

Panasonic

ideas for life

MINIATURE SWITCHES WITH HIGH PRECISION

AM5 (QV) SWITCHES



FEATURES

- High precision as a result of designing ideal spring by using computer analysis
O.P. 14.7±0.4mm
- Reliable design with shock resistance min. 980 m/s²
- High inrush resistance 160A
- Wide variety of contact ratings and terminal types
- UL/C-UL, ENEC/VDE approved

TYPICAL APPLICATION

- Home appliances
- Vending machines
- Amusement and communication equipment
- Copies
- General industrial machines

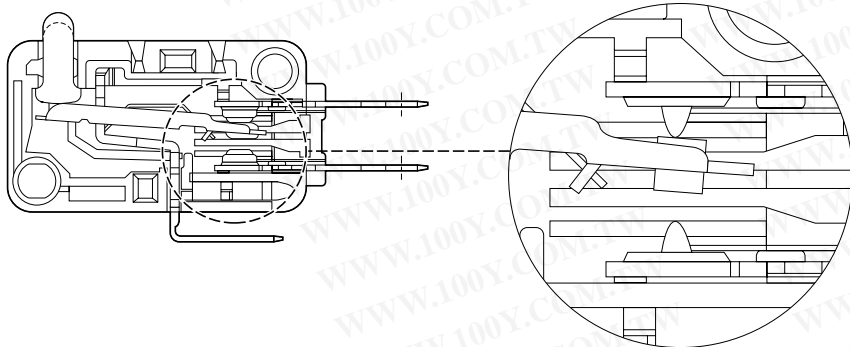
Standard type contact gap is 1mm. Please consult us if you need more than 1mm contact gap.

Compliance with RoHS Directive

CONSTRUCTION

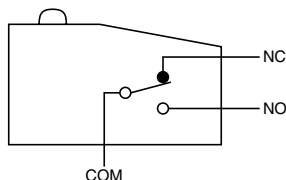
1. Silver alloy contact

2. Gold clad contact



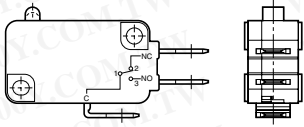
勝特力材料 886-3-5753170
 胜特力电子(上海) 86-21-34970699
 胜特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

CONTACT ARRANGEMENT

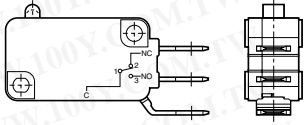


TERMINALS

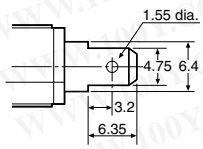
.187 Quick-connect terminal
.187 Quick-connect/solder terminal
 Bottom COM terminal



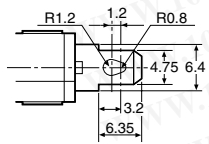
Side COM terminal



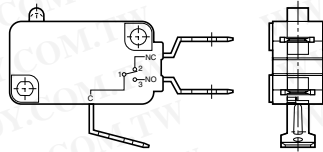
Dimensions
 .187 Quick-connect terminal



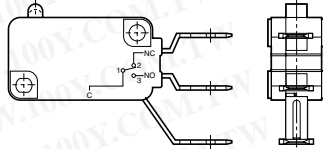
Dimensions
 .187 Quick-connect/solder terminal



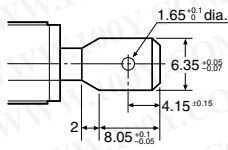
.250 Quick-connect terminal
 Bottom COM terminal



Side COM terminal



Dimensions



OPERATION FORCE CHART

7th digit of Part Number/Actuator	Operation Force, Max. by actuator				
	3	4	5	6	7
Pin plunger	0.49N	0.98N	1.96N	2.94N	3.92N
Short hinge lever	0.59N	1.08N	2.16N	3.14N	4.12N
Hinge lever	0.29N	0.59N	1.18N	1.77N	2.35N
Long hinge lever	0.15N	0.29N	0.59N	0.88N	1.18N
Simulated roller lever	0.29N	0.59N	1.18N	1.77N	2.35N
Short roller lever	0.59N	1.08N	2.16N	3.14N	4.12N
Roller lever	0.29N	0.59N	1.18N	1.77N	2.35N

AM5

ORDERING INFORMATION

0.1A type

Ex. AM5 0 0 1 0 C 5 3

Type of switch	Contact rating	Terminals	Actuators	Terminals	Operating force by pin plunger (max.)	Agency standard
AM5: QV switch	00: 0.1 A (Gold clad)	1: Bottom COM, SPDT 2: Bottom COM, SPST-NC 3: Bottom COM, SPST-NO 4: Side COM, SPDT 5: Side COM, SPST-NC 6: Side COM, SPST-NO	0: Pin plunger 1: Short hinge lever 2: Hinge lever 3: Long hinge lever 4: Simulated roller lever 5: Short roller lever 6: Roller lever	A: .187 Quick-connect/solder terminal C: .187 Quick-connect terminal	3: 0.49 N 4: 0.98 N 5: 1.96 N	3: UL/C-UL rated, ENEC/VDE approved

Remarks: 1. Not every combination is available. Please refer to the table, "PRODUCT TYPES".
2. Please refer to the Standard Chart regarding Agency Standard

6A type

Ex. AM5 0 6 1 0 C 5 3

Type of switch	Contact rating	Terminals	Actuators	Terminals	Operating force by pin plunger (max.)	Agency standard
AM5: QV switch	06: 6 A (Silver alloy)	1: Bottom COM, SPDT 2: Bottom COM, SPST-NC 3: Bottom COM, SPST-NO 4: Side COM, SPDT 5: Side COM, SPST-NC 6: Side COM, SPST-NO	0: Pin plunger 1: Short hinge lever 2: Hinge lever 3: Long hinge lever 4: Simulated roller lever 5: Short roller lever 6: Roller lever	A: .187 Quick-connect/solder terminal C: .187 Quick-connect terminal	3: 0.49 N	3: UL/C-UL rated, ENEC/VDE approved

Remarks: 1. Not every combination is available. Please refer to the table, "PRODUCT TYPES".
2. Please refer to the Standard Chart regarding Agency Standard

11A type

Ex. AM5 1 1 1 0 C 4 3 N

Type of switch	Contact rating	Terminals	Actuators	Terminals	Operating force by pin plunger (max.)	Agency standard	Contact
AM5: QV switch	11: 11 A (Silver alloy)	1: Bottom COM, SPDT 2: Bottom COM, SPST-NC 3: Bottom COM, SPST-NO 4: Side COM, SPDT 5: Side COM, SPST-NC 6: Side COM, SPST-NO	0: Pin plunger 1: Short hinge lever 2: Hinge lever 3: Long hinge lever 4: Simulated roller lever 5: Short roller lever 6: Roller lever	A: .187 Quick-connect/solder terminal C: .187 Quick-connect terminal D: .250 Quick-connect terminal	4: 0.98 N	3: UL/C-UL rated, ENEC/VDE approved	N: Cadmium free

Remarks: 1. Not every combination is available. Please refer to the table, "PRODUCT TYPES".
2. Please refer to the Standard Chart regarding Agency Standard

16A type

Ex. AM5 1 6 1 0 C 5 3 N

Type of switch	Contact rating	Terminals	Actuators	Terminals	Operating force by pin plunger (max.)	Agency standard	Contact
AM5: QV switch	16: 16 A (Silver alloy)	1: Bottom COM, SPDT 2: Bottom COM, SPST-NC 3: Bottom COM, SPST-NO 4: Side COM, SPDT 5: Side COM, SPST-NC 6: Side COM, SPST-NO	0: Pin plunger 1: Short hinge lever 2: Hinge lever 3: Long hinge lever 4: Simulated roller lever 5: Short roller lever 6: Roller lever	A: .187 Quick-connect/solder terminal C: .187 Quick-connect terminal D: .250 Quick-connect terminal	5: 1.96 N 6: 2.94 N 7: 3.92 N	3: UL/C-UL rated, ENEC/VDE approved	N: Cadmium free

Remarks: 1. Not every combination is available. Please refer to the table, "PRODUCT TYPES".
2. Please refer to the Standard Chart regarding Agency Standard

