

Limit switches

OsiSense XC Standard

Compact design, metal, type XCK D
Complete switches with 1 cable entry

1

Type of head	Plunger (fixing by the body)					
	Form B (1)		Form C (1)	Form E (1)		
Type of operator	Metal end plunger	Metal end plunger with elastomer boot (2)	Steel roller plunger	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	Thermoplastic roller lever plunger, vertical actuation in 1 direction	Thermoplastic roller lever plunger, horiz. or vert. actuation in 1 direction

References of complete switches with 1 ISO M16 x 1.5 cable entry (3)

	2-pole NC + NO snap action (XE2S P2151)	XCK D2110P16 	XCK D2111P16 	XCK D2102P16 	XCK D2121P16 	XCK D2127P16 	XCK D2128P16
	2-pole NC + NO break before make, slow break (XE2N P2151)	XCK D2510P16 	XCK D2511P16 	XCK D2502P16 	XCK D2521P16 	XCK D2527P16 	XCK D2528P16
	2-pole NC + NC snap action (XE2S P2141)	ZCD 29 + ZCD EP16 + ZCE 10 	ZCD 29 + ZCD EP16 + ZCE 11 	ZCD 29 + ZCD EP16 + ZCE 02 	ZCD 29 + ZCD EP16 + ZCE 21 	ZCD 29 + ZCD EP16 + ZCE 27 	ZCD 29 + ZCD EP16 + ZCE 28
	2-pole NC + NC simultaneous, slow break (XE2N P2141)	ZCD 27 + ZCD EP16 + ZCE 10 	ZCD 27 + ZCD EP16 + ZCE 11 	ZCD 27 + ZCD EP16 + ZCE 02 	ZCD 27 + ZCD EP16 + ZCE 21 	ZCD 27 + ZCD EP16 + ZCE 27 	ZCD 27 + ZCD EP16 + ZCE 28
	3-pole NC + NC + NO snap action (XE3S P2141)	ZCD 39 + ZCD EP16 + ZCE 10 	ZCD 39 + ZCD EP16 + ZCE 11 	ZCD 39 + ZCD EP16 + ZCE 02 	ZCD 39 + ZCD EP16 + ZCE 21 	ZCD 39 + ZCD EP16 + ZCE 27 	ZCD 39 + ZCD EP16 + ZCE 28
	3-pole NC + NC + NO break before make, slow break (XE3N P2141)	ZCD 37 + ZCD EP16 + ZCE 10 	ZCD 37 + ZCD EP16 + ZCE 11 	ZCD 37 + ZCD EP16 + ZCE 02 	ZCD 37 + ZCD EP16 + ZCE 21 	ZCD 37 + ZCD EP16 + ZCE 27 	ZCD 37 + ZCD EP16 + ZCE 28
Weight (kg)	0.180	0.180	0.185	0.195	0.190	0.195	

References of complete switches with 1 entry for n° 11 cable gland

For an entry tapped for a n° 11 cable gland, replace P16 in the reference by G11. Example: XCK D2110P16 becomes XCK D2110G11 or ZCD EP16 becomes ZCD EG11.

Contact operation closed open (A) (B) = cam displacement NC contact with positive opening operation (P) = positive opening point

Characteristics		Switch actuation					
Switch actuation		On end			By 30° cam		
Type of actuation							
Maximum actuation speed		0.5 m/s			1 m/s		
Mechanical durability (in millions of operating cycles)		15			10		
Minimum force or torque	For tripping	15 N			12 N		
	For positive opening	45 N			36 N		
Cable entry		1 entry tapped M16 x 1.5 mm for ISO cable gland, clamping capacity 4 to 8 mm					

(1) Form conforming to EN 50047, see page 1/176.

(2) Nitrile for indoor use.

(3) Switches with gold contacts or eyelet type connections: please consult our Customer Care Centre.

