

Assignment of Contacts

Device Combinations in Accordance with IEC 60947-1 / -4-1

Table valid for : AC / DC = 0.85...1.1 x U_s , $T_{amb.} = -25\text{ }^\circ\text{C} \dots +60\text{ }^\circ\text{C}$, normal position (horizontal rail mounting). Also valid for Bulletin 700-KR relays and Bulletin 100-KR auxiliary contacts. ★








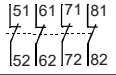
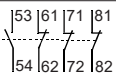
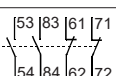
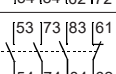
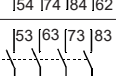
Auxiliary Contact Blocks		Control Relays 700-K (AC and DC Control)				
Circuit Diagram	Control	700-K22Z-⊗	700-K31Z-⊗	700-K40E-⊗	700-KL22Z-⊗	
Front Mounting						
100-KFA02E		AC/DC	—	31Z + 02E = 33Y ‡	40E + 02E = 42Y	—
100-KFA11E		AC/DC	22Z + 11E = 33Y	31Z + 11E = 42Y	40E + 11E = 51Y	L22Z + 11E = L33Y
100-KFA20E		AC/DC	22Z + 20E = 42Y	31Z + 20E = 51Y	40E + 20E = 60Y	L22Z + 20E = L42Y
100-KFA04E		AC/DC	—	—	40E + 04E = 44Y ‡	—
100-KFA13E		AC/DC	—	31Z + 13E = 44Y ‡	40E + 13E = 53Y	—
100-KFA22Z		AC/DC	—	31Z + 22Z = 53Y ‡	40E + 22Z = 62Y	—
100-KFA31Z		AC/DC	—	—	40E + 31Z = 71Y §	—
100-KFA40E		AC/DC	22Z + 40E = 62Y	31Z + 40E = 71Y	40E + 40E = 80Y	L22Z + 40E = L62Y

★ For other operating limits, please contact our technical consultant.

‡ $T_{amb.}$ max. +40 °C




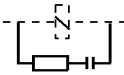
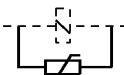
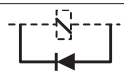
§ $T_{amb.}$ max. +40 °C and only allowed for coil voltage 24V DC or 230V AC

Auxiliary Contact Blocks

	Description	Connection Diagrams	 		For Use With	Pkg. Qty. ★	Screw Type Terminals	Spring Clamp Terminals
			Cat. No.	Cat. No.				
			0	2	100/104-K, 700-K	1	100-KFA02E	100-KRFA02E
			1	1	100/104-K, 700-K	1	100-KFA11E	100-KRFA11E
			2	0	100/104-K, 700-K	1	100-KFA20E	100-KRFA20E
	Front-mounted auxiliary contacts <ul style="list-style-type: none"> • Auxiliary Contact Blocks • 2- and 4-pole versions • Choice of contact configurations • Snap on, no tools required • Electronic-compatible bifurcated contacts for signals down to 15V/2 mA 		0	4	100/104-K, 700-K	1	100-KFA04E	100-KRFA04E
			1	3	100/104-K, 700-K	1	100-KFA13E	100-KRFA13E
			2	2	100/104-K, 700-K	1	100-KFA22Z	100-KRFA22Z
			3	1	100/104-K, 700-K	1	100-KFA31Z	100-KRFA31Z
			4	0	100/104-K, 700-K	1	100-KFA40E	100-KRFA40E

★ May be ordered in package quantities of 10. Add letter **M** to the end of the cat. no. Example: **100-KFA02EM**.

Control Modules

	Description	Connection Diagrams	For Use With	Pkg. Qty.	Cat. No.
	Mechanical Interlock <ul style="list-style-type: none"> • For interlocking of two adjacent contactors • No added width to contactor assembly • Front mount plug-in type • Optional auxiliary contact blocks and suppressor modules mount onto the interlock 		100/104-K/-KR, 700-K/-KR	1	100-KMCH
	RC Suppressor		100/104-K/-KR, 700-K/-KR	1 ★	100-KFSC50
				1 ★	100-KFSC280
				1 ★	100-KFSC480
	MOV Suppressor		100/104-K/-KR, 700-K/-KR	1 ★	100-KFSV55
				1 ★	100-KFSV136
				1 ★	100-KFSV277
Diode Suppressor		100/104-K/-KR, 700-K/-KR	1 ★	100-KFSD250	





★ May be ordered in package quantities of 10. Add letter **M** to the end of the cat. no. Example: **100-KFSC50M**.