PRODUCT TYPES**0.1A type (Gold clad contact)**

.187 Quick-connect terminal

1) Bottom COM terminal

Actuator	Operating force, Max.	Contact arrangement		
		SPDT	SPST-NC	SPST-NO
Pin plunger	0.49N	AM50010C33	AM50020C33	AM50030C33
	0.98N	AM50010C43	AM50020C43	AM50030C43
	1.96N	AM50010C53	AM50020C53	AM50030C53
Short hinge lever	0.59N	AM50011C33	AM50021C33	AM50031C33
	1.08N	AM50011C43	AM50021C43	AM50031C43
	2.16N	AM50011C53	AM50021C53	AM50031C53
Hinge lever	0.29N	AM50012C33	AM50022C33	AM50032C33
	0.59N	AM50012C43	AM50022C43	AM50032C43
	1.18N	AM50012C53	AM50022C53	AM50032C53
Long hinge lever	0.15N	AM50013C33	AM50023C33	AM50033C33
	0.29N	AM50013C43	AM50023C43	AM50033C43
	0.59N	AM50013C53	AM50023C53	AM50033C53
Simulated roller lever	0.29N	AM50014C33	AM50024C33	AM50034C33
	0.59N	AM50014C43	AM50024C43	AM50034C43
	1.18N	AM50014C53	AM50024C53	AM50034C53
Short roller lever	0.59N	AM50015C33	AM50025C33	AM50035C33
	1.08N	AM50015C43	AM50025C43	AM50035C43
	2.16N	AM50015C53	AM50025C53	AM50035C53
Roller lever	0.29N	AM50016C33	AM50026C33	AM50036C33
	0.59N	AM50016C43	AM50026C43	AM50036C43
	1.18N	AM50016C53	AM50026C53	AM50036C53

2-1) Side COM terminal

Actuator	Operating force, Max.	Contact arrangement		
		SPDT	SPST-NC	SPST-NO
Pin plunger	0.49N	AM50040C33	AM50050C33	AM50060C33
	0.98N	AM50040C43	AM50050C43	AM50060C43
	1.96N	AM50040C53	AM50050C53	AM50060C53
Short hinge lever	0.59N	AM50041C33	AM50051C33	AM50061C33
	1.08N	AM50041C43	AM50051C43	AM50061C43
	2.16N	AM50041C53	AM50051C53	AM50061C53
Hinge lever	0.29N	AM50042C33	AM50052C33	AM50062C33
	0.59N	AM50042C43	AM50052C43	AM50062C43
	1.18N	AM50042C53	AM50052C53	AM50062C53
Long hinge lever	0.15N	AM50043C33	AM50053C33	AM50063C33
	0.29N	AM50043C43	AM50053C43	AM50063C43
	0.59N	AM50043C53	AM50053C53	AM50063C53
Simulated roller lever	0.29N	AM50044C33	AM50054C33	AM50064C33
	0.59N	AM50044C43	AM50054C43	AM50064C43
	1.18N	AM50044C53	AM50054C53	AM50064C53
Short roller lever	0.59N	AM50045C33	AM50055C33	AM50065C33
	1.08N	AM50045C43	AM50055C43	AM50065C43
	2.16N	AM50045C53	AM50055C53	AM50065C53
Roller lever	0.29N	AM50046C33	AM50056C33	AM50066C33
	0.59N	AM50046C43	AM50056C43	AM50066C43
	1.18N	AM50046C53	AM50056C53	AM50066C53

AM5

6A type (Silver alloy contact)

.187 Quick-connect terminal

1) Bottom COM terminal

Actuator	Operating force, Max.	Contact arrangement	Contact arrangement	
		SPDT	SPST-NC	SPST-NO
Pin plunger	0.49N	AM50610C33	AM50620C33	AM50630C33
Short hinge lever	0.59N	AM50611C33	AM50621C33	AM50631C33
Hinge lever	0.29N	AM50612C33	AM50622C33	AM50632C33
Long hinge lever	0.15N	AM50613C33	AM50623C33	AM50633C33
Simulated roller lever	0.29N	AM50614C33	AM50624C33	AM50634C33
Short roller lever	0.59N	AM50615C33	AM50625C33	AM50635C33
Roller lever	0.29N	AM50616C33	AM50626C33	AM50636C33

2-1) Side COM terminal

Actuator	Operating force, Max.	Contact arrangement	Contact arrangement	
		SPDT	SPST-NC	SPST-NO
Pin plunger	0.49N	AM50640C33	AM50650C33	AM50660C33
Short hinge lever	0.59N	AM50641C33	AM50651C33	AM50661C33
Hinge lever	0.29N	AM50642C33	AM50652C33	AM50662C33
Long hinge lever	0.15N	AM50643C33	AM50653C33	AM50663C33
Simulated roller lever	0.29N	AM50644C33	AM50654C33	AM50664C33
Short roller lever	0.59N	AM50645C33	AM50655C33	AM50665C33
Roller lever	0.29N	AM50646C33	AM50656C33	AM50666C33

Remarks: Also .187 Quick-connect/solder terminal is available. When ordering, change the eighth digit of part number C to A.

<ex.> .187 Quick-connect terminal .187 Quick-connect/solder terminal
AM50610C4 → AM50610A4

11A type (Silver alloy contact)

.187 Quick-connect terminal

1) Bottom COM terminal

Actuator	Operating force, Max.	Contact arrangement	Contact arrangement	
		SPDT	SPST-NC	SPST-NO
Pin plunger	0.98N	AM51110C43N	AM51120C43N	AM51130C43N
Short hinge lever	1.08N	AM51111C43N	AM51121C43N	AM51131C43N
Hinge lever	0.59N	AM51112C43N	AM51122C43N	AM51132C43N
Long hinge lever	0.29N	AM51113C43N	AM51123C43N	AM51133C43N
Simulated roller lever	0.59N	AM51114C43N	AM51124C43N	AM51134C43N
Short roller lever	1.08N	AM51115C43N	AM51125C43N	AM51135C43N
Roller lever	0.59N	AM51116C43N	AM51126C43N	AM51136C43N

2-1) Side COM terminal

Actuator	Operating force, Max.	Contact arrangement	Contact arrangement	
		SPDT	SPST-NC	SPST-NO
Pin plunger	0.98N	AM51140C43N	AM51150C43N	AM51160C43N
Short hinge lever	1.08N	AM51141C43N	AM51151C43N	AM51161C43N
Hinge lever	0.59N	AM51142C43N	AM51152C43N	AM51162C43N
Long hinge lever	0.29N	AM51143C43N	AM51153C43N	AM51163C43N
Simulated roller lever	0.59N	AM51144C43N	AM51154C43N	AM51164C43N
Short roller lever	1.08N	AM51145C43N	AM51155C43N	AM51165C43N
Roller lever	0.59N	AM51146C43N	AM51156C43N	AM51166C43N

Remarks: 1. Also .187 Quick-connect/solder terminal is available. When ordering, change the eighth digit of part number C to A.

<ex.> .187 Quick-connect terminal .187 Quick-connect/solder terminal
AM51110C4 → AM51110A4

2. .250 Quick-connect terminal is available. When ordering, change the eighth digit of part number C to D.

<ex.> .187 Quick-connect terminal .250 Quick-connect terminal
AM51110C4 → AM51110D4

16A type (Silver alloy contact)

.187 Quick-connect terminal

1) Bottom COM terminal

Actuator	Operating force, Max.	Contact arrangement	Contact arrangement	
		SPDT	SPST-NC	SPST-NO
Pin plunger	1.96N	AM51610C53N	AM51620C53N	AM51630C53N
	2.94N	AM51610C63N	AM51620C63N	AM51630C63N
	3.92N	AM51610C73N	AM51620C73N	AM51630C73N
Short hinge lever	2.16N	AM51611C53N	AM51621C53N	AM51631C53N
	3.14N	AM51611C63N	AM51621C63N	AM51631C63N
	4.12N	AM51611C73N	AM51621C73N	AM51631C73N
Hinge lever	1.18N	AM51612C53N	AM51622C53N	AM51632C53N
	1.77N	AM51612C63N	AM51622C63N	AM51632C63N
	2.35N	AM51612C73N	AM51622C73N	AM51632C73N
Long hinge lever	0.59N	AM51613C53N	AM51623C53N	AM51633C53N
	0.88N	AM51613C63N	AM51623C63N	AM51633C63N
	1.18N	AM51613C73N	AM51623C73N	AM51633C73N
Simulated roller lever	1.18N	AM51614C53N	AM51624C53N	AM51634C53N
	1.77N	AM51614C63N	AM51624C63N	AM51634C63N
	2.35N	AM51614C73N	AM51624C73N	AM51634C73N
Short roller lever	1.18N	AM51615C53N	AM51625C53N	AM51635C53N
	3.14N	AM51615C63N	AM51625C63N	AM51635C63N
	4.12N	AM51615C73N	AM51625C73N	AM51635C73N
Roller lever	1.18N	AM51616C53N	AM51626C53N	AM51636C53N
	1.77N	AM51616C63N	AM51626C63N	AM51636C63N
	2.35N	AM51616C73N	AM51626C73N	AM51636C73N

2-1) Side COM terminal

Actuator	Operating force, Max.	Contact arrangement	Contact arrangement	
		SPDT	SPST-NC	SPST-NO
Pin plunger	1.96N	AM51640C53N	AM51650C53N	AM51660C53N
	2.94N	AM51640C63N	AM51650C63N	AM51660C63N
	3.92N	AM51640C73N	AM51650C73N	AM51660C73N
Short hinge lever	2.16N	AM51641C53N	AM51651C53N	AM51661C53N
	3.14N	AM51641C63N	AM51651C63N	AM51661C63N
	4.12N	AM51641C73N	AM51651C73N	AM51661C73N
Hinge lever	1.18N	AM51642C53N	AM51652C53N	AM51662C53N
	1.77N	AM51642C63N	AM51652C63N	AM51662C63N
	2.35N	AM51642C73N	AM51652C73N	AM51662C73N
Long hinge lever	0.59N	AM51643C53N	AM51653C53N	AM51663C53N
	0.88N	AM51643C63N	AM51653C63N	AM51663C63N
	1.18N	AM51643C73N	AM51653C73N	AM51663C73N
Simulated roller lever	1.18N	AM51644C53N	AM51654C53N	AM51664C53N
	1.77N	AM51644C63N	AM51654C63N	AM51664C63N
	2.35N	AM51644C73N	AM51654C73N	AM51664C73N
Short roller lever	2.16N	AM51645C53N	AM51655C53N	AM51665C53N
	3.14N	AM51645C63N	AM51655C63N	AM51665C63N
	4.12N	AM51645C73N	AM51655C73N	AM51665C73N
Roller lever	1.18N	AM51646C53N	AM51656C53N	AM51666C53N
	1.77N	AM51646C63N	AM51656C63N	AM51666C63N
	2.35N	AM51646C73N	AM51656C73N	AM51666C73N

Remarks: 1. .187 Quick-connect/solder terminal is available. When ordering, change the eighth digit of part number C to A.

