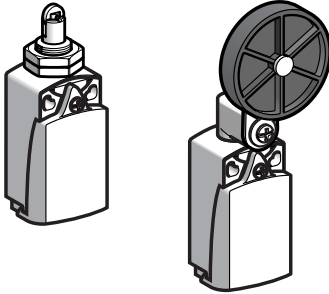


OSICONCEPT™ Limit Switches

XCKP, D, and T Compact Modular Description



XCKP

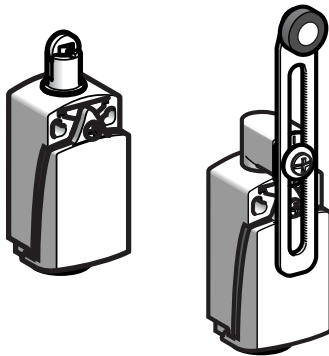
The XCK compact limit switches are now available in both plastic and metal bodies. A plastic wide body, the XCKT, is also offered. These limit switches incorporate a modular design that allows all the metal heads to fit any of the compact switch bodies, as well as the XCMD miniature limit switch bodies.

XCKP and XCKT modular compact switches replace our previous plastic compact switches. They are a direct replacement for these non-modular switches.

XCKD is the new all metal compact switch. It is modular and can be used in outdoor applications requiring a more rugged switch. The XCKD is dimensionally similar to the previous plastic switches and can replace them without re-drilling in most cases.

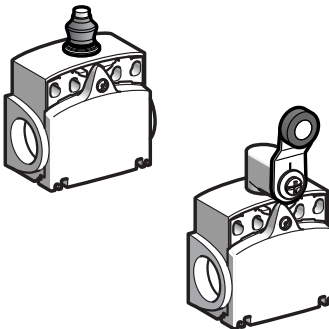
The manual reset versions of the above are the metal XCDDR, and the plastic XCPR, and XCTR.

See features and benefits on page 417 for additional details.



XCKD

General Specifications		
Conforming To Standards	Products	IEC 60 947-5-1, EN 60 947-5-1, UL 508, CSA C22-2 no. 14
	Machine assemblies	IEC 60 204-1, EN 60 204-1
Product Certifications		UL, CSA, CE
Protective Treatment	Standard version	"TC"
Ambient Air Temperature	Operation	-13 to + 158°F (- 25 to + 70°C)
	Storage	-40 to 158°F (-40 to + 70°C)
Vibration Resistance	Conforming to IEC 60 068-2-6	25 gn (10–500 Hz)
Shock Resistance	Conforming to IEC 60 068-2-27	50 gn (11 msec.), ZCE08: 15 gn (11 ms) and ZCE24: 30 gn (18 ms)
Electric Shock Protection		Class II conforming to IEC 61140 and NF C 20-030 for XCK P and XCK T Class I conforming to IEC 61140 and NF C 20-030 for XCK D
Degree of Protection		IP66 and IP67 conforming to IEC 60 529; IK.04 conforming to EN 50 102 for XCK P and XCK T, IK.0G conforming to EN 50 102 for XCK D
Repeat Accuracy		0.1 mm on tripping points
Cable Entry	Depending on model	Tapped entry for cable gland 11 or 13, or ISO M16x1.5 tapped, ISO M20x1.5 tapped or 1/2" NPT tapped or PF 1/2 tapped
Materials		XCK D : zinc alloy body and head; XCK P and XCK T : plastic body and zinc alloy head



XCKT

OSICONCEPT™ Limit Switches XCKP and XCKD Compact Modular Features and Benefits Comparison

This table compares the new plastic compact body XCKP to the previous plastic design and introduces the XCKD. All heads on plastic or metal bodies are metal. The metal compact XCKD was designed for more rugged applications including outdoor use. The XCKD features are the same as the XCKP and the XCKD uses the same new metal heads as the new plastic XCKP.

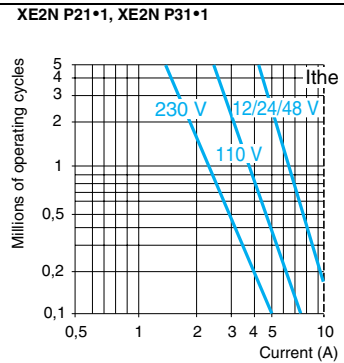
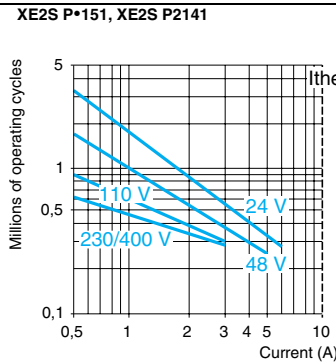
New XCKP Plastic and XCKD Metal		Previous Plastic XCKP
Features	Benefits	Features
Modular	Easy to change components	Non-modular
Metal head	Rugged, robust	Plastic
No screw head attachment	Easy to change heads	4 screws required
Head release fork blocked by cover	Helps prevent tampering	N/A
Heads rotate and adjust in 15 degree increments (levers adjust in 15 degree increments)	Precise positioning of head	not recommended
Many heads available	More variety for difficult applications	Basic heads available
Lever travel increased to 90 degrees	Reduces chance of damage to switch mechanism	70 degree travel
Enclosure rating IP 66 and 67, Type 4X	Greater protection from leakage	IP 65
Metal plate over screw holes (not required on metal body)	No plastic deformation	Plastic only
Angular sloped cover	Better access to the contact block, better sealing pressure around the gasket	Flat cover
Contact block design	Improves ease of wiring	Flat design
Up to 3 contacts will be available	Allows easy circuit redundancy	2 contacts maximum
6 separate component thread adaptors	Versatility, late differentiation	Molded threads in body
Modular components	Reduce distributor inventory (the same metal heads are used on metal and plastic compact and miniature body style limit switches)	Non-modular
Same mounting as our existing and most competitive compact switches	No re-drilling required for most applications	
Assembly of components in the US	Late differentiation, quicker delivery on non stock and specials	Made in Spain

OSICONCEPT™ Limit Switches XCKP, D, and T Compact Modular Specifications



Contact Characteristics		
Rated Operational Characteristics	XE2• P	AC-1; A300 (Ue = 240 V, Ie = 3 A); Ithe = 10 A DC-13; Q300 (Ue = 250 V, Ie = 0.27 A), conforming to IEC 60-947-5-1 Appendix A, EN 60 947-5-1
	XE3• P	AC-15; B300 (Ue = 240 V, Ie = 1.5 A); Ithe = 6 A DC-13; R300 (Ue = 250 V, Ie = 0.1 A) conforming to IEC 60 947-5-1 Appendix A, EN 60 947-5-1
Rated Insulation Voltage	XE2• P	Ui = 500 V degree of pollution 3 conforming to IEC 60 947-1, Ui = 300 V conforming to UL 508, CSA C22-2 No. 14
	XE3• P	Ui = 400 V degree of pollution 3 conforming to IEC 60 947-1, Ui = 300 V conforming to UL 508, CSA C22-2 No. 14
Rated Impulse Withstand Voltage	XE2• P	U imp = 6 kV conforming to IEC 60 947-1, IEC 60 664
	XE3• P	U imp = 4 kV conforming to IEC 60 947-1, IEC 60 664
Positive Operation (depending on model)		Contact with positive opening operation conforming to IEC 60 947-5-1 Appendix K, EN 60 947-5-1
Resistance Across Terminals		≤ 25 mΩ conforming to IEC 60 255-7 Category 3
Short-circuit Protection	XE2• P	10 A cartridge fuse gG (gl)
	XE3• P	6 A cartridge fuse gG (gl)
Connection (on screw and cable clamp terminals)	XE2S P•151 and XE2S P2141	Clamping capacity: minimum 0.04 x 0.01 ² (1 x 0.34 mm ²), maximum 0.08 x 0.06 ² (2 x 1.5 mm ²)
	XE2N P21•1 and XE2N P31•1	Clamping capacity: minimum 0.04 x 0.02 ² (1 x 0.5 mm ²), maximum 0.08 x 0.01 ² (2 x 2.5 mm ²)
	XE3N P and XE3S P	Clamping capacity: minimum 0.04 x 0.01 ² (1 x 0.34 mm ²), maximum 0.04 x 0.04 ² (1 x 1 mm ²) or 0.08 x 0.03 ² (2 x 0.75 mm ²)
Minimum Actuation Speed	XE2S P•151, XE2S P2141 and XE3S P:	0.01 m/minute
	XE2N P21•1, XE2N P31•1 and XE3N P:	6 m/minute
Electrical Durability		Conforming to IEC 60 947-5-1 Appendix C Use categories AC-15 and DC-13 Max. frequency: 3600 operating cycles/hour Load factor: 0.5

