

POWER RELAY

1 POLE - 5A Slim Type

NY Series

■ FEATURES

- Slim type with 5 mm thickness
 - Suited for high density mounting
- Low power consumption and high sensitivity
 - Nominal coil power: 120 mW
 - Operating power: 54 mW
- UL and CSA recognized
- Conforms to IEC61010, 61131
- High insulation
 - Surge voltage: 5,080V
 - Dielectric strength: 3,000VAC (coil and contacts)
- SIL pitch terminals
- Plastic sealed type, RTIII
- Compatible with solid state I/O module type SN in size and pin (terminal) arrangement
- Environmentally friendly cadmium free contact type
- RoHS compliant.

Please see page 6 for more information



■ PARTNUMBER INFORMATION

[Example] NY P - 12 W - K - IE
 (a) (b) (*) (c) (d) (e) (*) (f)

(a)	Relay type	NY	: NY-Series
(b)	Mounting type	Nil P	: PCB board mounting type : Socket mounting type
(c)	Coil rated voltage	12	: 4.5.....24 VDC Coil rating table at page 3
(d)	Contact design	W	: Bifurcated contact
(e)	Enclosure	K	: Plastic sealed type, RTIII
(f)	Insulation	IE	: Complies with IEC standard, IEC61010, 61131

Note: Actual marking omits the hyphen (-) and IE of (*)

■ SPECIFICATION

Item			NY
Contact Data	Configuration		1 form A (SPST-NO)
	Construction		Bifurcated
	Material		Gold overlay silver alloy (AgNi + Au)
	Resistance (initial)		Max. 30 mΩ at 6 VDC, 1 A
	Contact rating		5A, 250VAC / 30VDC
	Max. carrying current		5A
	Max. switching voltage		270VAC / 150 VDC
	Max. switching power		750VA / 90W
	Max. switching current		5A
	Min. switching load *		1 mA, 5 VDC
Life	Mechanical		Min. 20 x 10 ⁶ operations
	Electrical		Min. 100 x 10 ³ operations (at 3A, 250VAC, 30VDC resistive) Min. 50 x 10 ³ operations (at 5A, 250VAC, 30VDC resistive)
Coil Data	Rated power (at 20 °C)		120 mW
	Operate power (at 20 °C)		54 mW
	Operating temperature range		-40 °C to +90 °C (no frost)
Timing Data	Operate (at nominal voltage)		Max. 10 ms (without bounce)
	Release (at nominal voltage)		Max. 5 ms (no diode)
Insulation	Resistance (initial)		Min. 1,000MΩ at 500VDC
	Dielectric strength	Open contacts	750VAC, 1min
		Contacts to coil	3,000VAC, 1min
	Surge strength	Coil to contacts	5,080V / 1.2 x 50μs standard wave
Other	Vibration resistance	Misoperation	10 to 55Hz double amplitude 1.5 mm
		Endurance	10 to 55Hz double amplitude 5 mm
	Shock	Misoperation	Min. 100m/s ² (11 ± 1ms)
		Endurance	Min. 1,000m/s ² (6 ± 1ms)
	Weight		Approximately 3.5 g
	Sealing		Plastic sealed, RTIII

* Minimum switching loads mentioned above are reference values. Please perform the confirmation test with actual load before production since reference values may vary according to switching frequencies, environmental conditions and expected reliability levels.

■ COIL RATING

Coil Code	Rated Coil Voltage (VDC)	Coil Resistance +/- 10% (Ohm)	Must Operate Voltage (VDC) *	Must Release-Voltage (VDC) *	Rated Power (mW)
4.5	4.5	169	3	0.45	120
5	5	208	3.35	0.5	
6	6	300	4	0.6	
9	9	675	6	0.9	
12	12	1,200	8	1.2	
18	18	2,700	12.1	1.8	
24	24	4,800	16.1	2.4	

Note: All values in the table are valid for 20°C and zero contact current.

