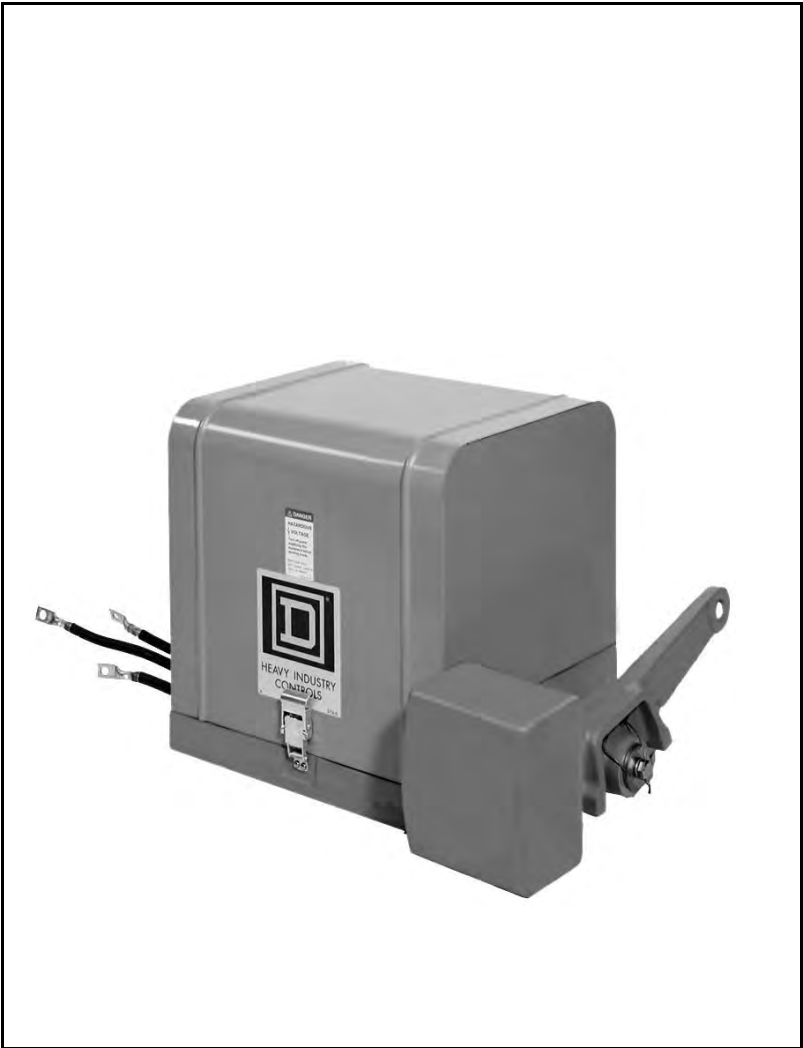


Crane Control Class 6170

Catalog

03



CRANE CONTROL
CLASS 6170

CONTENTS

Description	Page
General Information and Pricing	78
Dimensions and Weights	81



The Electric Controller and
Manufacturing Company, LLC

Crane Control Class 6170

Youngstown® Power Limit Switches for AC and DC Cranes

GENERAL INFORMATION AND PRICING

Youngstown® Power Limit Switches are used on crane hoist drives to limit over travel in the hoisting direction.

- Operated by crane hoist hook block
- Interrupts hoist motor current directly

The standard limit switch is supplied for right hand operation and consists of:

- 2–Normally open and 2 – normally closed mechanically interlocked power contacts for simplex switches and 4 – normally open and 4 – normally closed contacts for duplex switches
- 1–General purpose NEMA Type 1 enclosure
- 1–Standard straight operating arm



