

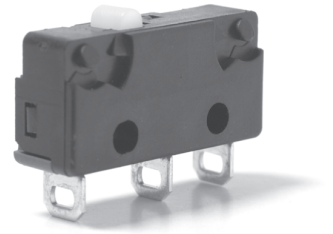
X4

Snap-action Microswitches

Subminiature

X4

Characteristics	■ Thermoplastic housing
Rating	250 VAC, 12 A
Dimensions (mm)	19,9 × 9,65 × 6,4
Actuator	Plain levers, simulated roller levers, roller levers
Approvals	UL, cUL, CSA, ENEC, CCEE



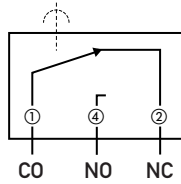
Preferred Range

Ordering Reference	Actuating Force		Operating pos. (mm)	Terminal	Circuit	Actuator	Contacts	Electrical rating	
	(N)	(ozf)						ENEC	UL/CSA
X4F303K1AA	3,3	11,869	8,4	Solder	CO	Plunger	Silver	12 (6) A	12 A
X4F305K1AA	3,3	11,869	8,4	Faston	CO	Plunger	Silver	12 (6) A	12 A
X4G303K1BB	2	7,193	8,4	Solder	CO	Plunger	Silver	6 (3) A	6 A
X4G305K1BB	2	7,193	8,4	Faston	CO	Plunger	Silver	6 (3) A	6 A
X4C303K1CC	0,75	2,697	8,4	Solder	CO	Plunger	Silver	3 (2) A	3 A
X4C305K1CC	0,75	2,697	8,4	Faston	CO	Plunger	Silver	3 (2) A	3 A

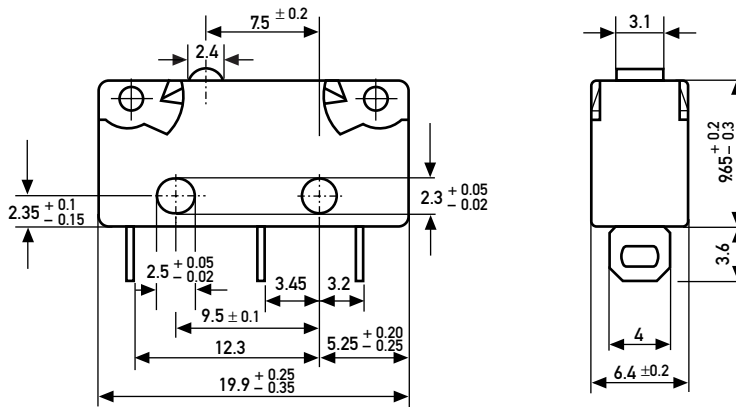
Specifications

Housing	Thermoplastic
Plunger	Thermoplastic
Mechanism	Snap-action system with stainless steel tension spring
Functions	Change-over, NO, NC.
Contacts	Fine silver (Ag), or 10 μm Gold (Au), microprofile
Terminals	Solder, faston, PCB, side-facing PCB and 'PCB terminals with 0.1" pitch
Temperature range °C	Between -40°C and +85°C
Mechanical life	10 ⁶ cycles minimum
Protection	Enclosure – IP 40
Mounting	Side mounting or PCB
Actuators	Stainless steel
Contact carrier	CuZn or CuSn

Circuit diagram



Dimensions

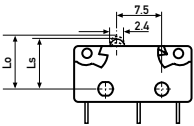
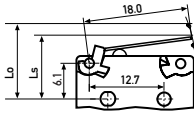
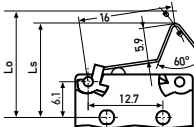
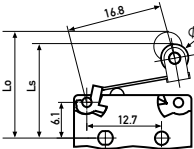


Recommended maximum electrical ratings

	Voltage (VAC)	Resistive load (A)	Motor load (A)	Approvals ENEC (A)		(VAC)	Approvals UL (A)	(VAC)
X4F	250	12	6	12 (6)	1E4	250	12	125/250
X4G	250	6	3	6 (3)	5E4	250	6	125/250
X4C	250	3	2	3 (2)	5E4	250	3	125/250

