

# Type LCO-C Hook Operated Switch

7.2 - 69 kV  
600 - 2000 A.



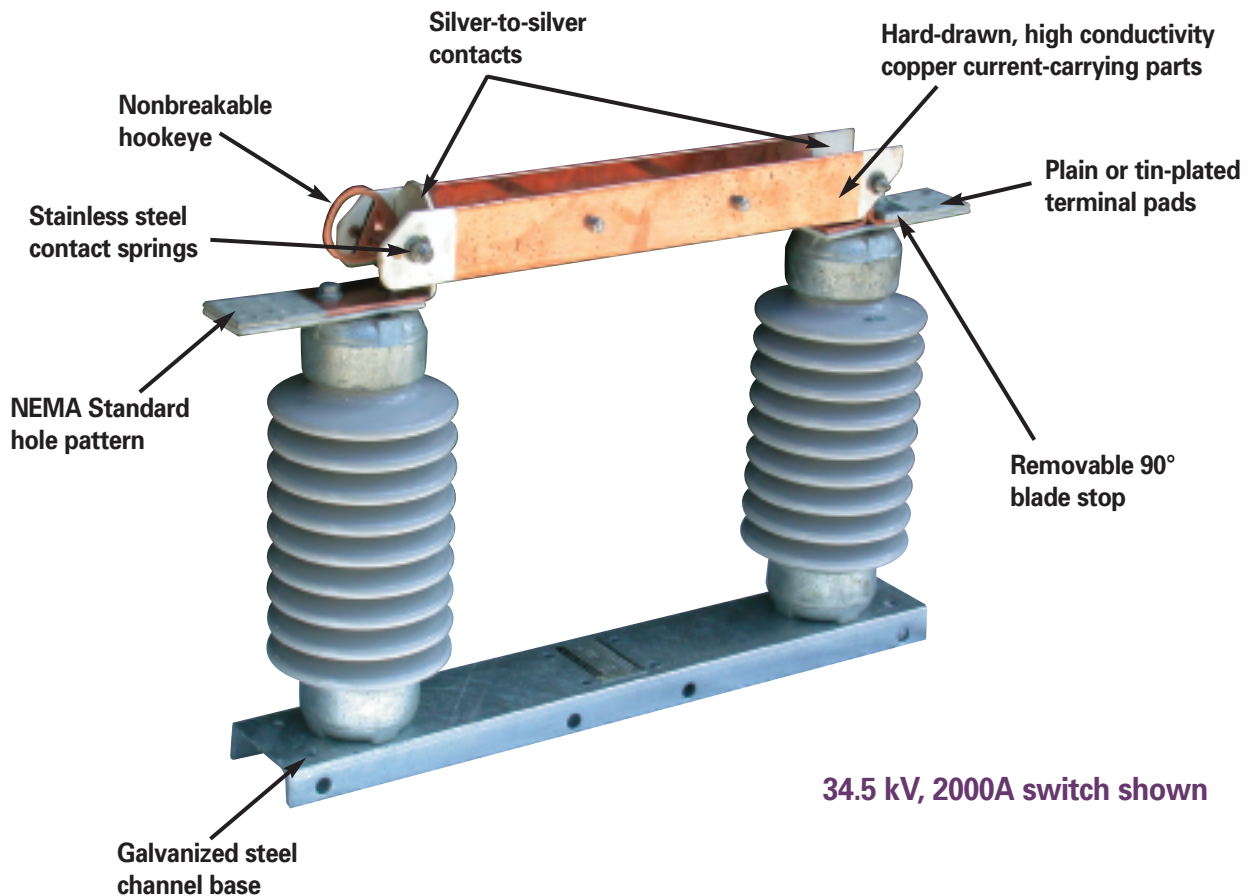
 **CLEVELAND/PRICE INC.**

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# Engineered for Simplicity



34.5 kV, 2000A switch shown

## THE CLEVELAND/PRICE ADVANTAGE

### in the materials...

- Hard-drawn, high conductivity copper produces stronger, more conductive live components than parts made of cast materials.
- Silver-to-silver contacts on both the stationary and moving parts give long life current transfer.
- Hard-drawn copper hookeye will not crack or break, eliminating the need to stock hookeyes and reducing costly downtime.
- Stainless steel contact springs and latch spring are made from the most corrosion resistant type of stainless steel available.
- Heavy-duty latch spring delivers substantial return force for the life of the switch.
- The steel channel base is galvanized after fabrication.
- Stainless steel hardware insures corrosion resistance dependability.

### in the design...

- Total non-cast construction guarantees that parts will not crack.
- Line contacts work with electromagnetic forces, resulting in superior performance during short circuit.
- High pressure line contacts at the hinge and jaw establish superior current transfer while reducing operating force and extending contact life.
- True wiping action on both the break-jaw and hinge keeps contacts clean for years of reliable service.
- Blade guide on break-jaw allows closing of the switch despite lateral push on the blade.
- Location of the contact springs in relation to the break-jaw results in increased spring force during short circuit.
- Blade pryout action facilitates easy ice breaking.