Alternating Current 50/60 Hz
⌚ Inductive Circuit



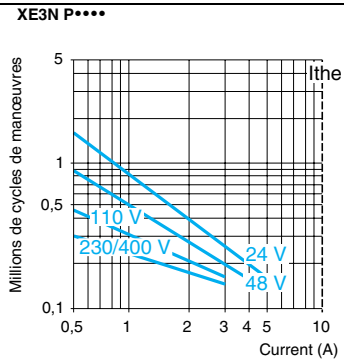
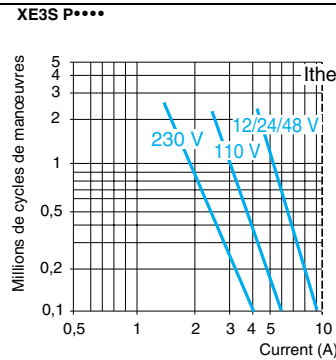
Direct Current ===

Power switching for 5 million operating cycles				
Voltage	V	24	48	120
⌚	W	10	7	4

Power switching for 5 million operating cycles				
Voltage	V	24	48	120
⌚	W	13	9	7

For XE2S P•151 in AC or DC, the N.C. and N.O. contacts are supplied with the indicated values to the same polarity simultaneously.

Alternating Current 50/60 Hz
⌚ Inductive Circuit



Direct Current ===

Power switching for 5 million operating cycles.				
Voltage	V	24	48	120
⌚	W	4	3	2

Power switching for 5 million operating cycles				
Voltage	V	24	48	120
⌚	W	3	2	1

Limit Switches



File E164353
CCN NKCR

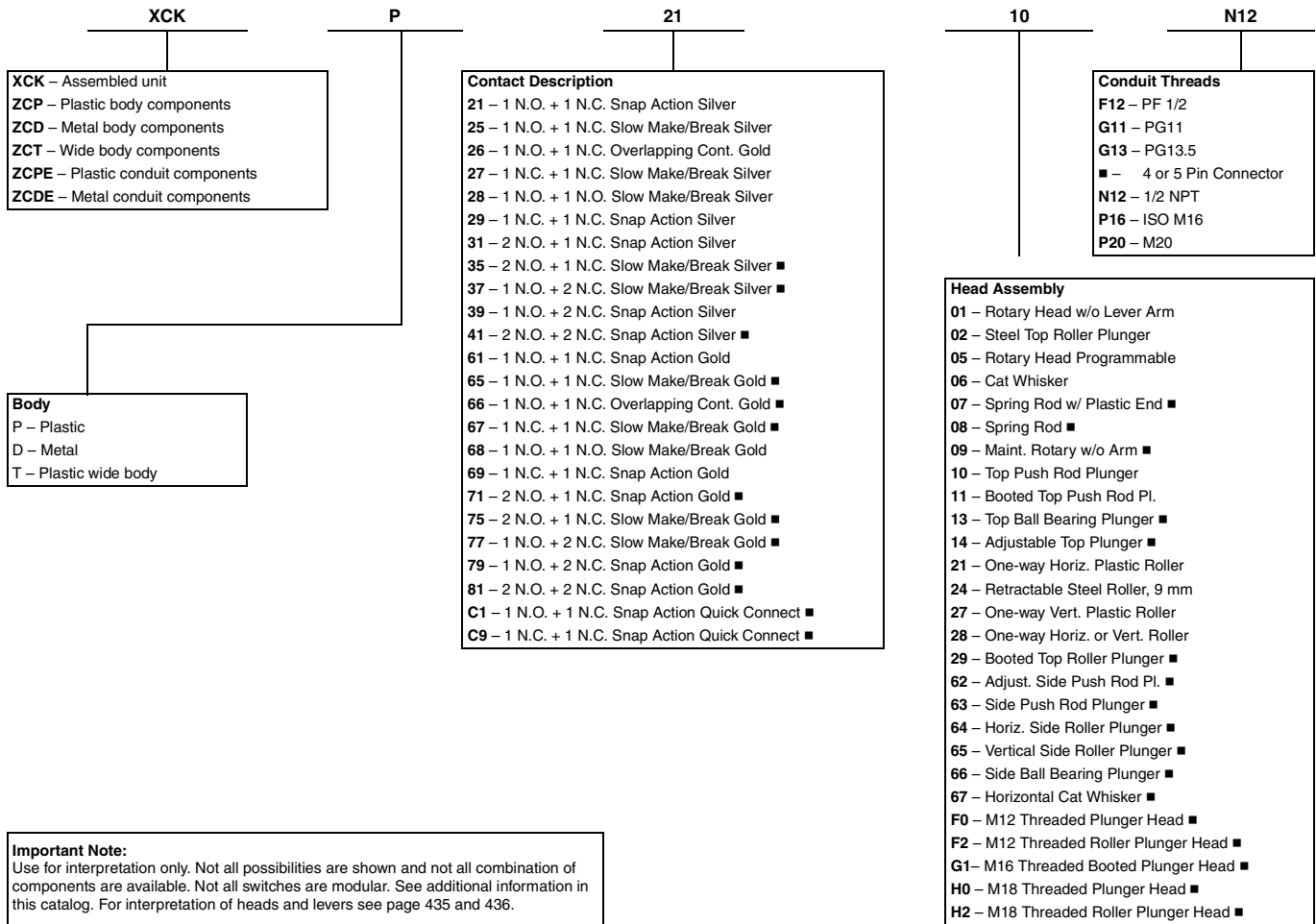


File 164581



Marking

For Interpretation of the Catalog Number Only



Important Note:
 Use for interpretation only. Not all possibilities are shown and not all combination of components are available. Not all switches are modular. See additional information in this catalog. For interpretation of heads and levers see page 435 and 436.

■ Call your local field sales office for availability.