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Type of head	Plunger (fixing by the head)		Rotary (fixing by the body)				Multi-directional
			Form A (1)				
Type of operator	M18 with metal end plunger	M18 with steel roller plunger	Thermoplastic roller lever	Variable length thermoplastic roller lever	Thermoplastic roller lever, Ø 50 mm	Variable length thermoplastic roller lever, Ø 50 mm	"Cat's whisker" (2)

References of complete switches with 1 ISO M16 x 1.5 cable entry (3)

	XCK D21H0P16 	XCK D21H2P16 	XCK D2118P16 	XCK D2145P16 	XCK D2139P16 	XCK D2149P16 	XCK D2106P16
	XCK D25H0P16 	XCK D25H2P16 	XCK D2518P16 	XCK D2545P16 	XCK D2539P16 	XCK D2549P16 	XCK D2506P16
	ZCD 29 + ZCD EP16 + ZCE H0 	ZCD 29 + ZCD EP16 + ZCE H2 	ZCD 29 + ZCD EP16 + ZCE 01 + ZCY 18 	ZCD 29 + ZCD EP16 + ZCE 01 + ZCY 45 	ZCD 29 + ZCD EP16 + ZCE 01 + ZCY 39 	ZCD 29 + ZCD EP16 + ZCE 01 + ZCY 49 	ZCD 29 + ZCD EP16 + ZCE 06
	ZCD 27 + ZCD EP16 + ZCE H0 	ZCD 27 + ZCD EP16 + ZCE H2 	ZCD 27 + ZCD EP16 + ZCE 01 + ZCY 18 	ZCD 27 + ZCD EP16 + ZCE 01 + ZCY 45 	ZCD 27 + ZCD EP16 + ZCE 01 + ZCY 39 	ZCD 27 + ZCD EP16 + ZCE 01 + ZCY 49 	ZCD 27 + ZCD EP16 + ZCE 06
	ZCD 39 + ZCD EP16 + ZCE H0 	ZCD 39 + ZCD EP16 + ZCE H2 	ZCD 39 + ZCD EP16 + ZCE 01 + ZCY 18 	ZCD 39 + ZCD EP16 + ZCE 01 + ZCY 45 	ZCD 39 + ZCD EP16 + ZCE 01 + ZCY 39 	ZCD 39 + ZCD EP16 + ZCE 01 + ZCY 49 	ZCD 39 + ZCD EP16 + ZCE 06
	ZCD 37+ ZCD EP16 + ZCE H0 	ZCD 37+ ZCD EP16 + ZCE H2 	ZCD 37+ ZCD EP16 + ZCE 01 + ZCY 18 	ZCD 37+ ZCD EP16 + ZCE 01 + ZCY 45 	ZCD 37+ ZCD EP16 + ZCE 01 + ZCY 39 	ZCD 37+ ZCD EP16 + ZCE 01 + ZCY 49 	ZCD 37+ ZCD EP16 + ZCE 06
Weight (kg)	0.220	0.220	0.225	0.235	0.235	0.245	0.175

References of complete switches with 1 entry for n° 11 cable gland

For an entry tapped for a n° 11 cable gland, replace P16 in the reference by G11. Example: XCK D21H0P16 becomes XCK D21H0G11 or ZCD EP16 becomes ZCD EG11.

Contact operation	closed open	(A) = cam displacement (P) = positive opening point	NC contact with positive opening operation
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Characteristics			
Switch actuation	On end	By 30° cam	By any moving part
Type of actuation			
Maximum actuation speed	0.5 m/s	1.5 m/s	1 m/s (any direct.)
Mechanical durability	10 million operating cycles		5 million
Minimum force or torque	For tripping: 15 N For positive opening: 45 N	10 N 36 N	0.1 N.m 0.25 N.m -
Cable entry	1 entry tapped M16 x 1.5 mm for ISO cable gland, clamping capacity 4 to 8 mm		

(1) Form conforming to EN 50047, see page 1/176.

(2) Value taken with actuation by moving part at 100 mm from the fixing.

(3) Switches with gold contacts or eyelet type connections: please consult our Customer Care Centre.