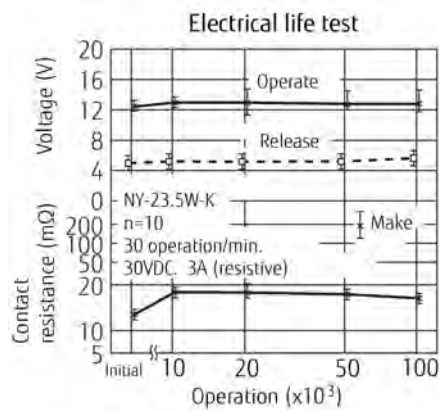
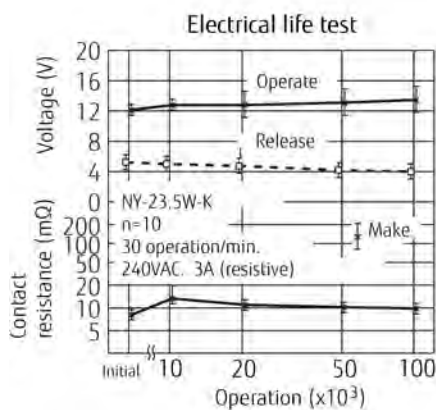
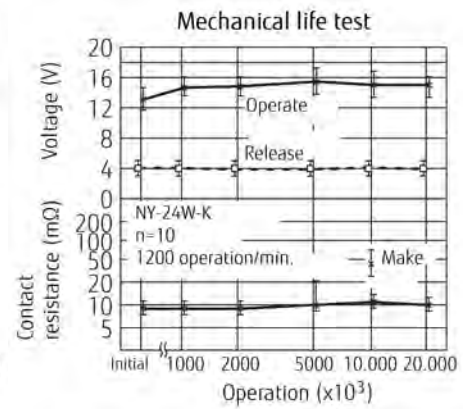
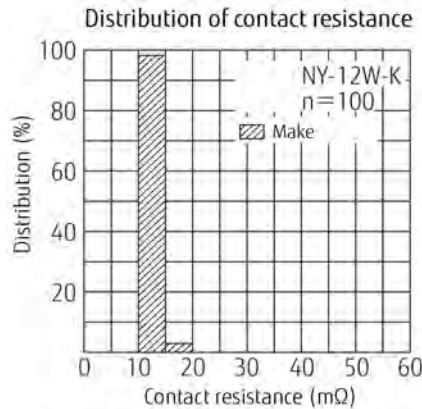
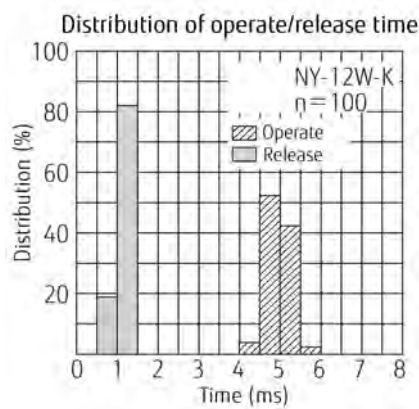
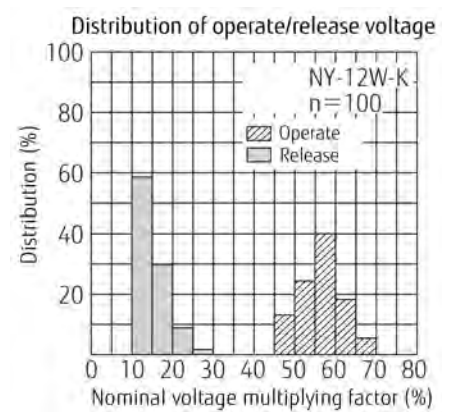
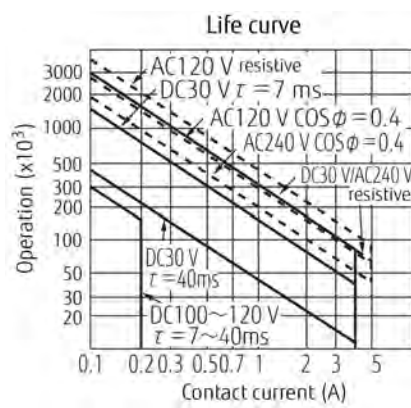
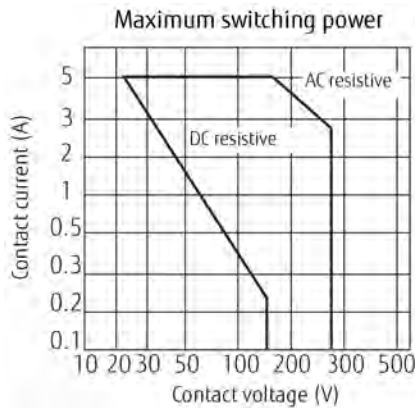
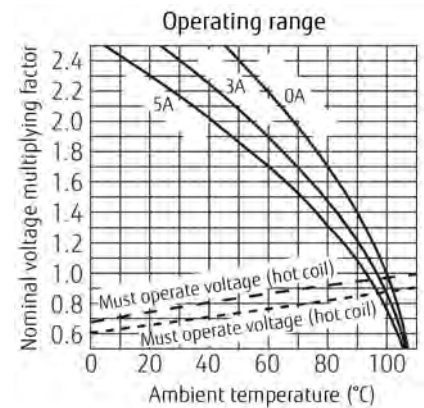
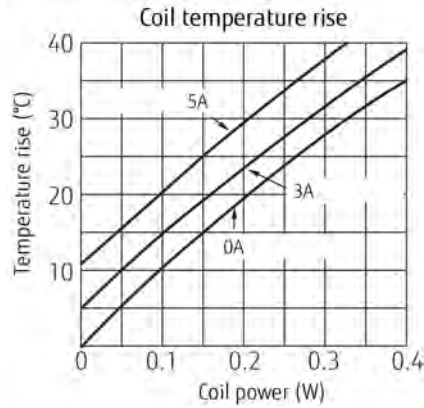
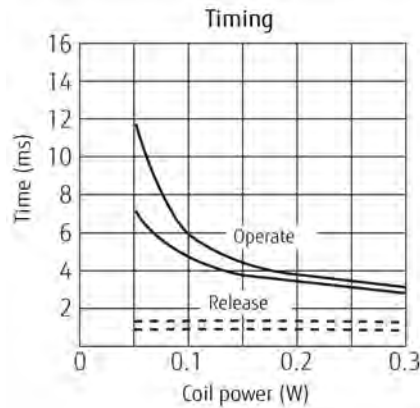
* Specified operate values are valid for pulse wave voltage.