Limit Switches

OSICONCEPT™ Limit Switches

XCKD Compact Modular Selection



Type of Operating Head	Linear movement, body-mounted					
Type of Operator	Metal top plunger	Metal top plunger with elastomer boot	Steel roller plunger	Thermoplastic roller plunger, one-way horizontal action	Thermoplastic roller plunger, one-way vertical action	Thermoplastic roller plunger, one-way vertical or horizontal action
Catalog Numbers (2)						
2-pole N.C. + N.O. snap action contact (XE2S P2151)	XCKD 2110N12 	XCKD 2111N12 	XCKD 2102N12 	XCKD 2121N12 	XCKD 2127N12 	XCKD 2128N12
2-pole N.C. + N.O. slow break-before-make contact (XE2N P2151)	XCKD 2510N12 	XCKD 2511N12 	XCKD 2502N12 	XCKD 2521N12 	XCKD 2527N12 	XCKD 2528N12
2-pole N.C. + N.C. snap action contact (XE2S P2141)	ZCD 29 + ZCDE N12 + ZCE 10 	ZCD 29 + ZCDE N12 + ZCE 11 	ZCD 29 + ZCDE N12 + ZCE 02 	ZCD 29 + ZCDE N12N12 + ZCE 21 	ZCD 29 + ZCDE N12 + ZCE 27 	ZCD 29 + ZCDE N12 + ZCE 28
2-pole N.C. + N.C. slow break-before-make contact (XE2N P2141)	ZCD 27 + ZCDE N12 + ZCE 10 	ZCD 27 + ZCDE N12 + ZCE 11 	ZCD 27 + ZCDE N12 + ZCE 02 	ZCD 27 + ZCDE N12 + ZCE 21 	ZCD 27 + ZCDE N12 + ZCE 27 	ZCD 27 + ZCDE N12 + ZCE 28
3-pole N.C. + N.C. + N.O. snap action contact (XE3S P2141)	ZCD 39 + ZCDE N12 + ZCE 10 	ZCD m39 + ZCDE N12 + ZCE 11 	ZCD 39 + ZCDE N12 + ZCE 02 	ZCD 39 + ZCDE N12 + ZCE 21 	ZCD 39 + ZCDE N12 + ZCE 27 	ZCD 39 + ZCDE N12 + ZCE 28
3-pole N.C. + N.C. + N.O. slow break-before-make contact (XE3N P2141)	ZCD 37 + ZCDE N12 + ZCE 10 	ZCD 37 + ZCDE N12 + ZCE 11 	ZCD 37 + ZCDE N12 + ZCE 02 	ZCD 37 + ZCDE N12 + ZCE 21 	ZCD 37 + ZCDE N12 + ZCE 27 	ZCD 37 + ZCDE N12 + ZCE 28
Weight lb (kg)	0.30 (0.180)	0.39 (0.180)	0.40 (0.185)	0.43 (0.195)	0.42 (0.190)	0.43 (0.195)
Contact Operation	contact closed contact open		(A)(B) = cam displacement (P) = direct opening point		N.C. contact with direct opening operation	
Characteristics						
Switch Actuation	On end		By 30° cam			
Type of Actuation						
Maximum Actuation Speed	0.5 m/sec.		1 m/sec.			
Minimum Force of Torque	for tripping: 133 lb-in (15 N•m) for direct opening: 398 lb-in (45 N•m)		106 lb-in (12 N•m)		53 lb-in (6 N•m)	
Type of Output Connection (1)	One tapped entry, 1/2" NPT 35.40 oz-in (0.25 N•m)					

(1) For a cable entry PG11, replace N12 with G11. Example: XCKD 2110N12 becomes XCKD 2110G11 or ZCDE N12 becomes ZCDE G11.
 (2) For devices with gold or ring-tongue contacts, contact your regional office.

Limit Switches

OSICONCEPT™ Limit Switches

XCKD Compact Modular Selection



Type of operating head	Linear movement, head-mounted			Rotary movement, body-mounted			Multi-directional
Type of Operator	M18 with metal top plunger	M18 with steel roller plunger	Thermoplastic roller lever	Adjustable length lever arm with thermoplastic roller	Thermoplastic roller lever, Ø 50 mm	Adjustable length lever arm with thermoplastic roller, Ø 50 mm	Cat whisker (3)

Catalog Numbers (2)	M18 with metal top plunger		M18 with steel roller plunger		Thermoplastic roller lever		Adjustable length lever arm with thermoplastic roller		Thermoplastic roller lever, Ø 50 mm		Adjustable length lever arm with thermoplastic roller, Ø 50 mm		Cat whisker (3)	
2-pole N.C. + N.O. snap action contact (XE2S P2151)	XCKD 21H0N12 	XCKD 21H2N12 	XCKD 2118N12 	XCKD 2145N12 	XCKD 2139N12 	XCKD 2149N12 	XCKD 2106N12 							
2-pole N.C. + N.O. slow break-before-make contact (XE2N P2151)	XCKD 25H0N12 	XCKD 25H2N12 	XCKD D2518N12 	XCKD 2545N12 	XCKD 2539N12 	XCKD 2549N12 	XCKD 2506N12 							
2-pole N.C. + N.C. snap action contact (XE2S P2141)	ZCD 29 + ZCDE N12 + ZCE H0 	ZCD 29 + ZCDE N12 + ZCE H2 	ZCD 29 + ZCDE N12 + ZCE 01 + ZCY 18 	ZCD 29 + ZCDE N12 + ZCE 01 + ZCY 45 	ZCD 29 + ZCDE N12 + ZCE 01 + ZCY 39 	ZCD 29 + ZCDE N12 + ZCE 01 + ZCY 49 	ZCD 29 + ZCDE N12 + ZCE 06 							
2-pole N.C. + N.C. slow break-before-make contact (XE2N P2141)	ZCD 27 + ZCDE N12 + ZCE H0 	ZCD 27 + ZCDE N12 + ZCE H2 	ZCD 27 + ZCDE N12 + ZCE 01 + ZCY 18 	ZCD 27 + ZCDE N12 + ZCE 01 + ZCY 45 	ZCD 27 + ZCDE N12 + ZCE 01 + ZCY 39 	ZCD 27 + ZCDE N12 + ZCE 01 + ZCY 49 	ZCD 27 + ZCDE N12 + ZCE 06 							
3-pole N.C. + N.C. + N.O. snap action contact (XE3S P2141)	ZCD 39 + ZCDE N12N12 + ZCE H0 	ZCD 39 + ZCDE N12 + ZCE H2 	ZCD 39 + ZCDE N12 + ZCE 01 + ZCY 18 	ZCD 39 + ZCDE N12 + ZCE 01 + ZCY 45 	ZCD 39 + ZCDE N12 + ZCE 01 + ZCY 39 	ZCD 39 + ZCDE N12 + ZCE 01 + ZCY 49 	ZCD 39 + ZCDE N12 + ZCE 06 							
3-pole N.C. + N.C. + N.O. slow break-before-make contact (XE3N P2141)	ZCD 37 + ZCDE N12 + ZCE H0 	ZCD 37 + ZCDE N12 + ZCE H2 	ZCD 37 + ZCDE N12 + ZCE 01 + ZCY 18 	ZCD 37 + ZCDE N12 + ZCE 01 + ZCY 45 	ZCD 37 + ZCDE N12 + ZCE 01 + ZCY 39 	ZCD 37 + ZCDE N12 + ZCE 01 + ZCY 49 	ZCD 37 + ZCDE N12 + ZCE 06 							
Weight lb (kg)	0.48 (0.220)	0.48 (0.220)	0.49 (0.225)	0.52 (0.235)	0.52 (0.235)	0.54 (0.245)	0.38 (0.175)							

contact closed
 contact open
 (A) = cam displacement
 (P) = direct opening point
 ⊖ N.C. contact with direct opening operation

Characteristics					
Switch Actuation	On end		By 30° cam		By any type
Type of Actuation					
Maximum Actuation Speed	0.5 m/sec.		1.5 m/sec.		1 m/sec., all directions
Minimum Force of Torque	for tripping		133 lb-in (15 N•m)		88.5 lb-in (10 N•m)
	for direct opening		398 lb-in (45 N•m)		318 lb-in (36 N•m)
Type of Output Connection (1)	One tapped entry 1/2"				

(1) For a cable entry PG11, replace N12 with G11. Example: XCKD 2110N12 becomes XCKD 2110G11 or ZCDE N12 becomes ZCDE G11.
 (2) For devices with gold or ring-tongue contacts: contact your regional office.
 (3) Value taken with mobile actuation at 3.9" (100 mm) from mounting attachment.

