TAKAMISAWA (Fujitsu) Power Relay 1 POLE-5A NYP24W-K

Features

- Slim type with 5mm thickness
- Low power consumption and high sensitivity



Coil Specifications

Model	Rated voltage	Must operate voltage	Must release voltage	Rated current	Coil resistance	Power consumption
NYP24W-K	24VDC==	16.1V	2.4V	5mA	4,800Ω	120mW

%All values in the table are measured at 20 $^\circ C$ with a tolerance of ±10%.

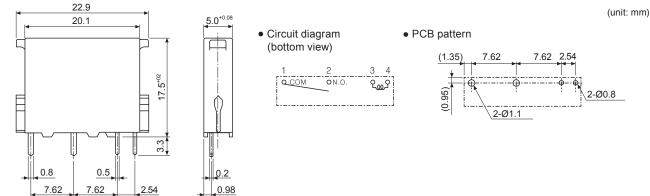
Contact Specifications

	•		1			
Manufactu	cture		TAKAMISAWA (Fujitsu)			
Model			NYP24W-K			
	Arrangeme	ent	1 Form A (SPST-1a)	1 Form A (SPST-1a)		
Contact	Material		Gold overlay silver alloy			
	Resistance	e (initial)	30mΩ (6VDC 1A)			
	Rated load	1	3A 250VAC~	3A 30VDC		
	Max. switc	hing capacity	750VA	90W		
Rating	Min. switch	ning capacity	5VDC 1mA			
	Max. switc	hing voltage	270VAC~	150VDC		
	Max. switc	hing current	5A			
s	Insulation	resistance	≥ 1,000MΩ (at 500VDC megger)			
Electrical characteristics	Dielectric	Between contact-coil	3,000VAC 50/60Hz for 1 minute			
charac	strength	Between open contacts	750VAC 50/60Hz for 1 minute			
ical	Surge volt	age	5,080V			
ectr	Operate tir	ne	≤ 10ms			
	Release ti	me	≤ 5ms			
ics –) (ib and i a a	Mechanical	5.0mm amplitude at frequency of 10 to 55H	lz (for 1 min) in each X, Y, Z direction for 1 hour		
anica	Vibration	Malfunction	1.5mm amplitude at frequency of 10 to 55H	Iz (for 1 min) in each X, Y, Z direction for 10 minute		
Mechanical characteristics		Mechanical	1000m/s² (approx. 100G) in each X, Y, Z dii	rection for 3 times		
cha	Shock	Malfunction	100m/s ² (approx.10G) in each X, Y, Z direct	tion for 3 times		
Life	Mechanica	al	≥ 20,000,000 operations (at 180 operations/min)			
expectancy	ancy Electrical ^{×1}		≥ 100,000 operations (3A 250VAC, 30VDC resistive load)			
Environ-	Ambient te	emperature	-40 to 90°C			
ment	Ambient h	umidity	35 to 80%RH			
Weight	1	-	Approx. 3.5g			
-						

%1: 50,000 operations: 5A 250VAC, 5A 30VDC resistive load (per 20 operations/min)

*Environment resistance is rated at no freezing or condensation.

Dimensions



Power Relay

I/O Terminal Block

AFS(Interface Terminal Block) AFL/AFR(Interface Terminal Block)

ACS(Common Terminal Block) AFE(Sensor Conne Terminal Block)

ABS(Relay Terminal Block)

ABL(Relay Terminal Block Power Relay

RS Automation

I/O Cables MITSUBISHI LSIS Autonics

MATSUSHITA (Panasonic) Power Relay 1 POLE-5A PA1a-24V

Features

- Slim type with 5mm thickness
- Excellent durability resistance against vibration and shock



Coil Specifications

Model	Rated voltage	ge Must operate voltage Must release voltage		Rated current	Coil resistance	Power consumption
PA1a-24V	24VDC==	≥ 70% of rated voltage	≤ 70% of rated voltage	7.5mA	3,200Ω	180mW

%All values in the table are measured at 20 $^\circ\!C$ with a tolerance of ±10%.

