

# 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)

		Units	976AXXH 976XAXH 976XXAH 12 Amp	976AXX97H 976XAX97H 976XXA97H 20 Amp	976XXBH 976XXBH 5 Amp
<b>Contact Characteristics</b>					
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
<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	~	5000	5000	5000
	Between contacts	~	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

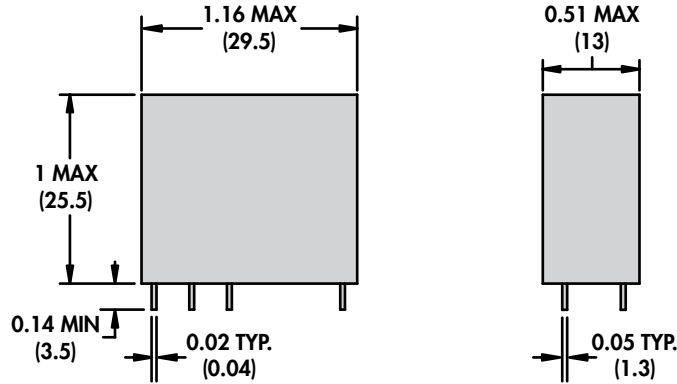
## Part Number Builder

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**

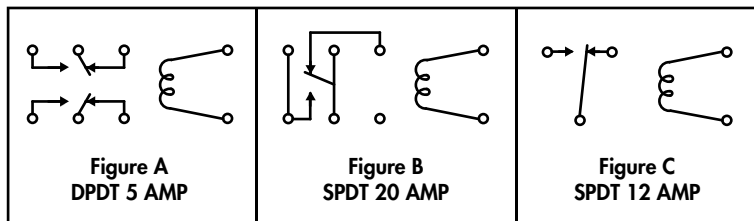
**BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED**

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)