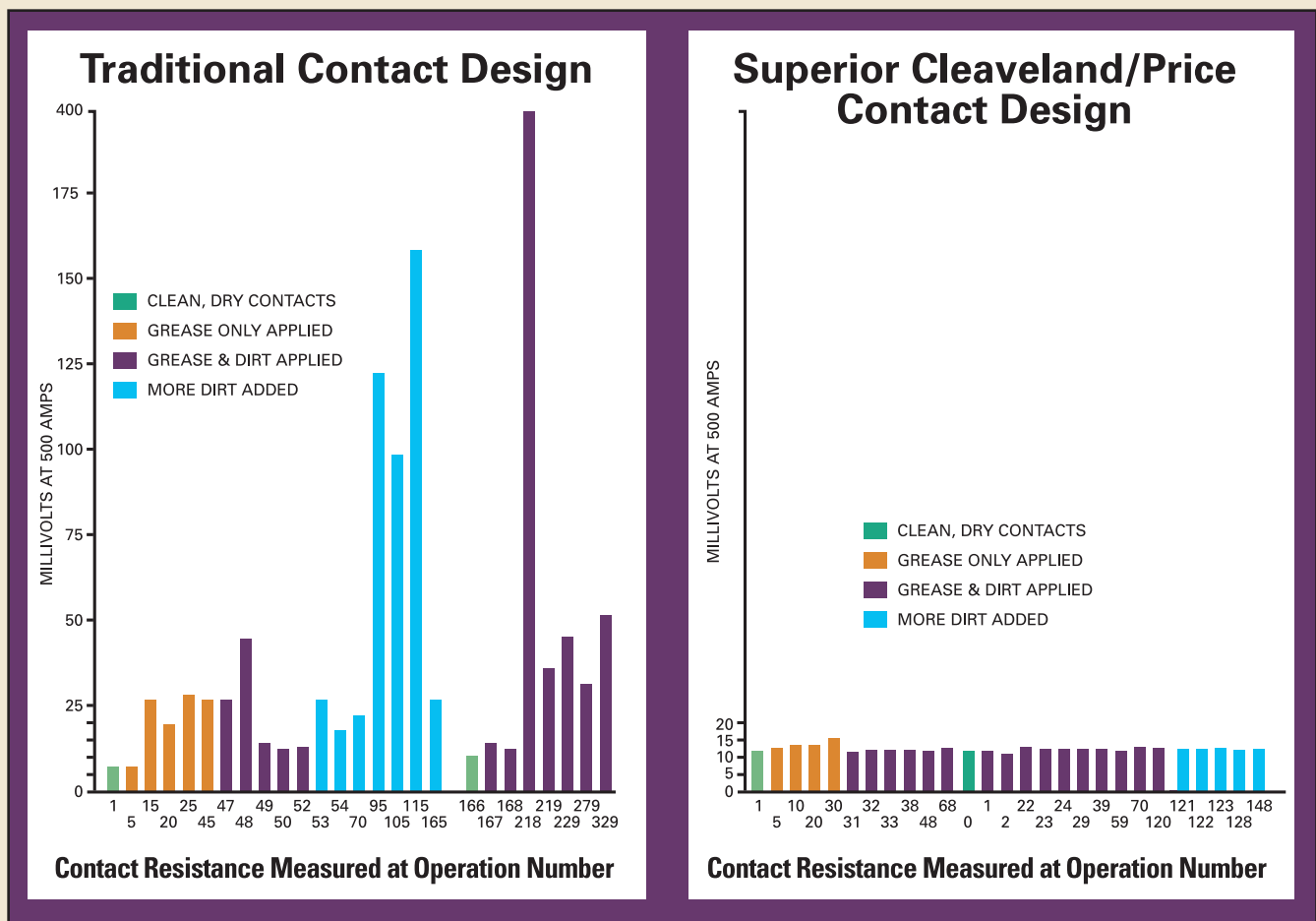
**The LCO-C conforms to NEMA and ANSI Standards.**

# Innovation Through Research

The hookstick operated switch is the simplest of all disconnect switches. It is also one of the oldest types, but over the years few changes have been made to improve the performance of this important component of the high voltage electrical system. Cleaveland/Price has done extensive research on contact designs and has developed a true self-wiping contact with outstanding performance characteristics.

One aspect of performance of a disconnect switch relates to its ability to maintain low contact resistance despite age and environment. The major factor affecting resistance values is contamination between the contacts of the switch.

Cleaveland/Price research shows that the design of the contacts determines how well they perform. The graphs below show the contact resistance of a traditionally designed contact compared to the improved Cleaveland/Price design during a contamination test.