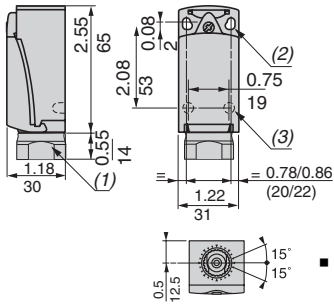
OSICONCEPT™ Limit Switches

XCKD Compact Modular

Dimensions

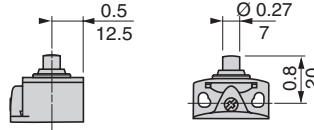


ZCD + ZCDE•N12

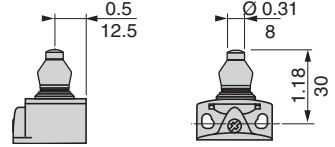


- (1) Threaded hole for M0.8 x 0.06" (20 x 1.5) for ISO cable gland or tapped PG13 or tapped 1/2 NPT
- (2) 2 oblong holes, $\varnothing 0.17 \times 0.25"$ (4.3 x 6.3 mm), 0.8" (22 mm) center-to-center or 2 holes, $\varnothing 0.17"$, 0.8" (4.3, 20 mm) center-to-center.
- (3) 2 locating holes for frame, $\varnothing 0.118"$ (3), depth: 0.16 (4 mm)

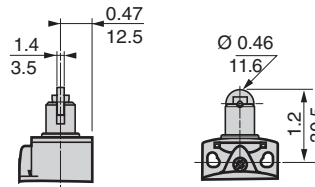
ZCE 10



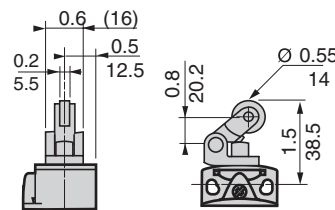
ZCE 11



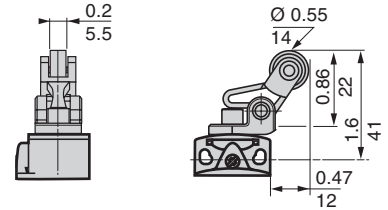
ZCE 02



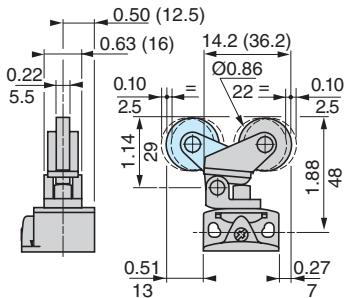
ZCE 21



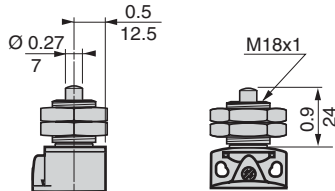
ZCE 27



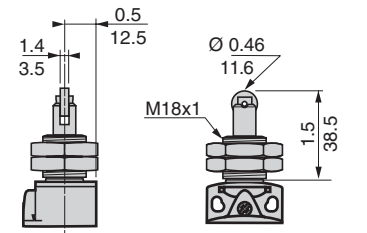
ZCE 28



ZCE H0



ZCE H2



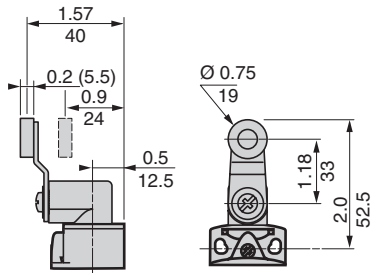
Dual Dimensions $\frac{\text{inches}}{\text{mm}}$

- (1) Hole tapped for ISO M0.63 x 0.06" (16 x 1.5) or PG11 cable gland or 1/2" NPT
- (2) 2 oblong holes, $\varnothing 0.17 \times 0.25"$ (4.3 x 6.3 mm), 0.86" (22 mm) center to center, or 2 holes, $\varnothing 0.17"$ (4.3), 0.78 (20 mm) center to center

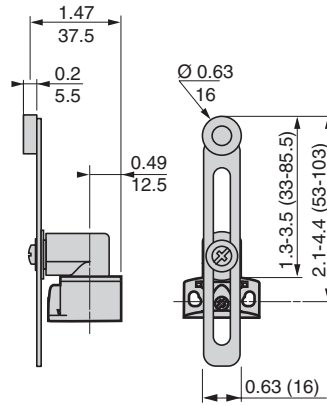
■ Heads can be rotated in 15° increments thru 360°

Limit Switches

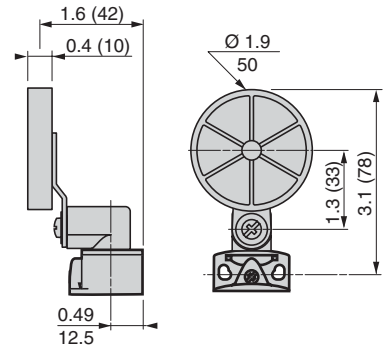
ZCE 01 + ZCY 18



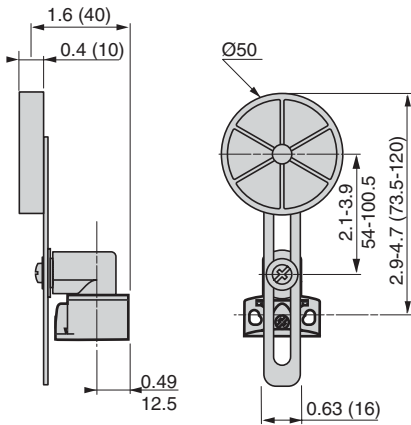
ZCE 01 + ZCY 45



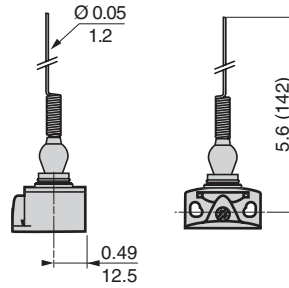
ZCE 01 + ZCY 39



ZCE 01 + ZCY 49



ZCE 06



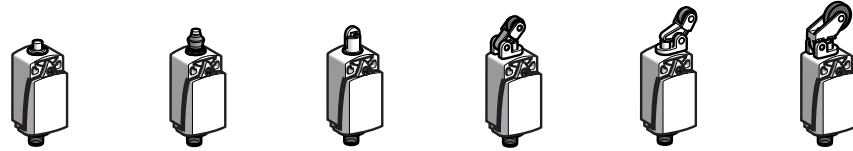
Dual Dimensions $\frac{\text{inches}}{\text{mm}}$

OSICONCEPT™ Limit Switches

XCKD Compact Modular Dimensions



Type of Operating Head	Linear attachment, body-mounted
------------------------	---------------------------------



Type of Operator	Metal top plunger	Metal top plunger with elastomer boot	Steel roller plunger	Thermoplastic roller lever, one-way horizontal action	Thermoplastic roller lever, one-way vertical action	Thermoplastic roller lever, one-way vertical or horizontal action
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Catalog Number	XCK D2110M12	XCK D2111M12	XCK D2102M12	XCK D2121M12	XCK D2127M12	XCK D2128M12
2-pole N.C. + N.O. snap action contact (XE2S P2151)						
2-pole N.C. + N.C. snap action contact (XE2S P2141)						
Weight lb (Kg)	0.42 (0.190)	0.42 (0.190)	0.43 (0.195)	0.45 (0.205)	0.44 (0.200)	0.45 (0.205)

Contact Operation: contact closed, contact open. (A)(B) = cam displacement, (P) = direct opening point