Limit switches

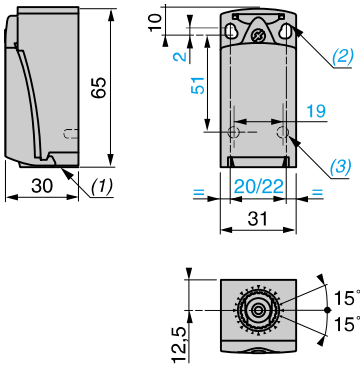
OsiSense XC Standard

Compact design, metal, type XCK D

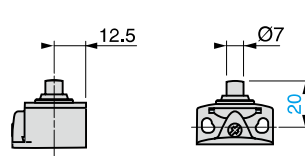
Complete switches with 1 cable entry

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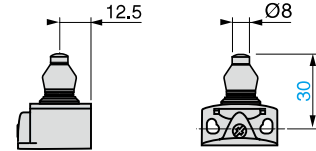
ZCD 2● + ZCDE P16/ZCD 3● + ZCDE P16



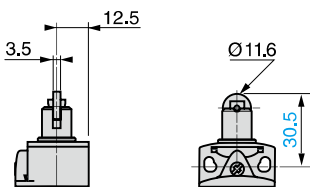
ZCE 10



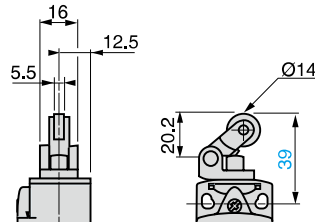
ZCE 11



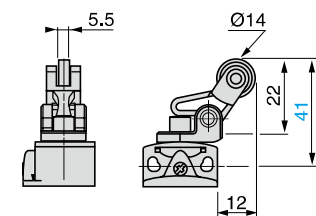
ZCE 02



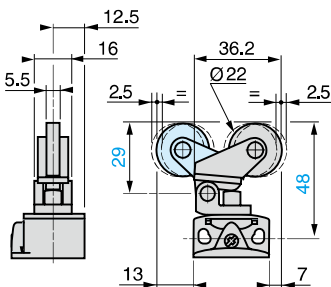
ZCE 21



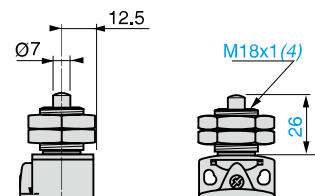
ZCE 27



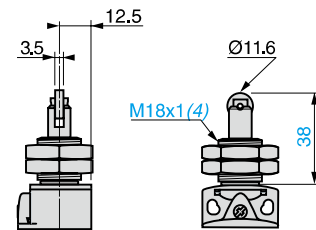
ZCE 28



ZCE H0



ZCE H2



(1) Tapped entry for ISO M16 x 1.5 or Pg 11 cable gland.

(2) 2 elongated holes $\text{Ø} 4.3 \times 6.3$ mm on 22 mm centres, 2 holes $\text{Ø} 4.3$ on 20 mm centres.

(3) 2 x $\text{Ø} 3$ holes for support studs, depth 4 mm.

(4) Fixing nut thickness 3.5 mm.

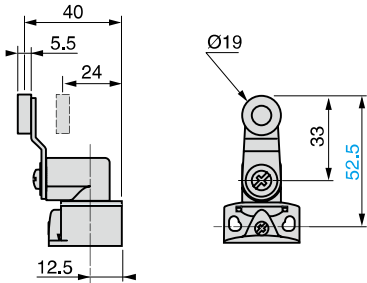
Limit switches

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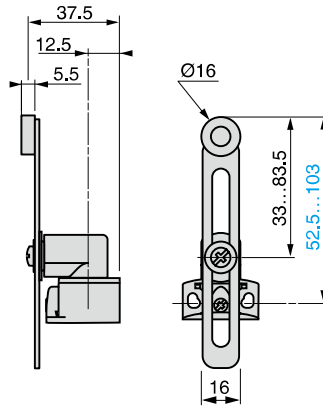
Compact design, metal, type XCK D

