X4

Characteristics	▪ thermoplastic housing ▪ long mechanical and electrical life ▪ solder, PCB and faston terminals
Rating	250 VAC, 12 A max.
Dimensions (mm)	19.9 × 9.7 × 6.4
Actuator	▪ plunger ▪ plain levers ▪ cam follower lever ▪ roller levers
Approvals	UL, cUL, CSA, ENEC, CQC

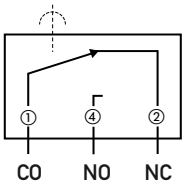
Preferred Range

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

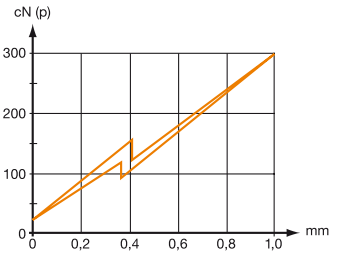
Specifications

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, PA66–GF35
Contact carrier	CuZn or CuSn

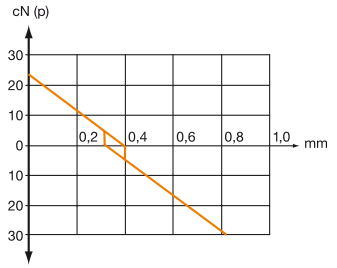
Circuit diagram



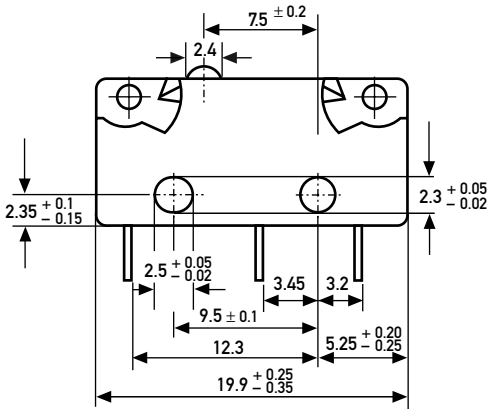
Actuating force/travel

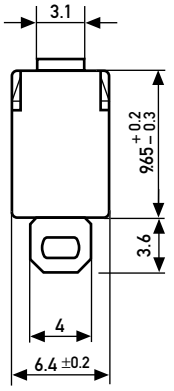


Contact force/travel

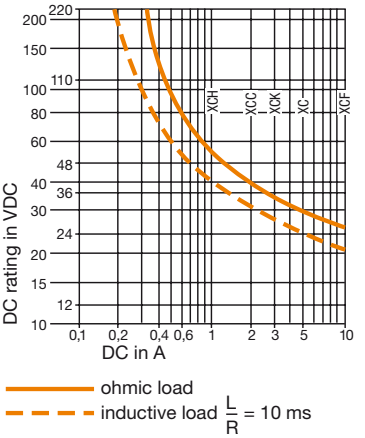


Dimensions





Maximum DC rating

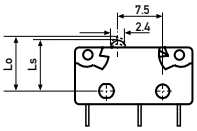
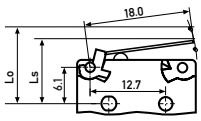
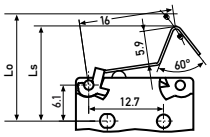
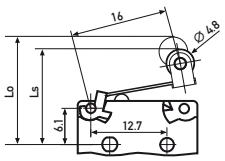


Recommended maximum electrical ratings

	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 Maximum (N)	(ozf)	Release Force Minimum (N)	(ozf)	Free Position Maximum (mm)	(in)	Operating Position Maximum (mm)		(in)		Movement Differential Maximum (mm)	(in)	Full Overtravel Position (mm)	(in)
Plunger		X4F	3,3	11,869	0,55	1,978	8,8	0,35	8,4	+0,1 −0,3	0,33	+0,004 −0,01	0,2	0,008	7,7	0,3
		X4G	2,0	7,193	0,35	1,258	8,8	0,35	8,4		0,33		0,2	0,008	7,7	0,3
		X4C	0,75	2,697	0,13	0,467	8,8	0,35	8,4		0,33		0,2	0,008	7,7	0,3
J11 Lever		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																
L11 Lever		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	0,55
		X4G	0,82	2,949	0,11	0,395	17,6	0,69	15,6 ±1,0		0,61 ±0,039		0,5	0,02	14,1	0,56
		X4C	0,29	1,043	0,033	0,118	17,6	0,69	15,7 ±1,0		0,61 ±0,039		0,4	0,016	14,3	0,56
Width of lever 4.0 mm/0.16 in																
S11 Lever		X4F	1,21	4,352	0,19	0,683	17,6	0,69	15,6 ±1,2		0,61 ±0,047		0,6	0,024	14,1	0,56
		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	14,2	0,56
		X4C	0,29	1,043	0,036	0,129	17,6	0,69	15,7 ±1,1		0,62 ±0,043		0,4	0,016	14,4	0,57
Width of roller 4.0 mm/0.16 in																

Ordering Reference

			Example: X4	F	3	03	K	1	A	A	J1	1
Basic type	X4											
Operating force	F	extra high force										
	G	high force										
	C	low force										
Circuits diagram	3	Change-over (CO)										
	4	Normally closed (NC) } with X4F and X4G not possible										
	5	Normally open (NO) } (except gold contacts)										
Terminals	03	Solder terminal										
	04	Faston terminal 2.8 × 0.5 mm DIN										
	05	Faston terminal 2.8 × 0.5 mm										
	08	PCB-terminal, length 4.5 mm										
	09	PCB-terminal, length 4.5 mm, (pitch 7.6)										
	10	PCB-terminal, formed to base										
	11	PCB-terminal, formed to lid										
	12	PCB-terminal, formed to base, (pitch 7.6)										
	13	PCB-terminal, formed to lid, (pitch 7.6)										
	14	PCB-terminal, length 3.5 mm										
	15	PCB-terminal, length 3.5 mm, (pitch 7.6)										
	21	Equidistant PCB-terminals, length 8.15 mm (pitch 7.5)										
	22	Equidistant PCB-terminals formed to base (pitch 7.5)										
	23	Equidistant PCB-terminals formed to lid (pitch 7.5)										
	24	Equidistant faston terminals 2.8 × 0.5 mm DIN (pitch 7.5)										
Body	K	Ultramid, for terminal types 03 to 15 only										
	N	Latamid, according to IEC 60335-1, for terminal types 03 to 15 only										
	M	Ultramid, for equidistant terminal types 21 to 24 only										
Contacts material	1	Silver/Silver										
	8	Gold microprofile (Crosspoint) contacts										
	9	Gold-plated										
UL/C-UL ratings	A	12 A, 125/250 VAC										
	B	6 A, 125/250 VAC										
	C	3 A, 125/250 VAC										
	D	0.1 A, 125 VAC										
	N	no approvals										
EN/IEC ratings	A	12 (6) A, 250 V~ 1E4 T85 µ approved										
	B	6 (3) A, 250 V~ 5E4 T85 µ approved										
	C	3 (2) A, 250 V~ 5E4 T85 µ approved										
	F	10 (4) A, 250 V~ 1E4 T125 µ approved										
	L	1 A, 30 V = not approved										
	M	0.3 A, 30 V~ 1E4 not approved										
Type of actuators		No symbol, without lever										
	J1	Plain lever 18.0 mm (0.71 in)										
	L1	Cam follower 16.0 mm (0.63 in)										
	S1	Roller lever 16.0 mm (0.63 in)										
	Other actuators on special request											
Actuator position		No symbol, without lever										
	1	Lever above terminal 1										
	2	Lever above terminal 2										