<ex.> .187 Quick-connect terminal .187 Quick-connect/solder terminal

AM51610C5 → AM51610A5

2. .250 Quick-connect terminal is available. When ordering, change the eighth digit of part number C to D.

<ex.> .187 Quick-connect terminal .250 Quick-connect terminal

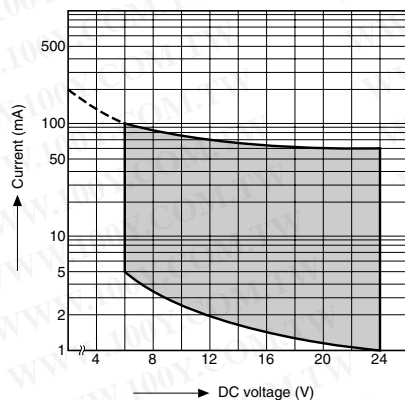
AM51610C5 → AM51610D5

AM5

DATA

Gold-clad type

Range of low-level current voltage



SPECIFICATIONS

1. Contact rating

Type		Voltage	Resistive load (cos=1)	Inductive load (cos nearly equal 0.6 to 0.7)
Gold clad contact	0.1A type	250V AC	0.1A	0.1A
		125V AC	0.1A	0.1A
		30V DC	0.1A	0.1A
Silver alloy contact	6A type	250V AC	6A	3A
		125V AC	6A	3A
		125V DC	0.5A	0.5A
	11A type	250V AC	11A	6A
		125V AC	11A	6A
		125V DC	0.6A	0.6A
	16A type	250V AC	16A	10A
		125V AC	16A	10A
		125V DC	0.6A	0.6A
Gold clad contact for low level circuit	6V DC	5mA	—	
	12V DC	2mA	—	
	24V DC	1mA	—	

Remark: The inductive load for DC should have a time constant of 7 ms or less.

2. Characteristics

Type		16, 11, 6A type (Silver alloy)	0.1A type (Gold clad)
Expected life (min.)	Mechanical	10 ⁷ operations (at 60 cpm)	
	Electrical	10 ⁵ Operations (at rated load 20 cpm)	10 ⁵ operations (at rated load) 2 × 10 ⁶ operations (at low-level circuit rating)
Insulation resistance		100MΩ (at 500V DC)	
Dielectric strength	Between terminals	1,000Vrms for 1 min.	
	Between terminals and other exposed metal parts	2,000Vrms for 1 min.	
	Between terminals and ground	2,000Vrms for 1 min.	
Contact resistance (initial)		50mΩ (by voltage drop at 1A 6 to 8V DC)	50mΩ (by voltage drop at 0.1A 6 to 8V DC)
Vibration resistance (by pin plunger)		10 to 55Hz at simple amplitude of 0.75mm (Contact opening: max. 1msec.)	
Shock resistance (by pin plunger) (contact opening: max. 1msec.)		O.F. 0.49N max. type Min. 98m/s ² O.F. 0.98N max. type Min. 196m/s ² O.F. 1.96N to 3.92N max. type Min. 294m/s ²	O.F. 0.15N to 0.49N max. type Min. 98m/s ² O.F. 0.98N max. type Min. 196m/s ² O.F. 1.96N max. type Min. 294m/s ²
Allowable operating speed		0.1 to 1,000mm/sec. (at pin plunger)	
Maximum operating cycle rate		600cpm	
Ambient temperature		-25 to +105°C (Not freezing below 0°C)	
Weight		6.3g	

3. Operating characteristics**Pin plunger**

7th digit of part No.	3	4	5	6	7
Operating force, max.	0.49N	0.98N	1.96N	2.94N	3.92N
Release force, min.	0.12N	0.25N	0.49N	0.74N	0.98N
Pretravel, max. mm	1.4				
Movement differential, max. mm	0.4				
Overtravel, min. mm	1.0				
Operating position mm	14.7±0.4				

Short hinge lever

7th digit of part No.	3	4	5	6	7
Operating force, max.	0.59N	1.08N	2.16N	3.14N	4.12N
Release force, min.	0.098N	0.20N	0.39N	0.59N	0.78N
Pretravel, max. mm	1.6				
Movement differential, max. mm	0.5				
Overtravel, min. mm	0.9				
Operating position mm	15.3±0.5				

Hinge lever

7th digit of part No.	3	4	5	6	7
Operating force, max.	0.29N	0.59N	1.18N	1.77N	2.35N
Release force, min.	0.049N	0.098N	0.20N	0.29N	0.39N
Pretravel, max. mm	3.2				
Movement differential, max. mm	1.0				
Overtravel, min. mm	1.4				
Operating position mm	15.3±1.0				

Long hinge lever

7th digit of part No.	3	4	5	6	7
Operating force, max.	0.15N	0.29N	0.59N	0.88N	1.18N
Release force, min.	0.025N	0.049N	0.098N	0.15N	0.20N
Pretravel, max. mm	7.5				
Movement differential, max. mm	2.0				
Overtravel, min. mm	2.2				
Operating position mm	15.3±2.6				

Simulated roller lever

7th digit of part No.	3	4	5	6	7
Operating force, max.	0.29N	0.59N	1.18N	1.77N	2.35N
Release force, min.	0.049N	0.098N	0.20N	0.29N	0.39N
Pretravel, max. mm	3.2				
Movement differential, max. mm	1.0				
Overtravel, min. mm	1.4				
Operating position mm	18.5±1.0				

Short roller lever

7th digit of part No.	3	4	5	6	7
Operating force, max.	0.59N	1.08N	2.16N	3.14N	4.12N
Release force, min.	0.098N	0.20N	0.39N	0.59N	0.78N
Pretravel, max. mm	1.6				
Movement differential, max. mm	0.5				
Overtravel, min. mm	0.9				
Operating position mm	20.7±0.5				

Roller lever

7th digit of part No.	3	4	5	6	7
Operating force, max.	0.29N	0.59N	1.18N	1.77N	2.35N
Release force, min.	0.049N	0.098N	0.20N	0.29N	0.39N
Pretravel, max. mm	3.2				
Movement differential, max. mm	1.0				
Overtravel, min. mm	1.4				
Operating position mm	20.7±1.0				

AM5

DIMENSIONS

The CAD data of the products with a **CAD Data** mark can be downloaded from: <http://panasonic-electric-works.net/ac>