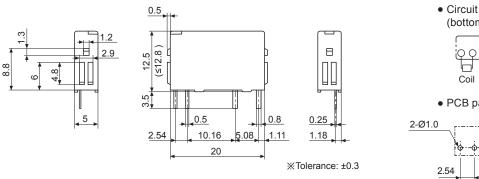
Contact Specifications

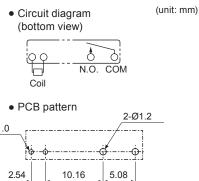
Conta	tact Specifications					
	Manufacture MATSUSHITA (Panasonic)					YOKOGAWA
Model			PA1a-24V			FUJI
Niuuei	Arrangeme		1 Form A (SPST-1a)		-	KDT
Contact		<u>nı</u>			-	OMRON
Contact	Material	· (::::::=1)	Au-clad AgNi type		-	TELEMECANIQUE
	Resistance	()	30mΩ (6VDC 1A)	1	-	For SERVO
	Rated load		5A 250VAC~	5A 30VDC	4	Open Type Cables
		hing capacity	1,250VA	150W	_	Cable Appearance
Rating		ning capacity	100mVDC=== 100uA		_ r	
	Max. switch	hing voltage	250VAC~	110VDC	F	Remote I/O
	Max. switch	hing current	5A			ARD(DeviceNet Digital Standard Terminal Type)
	Insulation r	esistance	≥ 1,000MΩ (at 500VDC megger)			ARD(DeviceNet Digital Sensor Connector Type)
ics.	Dielectric	Between contact-coil 2,000VAC 50/60Hz for 1 minute				ARD(DeviceNet Analog Standard Terminal Type)
Electrical characteristics	strength	Between open contacts	1,000VAC 50/60Hz for 1 minute			ARM(Modbus Digital Sensor Connector Type) Others
Har:	Surge volta	age	4,000V		1 [
0	Operate tim	ne	≤ 10ms		1	Sensor Connectors
	Release tin	ne	≤ 5ms		1	Sockets
ic al		Mechanical	3.5mm amplitude at frequency of 10 to 55Hz ((for 1 min) in each X, Y, Z direction for 1 hour	1	Sensor Distribution Boxes
anica	Vibration	Malfunction	2.5mm amplitude at frequency of 10 to 55Hz /	(for 1 min) in each X, Y, Z direction for 10 minute	1	Valve Plugs
Mechanical characteristics		Mechanical	980m/s ² (approx. 100G) in each X, Y, Z direction	ion for 3 times	1	Thumbwheel Switches
cha M	Shock	Malfunction	147m/s ² (approx. 15G) in each X, Y, Z direction	un for 3 times	1	
Life	Mechanical		≥ 20,000,000 operations (at 180 operations/mi	in)	1	
expectancy	Electrical ^{*1}	ī	≥ 100,000 operations (3A 250VAC, 30VDC res	sistive load)	1	
Environ-	Ambient ter	mperature	-40 to 70°C		1	
ment	Ambient hu	umidity	5 to 85%RH		1	
Weight	/eight		Approx. 3g		1	
	reight				_	

X1: 50,000 operations-5A 250VAC, 5A 30VDC resistive load (per 20 operations/min)

Environment resistance is rated at no freezing or condensation.

Dimensions





Autonics

MATSUSHITA (Panasonic) Power Relay 1 POLE-5A PQ1a-24V

Features

- Slim type
- Excellent durability resistance against vibration and shock

Coil Specifications

Harris Constant	2 C	i.
111		T

	Model	Rated voltage	Must operate voltage	Must release voltage	Rated current	Coil resistance	Power consumption
	PQ1a-24V	24VDC==	≥ 75% of rated voltage	≤ 5% of rated voltage	8.3mA	2,880Ω	200mW
>	\times All values in the table are measured at 20 °C with a tolerance of ±10%.						