IEC Specifications

		700-K	700-KR
AC-12 Rated Thermal Current			
Ambient temperature 40°C			
I_{th}	24...240V	[A]	10
	230...500V	[A]	10
	230...690V	[A]	10
Ambient temperature 60°C			
I_{th}	24...240V	[A]	6
	230...500V	[A]	6
	230...690V	[A]	6
AC-15/B600			
Switching of Solenoids and contactors			
I_e	24V	[A]	3
	48V	[A]	3
	120V	[A]	3
	230V	[A]	2
	240V	[A]	2
	400V	[A]	1.2
	480V	[A]	1
	500V	[A]	1
	600V	[A]	0.6
	690V	[A]	0.6
Short-circuit Protection			
"gG" Fuse acc. to IEC 60947-5-1, no welding of contacts			
	Fuse gG	[A]	10
Min. Switching Capacity 15V			
For bifurcated contacts (control relays and auxiliary contact blocks)			
		[mA]	2
Resistance and Power Dissipation			
Main current circuit resistance, 1 pole		[mΩ]	6.5
Power dissipation, 4 poles		[W]	2.6
Total power dissipation			
	AC control, warm	[W]	4.4
	DC control, warm	[W]	5.2
Lifespan			
Mechanical		[Mio. op.]	15
Electrical AC-15 (240V / 2 A)		[Mio. op.]	0.7
Weight			
	AC control	kg (lbs.)	0,16 (0,35)
	DC control	kg (lbs.)	0,2 (0,44)
Load Carrying Capacity per UL/CSA			
Rated voltage		AC [V]	max. 600
Continuous rating		40 °C [A]	10 6
Switching capacity		AC [A]	B 600
Rated voltage		DC [V]	max. 600
Switching capacity		DC [A]	Q 600

			700-K
DC-13/Q600			
1 pole	24V	[A]	2.3
	48V	[A]	1
	110V	[A]	0.55
	125V	[A]	0.55
	220V	[A]	0.27
	250V	[A]	0.27
	400V	[A]	0.15
	440V	[A]	0.15
	600V	[A]	0.1

Cross Sections

Conductor Cross Sections - Main Contacts, Auxiliary Contacts, and Coil Terminals				700-K	700-KR
Terminal type				★ 	
	Fine stranded with ferrule	(1) Conductor (2) Conductors	[mm ²] [mm ²]	0.75...2.5 0.75...2.5	0.50...2.5 0.50...2.5
	Solid or coarse stranded	(1) Conductor (2) Conductors	[mm ²] [mm ²]	1...4 1...2.5 + 1...4	0.75...2.5 ✪ 0.75...2.5 ✪
Recommended torque			[Nm]	1.2	—
Cross section per UL/CSA			[AWG]	18...12 ‡	18...14 ✪
Recommended torque			[lb-in]	10.6	—

- ★ Pozidriv No. 2 / Blade No. 3 screw
- ‡ Use same cross sections
- ✪ Stranded wire only

Coil Data

			700-K
Operating Limits			
AC control 50 Hz, 60 Hz, 50/60 Hz	pick-up	[x U _s]	0.85...1.1
	dropout	[x U _s]	0.2...0.75
DC control	pick-up	[x U _s]	0.8...1.1 9, 12, 24, 110V DC: 0.7...1.25
	dropout	[x U _s]	0.1...0.75
Coil Consumption			
AC control 50 Hz, 60 Hz, 50/60 Hz	pick-up	[VA/W]	35/32
	hold-in	[VA/W]	5/1.8
DC control	pick-up	[W]	cold 3.0, warm 2.6
	hold-in	[W]	cold 3.0, warm 2.6
Operating Times			
AC	closing delay	[ms]	15...40
	opening delay	[ms]	15...33
With RC module	opening delay	[ms]	15...28
DC	closing delay	[ms]	18...40
	opening delay	[ms]	6...12
With integrated diode	opening delay	[ms]	8...12
With external diode	opening delay	[ms]	35...50

Approximate Dimensions

Approximate Dimensions are shown in millimeters. Approximate Dimensions are not intended for manufacturing purposes.

