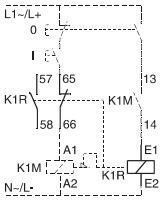
Control Modules

Module	Description	For use with...	Connection Diagrams	Catalog Number
	**Mechanical Latch** Following relay latching, the relay coil is immediately de-energized by the NC auxiliary contact (65-66). • Electrical or manual release • 1 NO + 1 NC auxiliary switch • Suitable for all CS7 relays	CS7 all		**CV7-11-✱** *Replace ✱ with coil code below (See Application Note)*

CV7 Mechanical Latch Coil Codes ❶❷❸❹

Coil Code	Application Range			Latch & Contactor Coil Rating
	50 Hz	60 Hz	VDC	
24Z	**24 VAC**	**24 VAC**	**12 VDC**	24V 50/60 Hz
48Z	**48 VAC**	**48 VAC**	**24 VDC**	48V 50/60 Hz
110	**100 VAC**	**110 VAC**	**48 or 60VDC**	110V50/110V60
120	**110 VAC**	**120 VAC**	**~**	110V50/120V60
~~220W~~	~~~~	~~208...240 VAC~~	~~~~	~~208...240V60~~
240Z	**240 VAC**	**240 VAC**	**125 VDC**	240V 50/60 Hz
400Z	**400 VAC**	**400 VAC**	**220 VDC**	400V 50/60 Hz
415	**400...415 VAC**	**~**	**~**	400...415 V50 Hz

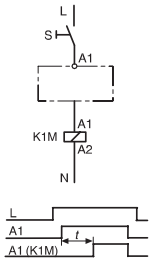
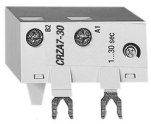
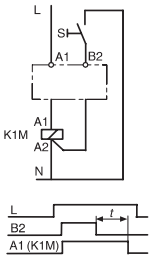
APPLICATION NOTE:

The CV7 Mechanical Latch for CS7 Control Relay may be used for both AC and DC applications; however when using DC control circuit the user must apply the following rules for coil selection of the control relay and latch combination:

- The CS7E control relay uses an electronic DC coil and the CV7 latch coil code should be chosen from the table on the left. (i.e.: 24V DC control circuit select CS7E with code 24E and CV7 latch uses a 48Z AC coil code).

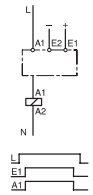
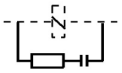
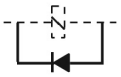
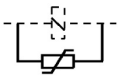
❶ Other voltages available. Contact your Sprecher + Schuh representative.
❷ CV7 must be wired for momentary impulse operation only.
❸ Command duration 0.03...15 seconds.
❹ Coil operating limits on CV7-11 match those of the relay it is being used with.

Control Modules

Module	Description	For use with...	Connection Diagrams	Function	Catalog Number
	**Pneumatic Timing Module –** The contacts in the Pneumatic Timing Element switch after the delay time. The contacts on the relay continue to operate without delay. • Continuous adjustment range	CS7 all ❶		ON-Delay .3...30s 1.8...180s	**CZE7-30** **CZE7-180**
				OFF-Delay 0.3...30s 1.8...180s	**CZA7-30** **CZA7-180**
	**Electronic Timing Module – ❷** **ON-Delay** The relay is energized at the end of the delay time.	CS7 with 110...240V, 50/60Hz or 110...250V DC		110...240V 50/60Hz 110...250V DC 0.1...3s 1...30s 10...180s	**CRZE7-3-110/240** **CRZE7-30-110/240** **CRZE7-180-110/240**
		CS7 with 24...48V DC		24...48V DC 0.1...3s 1...30s 10...180s	**CRZE7-3-24/48VDC** **CRZE7-30-24/48VDC** **CRZE7-180-24/48VDC**
	**Electronic Timing Module – ❷** **OFF-Delay** After interruption of the control signal, the relay is de-energized at the end of the delay time.	CS7 with 24V, 50/60Hz		110...240V 50/60Hz 0.3...3s 1...30s 10...180s	**CRZA7-3-110/240** **CRZA7-30-110/240** **CRZA7-180-110/240**
		CS7 with 110...240V, 50/60Hz		24V AC 50/60Hz 0.3...3s 1...30s 10...180s	**CRZA7-3-24VAC** **CRZA7-30-24VAC** **CRZA7-180-24VAC**

❶ Cannot be used with side-mounted auxiliary contacts on CS7 relays with DC coils.
❷ CRZ_7 timing modules are not compatible to electronic DC coils at 36V DC and larger

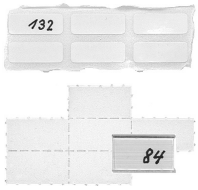
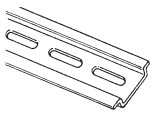
Control Modules *(continued)*

Module	Description	For use with...	Connection Diagrams	Function		Catalog Number
				Input	Output	
	**Electronic Interface –** Interface between the DC control signal from a PLC and the AC operating mechanism of the relay. • Requires no additional surge suppression for the coils • Switching capacity 200VA • Suitable for all CS7 relays	CS7 all (with AC control)		24V DC 18...30V DC ~~48V DC~~	110... 240V AC	**CRI7E-24** **CRI7E-12** ~~**CRI7E-48**~~ *Indicates special order*
	**Surge Suppressors -** Limits coil switching transients. • Plug-in, coil mounted • Suitable for all CS7 contactors	CS7 all (with AC control)		RC Module - AC Control (50/60Hz) 24...48V 110...280V 380...480V		**CRC7-48** **CRC7-280** **CRC7-480**
		CS7C (with conventional DC control)		Diode Module - DC Control 12-250VDC		**CRD7-250** ❶
		CS7 all (with AC control) CS7C (with conventional DC control)		Varistor Module - AC/DC Control 12...55VAC/ 12...77VDC 56...136VAC/ 78...180VDC 137...277VAC/ 181...350VDC 278...575VAC		**CRV7-55** ❶ **CRV7-136** ❶ **CRV7-277** ❶ **CRV7-575** ❶

Assembly Components

Component	Description	For Use With...	Pkg. Qty.	Catalog Number
	**Spade Connectors -** Dual stab for coil terminals (0.250 inch)	All CS7	**20**	**CA7-SC2**

Other Common Accessories

 **Protective Covers - See Section A**	 **Marking Systems - like Label Sheets, Marker Tags and Carrier Tags See Section A**	 **DIN-rail – See Section N**

❶ Electronic DC Control Relays (CS7E) include internal surge protection and do not require additional external surge protection.