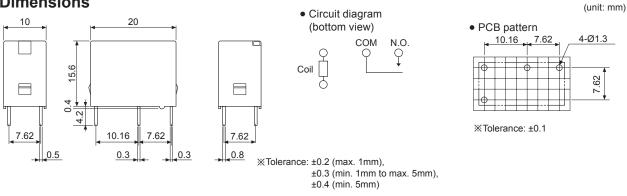
Contact Specifications

	<u>r opco</u>	incations				
Manufacture		· · · · · · · · · · · · · · · · · · ·	MATSUSHITA (Panasonic)			
Model			PQ1a-24V			
	Arrangeme	ent	1 Form A (SPST-1a)			
Contact	Material		Au-clad AgNi type			
	Resistance	e (initial)	50mΩ (6VDC 1A)			
	Rated load	I (resistive load)	5A 250VAC~	5A 30VDC		
Rating	Max. switc (resistive lo	hing power bad)	1,250VA	150W		
	Max. switc	hing voltage	250VAC~	110VDC		
	Max. switc	hing current	5A			
	Insulation resistance (initial)		≥ 1,000MΩ (at 500VDC megger)			
s	Dielectric strength	Between contact-coil	4,000VAC 50/60Hz for 1 minute			
Electrical characteristics		Between open contacts	1,000VAC 50/60Hz for 1 minute			
Ele	Surge voltage		8,000V			
<u>с</u>	Operate time (supplying rated voltage)		≤ 20ms			
	Release tir (supplying	ne rated voltage)	≤ 10ms			
CS =	Vibration	Mechanical	3.5mm amplitude at frequency of 10 to 55Hz (for	1 min) in each X, Y, Z direction for 1 hour		
anica	VIDIATION	Malfunction	2.0mm amplitude at frequency of 10 to 55Hz (for	1 min) in each X, Y, Z direction for 10 minute		
Mechanical characteristics	Shock	Mechanical	980m/s ² (approx. 100G) in each X, Y, Z direction	for 3 times		
Chi	SHUCK	Malfunction	294m/s ² (approx. 15G) in each X, Y, Z direction for	or 3 times		
Life	fe Mechanical		≥ 20,000,000 operations (at 180 operations/min)			
expectancy	Electrical*	1	≥ 100,000 operations (5A 250VAC, 30VDC resistive load)			
Environ-	Ambient te	mperature	-40 to 70°C			
ment	Ambient hu	umidity	5 to 85%RH			
Weight	Weight		Approx. 7g			

%1: 20 operations per 1 minute

Environment resistance is rated at no freezing or condensation.

Dimensions



Autonics

Power Relay

I/O Terminal Blocks

AFS(Interface Terminal Block) AFL/AFR(Interface Terminal Block)

ACS(Common Terminal Block)

AFE(Sensor Conne Terminal Block)

ABS(Relay Terminal Block) ABL(Relay Terminal Block

Power Relay

I/O Cables MITSUBISH I SIS Autonics RS Automation YOKOGAWA FUJI KDT

MATSUSHITA (Panasonic) Power Relay Plug-In Type 1 Form C

Features

- Slim type
- High capacity, high reliability

Coil Specifications



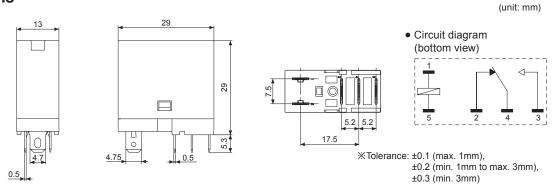
Model	Rated voltage	Must operate voltage	Must release voltage	Rated current		Power consumption		
AHN12024	24VDC==	≥ 70% of rated voltage	≤ 15% of rated voltage	22mA		22mA 0.53W		
				50Hz	60Hz	50Hz	60Hz	
AHN110X0	100/110VAC~ ≥ 80% of rated voltage	≤ 30% of rated voltage	11/13mA	9/10.6mA	1.1 to 1.4VA	0.9 to 1.2VA		
				50Hz	60Hz	50Hz	60Hz	
AHN110Y0	200/220VAC~	≥ 80% of rated voltage	oltage ≤ 30% of rated voltage	5.5/6.5mA	4.5/5.3mA	1.1 to 1.4VA	0.9 to 1.2VA	

