



**GESSMANN**

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## Technical Data

5/100

Utilization categories for control switches to IEC 947-5-1 EN 60947 DIN VDE 0660-200.

Type of current	Utilization category	Typical examples of application	Normal conditions of use					
		I = current made, Ic = current broken Ie = rated operational current, U = voltage before make Ue = rated operational voltage Ur = recovery voltage t 0,95 = time in ms, to reach 95% of the steady-state current. P = Ue · Ie = steady-state power consumption in watts	Make Break					
			$\frac{I}{Ie}$	$\frac{U}{Ue}$	$\cos \varphi$	$\frac{Ic}{Ie}$	$\frac{Ur}{Ue}$	$\cos \varphi$
AC	AC 12	Control of resistive loads and solid state loads with isolation by opto couplers	1	1	0,9	1	1	0,9
	AC 15	Control of a.c. electromagnetic loads(> 72 VA)	10	1	0,3	1	1	0,3
			$\frac{I}{Ie}$	$\frac{U}{Ue}$	t 0,95	$\frac{Ic}{Ie}$	$\frac{Ur}{Ue}$	t 0,95
DC	DC 12	Control of resistive loads and solid state loads with isolation by opto couplers	1	1	1 ms	1	1	1 ms
	DC 13	Control of d.c. electromagnets	1	1	6 · P	1	1	6 · P

The value 6 · P results from an empirical relationship with is found to represent most d.c. magnetic loads to an upper limit of P = 50 W viz 6 · P = 300 ms. Loads having power consumption greater than 50 W are assumed to consist of smaller loads in parallel. Therefore 300 ms is to be an upper limit, irrespective of the power consumption value.

Attach our switching device	V6 S6	N6 DD64	V11	V5 S2-S23	VV5 SS2	V8 D8	VV8	V10	V3	dead man's button signal button push button	
Rated isolation voltage in Volt	Ui	250	250	250	250	250	110	110	110	500	250
Rated operational voltage in Volt	Ue	250	250	250	250	250	110	110	110	350	250
Rated operational current in Ampere	Ie	6 or 10 AC 12	6 or 10	6 or 10	6	6	2	2	2	10	6
	AC 15	2 4	2 4	2 4	2	2	0,5	0,5	0,5	4	2
DC 12	24 V 48 V 110 V 220 V	6 8 2 4 0,5 1 0,1 0,5	6 8 2 4 0,5 1 0,1 0,5	6 8 2 4 0,5 1 0,1 0,5	4 2 0,2 0,1	4 2 0,2 0,1	2 1 0,1	2 1 0,1	2 1 0,1	8 4 1 0,5	4 2 0,2 0,1
Contacts gold-coated	24 V	5 mA	5 mA	5 mA	5 mA	5 mA	5 mA	5 mA	5 mA	5 mA	5 mA
DC 13	24 V 48 V 110 V 220 V	1 0,5 0,2 0,05	1 0,5 0,2 0,05	1 0,5 0,2 0,05	3 1,5 0,1 0,05	3 1,5 0,1 0,05	1,5 0,5 0,05	1,5 0,5 0,05	1,5 0,5 0,05	1 0,5 0,2 0,05	3 1,5 0,1 0,05
Short-circuit-protection in Ampere											
Fuse 9 L	6 10	6 10	6 10	6 10	6	6	4	4	4	10	6
Circuit-breaker G-characteristic	6 10	6 10	6 10	6 10	6	6	4	4	4	10	6
Terminal screws Plug-in connection	M 3,5	M 3,5	M 3,5	M 3,5 6,3 x 0,8	M 3,5 6,3 x 0,8		Solder terminal			M 4 6,3 x 0,8	M 3,5 6,3 x 0,8
Conductor sizes in mm <sup>2</sup> finely stranded with end steeves	1,5	1,5	1,5	1,5	1,5	0,5	0,5	0,5	0,5	1,5	1,5
Mechanical life in million (operation cycles) max. switching frequency c/h 1000	10	20	10	6	10	8	12	6	6	10	
Mechanical shock resistance to IEC 68-2-27	Shock-amplitude > 15 Shock duration 20 ms										
Clearances and creepage distances to IEC 947-1; 2.5.46.51	Overvoltage category III pollution grade 3										
Degree of protection to IEC 529 DIN 40050	IP 00	1. numerical protection of contact and foreign bodies No protection					2. numerical protection of water No protection				
	IP 54	Protection deposits of dust					Protection splashing of water				
	IP 65	Protection complete of dust					Protection hosed of water				
	IP 66	Protection complete of dust					Protection hosed strong of water				