

Type XMO40
Control Relay

AC Control Relays

- Straight-through wiring
- Plug-in contact cartridges for easy contact conversion and replacement
- Contact conversion without removing terminal screws or wires
- Self-lifting pressure wire connectors
- Replaceable coil

Table 23.95: AC Control Relays

Normally Open Convertible Instantaneous Contacts	Control Relay ▲	
	Type ♦	\$ Price
0	XO0	116.00
2	XO20	171.00
3	XO30	201.00
4	XO40	228.00
6	XO60	286.50
8	XO80	312.00
10	XO1000	399.00
12	XO1200	458.00

▲ A maximum of 8 N.C. contacts is allowed on 9–12 pole relays.

AC Master Relays

- 20 ampere contact rating due to use of master contact cartridges. ★
- Provisions for standard cartridges to be used in contact cavities not occupied by master cartridges in 2-8 pole AC relay.

Table 23.96: AC Master Relays

Number of N.O. 20 Ampere Convertible Contacts	Open Type ■	
	Type ♦	\$ Price
2	XMO20	257.00
4	XMO40	399.00
6	XMO60	543.00

■ Attachments not permitted on this relay.



Type XMO40
Master Relay

AC Timing Relays

- Easily convertible On Delay or Off Delay
- Two adjustable timing ranges
- Repeat accuracy well above ±10%
- Convertible 1 N.O. and 1 N.C. timed contacts
- Large knob for easy adjustment of time delay
- Off Delay mode times out even after loss of power.

Table 23.97: AC Timing Relays

Timing Mode	N.O. Convertible Instantaneous Contacts	Timed Convertible Contacts		Timing Relay		\$ Price
		N.O.	N.C.	0.2–60 s	5–180 s	
				Type ♦	Type ♦	
On Delay	0	1	1	XO00XTE1	XO00XTE2	513.00
	2	1	1	XO20XTE1	XO20XTE2	570.00
	4	1	1	XO40XTE1	XO40XTE2	629.00
Off Delay	0	1	1	XO00XTD1	XO00XTD2	513.00
	2	1	1	XO20XTD1	XO20XTD2	570.00
	4	1	1	XO40XTD1	XO40XTD2	629.00

AC Latching Relays

- Mechanical latch holds all contacts switched even after removal of power from replaceable latching coil.
- Provides sequence memory in the event of power loss. Ideal for press control, process control and punch presses.
- Replaceable unlatch coil to switch contacts back to original state.

Table 23.98: AC Latching Relays

N.O. Convertible Instantaneous Contacts	Latching Relay	
	Type ♦	\$ Price
2	XO20XL	372.00
3	XO30XL	399.00
4	XO40XL	428.00
6	XO60XL	485.00
8	XO80XL	543.00

♦ Voltage Code must be specified to order these products. Refer to Table 23.101 and insert the code as shown in Table 23.104: How to Order.

Approvals:



File E78403
CCN NKCR



File 060905
Class 3211 03



IEC 60947-1

Table 23.99: AC Contact Ratings
(for DC ratings, see page 23-22)

Type of Cartridge	V	Inductive 35% Power Factor				Continuous Amperes	Resistive 75% Power Factor	
		NEMA Rating	Make		Break			
			A	VA	A			VA
Standard or Overlapping	120 240 480 600	A600	60 30 15 12	7200	6 3 1.5 1.2	720	10	
Master★	—	A600	Same as standard cartridge above except substitute 20 A for the continuous ampere rating				10	
Logic Reed	—	—	150 Vac, 150 mA, 8 W Maximum				—	

★ Maximum of six 8501 Type XC4 Master Cartridges may be used on only 7 and 8 pole AC Devices

Table 23.100: Average Operating Time (ms)

Device	Pick-Up	Drop-Out
AC Relay	15	16
AC Latching Relay	15	13

Table 23.101: Voltage Codes

AC Voltages - Hz	Code
12–60	V11
24–60	V01
24–50	V12
48–60	V18
48–50	V16
120–60/110–50	V02
208–60	V08
240–60/220–50	V03
277–60	V04
480–60/440–50	V06
600–60/550–50	V07