Contact Specifications

Conta	ntact Specifications						
Manufactu	facture		MATSUSHITA (Panasonic)				
Model			AHN12024	AHN110X0	AHN110Y0		TELEMECANIQUE
	Arrangem	ent	1 Form C				For SERVO
Contact	Material		AgSnO ₂ type				Open Type Cables
	Resistanc	e (initial)	≤ 100mΩ (6VDC 1A)				Cable Appearance
	Rated load	d (resistive load)	10A 250VAC~, 10A 30VDC==			Г	
Rating	Max. swite (resistive l	ching power load)	4,000VA, 300W			F	Remote I/O
J	Max. swite	ching voltage	250VAC~, 30VDC==				Standard Terminal Type)
	Max. swite	ching current	16A (AC load), 10A (DC load)				ARD(DeviceNet Digital Sensor Connector Type)
	Insulation	resistance (initial)	≥ 1,000MΩ (at 500VDC megger)			ARD(DeviceNet Analog Standard Terminal Type)
cs	Between Dielectric contact-coil		5,000VAC 50/60Hz for 1 minute			_	ARM(Modbus Digital Sensor Connector Type)
Electrical characteristics	strength	Between open contacts	1,000VAC 50/60Hz for 1 minute			C	Others
Ele chara	Operate ti (supplying	me (rated voltage)	≤ 15ms				Sensor Connectors
	Release ti (supplying	me (rated voltage)	≤ 5ms				Sensor Distribution Boxes
ics al) (ile and in a	Mechanical	1.5mm amplitude at frequency of	of 10 to 55Hz (for 1 min) in each X	, Y, Z direction for 1 hour		Valve Plugs
Mechanical characteristics	Vibration	Malfunction	1.5mm amplitude at frequency of	of 10 to 55Hz (for 1 min) in each X	, Y, Z direction for 10 minute		Thumbwheel Switches
ech	Chaoli	Mechanical	1,000m/s ² (approx. 100G) in eac	ch X, Y, Z direction for 3 times			
⊂ La	Shock	Malfunction	100m/s ² (approx. 10G) in each 2	X, Y, Z direction for 3 times			
Life	Mechanical Electrical		≥ 20,000,000 operations (at 300 operations/min)	≥ 10,000,000 operations (at 300	operations/min)		
expectancy			≥ 100,000 operations (at 20 ope	rations/min)			
Environ-	Ambient to	emperature	-40 to 70°C				
ment	Ambient h	umidity	5 to 85%RH				
Weight			Approx. 19g				

%Environment resistance is rated at no freezing or condensation.

Dimensions



OMRON Power Relay 1 Form C

Features

- Slim type
- High capacity, high reliability

Coil Specifications



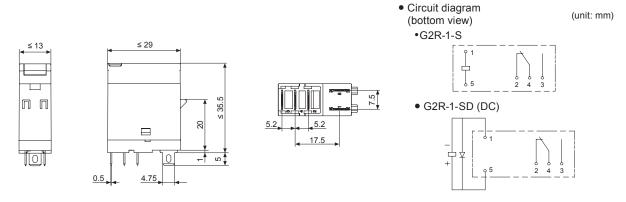
Model	Rated voltage	Must operate voltage	Must release voltage	Rated current		Rated current Power cons		Power consumption
G2R-1-S24VDC	24VDC==	≥ 70% of rated voltage	≤ 15% of rated voltage	21.8mA		0.53W		
G2R-1-S100/ (110)VAC	00/ (110)VAC 100/110VAC~	≥ 80% of rated voltage	≤ 30% of rated voltage	50Hz	60Hz	60Hz		
G2R-1-3100/ (110)VAC	100/110VAC~	2 60% of fated voltage	≤ 50% of faled voltage	11mA	9/10.6mA	0.9VA		
G2R-1-S200/ (220)VAC	G2R-1-S200/ (220)VAC 200/220VAC~ ≥ 80%		≤ 30% of rated voltage	50Hz	60Hz	60Hz		
G2R-1-3200/ (220)VAC	200/220VAC~	≥ 80% of rated voltage		5.5/4mA	4.5/5.3mA	0.9VA		

Contact Specifications

		omoution						
Manufact	ure		OMRON					
Model			G2R-1-S24VDC	G2R-1-S100/ (110)VAC	G2R-1-S100/ (110)VAC			
	Arrangeme	ent	1 Form C					
Contact	Material		AgSnO ₂ type					
	Resistance	e (initial)	≤ 100mΩ					
	Rated load	(resistive load)	10A 250VAC~, 10A 30VDC==					
Rating	Max. switcl (resistive I		2,500VA, 300W	2,500VA, 300W				
l .	Max. switcl	hing voltage	380VAC~, 125VDC==					
	Max. switcl	hing current	16A (AC load), 10A (DC load)					
	Insulation re	esistance (initial)	≥ 1,000MΩ (at 500VDC megger)					
S	Dielectric strength	Between contact-coil	5,000VAC 50/60Hz for 1 minute					
Electrical characteristics		Between open contacts	1,000VAC 50/60Hz for 1 minute					
Ele	Operate time (supplying rated voltage)		≤ 15ms					
	Release time (supplying rated voltage)		≤ 5ms	≤ 10ms				
ics al	Vibration	Mechanical	1.5mm amplitude at frequency of	10 to 55Hz (for 1 min) in each X, Y	Z direction for 1 hour			
Mechanical characteristics	Vibration	Malfunction	1.5mm amplitude at frequency of	10 to 55Hz (for 1 min) in each X, Y	Z direction for 10 minute			
echa	Shock	Mechanical	1,000m/s ² (approx. 100G) in each	X, Y, Z direction for 3 times				
⊇ cho	SHOCK	Malfunction	100m/s ² (approx. 10G) in each X,	Y, Z direction for 3 times				
Life	Mechanica	I	≥ 20,000,000 operations (at 18,000 operations/hour)	≥ 10,000,000 operations (at 18,0	000 operations/hour)			
expectancy	Electrical		≥ 100,000 operations (at 1,800 op	perations/hour)				
Environ-	Ambient te	mperature	-40 to 70°C					
ment	Ambient hu	umidity	5 to 85%RH					
Weight			Approx. 20g					