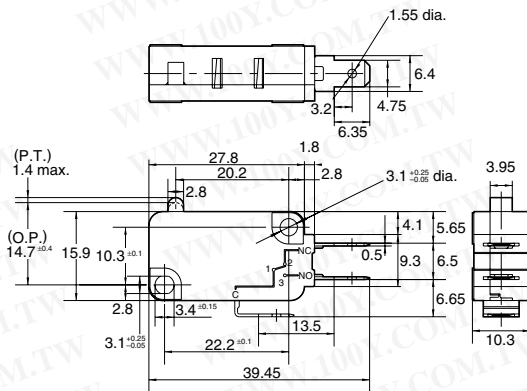
mm General tolerance: ± 0.25

1. Pin plunger Bottom COM terminal

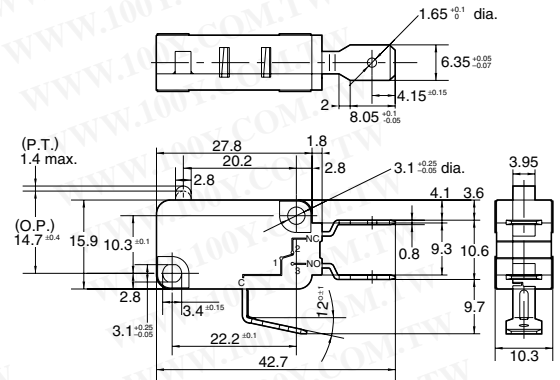
CAD Data



.187 Quick-connect terminal



.250 Quick-connect terminal

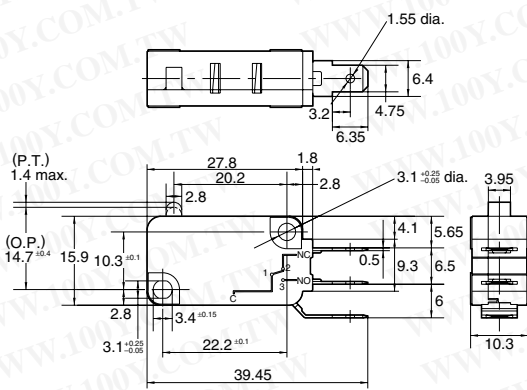


Side COM terminal

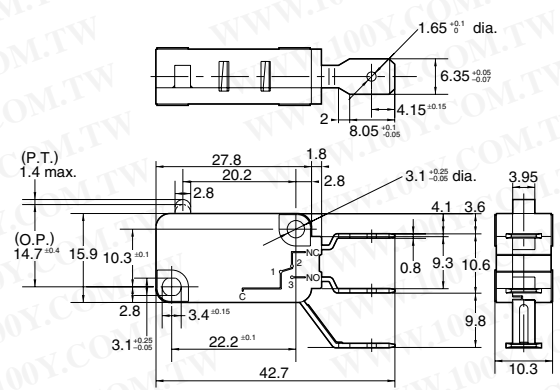
CAD Data



.187 Quick-connect terminal

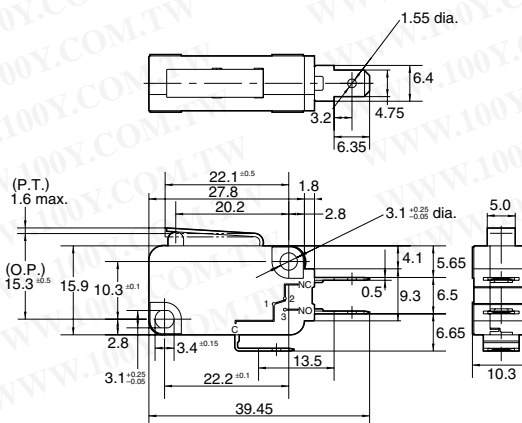


.250 Quick-connect terminal



2. Short hinge lever

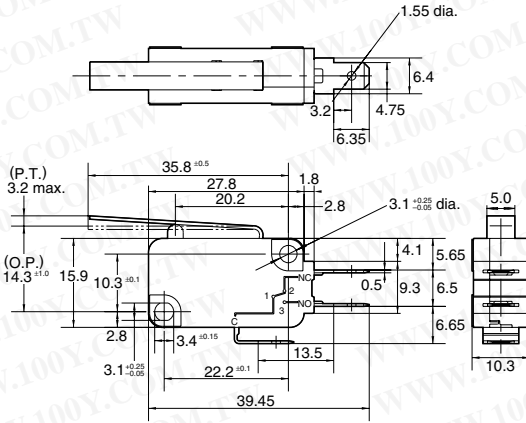
CAD Data



The dimensions other than drawn above are same as pin plunger type.

3. Hinge lever

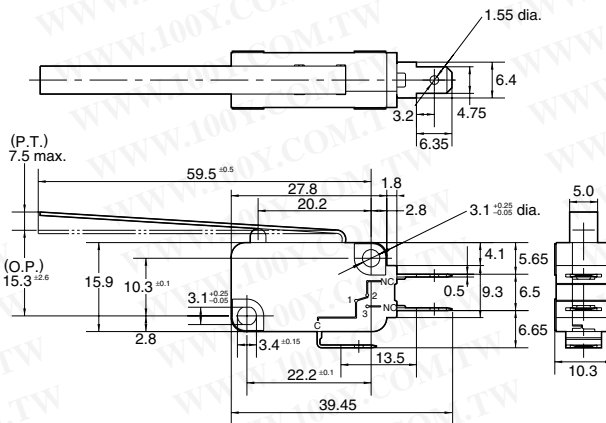
CAD Data



The dimensions other than drawn above are same as pin plunger type.

4. Long hinge lever

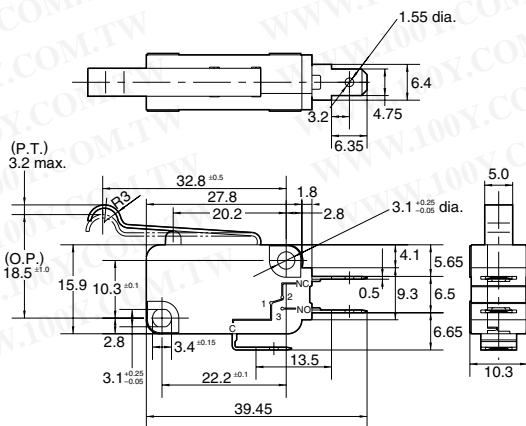
CAD Data



The dimensions other than drawn above are same as pin plunger type.

5. Simulated roller lever

CAD Data



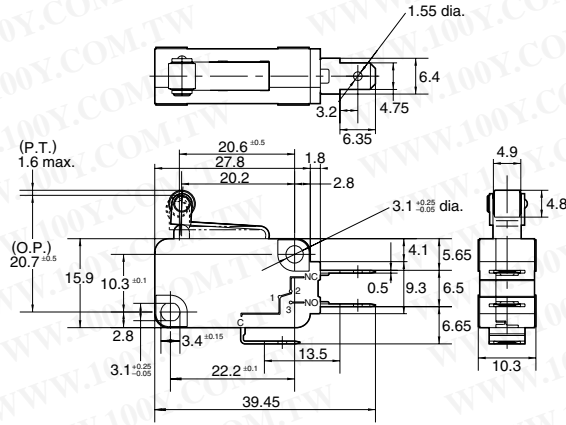
The dimensions other than drawn above are same as pin plunger type.

AM5

6. Short roller lever

mm General tolerance: ± 0.25

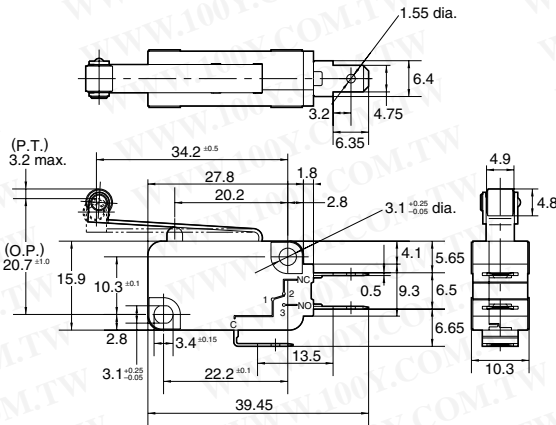
CAD Data



The dimensions other than drawn above are same as pin plunger type.

7. Hinge Roller lever

CAD Data



The dimensions other than drawn above are same as pin plunger type.

NOTES

1. Fastening of the switch body

- 1) Use flat filister head M3 screws to mount switches with less than a 0.49 N·m torque. Use of screws washers or adhesive lock is recommended to prevent loosening of the screws.
- 2) Check insulation distance between ground and each terminal.
- 3) When the operation object is in the free position, force should not be applied directly to the actuator or pin plunger. Also force should be applied to the pin plunger from vertical direction to the switch.

- 4) The standard value of overtravel should be the range of 70% to 100% of the rated O.T. value.

2. Soldering operations

Manual soldering should be accomplished within 5 seconds, with max. 350°C iron. Care should be taken not to apply force to the terminal during soldering. Terminal portions must not be moved in min. 1 minute after soldering. Also no tensile strength of lead wires should be applied to terminals.

3. Variance of operating characteristics

When specifying the switch, allow +20% to the listed operating and release forces.

4. Environment

Avoid using the switches in the following conditions;

- In corrosive gases, such as silicon gas
- In a dusty environment

5. For switching of inductive loads (relays, solenoids, etc.)

- 1) In order to prevent damage to contacts due to the occurrence of arcing, an arc absorbing circuit should be applied.
- 2) Care should be taken that occurrence in AC load possibly shorten the expected life.

6. Please assure the quality and reliability of the switch under the actual service condition.

7. It is recommended to use Gold clad contact type in use of low-level circuit rating.

8. Cover and body are press-fitted. Once it is taken apart, it may cause change of characteristics.

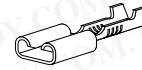
9. Cover and body are press-fitted. Once it is taken apart, it may cause change of characteristics.

USE OF CONNECTOR

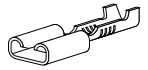
The .187 Quick-connect terminal and .250 Quick-connect terminal accept the all kinds of 1 polarity connectors and the "Positive Lock" connectors. Please contact the manufacturers directly.