Complete switches with 1 cable entry

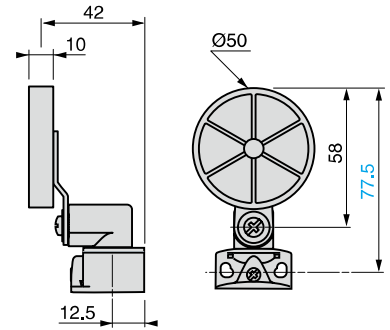
ZCE 01 + ZCY 18



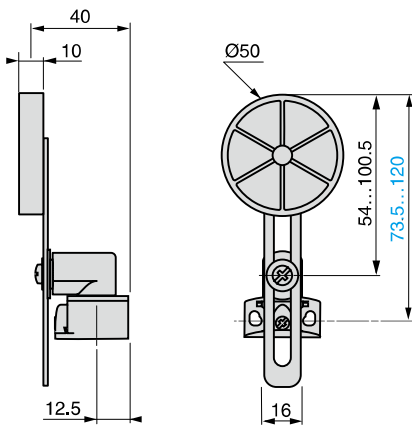
ZCE 01 + ZCY 45



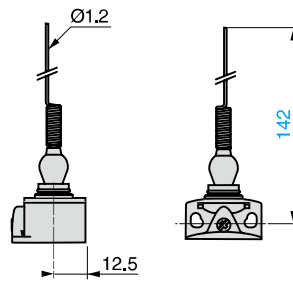
ZCE 01 + ZCY 39



ZCE 01 + ZCY 49



ZCE 06



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Type of head	Plunger (fixing by the body)					
	Form B (1)		Form C (1)		Form E (1)	
Type of operator	Metal end plunger	Metal end plunger with elastomer boot (2)	Steel roller plunger	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	Thermoplastic roller lever plunger, vertical actuation in 1 direction	Thermoplastic roller lever plunger, horiz. or vert. actuation in 1 direction

References						
2-pole NC + NO snap action (XE2S P2151)	XCK D2110M12	XCK D2111M12	XCK D2102M12	XCK D2121M12	XCK D2127M12	XCK D2128M12
2-pole NC + NC snap action (XE2S P2141)	ZCD 29M12 + ZCE 10	ZCD 29M12 + ZCE 11	ZCD 29M12 + ZCE 02	ZCD 29M12 + ZCE 21	ZCD 29M12 + ZCE 27	ZCD 29M12 + ZCE 28
Weight (kg)	0.190	0.190	0.195	0.205	0.200	0.205
Contact operation	closed open		(A) (B) = cam displacement (P) = positive opening point	NC contact with positive opening operation		

(1) Form conforming to EN 50047, see page 1/176. (2) Nitrile for indoor use.