*Environment resistance is rated at no freezing or condensation.

Dimensions



I/O Cables

I/O Terminal Blocks

AFS(Interface Terminal Block) AFL/AFR(Interface Terminal Block)

ACS(Common Terminal Block)

AFE(Sensor Conne Terminal Block)

ABS(Relay Terminal Block) ABL(Relay Terminal Block)

Power Relay

MITSUBISHI LSIS Autonics RS Automation YOKOGAWA FUJI KDT OMRON

TELEMECANIQUE

or SERVO pen Type Cables

Cable Appearance

emote I/O

RD(DeviceNet Digital standard Terminal Type)
RD(DeviceNet Digital iensor Connector Type)
RD(DeviceNet Analog standard Terminal Type)
RM(Modbus Digital iensor Connector Type)
hers

Sensor Connectors

Sensor Distribution

Valve Plugs

Thumbwheel Switches

OMRON Power Relay 1 Form A

Features

- Slim type
- High capacity, high reliability

Coil Specifications

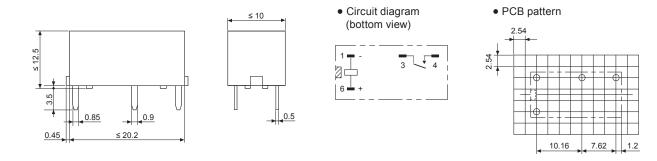
Model	Rated voltage	Must operate voltage	Must release voltage	Rated current	Coil resistance	Power consumption	1/0
G6B-1174P-FD-US	24VDC==	≥ 70% of rated voltage	≤ 10% of rated voltage	8.3mA	2,880Ω	200mW	1

Contact Specifications

Manufactu	ro		OMRON		Autor	
Model			G6B-1174P-FD-US			
Arrangement		ent	1 Form A (SPST-1a)			
_	Material		AgCdO type			
	Resistance (initial)		30mΩ (5VDC 1A)		OMRO	
Rating	Rated load (resistive load)		5A 250VAC~	5V 30VDC==	TELE	
	Max. switching power		1,250VA	150W	For SE	
	Max. switching voltage		380VAC~	125VDC		
	Max. switching current		5A		Open ⁻	
Electrical characteristics	Insulation resistance (initial)		≥ 1,000MΩ (at 500VDC megger)		Cable	
	Dielectric strength	Between contact-coil	3,000VAC 50/60Hz for 1 minute		ARD(De Standar	
		Between open contacts	1,000VAC 50/60Hz for 1 minute		ARD(De Sensor (ARD(De	
	Surge voltage		6,000V		Standar ARM(Mo	
	Operate time (supplying rated voltage)		≤ 20ms		Sensor	
	Release time (supplying rated voltage)		≤ 5ms		Senso	
Mechanical characteristics		Mechanical	1.5mm amplitude at frequency of 10 to 5	5Hz (for 1 min) in each X, Y, Z direction for 1 hour	Socket Sensor Boxes Valve F	
	Vibration	Malfunction	1.5mm amplitude at frequency of 10 to 5	5Hz (for 1 min) in each X, Y, Z direction for 10 minute		
	Shock	Mechanical	1,000m/s ² (approx. 100G) in each X, Y,	Z direction for 3 times		
		Malfunction	100m/s ² (approx. 10G) in each X, Y, Z d	rection for 3 times	Thum Switch	
Life expectancy	Mechanical		≥ 50,000,000 operations (at 300 operations/min)			
	Electrical		≥ 100,000 operations (5A, 250VAC, 30VDC) (at 30 operations/min)			
Environ- ment	Ambient temperature		-25 to 70°C			
	Ambient humidity		5 to 85%RH			
Weight		-	Approx. 5g			

%Environment resistance is rated at no freezing or condensation.

Dimensions



(unit: mm)



Power Relay