Characteristics

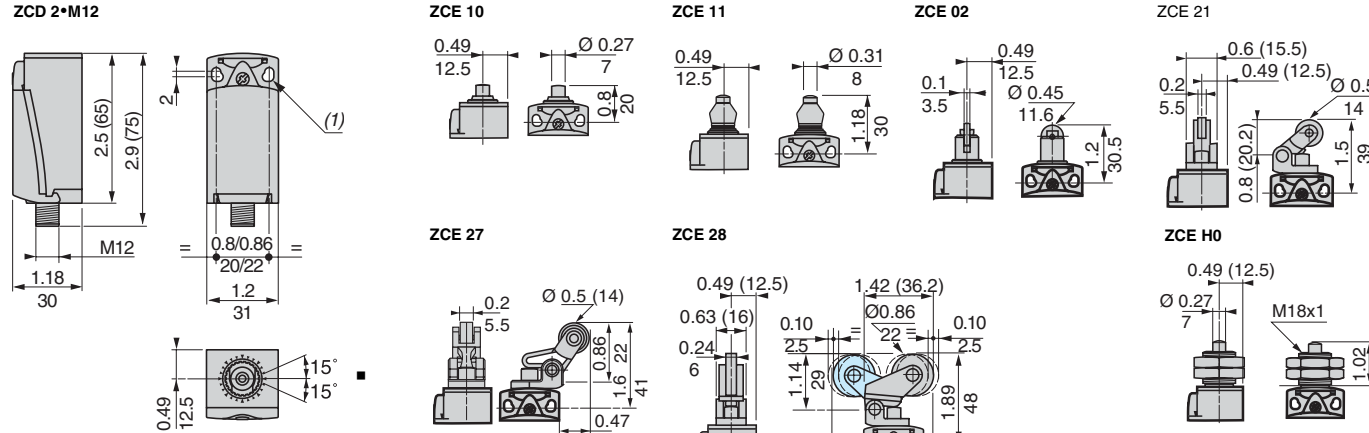
Switch Actuation	On end	By 30° cam	
Type of Actuation			
Maximum Actuation Speed	0.5 m/sec.	1 m/sec.	
Minimum Force of Torque	for tripping: 133 lb-in (15 N*m) for direct opening: 398 lb-in (45 N*m)	106 lb-in (12 N*m) 318 lb-in (36 N*m)	53 lb-in (6 N*m) 159 lb-in (18 N*m)
Type of Output Connection	M12 connector, maximum 4 A / 60 V, Ie = 4 A Max. Ith = 4 A		

Connections (see page 403 for female connection adapters)

By M12 connector

<p>XE2S P2151 1-2: N.C. 3-4: N.O. 5: ↓</p>	<p>XE2S P2141 1-2: N.C. 3-4: N.C. 5: ↓</p>	<p>Direct Opening Although their design is identical to pre-cabled switches, the switches incorporating an M12 5-pin connector cannot be marked with symbol according to the standard IEC 60947-5-1, Appendix k (the insulation voltage Ui of the connector must be greater than or equal to 250 V). The connector is rated 50 V, 3 amps max.</p>
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Dimensions



(1) 2 oblong holes, Ø 0.17 x 0.25" (4.3 x 6.3 mm), 0.86" (22 mm) center to center, or 2 holes, Ø 0.17 x 0.78" (4.3, 20 mm) center to center.

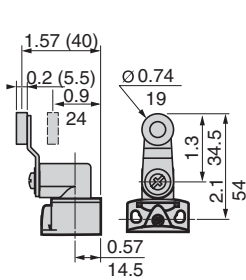
Heads can be rotated in 15° increments thru 360°

Limit Switches

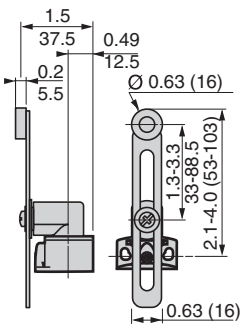
Type of Operating Head	Linear movement, body-mounted		Rotary movement, head-mounted				Multi-directional
Type of Operator	M18 with metal top plunger	M18 with steel roller plunger	Thermoplastic roller lever	Adjustable length lever arm with thermoplastic roller	Thermoplastic roller lever, Ø 50 mm	Adjustable length lever arm with thermoplastic roller, Ø 50 mm	Cat whisker (1)
Catalog Numbers							
2-pole N.C. + N.O. snap action contact (XE2S P2151)	XCK D21H0M12 	XCK D21H2M12 	XCK D2118M12 	XCK D2145M12 	XCK D2139M12 	XCK D2149M12 	XCK D2106M12
2-pole N.C. + N.C. snap action contact (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 lb (kg)	0.52 (0.235)	0.52 (0.235)	0.48 (0.220)	0.48 (0.220)	0.48 (0.220)	0.48 (0.220)	0.41 (0.185)
Contact Operation			(A) = cam displacement (P) = direct opening point		(1) Value taken with mobile actuation at 100 mm from mounting attachment.		
Characteristics							
Switch Actuation	On end		By 30° cam			By any type	
Type of Actuation							
Maximum Actuation Speed	0.5 m/sec.		1.5 m/sec.			1 m/sec., all directions	
Minimum Force of Torque	for tripping	133 lb-in (15 N•m)	88.5 lb-in (10 N•m)	14.16" oz-in (0.1 N•m)			18.40" oz-in (0.13 N•m)
	for direct opening	398 lb-in (45 N•m)	318 lb-in (36 N•m)	35.40" oz-in (0.25 N•m)			-
Output	M12 connector, maximum 4 A / 60V. (see page 403 for female connection adapters)						

Dimensions

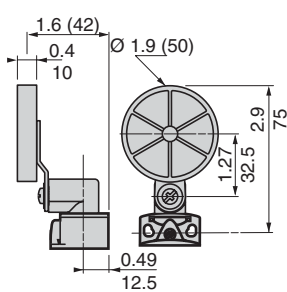
ZCE 01 + ZCY 18



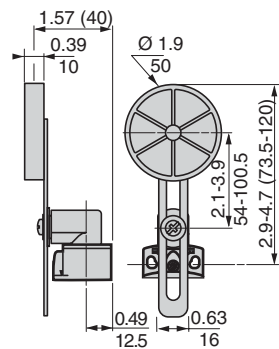
ZCE 01 + ZCY 45



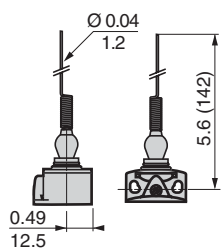
ZCE 01 + ZCY 39



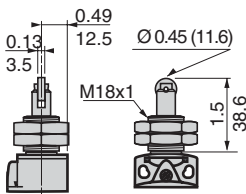
ZCE 01 + ZCY 49



ZCE 06



ZCE H2



Dual Dimensions $\frac{\text{inches}}{\text{mm}}$

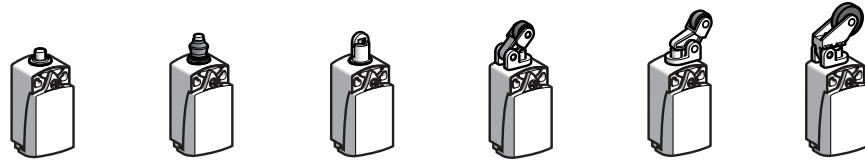
Limit Switches

OSICONCEPT™ Limit Switches

XCKP Compact Modular Selection



Type of Operating Head	Linear movement, body-mounted
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Type of Operator	Metal top plunger	Metal top plunger with elastomer boot	Steel roller plunger	Thermoplastic roller lever, one-way horizontal action	Thermoplastic roller lever, one-way vertical action	Thermoplastic roller lever, one-way vertical or horizontal action
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Catalog Numbers (2)