Class 6170 Type DG1
Limit Switch



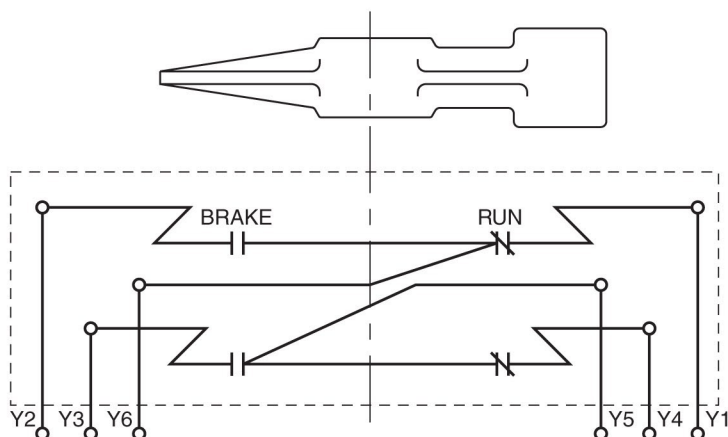
Class 6170 Type CW8

Maximum HP – Crane Rating				Size Number	Limit Switch Without Weight & Cable ★ (Standard Arm ●)	Weight & Cable Kit
DC		AC			Type	Type
230 V	550 V	230 V	440 V			
Simplex Youngstownns						
26	25	25	50	5	AG1	AW8
50	50	50	100	10	BG1	BW8
100	100	100	200	20	CG1	CW8
200	200	200	400	30	DG1	DW8
500	660	50	FG1	FW8
Duplex Youngstownns						
2-100	2-100	2-100	2-200	20D	CCG1	CCW8
2-200	2-200	2-200	2-400	30D	DDG1	DDW8
2-500	2-660	50D	FFG1	FFW8

★ Limit switch resistor required. See page 80 for selection.

● Consult factory if 90° arm is required.

Elementary Wiring Diagram



CP9A

Discount
Schedule



Crane Control Class 6170

Youngstown® Power Limit Switches for AC and DC Cranes

PRICING INFORMATION AND APPLICATION DATA

Right Hand Operation

The limit switch is arranged for right hand operation when the reset weight and cable are on the right side (when facing the operating arm).

Standard Operating Arm

The standard operating arm is used when the weight and cable can be suspended beneath the limit switch.

Control Circuit Interlocks

Control circuit interlocks are provided on the power limit switch by an externally mounted control circuit limit switch which is operated by the power limit switch operating arm.

For a Type AG limit switch, a Class 9007 Type B limit switch is used.

For Types BG through FFG limit switches, a Class 9007 Type FT limit switch is used.

Modifications ★

Form	Description
L	Operating arm arranged for left hand operation
X111 ▲	Control Circuit Interlock: 1 N.O. and 1 N.C. Contact set to operate prior to main power contacts (required for drive applications)
X122	Control Circuit Interlock: 2 N.O. and 2 N.C. Contact set to operate prior to main power contacts

▲ Only available on Size 5, 10, and 20 Power Limit Switches.

★ Consult factory for additional modifications.

Ordering Information Required:

1. Class and Type of limit switch.
2. Modifications of limit switch: specify form number.
3. Class and type of weight and cable kit, if required.
4. Class and type of resistor (see next page).



Crane Control Class 6170

Youngstown® Power Limit Switches for AC and DC Cranes

RESISTORS FOR LIMIT SWITCH APPLICATIONS ON DC DYNAMIC LOWERING HOISTS

Class 6715 Tab-Weld® Resistors



Class 6715
Type TW120D
Resistor

230 VDC			
HP	Open Type	Price	Enclosed Type
5-10	TW16F	\$ 540.	TW16FG
11-13-1/2	TW21F	540.	TW21FG
14-26	TW27F	540.	TW27FG
27-33	TW32F	495.	TW32FG
34-45	TW37F	540.	TW37FG
46-65	TW42F	495.	TW42FG
66-100	TW62E	630.	TW62EG
101-135	TW85E	630.	TW85EG
136-200	TW120D	1035.	TW120DG
201-265	TW150D	1035.	TW150DG
266-360	2-TW120D	2070.	2-TW120DG
361-550	2-TW150D	2070.	2-TW150DG

Ordering Information Required:

1. Class
2. Type

Application Data

Class 6715 Tab-Weld® Resistor

Recommended for applications where environmental conditions of vibration and dirt are severe.