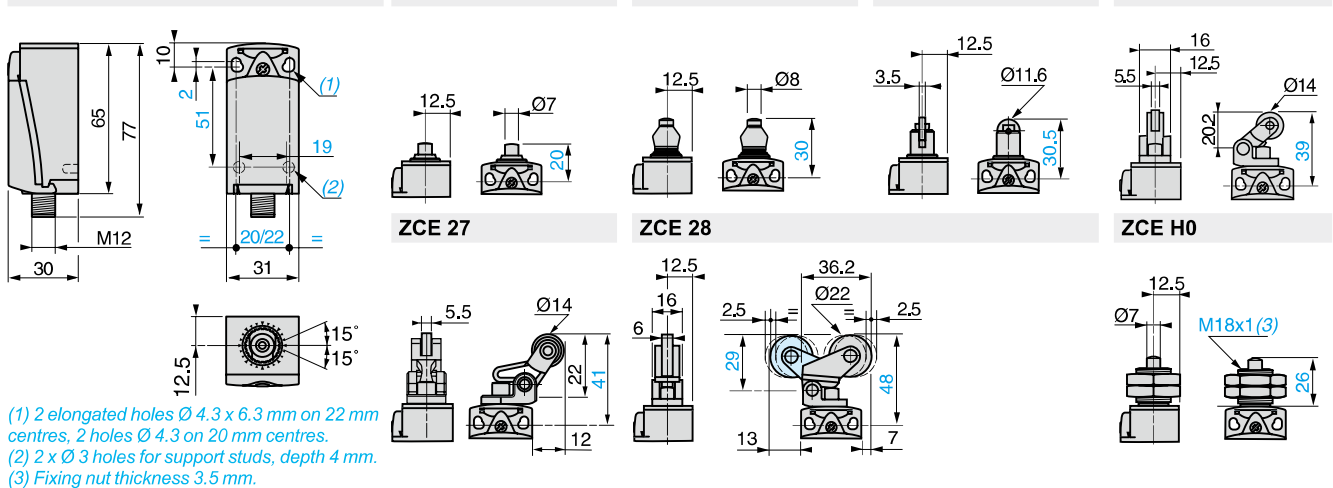
Characteristics			
Switch actuation	On end	By 30° cam	
Type of actuation			
Maximum actuation speed	0.5 m/s	1 m/s	
Mechanical durability (in millions of operating cycles)	15	10	15
Minimum force or torque	For tripping: 15 N For positive opening: 45 N	12 N 36 N	6 N 18 N
Connection	M12 connector, U _i = 60 V, I _e = 4 A maximum, l _{th} = 4 A		

Connections

M12 connector		
	XE2S P2151	XE2S P2141
	1-2: NC	1-2: NC
	3-4: NO	3-4: NO
	5: ⚡	5: ⚡

See connection on page 9/44

Dimensions



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M12 connector

Type of head	Plunger (fixing by the head)		Rotary (fixing by the body)				Multi-directional
			Form A (1)				
Type of operator	M18 with metal end plunger	M18 with steel roller plunger	Thermoplastic roller lever	Variable length thermoplastic roller lever	Thermoplastic roller lever, Ø 50 mm	Variable length thermoplastic roller lever, Ø 50 mm	"Cat's whisker" (2)

References							
2-pole NC + NO snap action (XE2S P2151)	XCK D21H0M12	XCK D21H2M12	XCK D2118M12	XCK D2145M12	XCK D2139M12	XCK D2149M12	XCK D2106M12
2-pole NC + NC snap action (XE2S P2141)	ZCD 29M12 + ZCE H0	ZCD 29M12 + ZCE H2	ZCD 29M12 + ZCE 01 + ZCY 18	ZCD 29M12 + ZCE 01 + ZCY 45	ZCD 29M12 + ZCE 01 + ZCY 39	ZCD 29M12 + ZCE 01 + ZCY 49	ZCD 29M12 + ZCE 06
Weight (kg)	0.235	0.235	0.220	0.220	0.220	0.220	0.185
Contact operation	closed open		(A) = cam displacement (P) = positive opening point		NC contact with positive opening operation		

(1) Form conforming to EN 50047, see page 1/176.
(2) Value taken with actuation by moving part at 100 mm from the fixing.

Characteristics					
Switch actuation	On end	By 30° cam			By any moving part
Type of actuation					
Maximum actuation speed	0.5 m/s	1.5 m/s			1 m/s (any direct.)
Mechanical durability (in millions of operating cycles)	10				5
Minimum force or torque	For tripping	15 N	10 N	0.1 N.m	0.13 N.m
	For positive opening	45 N	36 N	0.25 N.m	-
Connection	M12 connector, Ui = 60 V, Ie = 4 A maximum, Ith = 4 A				

Dimensions					
ZCE 01 + ZCY 18	ZCE 01 + ZCY 45	ZCE 01 + ZCY 39	ZCE 01 + ZCY 49	ZCE 06	
ZCE H2 					
<p>(3) Fixing nut thickness 3.5 mm.</p>					