<p>2-pole N.C. + N.O. snap action contact (XE2S P2151)</p>	XCKP 2110N12 	XCKP 2111N12 	XCKP 2102N12 	XCKP 2121N12 	XCKP 2127N12 	XCKP 2128N12
<p>2-pole N.C. + N.O. slow break-before-make contact (XE2N P2151)</p>	XCKP 2510N12 	XCKP 2511N12 	XCKP 2502N12 	XCKP 2521N12 	XCKP 2527P16 	XCKP 2528N12
<p>2-pole N.C. + N.C. snap action contact (XE2S P2141)</p>	ZCP 29 + ZCPE N12 + ZCE 10 	ZCP 29 + ZCPE N12 + ZCE 11 	ZCP 29 + ZCPE N12N12 + ZCE 02 	ZCP 29 + ZCPE N12 + ZCE 21 	ZCP 29 + ZCPE N12 + ZCE 27 	ZCP 29 + ZCPE N12 + ZCE 28
<p>2-pole N.C. + N.C. slow break-before-make contact (XE2N P2141)</p>	ZCP 27 + ZCPE N12 + ZCE 10 	ZCP 27 + ZCPE N12 + ZCE 11 	ZCP 27 + ZCPE N12 + ZCE 02 	ZCP 27 + ZCPE N12 + ZCE 21 	ZCP 27 + ZCPE N12 + ZCE 27 	ZCP 27 + ZCPE N12 + ZCE 28
<p>3-pole N.C. + N.C. + N.O. snap action contact (XE3S P2141)</p>	ZCP 39 + ZCPE N12 + ZCE 10 	ZCP 39 + ZCPE N12 + ZCE 11 	ZCP 39 + ZCPE N12 + ZCE 02 	ZCP 39 + ZCPE N12 + ZCE 21 	ZCP 39 + ZCPE N12 + ZCE 27 	ZCP 39 + ZCPE N12 + ZCE 28
<p>3-pole N.C. + N.C. + N.O. slow break-before-make contact (XE3N P2141)</p>	ZCP 37 + ZCPE N12 + ZCE 10 	ZCP 37 + ZCPE N12 + ZCE 11 	ZCP 37 + ZCPE N12 + ZCE 02 	ZCP 37 + ZCPE N12 + ZCE 21 	ZCP 37 + ZCPE N12 + ZCE 27 	ZCP 37 + ZCPE N12 + ZCE 28
Weight lb (kg)	0.19 (0.090)	0.19 (0.090)	0.2 (0.095)	0.23 (0.105)	0.22 (0.100)	0.23 (0.105)

Contact Operation		(A)/(B) = cam displacement	(P) = direct opening point	⊕ N.C. contact with direct opening contact
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Characteristics

Switch Actuation	On end	By 30° cam	
Type of Actuation			
Maximum Actuation Speed	0.5 m/sec.	1 m/sec.	
Minimum Force of Torque	for tripping: 133 lb-in (15 N•m) for direct opening: 398 lb-in (45 N•m)	106 lb-in (12 N•m) 318 lb-in (36 N•m)	53 lb-in (6 N•m) 159 lb-in (18 N•m)
Type of Output Connection (1)	1 tapped entry, 1/2" NPT		

(1) For a cable entry PG11, replace N12 with G11. Example: XCKD 2110N12 becomes XCKD 2110G11 or ZCDE N12 becomes ZCDE G11.

(2) For devices with gold or ring-tongue contacts, contact your regional office.

Limit Switches

Type of Operating Head	Linear movement, head-mounted			Rotary movement, body-mounted			Multi-directional

Type of Operator	M18 with metal top plunger	M18 with steel roller plunger	Thermoplastic roller lever	Adjustable length lever arm with thermoplastic roller	Thermoplastic roller lever, Ø 50 mm	Adjustable length lever arm with thermoplastic roller, Ø 50 mm	Cat whisker (3)
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Catalog Numbers (2)

	2-pole N.C. + N.O. snap action contact (XE2S P2151)	XCKP 21H0N12 1.8 4.5(P) 0.9 5mm	XCKP 21H2N12 3.1(A) 7.8(P) 0 1.5 mm	XCKP 2118N12 25° 70°(P) 12° 90°	XCKP 2145N12 25° 70°(P) 12° 90°	XCKP 2139N12 25° 70°(P) 12° 90°	XCKP 2149N12 25° 70°(P) 12° 90°	XCKP 2106N12 20° 15°
	2-pole N.C. + N.O. slow break-before-make contact (XE2N P2151)	XCKP 25H0N12 1.8 3.2(P) 0 3 5mm	XCKP 25H2N12 3.1(A) 5.6(P) 0 5.2 mm	XCKP 2518N12 25° 70°(P) 0 42° 90°	XCKP 2545N12 25° 70°(P) 0 42° 90°	XCKP 2539N12 25° 70°(P) 0 42° 90°	XCKP 2549N12 25° 70°(P) 0 42° 90°	XCKP 2506N12 20° 0 45°
	2-pole N.C. + N.C. snap action contact (XE2S P2141)	ZCP 29 + ZCPE N12 + ZCE H0 1.8 4.5(P) 0.9 5mm	ZCP 29 + ZCPE N12 + ZCE H2 3.1(A) 7.8(P) 0 1.5 mm	ZCP 29 + ZCPE N12 + ZCE 01 + ZCY 18 25° 70°(P) 12° 90°	ZCP 29 + ZCPE N12 + ZCE 01 + ZCY 45 25° 70°(P) 12° 90°	ZCP 29 + ZCPE N12 + ZCE 01 + ZCY 39 25° 70°(P) 12° 90°	ZCP 29 + ZCPE N12 + ZCE 01 + ZCY 49 25° 70°(P) 12° 90°	ZCP29 + ZCPE N12 + ZCE 06 20° 15°
	2-pole N.C. + N.C. slow break-before-make contact (XE2N P2141)	ZCP 27 + ZCPE N12 + ZCE H0 1.8 3.2(P) 0 3 5mm	ZCP 27 + ZCPE N12 + ZCE H2 3.1 5.6(P) 0 5.2 mm	ZCP 27 + ZCPE N12 + ZCE 01 + ZCY 18 25° 70°(P) 0 90°	ZCP 27 + ZCPE N12 + ZCE 01 + ZCY 45 25° 70°(P) 0 90°	ZCP 27 + ZCPE N12 + ZCE 01 + ZCY 39 25° 70°(P) 0 90°	ZCP 27 + ZCPE N12 + ZCE 01 + ZCY 49 25° 70°(P) 0 90°	ZCP 27 + ZCPE N12 + ZCE 06 20° 0
	3-pole N.C. + N.C. + N.O. snap action contact (XE3S P2141)	ZCP 39 + ZCPE N12 + ZCE H0 1.8 4.5(P) 0.9 5mm	ZCP 39 + ZCPE N12 + ZCE H2 3.1(A) 7.8(P) 0 1.5 mm	ZCP 39 + ZCPE N12 + ZCE 01 + ZCY 18 25° 70°(P) 12° 90°	ZCP 39 + ZCPE N12 + ZCE 01 + ZCY 45 25° 70°(P) 12° 90°	ZCP 39 + ZCPE N12 + ZCE 01 + ZCY 39 25° 70°(P) 12° 90°	ZCP 39 + ZCPE N12 + ZCE 01 + ZCY 49 25° 70°(P) 12° 90°	ZCP 39 + ZCPE N12 + ZCE 06 20° 15°
	3-pole N.C. + N.C. + N.O. slow break-before-make contact (XE3N P2141)	ZCP 37 + ZCPE N12 + ZCE H0 1.8 3.2(P) 0 3 5mm	ZCP 37 + ZCPE N12 + ZCE H2 3.1(A) 5.6(P) 0 5.2 mm	ZCP 37 + ZCPE N12 + ZCE 01 + ZCY 18 25° 70°(P) 0 42° 90°	ZCP 37 + ZCPE N12 + ZCE 01 + ZCY 45 25° 70°(P) 0 42° 90°	ZCP 37 + ZCPE N12 + ZCE 01 + ZCY 39 25° 70°(P) 0 42° 90°	ZCP 37 + ZCPE N12 + ZCE 01 + ZCY 49 25° 70°(P) 0 42° 90°	ZCP 37 + ZCPE N12 + ZCE 06 20° 0 45°

Weight lb (kg)	0.28 (0.130)	0.28 (0.130)	0.29 (0.135)	0.32 (0.145)	0.32 (0.145)	0.34 (0.155)	0.18 (0.085)
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Contact Operation	contact closed	contact open	(A) = cam displacement	(P) = direct opening point	N.C. contact with direct opening operation
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Characteristics

Switch Actuation	On end		By 30° cam		By any type
Type of Actuation					
Maximum Actuation Speed	0.5 m/sec.		1.5 m/sec.		1 m/sec., all directions
Minimum Force of Torque	for tripping 133 lb-in (15 N•m)	88.5 lb-in (10 N•m)	14.16 oz-in (0.1 N•m)		18.40 oz-in (0.13 N•m)
	for direct opening 398 lb-in (45 N•m)	318 lb-in (36 N•m)	35.40 oz-in (0.25 N•m)		-
Type of Output Connection (1)	One tapped entry, 1/2" NPT				

(1) For a cable entry PG11, replace N12 with G11. Example: XCKD 2110N12 becomes XCKD 2110G11 or ZCDE N12 becomes ZCDE G11.
 (2) For devices with gold or ring-tongue contacts, contact your regional office.
 (3) Value taken with mobile actuation at 3.9" (100 mm) from mounting attachment.