■ SAFETY STANDARDS

Type	Compliance	Contact rating
UL	UL 508, UL 1604	Flammability: UL 94-V0 (plastics)
	E56140, E199193	3A (General use) 5A, 250VAC/30 VDC (resistive)
CSA	C22.2 No. 14 LR 35579	1/8 HP, 250VAC /125VAC Pilot duty: C300

Also complies with IEC 61010, 61131

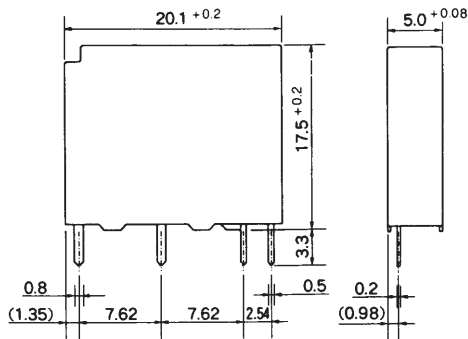
■ CHARACTERISTIC DATA



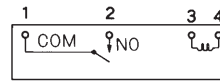
■ DIMENSIONS

NY type

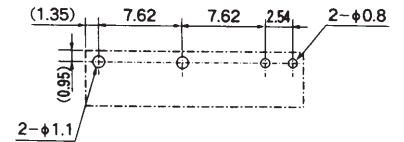
● Dimensions



● Schematics

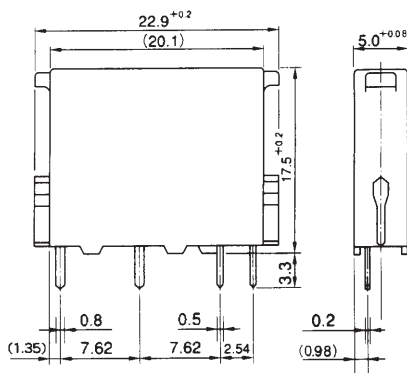


● PC board mounting hole layout (BOTTOM VIEW)

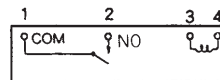


NYP type

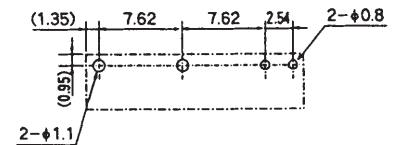
● Dimensions



● Schematics

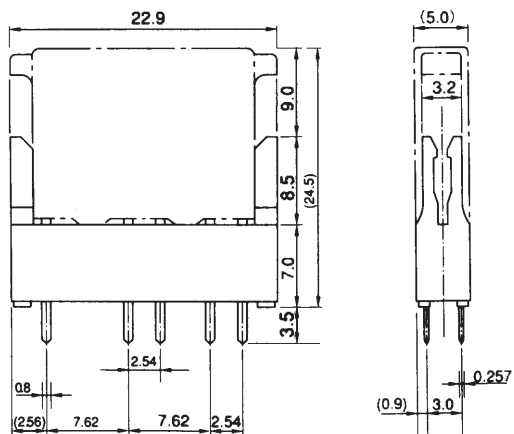


● PC board mounting hole layout (BOTTOM VIEW)

