

# 976 Relay Slim-Line PCB Mount Relay/One and Two Pole 5 - 20 Amp Rated (DC and AC)



Ratings Up to 20 Amps for High Current Switching in a PCB Application

8mm Coil to Contact Clearance Meets International Standards

Available AC Coil Voltages

Sealed Package that is Compatible with Board Washing Processes.



## General Specifications

(UL 508)

				976AXXH 976XAXH 976XXAH	976AXX97H 976XAX97H 976XXA97H	976XXBH 976XBXH
		Units	12 Amp	20 Amp	5 Amp	
<b>Contact Characteristics</b>			SPDT	SPDT	DPDT	
Number and type of Contacts			Silver Alloy	Silver Alloy	Silver Alloy	
Contact materials			12	20	5	
Thermal (Carrying) Current	A		300	300	300	
Maximum Switching Voltage	V		12A @ 240 50/60Hz (NO)	20A @ 125 50/60 Hz	5A @ 240 50/60 Hz	
Switching Current @ Voltage	~ Resistive		10A @ 240 50/60Hz (NO)	10A @ 30V (NO)	5 @ 30 V	
	⎓ Resistive		10A @ 30V (NC)	10A @ 48 V		
<b>Coil Characteristics</b>						
Voltage Range	~ V		6...240	6...240	6...240	
	⎓ V		3...110	3...110	3...110	
Operating Range	% of Nominal	~	85% to 110%	85% to 110%	85% to 110%	
		⎓	85% to 110%	85% to 110%	85% to 110%	
Average consumption	~ VA		1.2	1.2	1.2	
	⎓ W		0.53	0.53	0.53	
Drop-out voltage threshold	~		30%	30%	30%	
	⎓		10%	10%	10%	
<b>Performance Characteristics</b>						
Electrical Life	Operations @ Rated Current (Resistive)		100,000	100,000	100,000	
Mechanical Life	Unpowered		10,000,000	10,000,000	10,000,000	
Operating time (response time)		ms	15	15	15	
Dielectric	Between coil and contact	~ V	5000	5000	5000	
	Between contacts	~ V	1000	1000	1000	
<b>Environment</b>						
Product certifications	Standard version		UL, TUV	UL, TUV	UL, TUV	
Ambient air temperature around the device	Storage	°C	-40...+85	-40...+85	-40...+85	
	Operation	°C	-40...+55	-40...+55	-40...+55	
Vibration resistance	Operational	g-n	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	
Shock resistance		g-n	10	10	10	
Weight		grams	17	17	17	

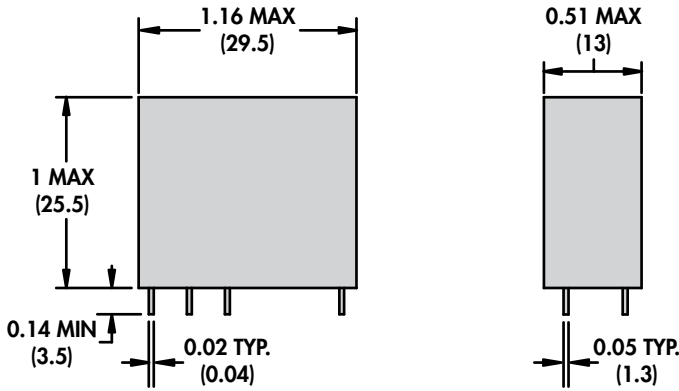
## Part Number Builder

976	XBX	97	H	-24	A
Series	Contact Configuration	Construction	Type of Seal	Coil Voltage	Current Type
976	AXX = SPST - NO	97 = 20A Single Pole Relay	H = Epoxy Sealed	5 = 5 VDC	D = DC Coil
	XAX = SPDT	Blank = Not 20A Construction		6 = 6 VDC	A = AC Coil
	XBX = DPDT			12 = 12 VDC	
				24 = 24 VDC	
				24 = 24 VAC	
				120 = 120 VAC	
				240 = 240 VAC	

**Standard Part Numbers**

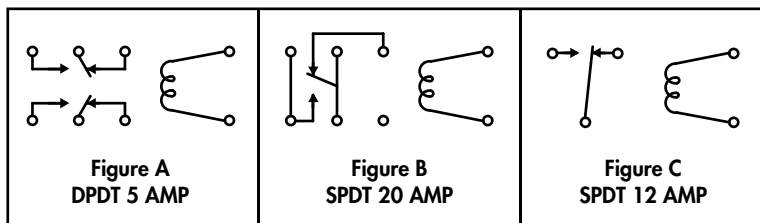
**BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED**

Nominal Input Voltage	Nominal Coil Resistance ( $\Omega$ )	Part Number	Supersedes	Contact Configuration	Figure
<b>5 Amp, DC Operated Coil</b>					
5 VDC	47 $\Omega$	976XBXH-5D	76EURCPCX-61	DPDT	A
6 VDC	68 $\Omega$	976XBXH-6D	76EURCPCX-62	DPDT	A
12 VDC	270 $\Omega$	<b>976XBXH-12D</b>	76EURCPCX-63	DPDT	A
24 VDC	1100 $\Omega$	<b>976XBXH-24D</b>	76EURCPCX-64	DPDT	A
<b>20 Amp, DC Operated Coil</b>					
5 VDC	47 $\Omega$	976XAX97H-5D	76EURCPCX-146	SPDT	B
6 VDC	68 $\Omega$	976XAX97H-6D	76EURCPCX-147	SPDT	B
12 VDC	270 $\Omega$	976XAX97H-12D	76EURCPCX-148	SPDT	B
24 VDC	1100 $\Omega$	<b>976XAX97H-24D</b>	76EURCPCX-149	SPDT	B
<b>12 Amp, DC Operated Coil</b>					
5 VDC	47 $\Omega$	976XAXH-5D	76EURCPCX-14	SPDT	C
6 VDC	68 $\Omega$	976XAXH-6D	76EURCPCX-15	SPDT	C
12 VDC	270 $\Omega$	976XAXH-12D	76EURCPCX-16	SPDT	C
24 VDC	1100 $\Omega$	<b>976XAXH-24D</b>	76EURCPCX-17	SPDT	C
<b>5 Amp, AC Operated Coil</b>					
24 VAC 50/60 Hz	250 $\Omega$	<b>976XBXH-24A</b>		DPDT	A
120 VAC 50/60 Hz	5600 $\Omega$	<b>976XBXH-120A</b>		DPDT	A
240 VAC 50/60 Hz	22000 $\Omega$	<b>976XBXH-240A</b>		DPDT	A
<b>20 Amp, AC Operated Coil</b>					
24 VAC 50/60 Hz	250 $\Omega$	<b>976XAX97H-24A</b>		SPDT	B
120 VAC 50/60 Hz	5600 $\Omega$	<b>976XAX97H-120A</b>		SPDT	B
240 VAC 50/60 Hz	22000 $\Omega$	976XAX97H-240A		SPDT	B
<b>12 Amp, AC Operated Coil</b>					
24 VAC 50/60 Hz	250 $\Omega$	<b>976XAXH-24A</b>		SPDT	C
120 VAC 50/60 Hz	5600 $\Omega$	<b>976XAXH-120A</b>		SPDT	C
240 VAC 50/60 Hz	22000 $\Omega$	<b>976XAXH-240A</b>		SPDT	C



DRAWING AND PIN SPACINGS SHOWN AT 100% OF ACTUAL SIZE

**WIRING DIAGRAMS**  
TOP VIEW



**CIRCUIT BOARD PIN SPACING**  
VIEWED FROM COMPONENT SIDE  
(TOP VIEW)