Breaking capacities in the tables refer to silver contacts

Operating Characteristics

Actuator	Reference	Actuating Force		Release Force		Free Position		Operating Position		Movement Differential		Full Overtravel Position		
		Maximum (N)	(ozf)	Minimum (N)	(ozf)	Maximum (mm)	(in)	Maximum (mm)	(in)	Maximum (mm)	(in)	Maximum (mm)	(in)	
	X4F	3.3	11,869	0.55	1,978	8.8	0.35	8.4	$\left. \begin{array}{l} 0,33 \\ +0,1 \\ -0,3 \\ 0,33 \end{array} \right\}$	$\left. \begin{array}{l} 0,33 \\ +0,004 \\ -0,01 \\ 0,33 \end{array} \right\}$	0.2	0.008	7.7	0.3
	X4G	2.0	7,193	0.35	1,258	8.8	0.35	8.4			0.2	0.008	7.7	0.3
	X4C	0.75	2,697	0.13	0,467	8.8	0.35	8.4			0.2	0.008	7.7	0.3
	X4F	1.16	4,172	0.18	0,647	12.2	0.48	10.2 ±1.0	0.4 ±0.035	0.6	0.024	8.4	0.33	
	X4G	0.7	2,517	0.094	0,338	12.2	0.48	10.2 ±0.9	0.4 ±0.039	0.5	0.02	8.5	0.33	
	X4C	0.28	1,007	0.031	0,107	12.2	0.48	10.3 ±0.9	0.4 ±0.039	0.4	0.016	8.7	0.34	
Width of lever 4.0 mm/0.16 in														
	X4F	1.21	4,352	0.19	0,683	17.6	0.69	15.6 ±1	0.61 ±0.039	0.6	0.024	14	0.55	
	X4G	0.82	2,949	0.11	0,395	17.6	0.69	15.6 ±1.1	0.61 ±0.043	0.5	0.02	14.1	0.56	
	X4C	0.29	1,043	0.033	0,118	17.6	0.69	15.7 ±1.1	0.61 ±0.043	0.4	0.016	14.3	0.56	
Width of lever 4.0 mm/0.16 in														
	X4F	1.21	4,352	0.19	0,683	17.6	0.69	15.6 ±1.1	0.61 ±0.043	0.6	0.024	14.1	0.56	
	X4G	0.82	2,949	0.11	0,395	17.6	0.69	15.6 ±1.2	0.61 ±0.047	0.5	0.02	14.2	0.56	
	X4C	0.29	1,043	0.036	0,129	17.6	0.69	15.7 ±1.2	0.62 ±0.047	0.4	0.016	14.4	0.57	
Width of roller 4.0 mm/0.16 in														

Ordering Reference

X4	
Actuating force	F Extra high force G High force C Low force
Circuits	3 Change-over 4 Normally closed (NC) } with X4F and X4G not possible 5 Normally open (NO) } (except gold contacts)
Terminals	03 Solder 05 Faston 2.8 × 0.5 mm 08 PCB Other terminals on special request
Housing design	K Thermoplastic
Contacts	1 Ag (silver) 8 μ profile Au 10 μm (crossbar contact)
Approval classes in accordance with UL/cUL/CSA	A 125/250 VAC, 12 A B 125/250 VAC, 6 A C 125/250 VAC, 3 A D 125 AC, 0.1 A N No approvals
Electrical rating classes in accordance with ENEC	A 250 V, 12 (6) A ~ 1E4 T85 μ approved B 250 V, 6 (3) A ~ 5E4 T85 μ approved C 250 V, 3 (2) A ~ 5E4 T85 μ approved F 250 V, 10 (4) A ~ 1E4 T125 μ approved L 30 V, 1 A = not approved M 30 V, 0.3 A ~ 1E4 not approved
Actuators	No digit Without lever J0 Plain L0 Simulated roller lever M0 Customer specified lever S0 Roller lever C0 Cam follower lever Other actuators on special request
Mounting position of the actuator	1 Mounting above terminal pos. 1 2 Mounting above terminal pos. 2 / Plunger