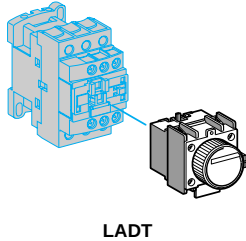


IEC Type Industrial Control Relays; TeSys D-Line, K-Line, and SK-Line TeSys Ordering Information



LADT

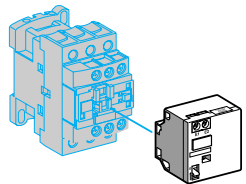
Time Delay Auxiliary Contact Blocks

Number and Type of Contacts	Maximum Number per Device Front Mounting	Time Delay Type	Termination Type	Range	Catalog Number	Weight lb. (kg)
1 N/C and 1 N/O	1	On-Delay	Screw Clamp	0.1 to 3 sec. $\blacktriangle$	LADT0	0.13 (0.060)
				0.1 to 30 sec.	LADT2	0.13 (0.060)
				10 to 180 sec.	LADT4	0.13 (0.060)
				1 to 30 sec. $\blacksquare$	LADS2	0.13 (0.060)
			Spring Terminal	0.1 to 3 sec. $\blacktriangle$	LADT03	0.13 (0.060)
				0.1 to 30 sec.	LADT23	0.13 (0.060)
			Spring Terminal	10 to 180 sec.	LADT43	0.13 (0.060)
				1 to 30 sec. $\blacksquare$	LADS23	0.13 (0.060)
		Off-Delay	Screw Clamp	0.1 to 3 sec. $\blacktriangle$	LADR0	0.13 (0.060)
				0.1 to 30 sec.	LADR2	0.13 (0.060)
				10 to 180 sec.	LADR4	0.13 (0.060)
			Spring Terminal	0.1 to 3 sec. $\blacktriangle$	LADR03	0.13 (0.060)
				0.1 to 30 sec.	LADR23	0.13 (0.060)
				10 to 180 sec.	LADR43	0.13 (0.060)

(Lockout Cover, See page 7)

$\blacktriangle$ With extended scale from 0.1 to 0.6 s.

$\blacksquare$ With switching time of 40 ms $\pm$ 15 ms between opening of the N/C contact and closing of the N/O contact.



LA6DK

Mechanical Latch Blocks ★

Unlatching Control	Maximum Number per Device Front mounting	Catalog Number	Weight lb. (kg)
Manual or electrical	1	LA6DK10 $\blacktriangle$	0.15 (0.070)
		LAD6K10 $\blacktriangle$	0.15 (0.070)

★ Power should not be simultaneously applied or maintained to the mechanical latching block and the CAD relay. The duration of the control signal to the mechanical latching block and the CAD relay should be $\geq$ 100 ms.

Coil Suppressor Modules

These modules clip onto the right hand side of the control relay and the electrical connection is instantly made. Adding an input module is still possible.

RC Circuits (Resistor-Capacitor)

- Effective protection for circuits highly sensitive to "high frequency" interference.
- Voltage limited to 3 Uc maximum and oscillating frequency limited to 400 Hz maximum.
- Slight increase in drop-out time (1.2 to 2 times the normal time).

For Mounting On:	Operational Voltage	Catalog Number	Weight lb. (kg)
CAD (Vac)	24 to 48 Vac	LAD4RCE	0.03 (0.012)
	110 to 240 Vac	LAD4RCU	0.03 (0.012)

Varistors (Peak Limiting)

- Protection provided by limiting the transient voltage value to 2 Uc maximum.
- Maximum reduction of transient voltage peaks.
- Slight increase in drop-out time (1.1 to 1.5 times the normal time).

CAD (Vac)	24 to 48 Vac	LAD4VE	0.03 (0.012)
	50 to 127 Vac	LAD4VG	0.03 (0.012)
	110 to 250 Vac	LAD4VU	0.03 (0.012)

Bidirectional Peak Limiting Diode

- Protection provided by limiting the transient voltage value to 2 Uc maximum.
- Maximum reduction of transient voltage peaks.