• receptacle terminal

.250 series

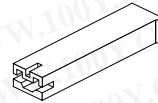


.187 series

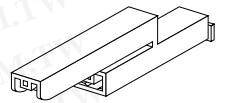


• "Positive Lock" connector. (equipped with the lock construction of low insertion type)

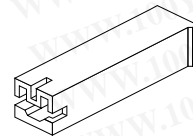
.187 type
(1 polarity)



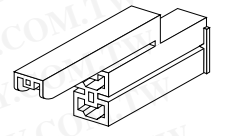
.187 type
(2 polarities)



.250 type
(1 polarity)



.187 type
(3 polarities)



<CUSTOM ORDERED PRODUCT>

Panasonic
ideas for life

**MINIATURE SWITCHES
WITH HIGH PRECISION**
(Contact gap:
more than 1mm type)

**AM5 (QV)
SWITCHES**



Compliance with RoHS Directive

- Conforms with the IEC950 standards for secondary circuit insulation distance.
Assures a contact gap of at least 1mm
- Can handle high-capacity loads on the secondary side that S-type size switches cannot
- High inrush and hard impacts resistant
- Excellent operating position precision
- UL/CSA/VDE/SEMKO/TÜV approved

PRODUCT TYPES

Contact rating: 0.1A, 6A, 11A, 16A (250V AC)

Terminal shape: .187 Quick connect terminal, .187 Quick connect/solder terminal

For other specifications, please consult us.

DIMENSIONS AND NOTES

Please refer to Standard QV switches catalog for dimensions and notes.

SPECIFICATIONS

• Contact ratings (0.1 to 16 A)

Voltage	Resistive load ($\cos \phi = 1.0$)				Inductive load ($\cos \phi \approx 0.6$ to 0.7)			
	0.1A	6A	11A	16A	0.1A	6A	11A	16A
Type	0.1A	6A	11A	16A	0.1A	6A	11A	16A
250V AC	0.1A	6A	11A	16A	0.1A	3A	6A	10A
125V AC	0.1A	6A	11A	16A	0.1A	3A	6A	10A
125V DC	0.1A	0.5A	0.6A	0.6A	0.1A	0.5A	0.6A	0.6A

Remark: The inductive load for DC should have a time constant of 7 ms or less.

• 0.1A type minimum load:

- 6V DC 5mA (Resistive load)
- 12V DC 2mA (Resistive load)
- 24V DC 1mA (Resistive load)

Please consult us for further information.

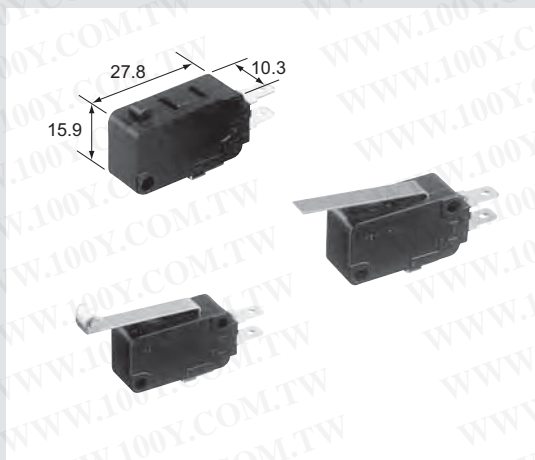
微动开关

QV 型微动开关



产品号体系 ▶P.52	端子的种类 ▶P.53	品种 ▶P.53	额定 ▶P.56	参考数据 ▶P.58	尺寸图 ▶P.59	关于连接 ▶P.61	使用注意事项 ▶P.114
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具有工作位置精度高·耐冲击性强等特点的V型微动开关。



特点

- 提高了动作位置精度
- 耐冲击性优良的构造
- 提高耐冲击特性
- 提高耐热性
- 绝缘距离确保EN class1 (Tab#250端子中)
- 提高外壳强度
- 品种丰富
- 国外标准
UL/C-UL (CSA标准)、ENEC/VDE (EN标准)

用途

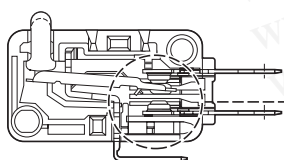
- 家电设备：微波炉、电饭煲、音频、温风取暖器等
- 商业设备：自动售货机、娱乐游戏机、复印机等
- 机械：运输机械、印刷机等。

品种一览表

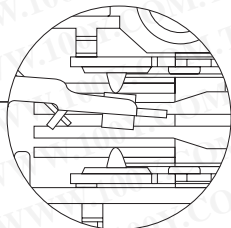
型名	额定值	接触形式			端子排列		端子形状			工作强度 (O.F.) 最大 (针状按钮型)				
		切换	常闭	常开	COM下端子	COM横端子	Tab (#187) 端子	焊接、端子 (#187) 兼用端子	Tab (#250) 端子	0.49N	0.98N	1.96N	2.94N	3.92N
Au包层触点型	0.1A 250V AC				●	●	●	●	●	●	●	●	—	—
	6A 250V AC	●	●	●	●	●	●	●	●	●	—	—	—	—
Ag合金触点型	11A 250V AC	●	●	●	●	●	●	●	●	—	●	—	—	—
	16A 250V AC	●	●	●	●	●	●	●	●	—	—	●	●	●

