



## Control relays Type N & KC Positive safety



### Description

- A.C. or D.C. operated
- DIN rail or panel mounting
- 600 volt heavy duty design, A600-10 amp, Q300-5 amp
- Snap-on accessories available:
  - 1 & 4 pole adder deck
  - Pneumatic on & off delay timer
  - Mechanical latch
- Coils are easily interchangeable
- NEMA, UL, IEC, CSA, VDE and most other international standards
- Fixed contacts are double break type for positive contact on low current applications
- Terminals supplied in open position for ease of wiring
- Touch safe design: All connection terminals are protected against accidental touch
- Terminal screws are captive with saddle type clamps for fast wiring and are easily accessible from the front
- Screwdriver guide holes

### Positive safety relays

There are many applications where safety is very critical and it is important to use electrical equipment which ensures that dangerous machine movement cannot occur when a fault is detected with the moving contacts during the cycle which the fault is indicated.

Regulations and standards have been written to ensure that safety is maintained:

- |                  |                                      |
|------------------|--------------------------------------|
| • United States  | ANSI B11.19-1990<br>ANSI B11.20-1991 |
| • Germany        | SÜVA<br>ZH1/457                      |
| • France         | INRS                                 |
| • United Kingdom | BIA                                  |
| • Switzerland    | SA                                   |

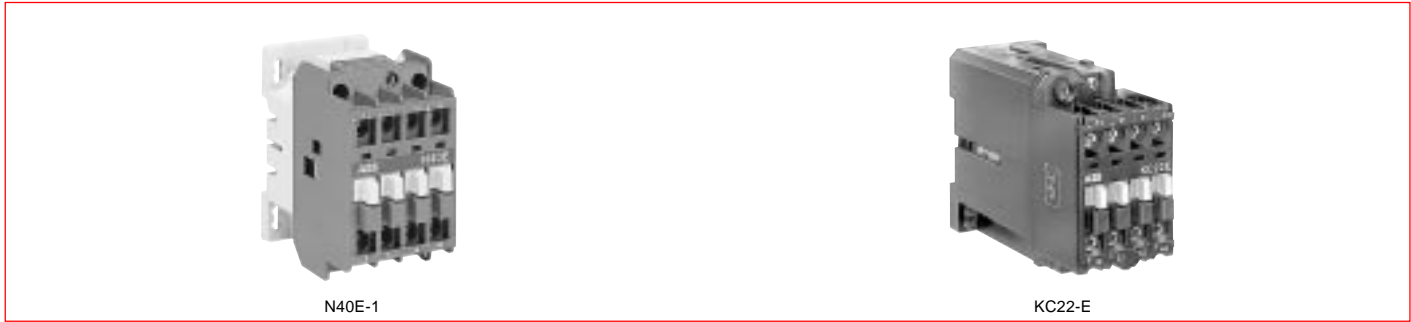
The ABB Type N & KC 4 and 8 pole relays are designed with "Positive Guided" contacts and fulfill the regulations or standards shown. The relays can provide positive safety for the N.O. and N.C. contacts which assure that the N.O. contacts will not close before any N.C. contact opens. Therefore, if one of the contacts weld due to abnormal conditions in the control circuit, the other contacts will also remain in the same position as when the welding occurred. This means that the open contacts must maintain an air distance 0.5mm when the coil is energized at 110% Vc or when it is de-energized.

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# Control relays Type N & KC



N40E-1

KC22-E

### A.C. operated

Contact configuration		Catalog number	List price
N.O.	N.C.		
4	0	N40E-84	<b>\$ 60</b>
3	1	N31E-84	
2	2	N22E-84	
4	4	N44E-84	<b>120</b>
5	3	N53E-84	
6	2	N62E-84	
7	1	N71E-84	
8	0	N80E-84	

### D.C. operated

Contact configuration		Catalog number	List price
N.O.	N.C.		
4	0	KC40E-04	<b>\$ 72</b>
3	1	KC31E-04	
2	2	KC22E-04	
4	4	KC44E-04	<b>144</b>
6	2	KC62E-04	

### Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. All DC operated catalog numbers include a 110VDC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the first digit after the last dash in the catalog number.

Ex.: A 240V coil is required for an N80 control relay: N80E-**80**

### Coil voltage selection chart

Hz	Rel. type	Volts															
		12	24	48	110	120	125	208	220	240	277	380	415	440	480	500	600
60	N	81	83	84	84		34	75	80	42	48	86	86	51	53	55	
50	N		81	83	84				80			85	86			55	
DC	BC-KC	07	01	16	04		27		05	33							

For other voltages, see page 1.13