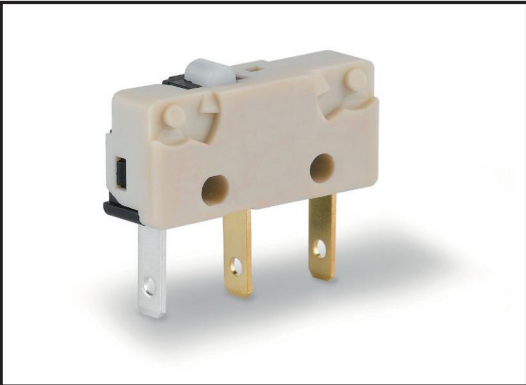
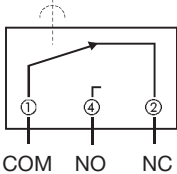


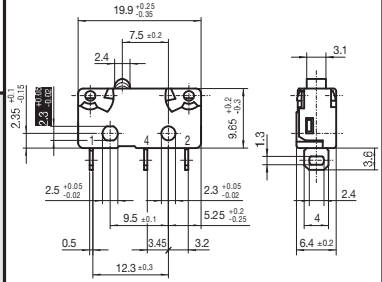
Thermoplastic Microswitches



Circuit diagram



Dimension



X4

X4

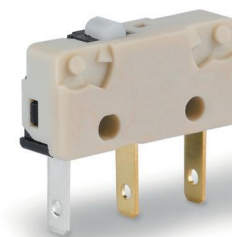
Characteristics – thermoplastic housing
 ■ long mechanical and electrical life
 – solder, PCB and faston terminals
 ■ compliant to glow wire test IEC 60335-1, 4. ed.

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



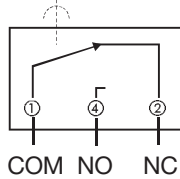
Preferred Range

Ordering Reference	Actuating Force		Operating pos.		Terminal	Circuit	Actuator	Contacts ENEC	Electrical rating UL/CSA	
	(N)	(ozf)	(mm)	(inch)						
X4F303N1AA	3,30	11,87	8,4	0,3	Solder	CO	Plunger	Ag	12 (6) A	12 A
X4F305N1AA	3,30	11,87	8,4	0,3	Faston	CO	Plunger	Ag	12 (6) A	12 A
X4G303N1BB	2,00	7,19	8,4	0,3	Solder	CO	Plunger	Ag	6 (3) A	6 A
X4G305N1BB	2,00	7,19	8,4	0,3	Faston	CO	Plunger	Ag	6 (3) A	6 A
X4C303N1CC	0,75	2,70	8,4	0,3	Solder	CO	Plunger	Ag	3 (2) A	3 A
X4C305N1CC	0,75	2,70	8,4	0,3	Faston	CO	Plunger	Ag	3 (2) A	3 A

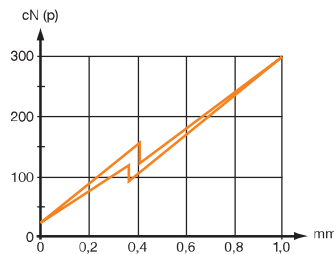
Specifications

Housing	Thermoplastic
Plunger	Thermoplastic
Mechanism	Snap-action system with stainless steel tension spring
Functions	CO (Change-over), NO (Normally Open), NC (Normally Closed)
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