CAD (Vac)	24 Vac	LAD4TB	0.03 (0.012)
	72 Vac	LAD4TS	0.03 (0.012)

$\blacktriangle$ Standard coil voltage codes.

Vac and Vdc	24	32/36	42/48	60/72	100	110/127	220/240	256/277	380/415
Code	B	C	E	EN	K	F	M	U	Q



IEC Type Industrial Control Relays; TeSys D-Line, K-Line, and SK-Line

Tesys Application Data

Control Circuit Characteristics

Type			CAD (Vac)	CAD (Vdc)	CAD (Vdc) Low Consumption
Rated Control Circuit Voltage (Uc)		V	12 to 690	12 to 440	5 to 72
Control Voltage Limits	Operation	With coil type: Vac 50/60 Hz	80 to 110% Uc at 50 Hz	-	-
			85 to 110% Uc at 60 Hz	-	-
		Vdc standard, wide range	-	70 to 125% Uc	70 to 125% Uc
	Drop-out		30 to 60% Uc	10 to 25% Uc	10 to 25% Uc
Average Consumption at 68 °F (20 °C) and at Uc	Vac Coil 50/60 Hz	VA	Inrush: 70 Hold-in: 8	- -	- -
	Vdc Coil with standard coil	W	-	Inrush or hold-in: 5.4	Inrush or hold-in: 2.4
Operating Time (at rated control circuit voltage and at 68 °F (20 °C))	Between coil energization and - opening of the N/C contacts - closing of the N/O contacts	ms	4 to 19	35 to 45	45 to 55
		ms	12 to 22	50 to 55	60 to 70
	Between coil de-energization and - opening of the N/O contacts - closing of the N/C contacts	ms	4 to 12	6 to 14	10 to 15
		ms	6 to 17	20	25
Short Supply Failures	Maximum duration without affecting hold-in of the device	ms	2	2	2
Maximum Operating Rate	In operating cycles per second		3	3	3
Mechanical Durability (in millions of operating cycles) ✚	With coil type: Vac 50/60 Hz		15	-	-
	Vdc standard, wide range		-	30	30
Time Constant L/R		ms	-	28	40

✚ The product life expressed above is based on average usage and normal operating conditions. Actual operating life will vary with conditions. The above statements are not intended to, nor shall they create any expressed or implied warranties as to product operation or life. For information on the listed warranty offered on this product, refer to the Square D terms and conditions of sale found in the Square D Digest.

Characteristics of Instantaneous Contacts incorporated in the Control Relay

Number of Contacts			5
Rated Operational Voltage (Ue)	Up to	V	690
Rated Insulation Voltage (Ui)	Conforming to IEC 60947-1-1	V	690
	Conforming to UL, CSA	V	600
Rated Conventional Thermal Current (Ith)	For ambient temperature ≤ 104 °F (40 °C)	A	10
Frequency of Operational Current		Hz	25 to 400
Minimum Switching Capacity	U min.	V	17
	I min.	mA	5
Short-circuit Protection	Conforming to IEC 60947-1-1		gG fuse: 10 A (10 Amp Class J Time delay)
Rated Making Capacity	Conforming to IEC 60947-1-1 I rms		140 Aac, 250 Adc
Short Time Rating	Permissible for 1 s	A	100
	500 ms	A	120
	100 ms	A	140
Insulation Resistance		MΩ	> 10
Non-overlap time	Guaranteed between N/O and N/C contacts	ms	1.5 (on energization and on de-energization)
Tightening Torque	Phillips n°2 and Ø 6	lb-in (N•m)	10.6 (1.2)
Non-overlap Distance			Linked contacts in association with auxiliary contacts LADN
Linked Contacts	According to draft standard IEC 60947-4-5		The three "N/O" contacts and the two "N/C" contacts of CADN32 are linked mechanically by one mobile contact holder.

