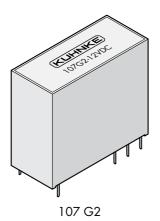
The information shown in these documents is for guidance only. No liability is accepted for any errors or omissions. The designer or user is solely responsible for the safe and proper application of the parts, assemblies or equipment described.

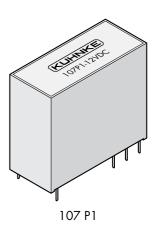


PCB Relay 107

- Standard type **N**/®
 Immunity to flux
 1 C/O 10/16 A, 2 C/O 7 A
 Insulation group C250







Order Code

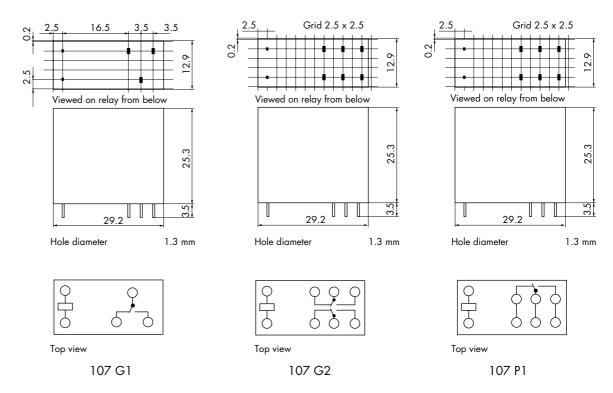
Order code	107	G	1	-	24 V	DC	E
Type of relay	107						
Model							
G For printed circuit		G					
P For printed circuit (16 A)		Р					
Contact arrangement							
1 C/O (Model G/P)			1				
2 C/O (Model G)			2				
Nominal operation coil voltage (see coil data)							
24 V					24 V		
Coil current type							
DC Direct current						DC	
E High resistance coil							Е
Extension							
W Washable (on request)							W

Contact Data

	107G1	107G2	107P1
Contact arrangement	1 C/O	2 C/O	1 C/O
Type of contact	Single contact	Single contact	Single contact
Contact material	AgCdO	AgCdO	AgCdO
Nominal contact current	10 A	7 A	16 A
Inrush current	≤ 10 A	≤ 5 A	≤ 16 A
Nominal contact voltage	150 VDC / 250 VAC	150 VDC / 250 VAC	150 VDC / 400 VAC
Max. switching capacity (resistive)	240 W / 2400 VA	120 W / 1200 VA	480 W / 4000 VA
Min. switching capacity	100 mA / 5 VDC	100 mA / 5 VDC	100 mA / 5 VDC



Dimensions, Connection Diagram(s)



General Data

	107 G1	107 G2	107 P1
Pull-in-time	approx. 10 ms	approx. 10 ms	approx. 20 ms
Drop-out time	approx. 5 ms	approx. 5 ms	approx. 10 ms
Bounce time	approx. 6 ms	approx. 8 ms	approx. 6 ms
Mechanical service life		> 20 x 10 ⁶ switching cycles	
Test voltage			
Coil - contact (striking distance ≥ 8 mm)	4000 VAC	4000 VAC	4000 VAC
(C/O) - (C/O)		2500 VAC	
Contact - contact	1000 VAC	1000 VAC	1000 VAC
Insulation group VDE 0110b/2.79		C250	
Ambient temperature	-5 °C to +70 °C		
Vibration resistance (30 - 100 Hz)	> 4 g		
Weight	арргох. 18 д		
Operating range	Class 1 (0.8 – 1.1 U _N)		
Pull-in			
after coil excitation with U _N at T _U		20 °C	
Drop-out	> 0.05 U _N		

Coil Data

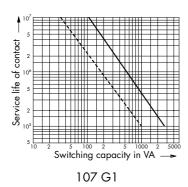
Coil voltage	High resistance 107 E Pull-in power approx. 0.26 W Nominal operation coil power approx. 0.52 W		
Nominal voltage (V)	Nominal resistance (Ω)	Nominal current (mA)	
6	68	88	
12	270	44	
24	1100	22	
48	4400	11	

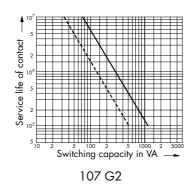


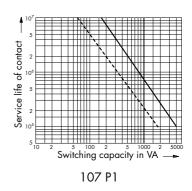
Electrical Service Life

Electrical Service Life AC

90 % operating
resistive load
resistive load $\cos \varphi = 0.4 \dots 0.7$

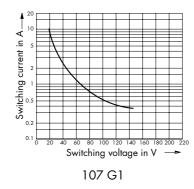


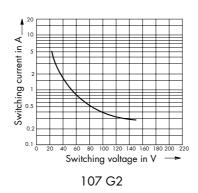


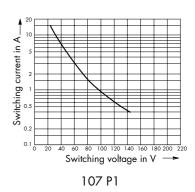


Switching Capability DC

Below limiting characteristic: service life of contacts 1×10^6 switching cycles (90 % operating) resistive load