Suitable for outdoor use with general purpose enclosure.

Resistors for Duplex Limit Switches

One resistor required for each motor, double the prices shown.

CP9B

Discount
Schedule



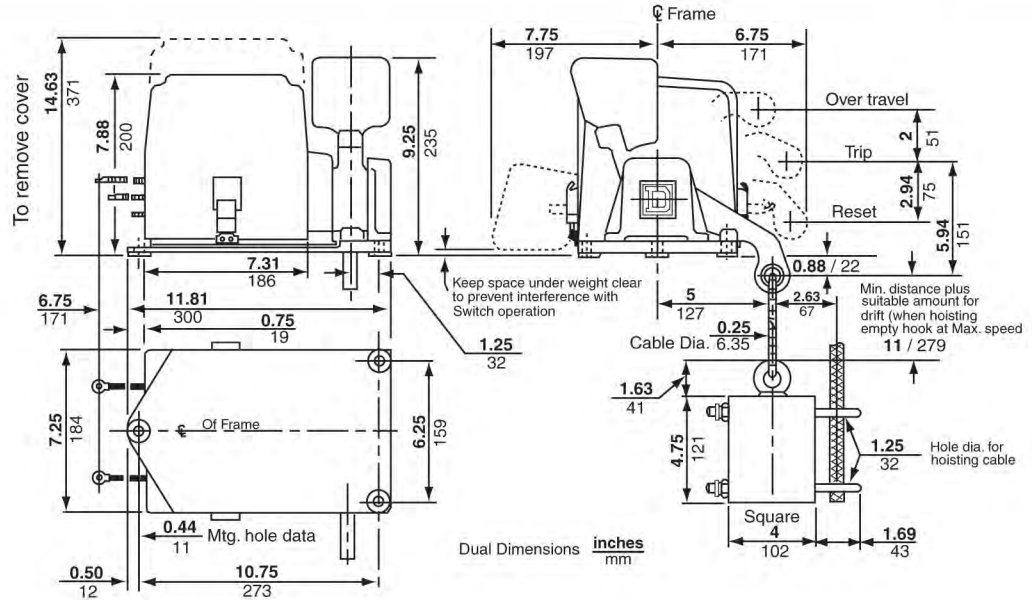
Crane Control Class 6170

Youngstown® Power Limit Switches for AC and DC Cranes

