

X3

Characteristics	<ul style="list-style-type: none"> ■ 8 mm creepage and clearance distance to the actuator ■ long mechanical and electrical life ■ solder, faston and PCB terminal ■ compliant to glow wire requirements IEC 60335-1, 4. ed. as optional item
Rating	250 VAC, 21 A max.
Dimensions (mm)	27,8 × 15,9 × 10,3
Actuator	<ul style="list-style-type: none"> ■ plunger ■ straight lever ■ simulated roller levers ■ roller levers
Approvals	UL, cUL, CSA, ENEC, CQC



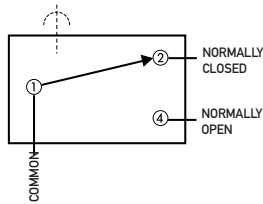
Preferred Range

Ordering Reference	Actuating Force (N)	(ozf)	Operating pos. (mm)	Terminal	Circuit	Actuator	Contacts	Electrical rating ENEC	UL/CSA
X3M302K2KA	1,60	5,72	14,7 +0.2/-0.4	Faston	CO	Plunger	Ag/AgNi10	16 (6) A	20.5 A
X3M302K2KAJ32	0,88	3,15	15 ± 1,0	Faston	CO	Plain lever	Ag/AgNi10	16 (6) A	20.5 A
X3M302K2KAJ62	0,57	2,04	14,8 ± 1,5	Faston	CO	Plain lever	Ag/AgNi10	16 (6) A	20.5 A
X3M302K2KAT02	2,00	7,15	20,2 ± 0,7	Faston	CO	Roller lever	Ag/AgNi10	16 (6) A	20.5 A
X3M303K2KA	1,60	5,72	14,7 +0.2/-0.4	Solder	CO	Plunger	Ag/AgNi10	16 (6) A	20.5 A
X3M306K2KA	1,60	5,72	14,7 +0.2/-0.4	Faston	CO	Plunger	Ag/AgNi10	16 (6) A	20.5 A
X3C302K2LB	0,80	2,86	14,7 +0.2/-0.4	Faston	CO	Plunger	Ag/AgNi10	10 (3) A	12 A
X3C302K2LBJ32	0,35	1,25	15 ± 1,0	Faston	CO	Plain lever	Ag/AgNi10	10 (3) A	12 A
X3C303K2LB	0,80	2,86	14,7 +0.2/-0.4	Solder	CO	Plunger	Ag/AgNi10	10 (3) A	12 A
X3C306K2LB	0,80	2,86	14,7 +0.2/-0.4	Faston	CO	Plunger	Ag/AgNi10	10 (3) A	12 A
X3L302K6DD	1,50	5,36	14,7 +0.2/-0.4	Faston	CO	Plunger	Ag/AgCdO	21 (8) A	21 A
X3L303K6DD	1,50	5,36	14,7 +0.2/-0.4	Solder	CO	Plunger	Ag/AgCdO	21 (8) A	21 A

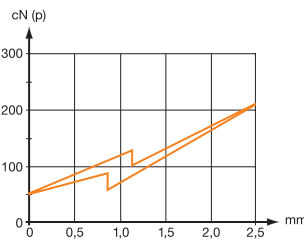
Specifications

Housing	Thermoplastic
Plunger	Thermoplastic
Mechanism	Snap-action, single pole beryllium bronze blade mechanism with wiping contacts
Contact carrier	Brass
Contacts	Fine silver (Ag), silver nickel (AgNi10), gold-plated (Au), silver cadmium oxide (AgCd0)
Terminals	Solder, Faston and RAST 5 terminals
Temperature range °C	Between -40°C and +125°C
Mechanical life	minimum cycles X3L: 10 ⁵ /X3M: 10 ⁶ /X3C: 2 · 10 ⁶ (Actuation: sinusoidal and maximum up to 80% of the overtravel)
Protection	Enclosure IP40
Mounting	Side mounting via mounting holes
Actuators	Stainless steel (lever)

