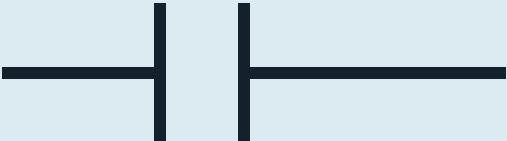
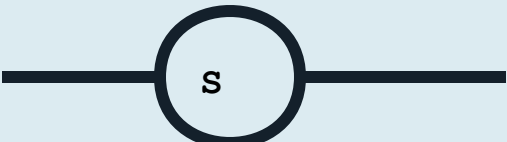
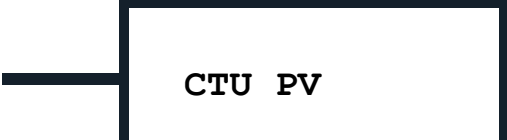
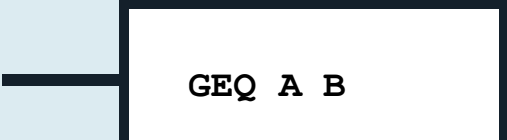
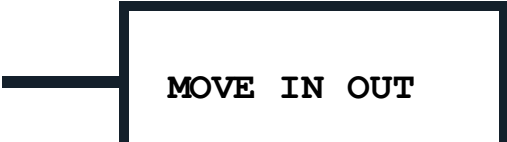


LADDER LOGIC SYMBOLS

Platform-neutral printable reference · reviewed 26 July 2026

Read left-to-right. A contact tests a value; a coil or box writes or transforms a value.

GENERIC SYMBOL	WHEN TRUE / ACTION	ROCKWELL LOGIX	SIEMENS / COMMON
	Referenced Boolean = 1 Passes rung continuity when the bit is on.	XIC	Normally-open contact
	Referenced Boolean = 0 Passes rung continuity when the bit is off.	XIO	Normally-closed contact
	False → true transition True only for the configured edge event.	ONS / OSR	Positive edge contact
	Rung is true Writes the preceding logic result to the bit.	OTE	Output coil
	Rung true → set bit State remains set until reset elsewhere.	OTL	Set coil
	Rung true → clear bit Clears a previously latched or set state.	OTU	Reset coil
	True rung starts timing Done/output changes after the preset delay.	TON	TON timer box
	Counts qualifying rising events Current value increments toward the preset.	CTU	CTU counter box
	A is greater than or equal to B Produces a Boolean result; confirm data types.	GEQ	>= compare box
	Copies source to destination Runs when enabled; conversion rules vary by type.	MOV	MOVE box

SCAN RULES THAT PREVENT MOST BEGINNER ERRORS

1. “Normally open/closed” describes the Boolean test—not the field device wiring by itself.
2. Execution order, duplicate outputs, retentivity and edge storage are controller/platform specific.
3. A standard PLC symbol does not create a safety function. Follow the approved safety lifecycle.