Limit Switches

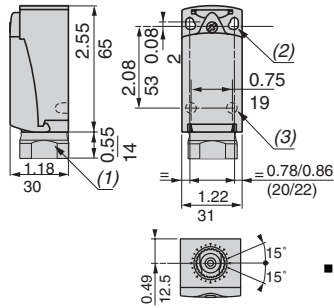
OSICONCEPT™ Limit Switches

XCKP Compact Modular

Dimensions

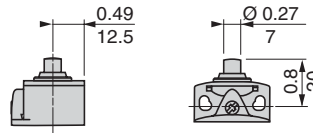


ZCP 2* + ZCPE N12

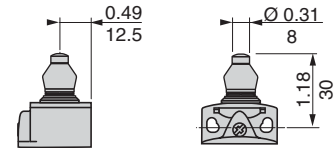


- (1) Threaded hole for M0.78 x 0.06" (20 x 1.5) for ISO cable gland or tapped PG13 or tapped 1/2 NPT
- (2) 2 oblong holes, Ø 0.17 x 0.25" (4.3 x 6.3 mm), 0.86 (22 mm) center-to-center or 2 holes, Ø 0.17, 0.79" (4.3, 20 mm) center-to-center.
- (3) 2 locating holes for frame, Ø 0.118" (3), depth: 0.16" (4 mm)

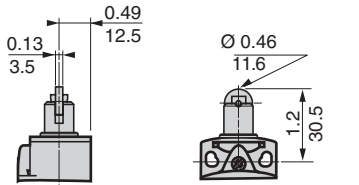
ZCE 10



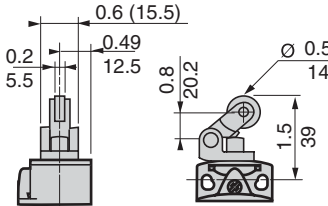
ZCE 11



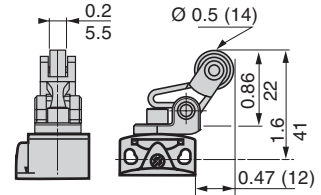
ZCE 02



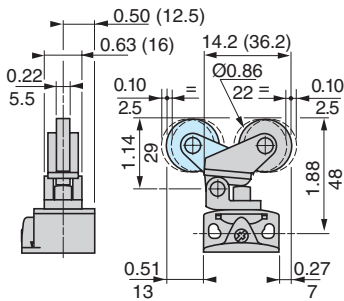
ZCE 21



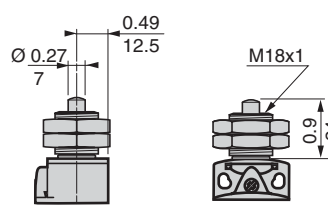
ZCE 27



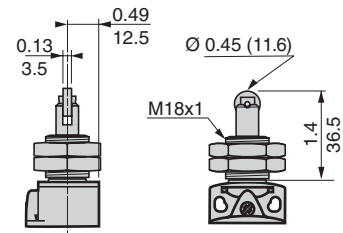
ZCE 28



ZCE H0



ZCE H2



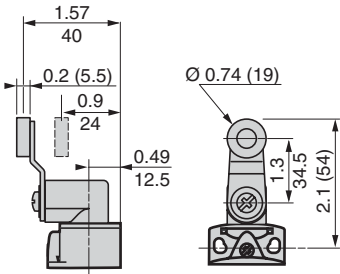
Dual Dimensions $\frac{\text{inches}}{\text{mm}}$

- (1) Hole tapped for ISO M0.63 x 0.06" (16 x 1.5) or PG11 cable gland or 1/2" NPT
- (2) 2 oblong holes, Ø 0.17 x 0.25" (4.3 x 6.3 mm), 0.86" (22 mm) center to center, or 2 holes, Ø 0.17", 0.79" (4.3, 20 mm) center to center

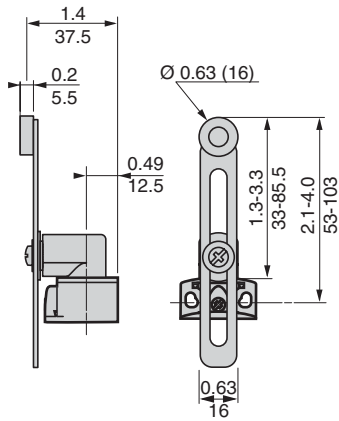
■ Heads can be rotated in 15° increments thru 360°

Limit Switches

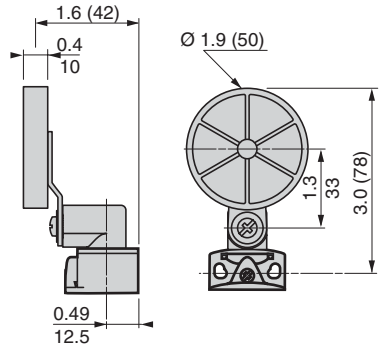
ZCE 01 + ZCY 18



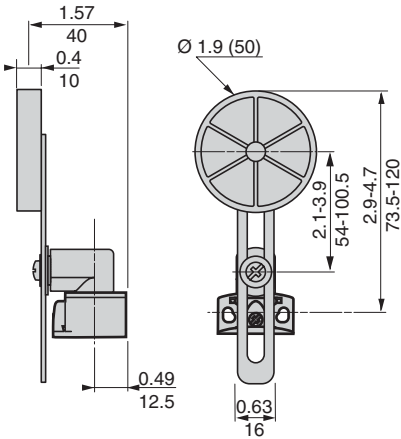
ZCE 01 + ZCY 45



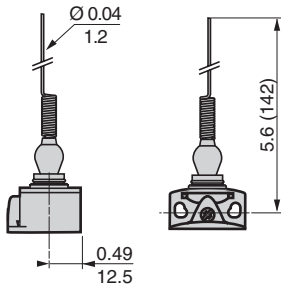
ZCE 01 + ZCY 39



ZCE 01 + ZCY 49



ZCE 06



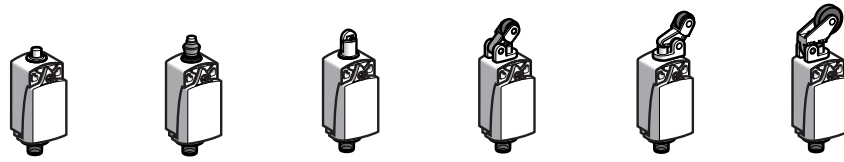
Dual Dimensions $\frac{\text{inches}}{\text{mm}}$

OSICONCEPT™ Limit Switches

XCKP Compact Modular with Connector Selection



Type of Operating Head	Linear movement, body-mounted
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Type of Operator	Metal top plunger	Metal top plunger with elastomer boot	Steel roller plunger	Thermoplastic roller plunger, one-way horizontal action	Thermoplastic roller plunger, one-way vertical action	Thermoplastic roller plunger, one-way vertical or horizontal action
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Catalog Numbers	XCK P2110M12	XCK P2111M12	XCK P2102M12	XCK P2121M12	XCK P2127M12	XCK P2128M12
2-pole N.C. + N.O. snap action contact (XE2S P2151)						
2-pole N.C. + N.C. snap action contact (XE2S P2141)						
Weight lb (kg)	0.22 (0.100)	0.22 (0.100)	0.22 (0.100)	0.24 (0.110)	0.24 (0.110)	0.24 (0.110)
Contact Operation			(A)(B) = cam displacement (P) = direct opening point	⊕ N.C. contact with direct opening operation		

Characteristics	On end	By 30° cam			
Switch Actuation					
Type of Actuation					
Maximum Actuation Speed	0.5 m/sec.	1 m/sec.			
Minimum Force of Torque	for tripping: 15 oz-in (0.10 N•m) for direct opening: 45 oz-in (0.31 N•m)	12 oz-in (0.08 N•m)	6 oz-in (0.04 N•m)		
Type of Output Connection	By M12 connector, Ui = 250 V, Ie = 3 A max. Ith = 3 A (see page 403 for female connection adapters)				

Connections	By M12 connector	
		XE2SP 2151 1-2: N.C. 3-4: N.O.
		XE2SP 2141 1-2: N.C. 3-4: N.C.