AC Control Relays and AC Master Relays

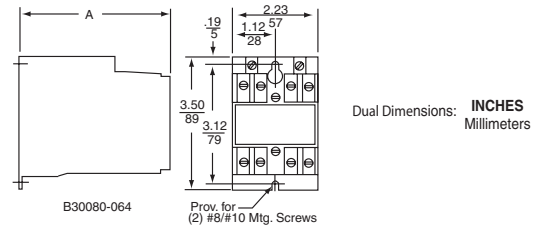


Table 23.102: Dimensions and Weight

No. of Poles	Dim. A		Shipping Weight, lb
	in.	mm	
0–4	3.95	100	2.0
6–8	5.16	131	2.3
10–12	6.36	162	2.7

AC Latching Relay Dimensions

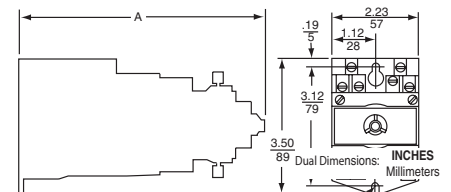


Table 23.103: Dimensions and Weight

No. of Poles	Dim. A		Shipping Weight, lb
	in.	mm	
2–4	6.54	166	2.8
6–8	7.74	197	3.1

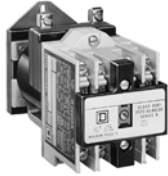
For replacement coils, see page 23-23.

Table 23.104: How to Order

To Order Specify:	Catalog Number		
• Class Number	Class	Type	Voltage Code
• Type Number	8501	XO40	V02
• Voltage Code			

Industrial Relays Square D® NEMA Style

DC Control Relays



Type XDO40
Control Relay

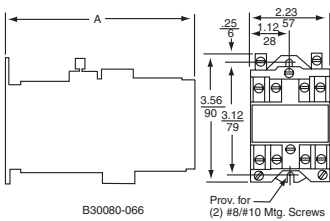
- Replaceable, highly reliable pure DC power plant: no economizing resistors, overlapping contacts or dual-wound coil.
- Utilizes the same Type XB adder decks and attachments as the AC version.
- Offers all the features of the AC relay.
- Available in up to 8 poles.
- All contact poles are usable since no overlapping contacts are needed.

Table 23.105: DC Control Relays

Normally Open Convertible Instantaneous Contacts	Control Relay		\$ Price
	Type		
0	XDO00 ▼		257.00
2	XDO20 ▼		314.00
4	XDO40 ▼		372.00
6	XDO60 ▼		427.00
8	XDO80 ▼		485.00

DC Control Relay Utility Auxiliary Relay

Table 23.106: Dimensions



B30080-066

Prov. for (2) #8/#10 Mtg. Screws

No. of Poles	Dim. A		Shipping Weight lb.
	in.	mm	
0-4	5.17	131	3.1
6-8	6.37	162	3.4
10-12	7.60	193	3.8

DC Timing Relays

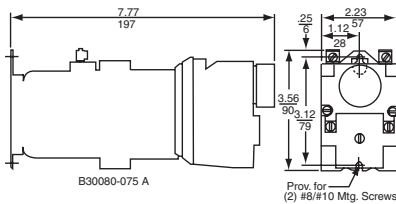


Type XDO40XTE2
Timing Relay

- Easily convertible On Delay or Off Delay.
- Two adjustable timing ranges.
- Repeat accuracy well above $\pm 10\%$.
- Convertible 1 N.O. and 1 N.C. timed contacts.
- Large knob for easy adjustment of time delay.
- Off Delay mode times out even after loss of power.