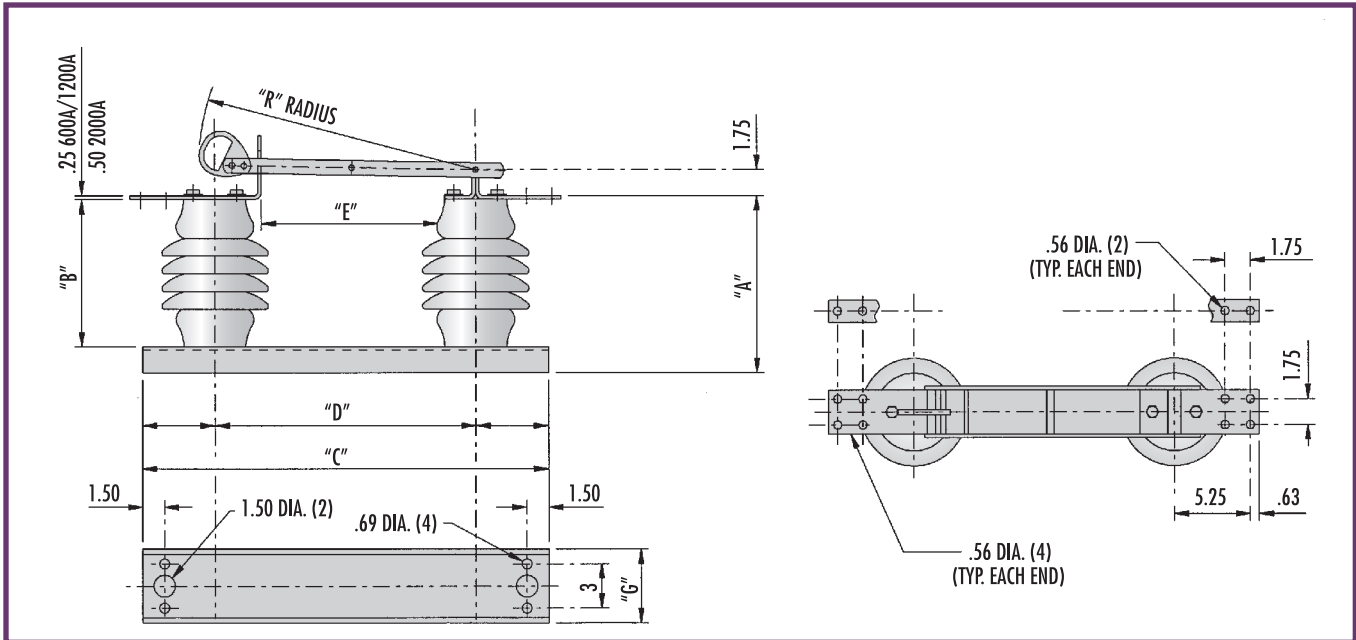


The graphs above show the contact resistance of a traditionally designed contact compared to the improved Cleaveland/Price design during the contamination test.\*

The amount of contamination had no effect on the Cleaveland/Price contacts, while the traditional wide contacts showed random high resistance values that can cause contact pitting and burning, eventually resulting in switch failure. Our proven reliable contacts are featured on all types of Cleaveland/Price hookstick operated switches.

\*Copies of the Cleaveland/Price research paper, "New Discoveries in Electric Switch Contact Design," are available upon request.

# Type LCO-C Switch



Nom. kV	Max. kV	Ratings			Insulator NEMA TR#	Switch Style Number	Dimensions in Inches							Wt./ Pole
		KV BIL	Amp.	Mom. kA			"A"	"B"	"C"	"D"	"E"	"R"	"G"	
7.2	8.3	95	600	40	202	C102A230G01	9.50	7.5	25	15	7	17	5	47
			1200	61		C102A230G02	9.50							54
			2000	100		C102A230G03	9.75							61
14.4	15.5	110	600	40	205	C102A230G04	12.00	10	25	15	10	17	5	59
			1200	61		C102A230G05	12.00							66
			2000	100		C102A230G06	12.25							74
23	27	150	600	40	208	C102A230G07	16.00	14	28	18	12	20	5	84
			1200	61		C102A230G08	16.00							88
			2000	100		C102A230G09	16.25							94
34.5	38	200	600	40	210	C102A230G10	20.00	18	34	24	18	26	5	103
			1200	61		C102A230G11	20.00							106
			2000	100		C102A230G12	20.25							117
46	48.3	250	600	40	214	C102A150G13	24.25	22	40	30	22	32	6	166
			1200	61		C102A150G14	24.25							172
			2000	100		C102A150G15	24.50							182
69	72.5	350	600	40	216	C102A150G16	32.25	30	52	42	32	44	6	221
			1200	61		C102A150G17	32.25							228
			2000	100		C102A150G18	32.50							240

## Optional Equipment

- Loadbuster Hooks
- Side Mounting clips
- Special Base Drilling
- 135°/160° Blade Stop
- Crossarm Mounting Bracket
- Ground Blade
- Polymer Insulators

The LCO-C is available to 4000 A. and 161 kV. Other types of hookstick operated switches include:

- LCO-S – "V" Insulator Configuration Switch
- LCO-CT – Tandem Transfer Switch
- LCO-CD – Double Throw Switch
- RBO-C – Regulator Bypass Switch
- RBI – Regulator Bypass Switch
- ILO-C – In-line Transmission Switch



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