

# 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 976XXBH
Contact Characteristics		Units	12 Amp	20 Amp	5 Amp
Number and type of Contacts			SPDT	SPDT	DPDT
Contact materials			Silver Alloy	Silver Alloy	Silver Alloy
Thermal (Carrying) Current		A	12	20	5
Maximum Switching Voltage		V	300	300	300
Switching Current @ Voltage	~	Resistive	12A @ 240 50/60Hz (NO) 10A @ 240 50/60Hz (NO)	20A @ 125 50/60 Hz 16A @ 240 50/60 Hz	5A @ 240 50/60 Hz
	::	Resistive	12A @ 30V (NO) 10A @ 30V (NC)	20A @ 30 V 10A @ 48 V	5 @ 30 V
Coil Characteristics					
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%
Performance Characteristics					
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	~	5000	5000	5000
	Between contacts	~	1000	1000	1000
Environment					
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

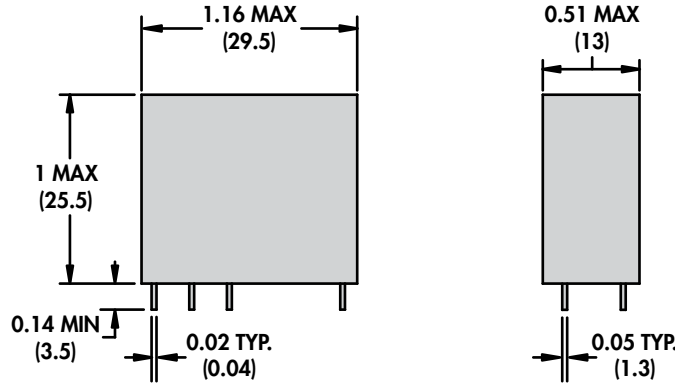
## Part Number Builder

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**

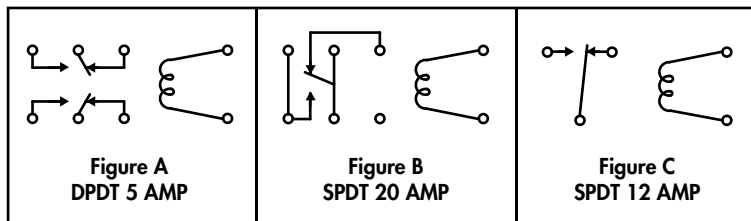
**BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED**

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)