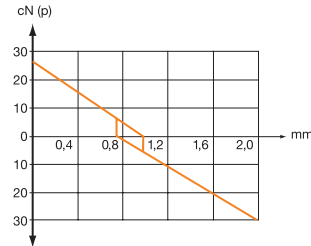
Circuit diagram



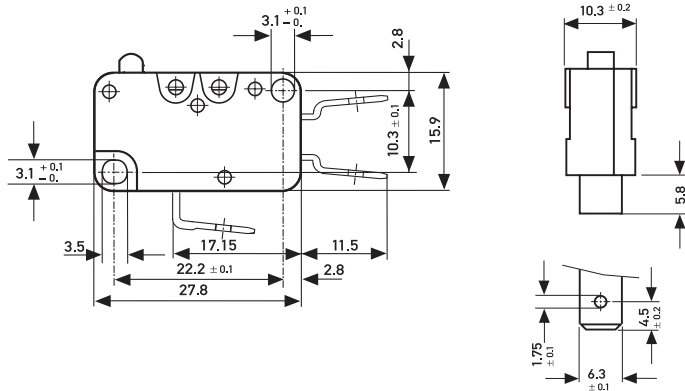
Actuating force/travel



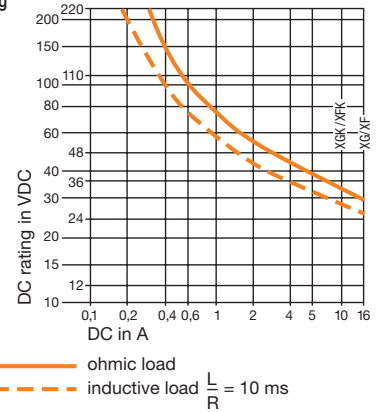
Contact force/travel



Dimensions



Maximum DC rating

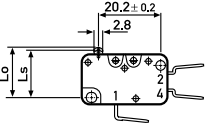
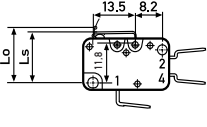
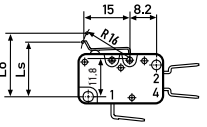
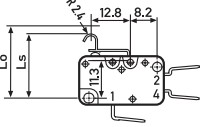
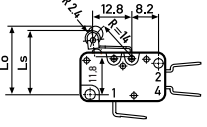


Recommended maximum electrical ratings

	Voltage (VAC)	Resistive load (A)	Motor load (A)	Approvals ENEC (A)		Approvals UL (VAC)		Motor load
				(A)	(VAC)	(A)	(VAC)	
X3M	250	16	6	16 (6)	5E4	20,5	250	1½ HP
X3C	250	10	3	10 (3)	5E4	20,5	125	½ HP
X3L	250	21	8	21 (8)	1E4	12	125	½ HP
						21	250	2 HP
						21	125	1 HP

Current breaking capacities in the tables refer to Ag/AgNi10 contacts with the exception of X3L Ag/AgCd0

Operating Characteristics

Actuator	Reference	Actuating Force Maximum		Release Force Minimum		Free Position Maximum		Operating Position		Movement Differential		Full overtravel position			
		(N)	(ozf)	(N)	(ozf)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)		
Plunger 	X3C3	0.8	2.877	0.05	0.179	15.75	0.62	14.7	+0.2 -0.4	0.578	+0.008 -0.006	0.25	0.009	13.2	0.52
	X3M3	1.6	5.755	0.2	0.719	15.75	0.62	14.7		0.578		0.25	0.009	13.2	0.52
J02 Lever 	X3C3 ..	0.8	2.877	0.045	0.161	16.5	0.649	15.1 ± 0.5		0.59 ± 0.02		0.35	0.014	14	0.55
	X3M3..	2	7.193	0.18	0.647	16.5	0.649	15.1 ± 0.5		0.59 ± 0.02		0.35	0.014	14	0.55
Width of lever 7.0 mm/0.28 in – also available with width 4 mm/0.16 in															
M02 Lever 	X3C3 ..	0.5	1.798	0.04	0.143	19.2	0.755	17.5 ± 0.7		0.69 ± 0.028		0.35	0.014	16.4	0.65
	X3M3..	1.65	5.934	0.16	0.575	19.2	0.755	17.5 ± 0.7		0.69 ± 0.028		0.35	0.014	16.4	0.65
Width of lever 7.0 mm/0.28 in															
L02 Lever 	X3C3 ..	0.8	2.877	0.045	0.161	21.8	0.858	20.5 ± 0.6		0.81 ± 0.024		0.35	0.014	19.5	0.76
	X3M3..	2	7.193	0.19	0.683	21.8	0.858	20.5 ± 0.6		0.81 ± 0.024		0.3	0.011	19.5	0.76
Width of lever 7.0 mm/0.28 in															
T02 Lever 	X3C3 ..	0.8	2.877	0.045	0.161	21.8	0.858	20.2 ± 0.7		0.79 ± 0.028		0.35	0.014	19.3	0.76
	X3M3..	2	7.193	0.19	0.683	21.8	0.858	20.2 ± 0.7		0.79 ± 0.028		0.35	0.014	19.3	0.76
Width of roller 6.6 mm/0.26 in															