APPROXIMATE DIMENSIONS AND WEIGHTS

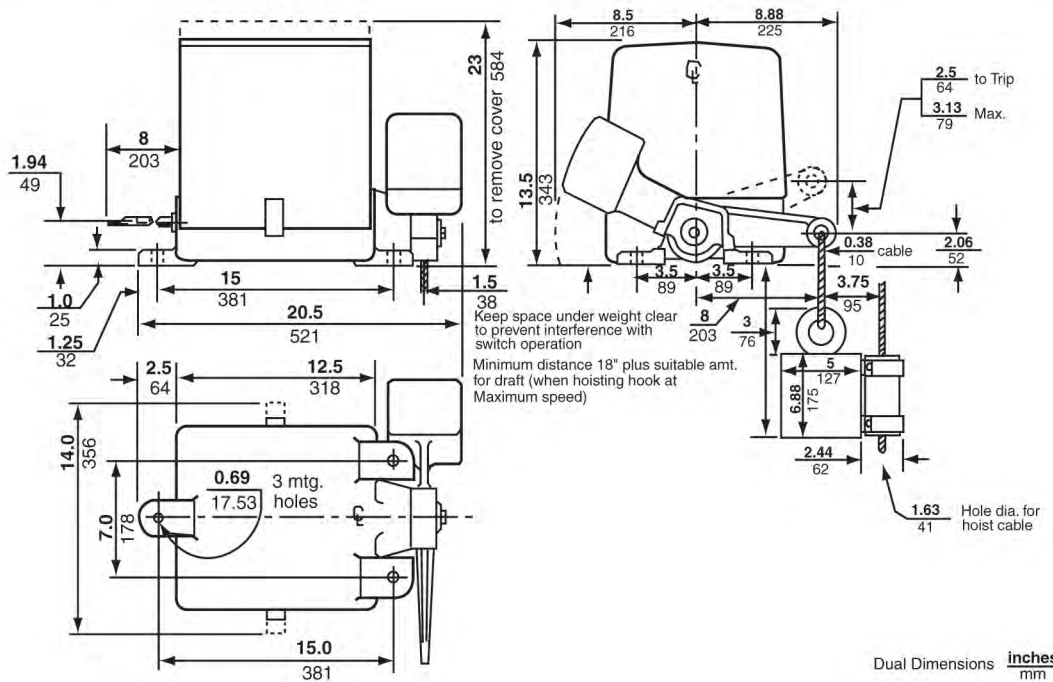
Type AG

Type	Size Number	Net Weight, lbs (kg)	
		Limit Switch Only	Operating Weight Only
AG	5	50 (22.7)	22.5 (10.2)



Type BG

Type	Size Number	Net Weight, lbs (kg)	
		Limit Switch Only	Operating Weight Only
BG	10	170 (77.3)	54 (24.5)