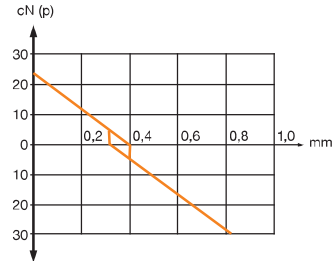
Circuit diagram



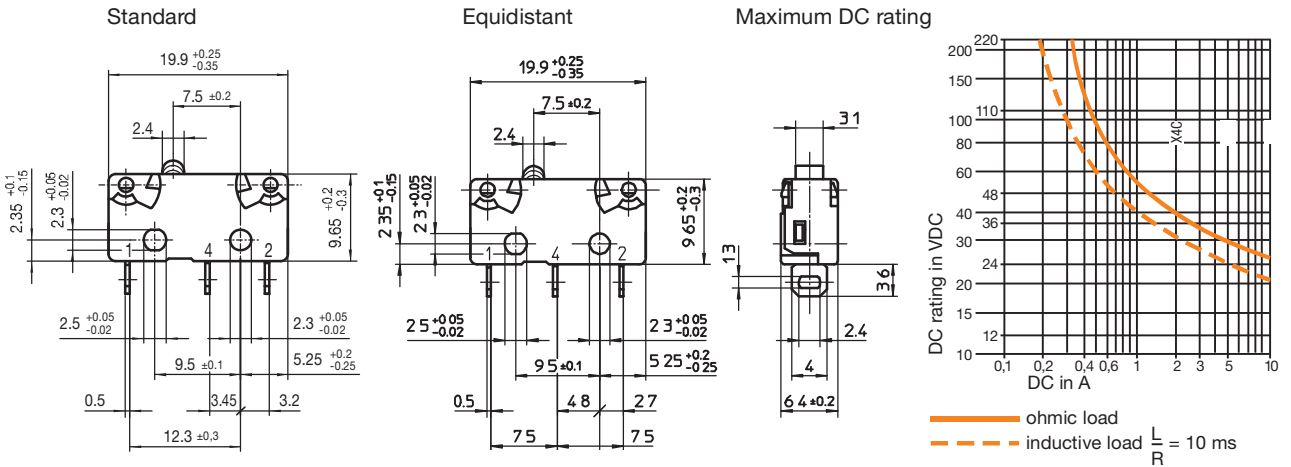
Actuating force/travel



Contact force/travel



Dimensions

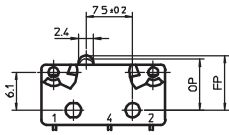
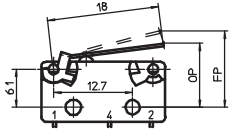
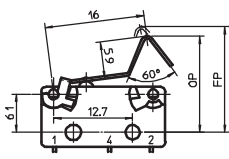
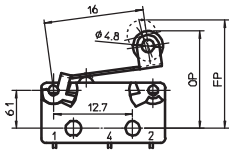


Recommended maximum electrical ratings

	Voltage (VAC)	Resistive load (A)		Motor load (A)		Approvals ENEC (A)		(VAC)	Approvals UL (VAC)	
		(A)	(A)	(A)	(A)	(A)	(A)			
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		
		Maximum (N)	(ozf)	Minimum (N)	(ozf)	Maximum (mm)	(in)	Maximum (mm)	(in)	Maximum (mm)	(in)	Maximum (mm)	(in)	
	X4F	3,30	11,87	0,550	1,978	8,8	0,35	8,4	$\left. \begin{array}{l} +0,1 \\ -0,3 \end{array} \right\} 0,33$	$\left. \begin{array}{l} +0,004 \\ -0,01 \end{array} \right\}$	0,2	0,008	7,7	0,303
	X4G	2,00	7,19	0,350	1,259	8,8	0,35	8,4			0,2	0,008	7,7	0,303
	X4C	0,75	2,70	0,130	0,468	8,8	0,35	8,4			0,2	0,008	7,7	0,303
	X4F	1,16	4,17	0,180	0,647	12,2	0,48	10,2 ±1,0	0,40 ±0,035	0,6	0,024	8,4	0,331	
	X4G	0,70	2,52	0,094	0,338	12,2	0,48	10,2 ±0,9	0,40 ±0,039	0,5	0,020	8,5	0,33	
	X4C	0,28	1,00	0,031	0,112	12,2	0,48	10,3 ±0,9	0,40 ±0,039	0,4	0,016	8,7	0,343	
Width of lever 4,0 mm/0,16 in														
	X4F	1,21	4,35	0,190	0,683	17,6	0,69	15,6 ±1,1	0,61 ±0,043	0,6	0,024	14,0	0,551	
	X4G	0,82	2,95	0,110	0,396	17,6	0,69	15,6 ±1,0	0,61 ±0,039	0,5	0,020	14,1	0,555	
	X4C	0,29	1,04	0,033	0,119	17,6	0,69	15,7 ±1,0	0,61 ±0,039	0,4	0,016	14,3	0,563	
Width of lever 4,0 mm/0,16 in														
	X4F	1,21	4,35	0,190	0,683	17,6	0,69	15,6 ±1,2	0,61 ±0,047	0,6	0,024	14,1	0,555	
	X4G	0,82	2,95	0,110	0,396	17,6	0,69	15,6 ±1,1	0,61 ±0,043	0,5	0,020	14,2	0,559	
	X4C	0,29	1,04	0,036	0,129	17,6	0,69	15,7 ±1,1	0,62 ±0,043	0,4	0,016	14,4	0,567	
Width of roller 4,0 mm/0,16 in														

Ordering Reference

Basic type	X4	Example: X4	F	3	03	K	1	A	A	J1	1																					
Operating force	F	extra high force	G	high force	C	low force																										
Circuits diagram	3	Change-over (CO)	4	Normally closed (NC)	5	Normally open (NO)																										
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 07,6)	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)	25	Equidistant solder terminals (pitch 7,5)
Body	N	PA66GF25 for terminal types 03 to 15 only	P	PA66GF25 (pitch 7,5) for equidistant terminal types 21 to 25 only	R	PA66GF25 (pitch 7,5 with moulded pegs) for equidistant terminal types 22 and 23 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	N	no approvals																		
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 and lengths available																														
Actuator position		No symbol, without lever	1	Lever above terminal 1	2	Lever above terminal 2																										