构造图

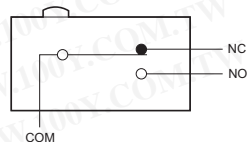
1. Ag合金触点型



2. Au包层触点型

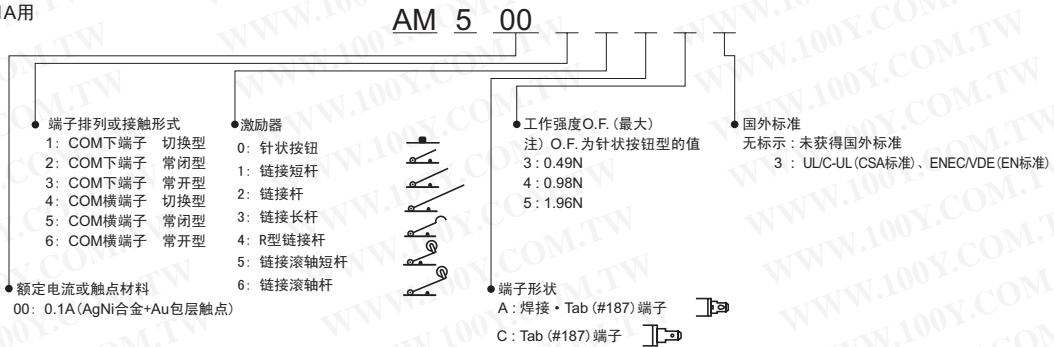


接触形式

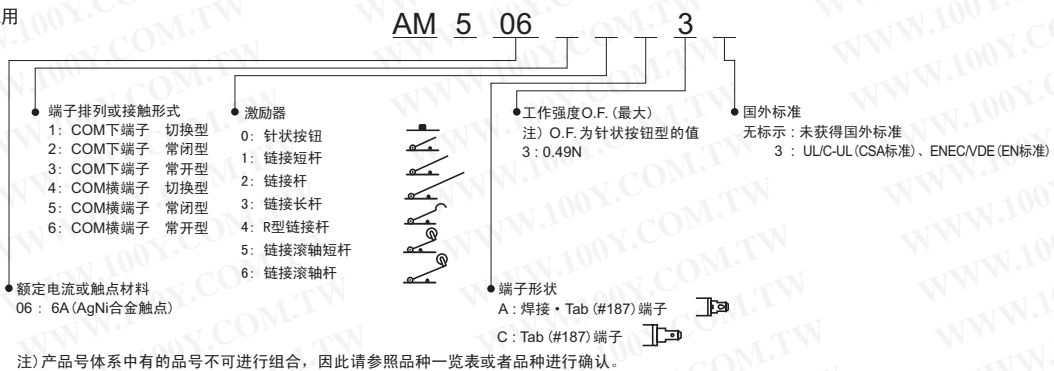


产品号体系

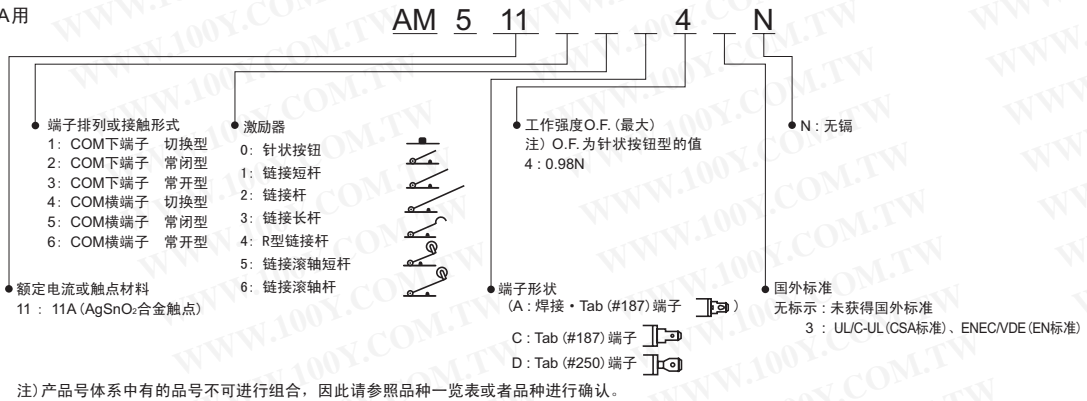
■ 0.1A用



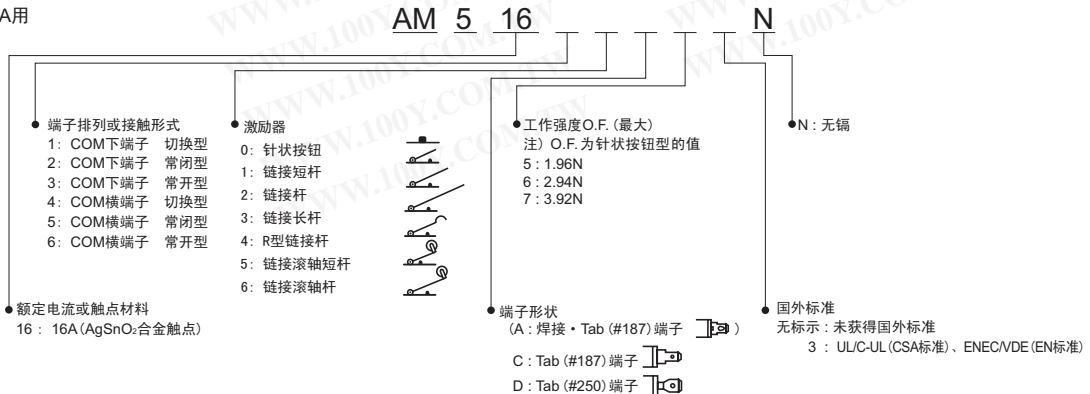
■ 6A用



■ 11A用



■ 16A用

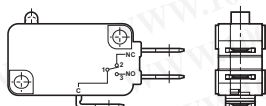


端子种类

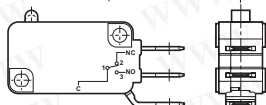
■ Tab (# 187) 端子

焊接・Tab (# 187) 兼用端子

1) COM下端子

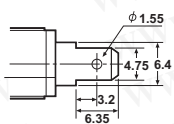


2) COM横端子

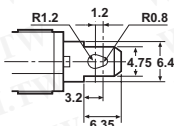


3) 端子部的尺寸

・ Tab (# 187) 端子

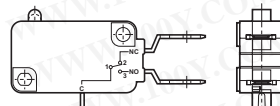


・ 焊接・ Tab (# 187) 兼用端子

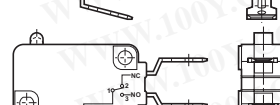


■ Tab (# 250) 端子

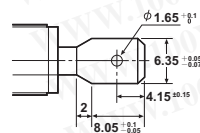
1) COM下端子



2) COM横端子



3) 端子部的尺寸



品种

■ 0.1A型 (AgNi合金+Au包层触点型)

Tab (# 187) 端子

1) COM下端子

激励器	工作强度 (O.F.) 最大	接触形式		
		切换型	常闭型	常开型
针状按钮	0.49N	AM50010C3	AM50020C3	AM50030C3
	0.98N	AM50010C4	AM50020C4	AM50030C4
	1.96N	AM50010C5	AM50020C5	AM50030C5
链接短杆	0.59N	AM50011C3	AM50021C3	AM50031C3
	1.08N	AM50011C4	AM50021C4	AM50031C4
	2.16N	AM50011C5	AM50021C5	AM50031C5
链接杆	0.29N	AM50012C3	AM50022C3	AM50032C3
	0.59N	AM50012C4	AM50022C4	AM50032C4
	1.18N	AM50012C5	AM50022C5	AM50032C5
链接长杆	0.15N	AM50013C3	AM50023C3	AM50033C3
	0.29N	AM50013C4	AM50023C4	AM50033C4
	0.59N	AM50013C5	AM50023C5	AM50033C5
R型链接杆	0.29N	AM50014C3	AM50024C3	AM50034C3
	0.59N	AM50014C4	AM50024C4	AM50034C4
	1.18N	AM50014C5	AM50024C5	AM50034C5
链接滚轴短杆	0.59N	AM50015C3	AM50025C3	AM50035C3
	1.08N	AM50015C4	AM50025C4	AM50035C4
	2.16N	AM50015C5	AM50025C5	AM50035C5
链接滚轴杆	0.29N	AM50016C3	AM50026C3	AM50036C3
	0.59N	AM50016C4	AM50026C4	AM50036C4
	1.18N	AM50016C5	AM50026C5	AM50036C5

注) 还备有焊接・Tab (# 187) 兼用端子。订购时请将品号第8位改为A。

(例) Tab (# 187) 端子 焊接・Tab (# 187) 兼用端子
AM50010C4→AM50010A4

微动开关

检测用开关

门互锁开关

信息

QV(AM5)

2) COM横端子

激励器	工作强度 (O.F.)最大	接触形式		
		切换型	常闭型	常开型
针状按钮	0.49N	AM50040C3	AM50050C3	AM50060C3
	0.98N	AM50040C4	AM50050C4	AM50060C4
	1.96N	AM50040C5	AM50050C5	AM50060C5
链接短杆	0.59N	AM50041C3	AM50051C3	AM50061C3
	1.08N	AM50041C4	AM50051C4	AM50061C4
	2.16N	AM50041C5	AM50051C5	AM50061C5
链接杆	0.29N	AM50042C3	AM50052C3	AM50062C3
	0.59N	AM50042C4	AM50052C4	AM50062C4
	1.18N	AM50042C5	AM50052C5	AM50062C5
链接长杆	0.15N	AM50043C3	AM50053C3	AM50063C3
	0.29N	AM50043C4	AM50053C4	AM50063C4
	0.59N	AM50043C5	AM50053C5	AM50063C5
R型链接杆	0.29N	AM50044C3	AM50054C3	AM50064C3
	0.59N	AM50044C4	AM50054C4	AM50064C4
	1.18N	AM50044C5	AM50054C5	AM50064C5
链接滚轴短杆	0.59N	AM50045C3	AM50055C3	AM50065C3
	1.08N	AM50045C4	AM50055C4	AM50065C4
	2.16N	AM50045C5	AM50055C5	AM50065C5
链接滚轴杆	0.29N	AM50046C3	AM50056C3	AM50066C3
	0.59N	AM50046C4	AM50056C4	AM50066C4
	1.18N	AM50046C5	AM50056C5	AM50066C5

注) 还备有焊接・Tab(#187)兼用端子。订购时请将品号第8位改为A。

(例) Tab(#187)端子 焊接・Tab(#187)兼用端子
AM50040C3→AM50040A3

■6A型(AgNi合金触点型)

Tab(#187)端子

1) COM下端子

激励器	工作强度 (O.F.)最大	接触形式		
		切换型	常闭型	常开型
针状按钮	0.49N	AM50610C3	AM50620C3	AM50630C3
链接短杆	0.59N	AM50611C3	AM50621C3	AM50631C3
链接杆	0.29N	AM50612C3	AM50622C3	AM50632C3
链接长杆	0.15N	AM50613C3	AM50623C3	AM50633C3
R型链接杆	0.29N	AM50614C3	AM50624C3	AM50634C3
链接滚轴短杆	0.59N	AM50615C3	AM50625C3	AM50635C3
链接滚轴杆	0.29N	AM50616C3	AM50626C3	AM50636C3

注) 还备有焊接・Tab(#187)兼用端子。订购时请将品号第8位改为A。

(例) Tab(#187)端子 焊接・Tab(#187)兼用端子
AM50610C3→AM50610A3

2) COM横端子

激励器	工作强度 (O.F.)最大	接触形式		
		切换型	常闭型	常开型
针状按钮	0.49N	AM50640C3	AM50650C3	AM50660C3
链接短杆	0.59N	AM50641C3	AM50651C3	AM50661C3
链接杆	0.29N	AM50642C3	AM50652C3	AM50662C3
链接长杆	0.15N	AM50643C3	AM50653C3	AM50663C3
R型链接杆	0.29N	AM50644C3	AM50654C3	AM50664C3
链接滚轴短杆	0.59N	AM50645C3	AM50655C3	AM50665C3
链接滚轴杆	0.29N	AM50646C3	AM50656C3	AM50666C3

注) 还备有焊接・Tab(#187)兼用端子。订购时请将品号第8位改为A。

(例) Tab(#187)端子 焊接・Tab(#187)兼用端子
AM50610C3→AM50610A3

■ 11A型 (AgSnO2合金触点型)