CRANE CONTROL
CLASS 6170



Crane Control Class 6170

Youngstown® Power Limit Switches for AC and DC Cranes

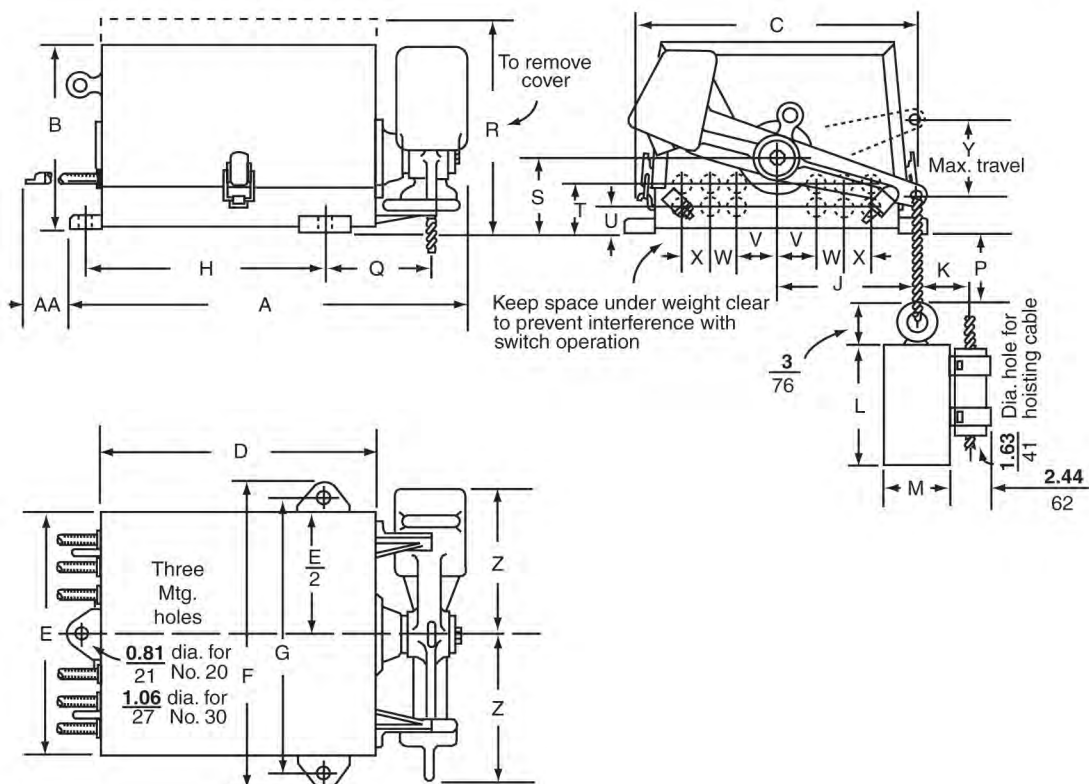
APPROXIMATE DIMENSIONS AND WEIGHTS

Types CG and DG

Type	Size No.	A	B	C	D	E	F	G	H	J	K	L	Net Weight, lbs (kg)	
													Limit Switch Only	Operating Weight Only
CG	20	22.5 572	12.2 310	16.3 414	15.4 391	15 381	18.4 467	16.9 429	13.2 335	8.4 213	3.8 97	9.5 241	320 (145.5)	67 (30.5)
DG	30	25.6 650	16.4 417	19.5 495	18 457	18.1 460	22.4 569	20.4 518	15.9 404	10.3 262	3.8 97	12 305	460 (209.1)	90 (40.9)
CCG	20D	34.3 871	12.2 310	16.3 414	25.5 648	15.1 384	18.5 470	16.9 429	23.3 592	8.4 213	4.3 109	11 279	540 (245.5)	111 (50.5)
DDG	30D	41.6 1057	16.4 417	19.5 495	30.3 770	18.3 465	22.5 572	20.4 518	28.1 714	10.3 262	4.8 122	14.5 368	750 (340.9)	218 (99.1)

Type	Size No.	M	P	Q	R	S	T	U	V	W	X	Y	Z	AA
CG	20	5 127	9 229	6.8 173	21 533	4.4 112	2.9 74	—	2.8 71	1.4 36	1.6 41	4.4 112	9.3 236	10.4 264
DG	30	5 127	10 254	6.8 173	27.4 696	5.4 137	3.6 91	—	3.1 79	1.9 48	2 51	5.4 137	11.3 287	13.4 340
CCG	20D	6 152	9 229	7.3 185	21 533	4.4 112	2.9 74	1.6 41	2.8 71	1.4 36	1.6 41	4.4 112	9.3 236	10.4 264
DDG	30D	7 178	10 254	8.5 216	27.4 696	5.4 137	3.6 91	1.7 43	3.1 79	1.9 48	2 51	5.4 137	11.3 287	13.4 340