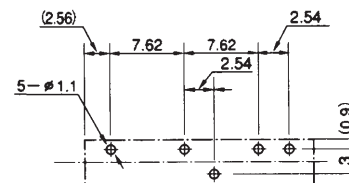


Socket type JL-5N

● Dimensions



● PC board mounting hole layout (BOTTOM VIEW)



RoHS Compliance and Lead Free Information

1. General Information

- All relays produced by Fujitsu Components are compliant with RoHS directive 2011/65/EU including amendments.
- Cadmium as used in electrical contacts is exempted from the RoHS directives.
As per Annex III of directive 2011/65/EU.
- All relays are lead-free. Please refer to Lead-Free Status Info for older date codes at:
<http://www.fujitsu.com/downloads/MICRO/fcai/relays/lead-free-letter.pdf>
- Lead free solder plating on relay terminals is Sn-3.0Ag-0.5Cu, unless otherwise specified.
This material has been verified to be compatible with PbSn assembly process.

2. Recommended Lead Free Solder Condition

- Recommended solder Sn-3.0Ag-0.5Cu.

Flow Solder Condition:

Pre-heating: maximum 120°C
within 9 sec.
Soldering: dip within 5 sec. at
255°C ± 5°C solder bath
Relay must be cooled by air immediately
after soldering

Solder by Soldering Iron:

Soldering Iron 30-60W
Temperature: maximum 350-360°C
Duration: maximum 3 sec.

We highly recommend that you confirm your actual solder conditions

3. Moisture Sensitivity

- Moisture Sensitivity Level standard is not applicable to electromechanical relays, unless otherwise indicated.

4. Tin Whiskers

- Dipped SnAgCu solder is known as presenting a low risk to tin whisker development. No considerable length whisker was found by our in house test.

Fujitsu Components International Headquarter Offices

Japan

Fujitsu Component Limited
Gotanda-Chuo Building
3-5, Higashigotanda 2-chome, Shinagawa-ku
Tokyo 141, Japan
Tel: (81-3) 5449-7010
Fax: (81-3) 5449-2626
Email: promothq@ft.ed.fujitsu.com
Web: www.fcl.fujitsu.com

North and South America

Fujitsu Components America, Inc.
250 E. Caribbean Drive
Sunnyvale, CA 94089 U.S.A.
Tel: (1-408) 745-4900
Fax: (1-408) 745-4970
Email: components@us.fujitsu.com
Web: <http://us.fujitsu.com/components>

Europe

Fujitsu Components Europe B.V.
Diamantlaan 25
2132 WV Hoofddorp
Netherlands
Tel: (31-23) 5560910
Fax: (31-23) 5560950
Email: info@fceu.fujitsu.com
Web: emea.fujitsu.com/components/

Asia Pacific

Fujitsu Components Asia Ltd.
102E Pasir Panjang Road
#01-01 Citilink Warehouse Complex
Singapore 118529
Tel: (65) 6375-8560
Fax: (65) 6273-3021
Email: fcsl@fcal.fujitsu.com
Web: <http://www.fujitsu.com/sg/services/micro/components/>

©2014 Fujitsu Components Europe B.V. All rights reserved. All trademarks or registered trademarks are the property of their respective owners.

The contents, data and information in this datasheet are provided by Fujitsu Component Ltd. as a service only to its user and only for general information purposes.

The use of the contents, data and information provided in this datasheet is at the users' own risk.

Fujitsu has assembled this datasheet with care and will endeavor to keep the contents, data and information correct, accurate, comprehensive, complete and up to date.

Fujitsu Components Europe B.V. and affiliated companies do however not accept any responsibility or liability on their behalf, nor on behalf of its employees, for any loss or damage, direct, indirect or consequential, with respect to this datasheet, its contents, data, and information and related graphics and the correctness, reliability, accuracy, comprehensiveness, usefulness, availability and completeness thereof.

Nor do Fujitsu Components Europe B.V. and affiliated companies accept on their behalf, nor on behalf of its employees, any responsibility or liability for any representation or warrant of any kind, express or implied, including warranties of any kind for merchantability or fitness for particular use, with respect to these datasheets, its contents, data, information and related graphics and the correctness, reliability, accuracy, comprehensiveness, usefulness, availability and completeness thereof. Rev. January 13, 2014



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.