Tab (# 187) 端子

1) COM下端子

激励器	工作强度 (O.F.) 最大	接触形式		
		切换型	常闭型	常开型
针状按钮	0.98N	AM51110C4N	AM51120C4N	AM51130C4N
链接短杆	1.08N	AM51111C4N	AM51121C4N	AM51131C4N
链接杆	0.59N	AM51112C4N	AM51122C4N	AM51132C4N
链接长杆	0.29N	AM51113C4N	AM51123C4N	AM51133C4N
R型链接杆	0.59N	AM51114C4N	AM51124C4N	AM51134C4N
链接滚轴短杆	1.08N	AM51115C4N	AM51125C4N	AM51135C4N
链接滚轴杆	0.59N	AM51116C4N	AM51126C4N	AM51136C4N

注) 1. 还备有焊接、Tab (# 187) 兼用端子。订购时请将品号第8位改为A。
 (例) Tab (# 187) 端子 焊接 · Tab (# 187) 兼用端子
 AM51110C4N → AM51110A4N
 2. 还备有Tab (# 250) 端子。订购时请将品号第8位的C改为D。标准价格相同。
 (例) AM51110C4N → AM51110D4N

2) COM横端子

激励器	工作强度 (O.F.) 最大	接触形式		
		切换型	常闭型	常开型
针状按钮	0.98N	AM51140C4N	AM51150C4N	AM51160C4N
链接短杆	1.08N	AM51141C4N	AM51151C4N	AM51161C4N
链接杆	0.59N	AM51142C4N	AM51152C4N	AM51162C4N
链接长杆	0.29N	AM51143C4N	AM51153C4N	AM51163C4N
R型链接杆	0.59N	AM51144C4N	AM51154C4N	AM51164C4N
链接滚轴短杆	1.08N	AM51145C4N	AM51155C4N	AM51165C4N
链接滚轴杆	0.59N	AM51146C4N	AM51156C4N	AM51166C4N

注) 1. 还备有焊接、Tab (# 187) 兼用端子。订购时请将品号第8位改为A。
 (例) Tab (# 187) 端子 焊接 · Tab (# 187) 兼用端子
 AM51140C4N → AM51140A4N
 2. 还备有Tab (# 250) 端子。订购时请将品号第8位的C改为D。标准价格相同。
 (例) AM51140C4N → AM51140D4N

■ 16A型 (AgSnO2合金触点型)

Tab (# 187) 端子

1) COM下端子

激励器	工作强度 (O.F.) 最大	接触形式		
		切换型	常闭型	常开型
针状按钮	1.96N	AM51610C5N	AM51620C5N	AM51630C5N
	2.94N	AM51610C6N	AM51620C6N	AM51630C6N
	3.92N	AM51610C7N	AM51620C7N	AM51630C7N
链接短杆	2.16N	AM51611C5N	AM51621C5N	AM51631C5N
	3.14N	AM51611C6N	AM51621C6N	AM51631C6N
	4.12N	AM51611C7N	AM51621C7N	AM51631C7N
链接杆	1.18N	AM51612C5N	AM51622C5N	AM51632C5N
	1.77N	AM51612C6N	AM51622C6N	AM51632C6N
	2.35N	AM51612C7N	AM51622C7N	AM51632C7N
链接长杆	0.59N	AM51613C5N	AM51623C5N	AM51633C5N
	0.88N	AM51613C6N	AM51623C6N	AM51633C6N
	1.18N	AM51613C7N	AM51623C7N	AM51633C7N
R型链接杆	1.18N	AM51614C5N	AM51624C5N	AM51634C5N
	1.77N	AM51614C6N	AM51624C6N	AM51634C6N
	2.35N	AM51614C7N	AM51624C7N	AM51634C7N
链接滚轴短杆	1.18N	AM51615C5N	AM51625C5N	AM51635C5N
	3.14N	AM51615C6N	AM51625C6N	AM51635C6N
	4.12N	AM51615C7N	AM51625C7N	AM51635C7N
链接滚轴杆	1.18N	AM51616C5N	AM51626C5N	AM51636C5N
	1.77N	AM51616C6N	AM51626C6N	AM51636C6N
	2.35N	AM51616C7N	AM51626C7N	AM51636C7N

注) 1. 还备有焊接、Tab (# 187) 兼用端子。订购时请将品号第8位改为A。
 (例) Tab (# 187) 端子 焊接 · Tab (# 187) 兼用端子
 AM51610C5N → AM51610A5N
 2. 还备有Tab (# 250) 端子。订购时请将品号第8位的C改为D。标准价格相同。
 (例) AM51610C5N → AM51610D5N

微动开关

检测用开关

门互锁开关

信息

2) COM横端子

激励器	工作强度 (O.F.) 最大	接触形式		
		切换型	常闭型	常开型
针状按钮	1.96N	AM51640C5N	AM51650C5N	AM51660C5N
	2.94N	AM51640C6N	AM51650C6N	AM51660C6N
	3.92N	AM51640C7N	AM51650C7N	AM51660C7N
链接短杆	2.16N	AM51641C5N	AM51651C5N	AM51661C5N
	3.14N	AM51641C6N	AM51651C6N	AM51661C6N
	4.12N	AM51641C7N	AM51651C7N	AM51661C7N
链接杆	1.18N	AM51642C5N	AM51652C5N	AM51662C5N
	1.77N	AM51642C6N	AM51652C6N	AM51662C6N
	2.35N	AM51642C7N	AM51652C7N	AM51662C7N
链接长杆	0.59N	AM51643C5N	AM51653C5N	AM51663C5N
	0.88N	AM51643C6N	AM51653C6N	AM51663C6N
	1.18N	AM51643C7N	AM51653C7N	AM51663C7N
R型链接杆	1.18N	AM51644C5N	AM51654C5N	AM51664C5N
	1.77N	AM51644C6N	AM51654C6N	AM51664C6N
	2.35N	AM51644C7N	AM51654C7N	AM51664C7N
链接滚轴短杆	2.16N	AM51645C5N	AM51655C5N	AM51665C5N
	3.14N	AM51645C6N	AM51655C6N	AM51665C6N
	4.12N	AM51645C7N	AM51655C7N	AM51665C7N
链接滚轴杆	1.18N	AM51646C5N	AM51656C5N	AM51666C5N
	1.77N	AM51646C6N	AM51656C6N	AM51666C6N
	2.35N	AM51646C7N	AM51656C7N	AM51666C7N

注) 1. 还备有焊接、Tab(#187)兼用端子。订购时请将品号第8位改为A。

(例) Tab(#187)端子 焊接·Tab(#187)兼用端子
AM51640C5N→AM51640A5N

2. 还备有Tab(#250)端子。订购时请将品号第8位的C改为D。标准价格相同。
(例) AM51640C5N→AM51640D5N

额定

■ 额定值

1) AgNi合金+Au包层触点型

类型	触点电压	阻性负载 ($\text{COS } \phi \approx 1.0$)	感性负载 ($\text{COS } \phi \approx 0.6 \sim 0.7$)
0.1A型	250V AC	0.1A	0.1A
	125V AC	0.1A	0.1A
	30V DC	0.1A	0.1A

2) AgNi合金+Au包层触点型最小额定值

DC 6V 5mA (阻性负载)

DC 12V 2mA (阻性负载)

DC 24V 1mA (阻性负载)

3) AgNi合金触点型(6A)、AgSnO₂合金型(11A、16A)

类型	触点电压	阻性负载 ($\text{COS } \phi \approx 1.0$)	感性负载 ($\text{COS } \phi \approx 0.6 \sim 0.7$)
6A型	250V AC	6A	3A
	125V AC	6A	3A
	125V DC	0.5A	0.5A
11A型	250V AC	11A	6A
	125V AC	11A	6A
	125V DC	0.6A	0.6A
16A型	250V AC	16A	10A
	125V AC	16A	10A
	125V DC	0.6A	0.6A

注) 直流下的感性负载的情况下, 时间常数为7ms以下。

■性能概要

项目		性能概要	
型号		16, 11, 6A型	0.1A型
寿命	机械寿命(O.T. 规格值)	1,000万次以上(通断频率60次/分钟)	
	电气寿命(O.T. Max.)	10万次以上(通断频率20次/分钟)(额定负载)	10万次以上(通断频率20次/分钟)(额定负载) 200万次以上(通断频率20次/分钟)(微小负载)
绝缘电阻		100MΩ以上(用DC 500V绝缘电阻计检测)	
耐电压	非连接端子间	AC1,000V 1分钟	
	无电压金属与各端子之间	AC2,000V 1分钟	
	接地与各端子之间	AC2,000V 1分钟	
接触电阻(初始)		50mΩ以下(通过DC6~8V 1A电压降下法)	50mΩ以下(通过DC6~8V 0.1A电压降下法)
耐振性(针状按钮)		单振幅0.75mm 10~55Hz(触点离开为1ms以下)	
耐冲击性(针状按钮)		O.F. 0.49N型: 98m/s ² 以上 O.F. 0.98N型: 196m/s ² 以上 O.F. 1.96N~3.92N型: 294m/s ² 以上 (触点离开为1ms以下)	O.F. 0.49N型: 98m/s ² 以上 O.F. 0.98N型: 196m/s ² 以上 O.F. 1.96N型: 294m/s ² 以上 (触点离开为1ms以下)
允许操作速度(无负载)		0.1~1,000mm/秒(针状按钮位置)	
最大通断频率(无负载)		600次/分钟	
使用环境温度		-25℃~+105℃(应无结冰、凝露)	
重量		约6.3g	
触点规格	触点材料	6A: AgNi合金、11,16A: AgSnO ₂ 合金	AgNi合金+Au包层