Ordering Reference

Basic type	X3	Microswitch according to DIN 41635, Design A	Example: X3	M	3	02	K	2	A	A	J0	2	AA
Operating force	M	Standard force 1											
	L	Standard force 2											
	C	Low force											
Circuit diagram	3	Change-over											
	4	Normally closed (NC)											
	5	Normally open (NO)											
Terminals	02	Plug terminal 6.3 × 0.8 mm	13	PCB-terminal, Formed to lid									
	03	Solder terminal	14	PCB-terminal, Formed to base									
	06	Plug terminal 4.8 × 0.5 mm	15	Plug terminal RAST 5 6.3 × 0.8 mm									
	10	Plug terminal 4.8 × 0.8 mm	16	Plug terminal RAST 5 4.8 × 0.8 mm									
	12	Solder terminal, short											
Body	K	Standard PA66											
	N	Special PA66 (meets glow wire requirements IEC 60335-1, 4.ed.)											
Contacts materials	2	Silver/AgNi10											
	6	AgCd0											
	8	Gold plated											
UL/C-UL ratings	A	20.5 A, 125/250 VAC 15 A, 125/250 VAC, 100'000 cy. 1½ HP, 250 VAC, ½ HP, 125 VAC	M	6 A, 125/250 VAC ½ HP, 250 VAC, ½ HP, 125 VAC									
	D	21 A, 125/250 VAC 2 HP, 250 VAC, 1 HP, 125 VAC	N	No approvals									
	E	21 A, 125/250 VAC 15 A, 125/250 VAC, 100'000 cy. 2 HP, 250 VAC, 1 HP, 125 VAC	P	20.5 A, 125/250 VAC 1½ HP, 250 VAC, ½ HP, 125 VAC ½ HP, 250 VDC, ½ HP, 125 VDC									
	K	20.5 A, 125/250 VAC 1½ HP, 250 VAC, ½ HP, 125 VAC	Q	12 A, 125/250 VAC ½ HP, 250 VAC, ½ HP, 125 VAC ¼ A, 250 VDC, ½ A, 125 VDC									
	L	12 A, 125/250 VAC ½ HP, 250 VAC, ½ HP, 125 VAC	R	6 A, 125/250 VAC ½ HP, 250 VAC, ½ HP, 125 VAC ¼ A, 250 VDC, ½ A, 125 VDC									
EN/IEC ratings	A	16 (6) A, 250 V~ 5E4 T125 μ approved											
	B	10 (3) A, 250 V~ 5E4 T125 μ approved											
	C	6 (3) A, 250 V~ 5E4 T125 μ approved											
	D	21 (8) A, 250 V~ 1E4 T105 μ approved											
Type of actuator		No symbol, without lever											
	J0 to J9	Straight lever (width 7 mm)											
	L0 to L9	Simulated roller lever											
	M0 to M9	Customer specified lever (KV)											
	P0 to P9	Straight lever (width 4 mm)											
	T0 to T9	Roller lever											
	U0 to U9	Outside mounted lever											
Actuator position		No symbol, without lever											
	2	Rear lever											
	4	Front lever											
Customer version		No symbol, standard type											
	AA to YY	Specials for customers											