Table 23.107: DC Timing Relays

Timing Mode	Normally Open Convertible Instantaneous Contacts	Timed Convertible Contacts		Timing Relay		\$ Price
		N.O.	N.C.	0.2-60 s	5-180 s	
				Type	Type	
On Delay	0	1	1	XDO00XTE1 ▼	XDO00XTE2 ▼	656.00
	2	1	1	XDO20XTE1 ▼	XDO20XTE2 ▼	714.00
	4	1	1	XDO40XTE1 ▼	XDO40XTE2 ▼	769.00
Off Delay	0	1	1	XDO00XTD1 ▼	XDO00XTD2 ▼	656.00
	2	1	1	XDO20XTD1 ▼	XDO20XTD2 ▼	714.00
	4	1	1	XDO40XTD1 ▼	XDO40XTD2 ▼	769.00



B30080-075 A

Prov. for (2) #8/#10 Mtg. Screws

Table 23.108: DC Contact Ratings (for AC ratings, see page 23-21)

Type of Cartridge	DC Ratings					
	Volts	NEMA Rating	Inductive		Resistive	
			Make and Break Amperes 138 VA Max.	Continuous Amperes	Make and Break Amperes	Continuous Amperes
Standard	125 250	P600	1.1 0.55	5 5	4 0.8	5 5
Overlapping	125	P150	1.1	5	4	5
Logic Reed	—	—	30 Vdc, 60 ma			

Note: Do not use any 8501 Type XC4 Master Cartridges on any DC-operated device.

Type X® Relays



Class 8501 / Refer to Catalog 8501CT9601

by Schneider Electric
www.schneider-electric.us

DC Latching Relays



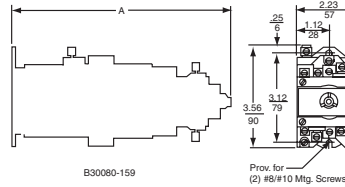
Type XDO40XDL
Latching Relay

- Mechanical latch holds all contacts switched even after removal of power from replaceable latching coil.
- Provides sequence memory in the event of power loss.
- Ideal for sequencing applications such as press control, process control and punch presses.
- Replaceable unlatch coil to switch contacts back to original state.

Table 23.109: DC Latching Relays

Normally Open Convertible Instantaneous Contacts	Latching Relay	
	Type	\$ Price
2	XDO20XDL ▼	567.00
4	XDO40XDL ▼	634.50
6	XDO60XDL ▼	691.50
8	XDO80XDL ▼	747.00

Note: Unlatch coil is rated for intermittent duty and should be connected through a N.O. contact of the relay if the input signal is maintained. Order one more N.O. contact than the application requires to use as a coil clearing contact.



B30080-159

Prov. for (2) #8/#10 Mtg. Screws

Table 23.110: Dimensions

No. of Poles	Dim. A		Shipping Weight, lb.
	in.	mm	
2-4	7.76	197	3.9
6-8	8.98	228	4.2

DC Utility Relays



Type XUDO40
Utility Relay

Ideal for utility plant applications where reliable performance and a pure DC power plant is required. In addition to the Type XDO relay features, the Type XUDO provides:

- Up to 12 poles N.O. or N.C.
- Nominal 125 Vdc coil, capable of handling 140 Vdc continuously and picking up at 105 Vdc after having been operated at 140 Vdc continuously. Other voltages with comparable operating characteristics are available.
- Enclosed device capable of operating in 145°F ambient.

Table 23.111: DC Utility Relays

Number of Convertible Contacts	Open Type		
	N.O.	N.C.	Type
4	0	0	XUDO40 ▼
0	4	0	XUDO04 ▼
8	0	0	XUDO80 ▼
0	8	0	XUDO08 ▼
12	0	0	XUDO1200 ▼
0	12	0	XUDO0012 ▼
			747.00

Table 23.112: Average Operating Times (in ms)

Device	Pick-Up	Drop-Out
DC Relay	37	21
DC Latching Relay	37	45

Table 23.113: Voltage Codes—8501 XUDO and XDO Relays

DC Voltages for 8501 XUDO Relays ONLY	Code	DC Voltages for 8501 XDO Relays	Code
6	V50	6	V50
12	V51	12	V51
24	V53	24	V53
48	V56	32	V54
125	V63	48	V56
250	V67	72	V58
		90	V59
		115/125	V62
		230/250	V66

▼ Voltage code must be specified to order these products. Refer to Table 23.113 and insert the appropriate code as shown in Table 23.114: How to Order.

Table 23.114: How to Order

To Order Specify:	Catalog Number		
• Class Number	Class	Type	Voltage Code
• Type Number	8501	XDO40	V53
• Voltage Code			

For Replacement coils, see page 23-23
For UL and CSA approvals, see page 23-21