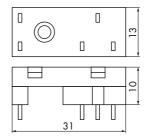


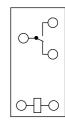
Order Details for Accessories 107

Relay		107 G1	107 G2/P1
Socket for	Screw connection with quick-action fastening	Z318.02 Safe separation	Z319.02
	printed circuit	Z316.01	Z317.01
Modules for socket	Z318.02, Z319.02	Z318.51 Protection/luminous diode 24 VDC	Modules as for 107 G1
		Z318.52 Luminous diode 24 VAC/DC	
		Z318.53 Protection diode DC	
		Z318.54 24 VAC with varistor	
		Z318.55 230 VAC with varistor	
		Z318.58 110/230 VAC LED	
Retaining clip		Z421 for socket Z316.01	Z421 for socket Z317.01
Retaining clip	for 107	Z439 for socket Z318.02	Z439 for socket Z319.02

Socket **Z316.01**



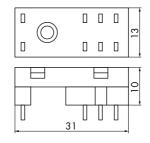


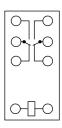


Socket	Z316.01
Socket design	Safe separation
Terminal capacity	Soldered pins
Mounting	PCB mount
Nominal current	12 A
Insulation group VDE 0110b/2.79	C250
Weight	арргох. 3.5 g
Retaining clip	Z420 (171 only)

Socket **Z317.01**

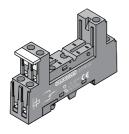


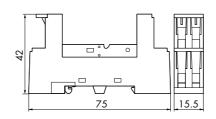


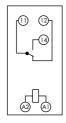


Socket	Z317.01
Socket design	Safe separation
Terminal capacity	Soldered pins
Mounting	PCB mount
Nominal current	12 A
Insulation group VDE 0110b/2.79	C250
Weight	арргох. 3.5 g
Retaining clip	Z420 (171 only), Z421 (107 G2/P1 only)

Socket Z318.02

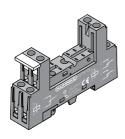


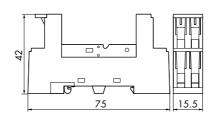


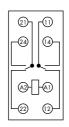


Socket	Z318.02
Socket design	Safe separation, logical, additional modules supported
Terminal capacity	
solid conductor	$2 \times 2.5 \text{ mm}^2$
flexible conductor with ferrule	2 x 1.5 mm ²
Terminal designation	in accordance with EN50005
Mounting	Rail EN50022-35 x 7.5/15 Screw mounting M3
Screw terminals	Head screws metric M3
Torque in accordance with DIN EN 60999	0.5 Nm
Nominal current	12 A
Insulation group VDE 0110b/2.79	C250, B380
Electrical shock protection	in accordance with VBG4 (professional association), VDE 0106 part 100
Weight	22 g
Eject/retain clip	Z438 for 171 G1

Socket Z319.02



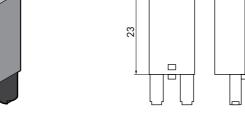




Socket	Z319.02
Socket design	logical, additional modules supported
Terminal capacity	
solid conductor	2 x 2.5 mm ²
flexible conductor with ferrule	2 x 1.5 mm ²
Terminal designation	in accordance with EN50005
Mounting	Rail EN50022-35 x 7.5/15
	Screw mounting M3
Screw terminals	Head screws metric M3
Torque in accordance with DIN EN 60999	0.5 Nm
Nominal current	12 A
Insulation group VDE 0110b/2.79	C250, B380
Electrical shock protection	in accordance with VBG4 (professional association), VDE 0106 part 100
Weight	22 g
Eject/retain clip	Z438 for 171, Z439 for 107 G/P1

Modules for Socket Z318.02 and Z319.02







Protection / luminous diode for 6 - 24 VDC



Z318.52 LED for 6 - 24 VAC / DC



Z318.53
Protection diode



Z318.54 Varistor for 24 VAC

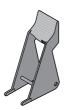


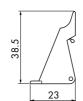
Z318.55 Varistor for 230 VAC

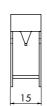


Z318.58 LED for 110 / 230 VAC

Eject/retain Clip **Z438** (for Z318.02 and Z319.02 with relay 171)







Eject/retain Clip Z439 (for Z319.02 with relay 107 G2 and 107 P1)