Dual Dimensions $\frac{\text{inches}}{\text{mm}}$



Crane Control Class 6170

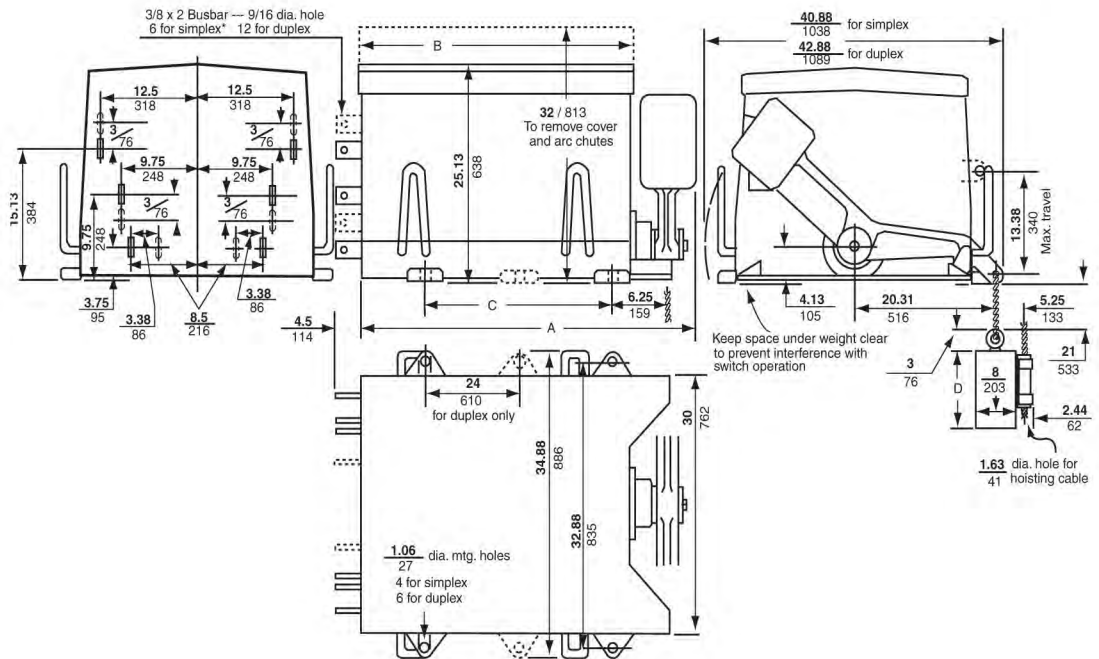
Youngstown® Power Limit Switches for AC and DC Cranes

APPROXIMATE DIMENSIONS AND WEIGHTS

Type FG

Type	Size No.	A	B	C	D	Net Weight, lbs (kg)	
						Limit Switch Only	Operating Weight Only
FG	50	42.4 1077	36 914	24 610	14.8 376	1550 (704.5)	265 (120.5)
FFG	50D	66.4 1687	60 1524	48 1219	29.5 749	2350 (1068.2)	530 (240.9)

Dual Dimensions $\frac{\text{inches}}{\text{mm}}$



Crane Control Class 6170

Youngstown® Power Limit Switches for AC and DC Cranes

APPROXIMATE DIMENSIONS AND WEIGHTS

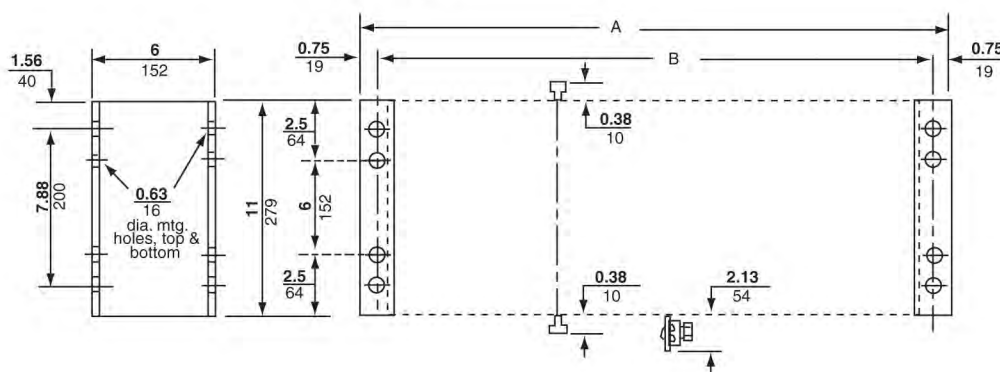
Class 6715 Tab-Weld® Resistors

Type Section		A	B	C	Net Weight, lbs (kg)
Open	Enclosed				
	TW_DG	27 686	29 737	30.3 770	40 (18.0)
	TW_EG	18.5 470	20.5 521	21.8 554	25 (11.3)
TW_D		26.5 673	25 635	...	35 (15.8)
TW_E		18 457	16.5 419	...	22 (9.9)

Dual Dimensions $\frac{\text{inches}}{\text{mm}}$

Class 6715 TAB-WELD® Resistors

Open Type



Enclosed Type