注) 1. 试验条件及判断基准依据NECA C4505。

2. O.F.为针状按钮型下的值。

3. 开关操作伴随有低速、高速和冲击,或在高温多湿环境下使用时,寿命及性能可能会因负载容量而显著降低,因此敬请垂询。

■动作特性

1) 针状按钮

品号数字 第7位	工作强度 O.F.最大	回复强度 R.F.最小	预行程 P.T.最大	响应差的行程 M.D.最大	超行程 O.T.最小	动作位置 O.P.
3	0.49N	0.12N	1.4mm	0.4mm	1.0mm	14.7±0.4mm
4	0.98N	0.25N	1.4mm	0.4mm	1.0mm	14.7±0.4mm
5	1.96N	0.49N	1.4mm	0.4mm	1.0mm	14.7±0.4mm
6	2.94N	0.74N	1.4mm	0.4mm	1.0mm	14.7±0.4mm
7	3.92N	0.98N	1.4mm	0.4mm	1.0mm	14.7±0.4mm

2) 链接短杆

品号数字 第7位	工作强度 O.F.最大	回复强度 R.F.最小	预行程 P.T.最大	响应差的行程 M.D.最大	超行程 O.T.最小	动作位置 O.P.
3	0.59N	0.098N	1.6mm	0.5mm	0.9mm	15.3±0.5mm
4	1.08N	0.20N	1.6mm	0.5mm	0.9mm	15.3±0.5mm
5	2.16N	0.39N	1.6mm	0.5mm	0.9mm	15.3±0.5mm
6	3.14N	0.59N	1.6mm	0.5mm	0.9mm	15.3±0.5mm
7	4.12N	0.78N	1.6mm	0.5mm	0.9mm	15.3±0.5mm

3) 链接杆

品号数字 第7位	工作强度 O.F.最大	回复强度 R.F.最小	预行程 P.T.最大	响应差的行程 M.D.最大	超行程 O.T.最小	动作位置 O.P.
3	0.29N	0.049N	3.2mm	1.0mm	1.4mm	15.3±1.0mm
4	0.59N	0.098N	3.2mm	1.0mm	1.4mm	15.3±1.0mm
5	1.18N	0.20N	3.2mm	1.0mm	1.4mm	15.3±1.0mm
6	1.77N	0.29N	3.2mm	1.0mm	1.4mm	15.3±1.0mm
7	2.35N	0.39N	3.2mm	1.0mm	1.4mm	15.3±1.0mm

QV(AM5)

4) 链接长杆

品号数字 第7位	工作强度 O.F.最大	回复强度 R.F.最小	预行程 P.T.最大	响应差的行程 M.D.最大	超行程 O.T.最小	动作位置 O.P.
3	0.15N	0.025N	7.5mm	2.0mm	2.2mm	15.3±2.6mm
4	0.29N	0.049N	7.5mm	2.0mm	2.2mm	15.3±2.6mm
5	0.59N	0.098N	7.5mm	2.0mm	2.2mm	15.3±2.6mm
6	0.88N	0.15N	7.5mm	2.0mm	2.2mm	15.3±2.6mm
7	1.18N	0.20N	7.5mm	2.0mm	2.2mm	15.3±2.6mm

5) R型链接杆

品号数字 第7位	工作强度 O.F.最大	回复强度 R.F.最小	预行程 P.T.最大	响应差的行程 M.D.最大	超行程 O.T.最小	动作位置 O.P.
3	0.29N	0.049N	3.2mm	1.0mm	1.4mm	18.5±1.0mm
4	0.59N	0.098N	3.2mm	1.0mm	1.4mm	18.5±1.0mm
5	1.18N	0.20N	3.2mm	1.0mm	1.4mm	18.5±1.0mm
6	1.77N	0.29N	3.2mm	1.0mm	1.4mm	18.5±1.0mm
7	2.35N	0.39N	3.2mm	1.0mm	1.4mm	18.5±1.0mm

6) 链接滚轴短杆

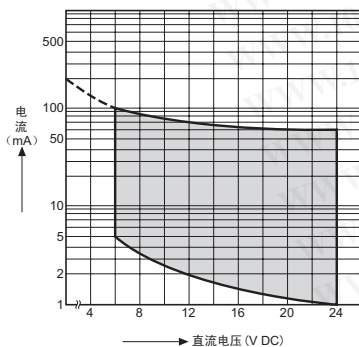
品号数字 第7位	工作强度 O.F.最大	回复强度 R.F.最小	预行程 P.T.最大	响应差的行程 M.D.最大	超行程 O.T.最小	动作位置 O.P.
3	0.59N	0.098N	1.6mm	0.5mm	0.9mm	20.7±0.5mm
4	1.08N	0.20N	1.6mm	0.5mm	0.9mm	20.7±0.5mm
5	2.16N	0.39N	1.6mm	0.5mm	0.9mm	20.7±0.5mm
6	3.14N	0.59N	1.6mm	0.5mm	0.9mm	20.7±0.5mm
7	4.12N	0.78N	1.6mm	0.5mm	0.9mm	20.7±0.5mm

7) 链接滚轴杆

品号数字 第7位	工作强度 O.F.最大	回复强度 R.F.最小	预行程 P.T.最大	响应差的行程 M.D.最大	超行程 O.T.最小	动作位置 O.P.
3	0.29N	0.049N	3.2mm	1.0mm	1.4mm	20.7±1.0mm
4	0.59N	0.098N	3.2mm	1.0mm	1.4mm	20.7±1.0mm
5	1.18N	0.20N	3.2mm	1.0mm	1.4mm	20.7±1.0mm
6	1.77N	0.29N	3.2mm	1.0mm	1.4mm	20.7±1.0mm
7	2.35N	0.39N	3.2mm	1.0mm	1.4mm	20.7±1.0mm

参考数据

适合微小电流电压范围 (Au包层触点型) (参考值)



使用注意事项

■关于开关的固定

- 1) 固定开关主体时，请使用M3的小螺钉在平滑面上以0.49N·m以下的扭矩进行固定。此外，为防止螺钉发生松动，建议同时使用垫圈，或通过粘剂进行锁定。涂敷粘剂时，请注意不要通过机身缝隙的接合部和按钮滑动部使粘剂侵入内部。
- 2) 安装状态下，请确认各端子、内部充电部和接地等之间的绝缘距离是否充足。
- 3) 请注意自由状态下动作体不应直接对按钮或者激励器施加力量，使用时对于按钮应在垂直方向上施加力量。
- 4) 动作后的动作设定，以OT规格值的70%以上为标准。

■关于焊接作业

请使用带温度调节的电烙铁(电烙铁头温度350℃以下)在5秒内完成作业，并注意作业中不要在端子部上施加力量。

■开关的选择

所选择的开关在动作特性规格值的±20%变化时，也不应发生故障。

■环境

请勿在对触点产生恶劣影响、及存在腐蚀性气体、硅等的场所，或尘埃较多的场所使用和保管。

关于连接器的连接

使用1P连接器来连接QV型微动开关、Tab (#187)端子型、Tab (#250)端子型的情况下，各个连接器厂家的产品均适用。2P及3P的情况下，适用于tycoelectronics公司的产品。

注)但是，各连接器仅作为参考进行介绍，本公司并不销售。关于连接器，如有疑问，请咨询各制造厂家。

●插座端子



#250系列



#187系列

■关于感性负载、相位同步

- 1) 用于感性负载(继电器、螺线管、蜂鸣器等)的开关时，为防止电弧引起的接触不良，建议插入适当的火花消除电路。
- 2) 交流电路负载中发生同步时，可能会降低寿命，因此敬请注意。

■实负载确认

实际使用时，为提高可靠性，请在实际使用状态下确认品质。

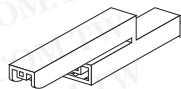
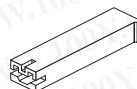
■微小电压电流的情况下，建议使用微小负载用(Au包层触点型)。

■其他

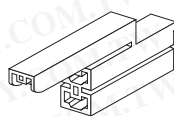
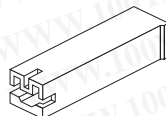
QV型微动开关的机身、护盖是通过压入嵌合方式进行组装的。一旦拆开嵌合后，将会使特性发生变化，因此请勿拆卸。

●机身块、连接器(带低插拔力锁定机构的连接器)

#187 1极 #187 2极



#250 1极 #187 3极



●机身块、连接器(带低插拔力锁定机构的连接器)

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
Http://www.100y.com.tw

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