Dimensions	ZCP 2•M12	ZCE 10	ZCE 11	ZCE 02	ZCE 21	ZCE 27	ZCE 28	ZCE H0
(1) 2 oblong holes, Ø 0.17 x 0.25" (4.3 x 6.3 mm), 0.86" (22 mm) center to center, or 2 holes, Ø 0.17", 0.79" (4.3, 20 mm) center to center								
Heads can be rotated in 15° increments thru 360°								

Limit Switches

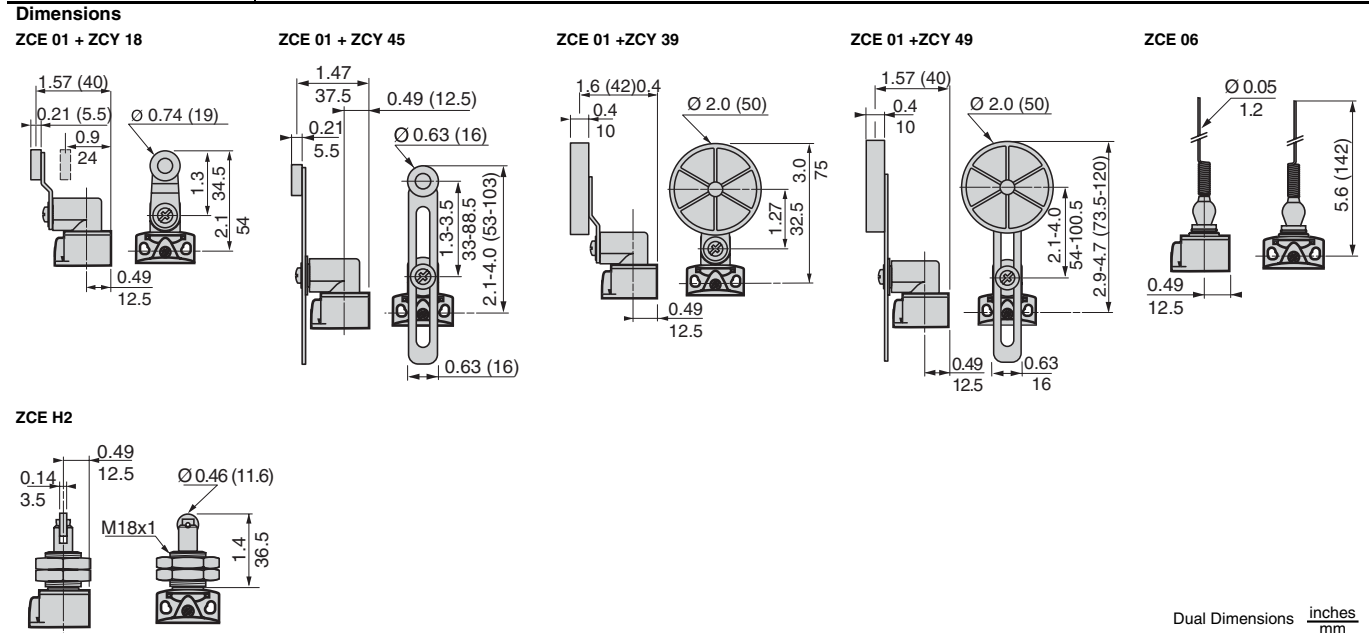
Type of Operating Head	Linear movement, head-mounted		Rotary movement, body-mounted			Multi-directional	
Type of Operator	M18 with metal top plunger	M18 with steel roller plunger	Thermoplastic roller lever	Adjustable length lever arm with thermoplastic roller	Thermoplastic roller lever, Ø 50 mm	Adjustable length lever arm with thermoplastic roller, Ø 50 mm	Cat whisker (1)

Catalog Numbers							
2-pole N.C. + N.O. snap action contact (XE2S P2151) 	XCK P21H0M12 	XCK P21H2M12 	XCK P2118M126 	XCK P2145M12 	XCK P2139M12 	XCK P2149M12 	XCK P2106M126
	0.31 (0.140)	0.31 (0.140)	0.31 (0.140)	0.33 (0.150)	0.34 (0.155)	0.35 (0.160)	0.19 (0.090)
2-pole N.C. + N.C. snap action contact (XE2S P2141) 	ZCP 29M12 + ZCE H0 	ZCP 29M12 + ZCE H2 	ZCP 29M12 + ZCE 01 + ZCY 18 	ZCP 29M12 + ZCE 01 + ZCY 45 	ZCP 29M12 + ZCE 01 + ZCY 39 	ZCP 29M12 + ZCE 01 + ZCY 49 	ZCP 29M12 + ZCE 06
	0.31 (0.140)	0.31 (0.140)	0.31 (0.140)	0.33 (0.150)	0.34 (0.155)	0.35 (0.160)	0.19 (0.090)

Contact Operation

 (1) Value taken with mobile actuation at 100 mm from mounting attachment.

Characteristics					
Switch Actuation	On end		By 30° end		By any type
Type of Actuation					
Maximum Actuation Speed	0.5 m/sec.		1.5 m/sec.		1 m/sec., all directions
Minimum Force of Torque	for tripping 133 lb-in (15 N•m)	88.5 lb-in (10 N•m)	14.16" oz-in (0.1 N•m)		18.40" oz-in (0.13 N•m)
	for direct opening 398 lb-in (45 N•m)	318 lb-in (36 N•m)	35.40" ox-in (0.25 N•m)		-
Type of Output Connection	M12 connector, maximum 4 A / 24 V (see page 403 for female connection adapters)				



Dual Dimensions $\frac{\text{inches}}{\text{mm}}$

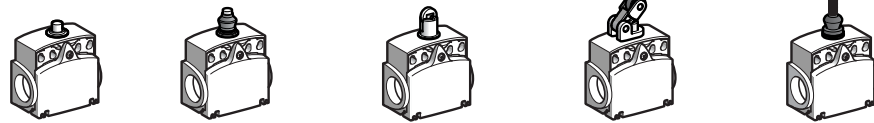
Limit Switches

OSICONCEPT™ Limit Switches

XCKT Compact Modular Selection



Type of Operating Head	Linear attachment, body-mounted	Multi-directional
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Type of Operator	Metal top plunger	Metal top plunger with elastomer boot	Steel roller plunger	Thermoplastic roller lever, one-way horizontal action	Cat whisker (3)
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Catalog Numbers (2)

<p>2-pole N.C. + N.O. snap action contact (XE2S P3151)</p>	XCK T2110N12 	XCK T2111N12 	XCK T2102N12 	XCK T2121N12 	XCK D2106N12
<p>2-pole N.C. + N.O. slow break-before-make contact (XE2N P3151)</p>	ZCT 25N12 + ZCE 10 	ZCT 25N12 + ZCE 11 	ZCT 25N12 + ZCE 02 	ZCT 25N12 + ZCE 21 	ZCT 25N12 + ZCE 06
<p>2-pole N.C. + N.O. slow make-before-break contact (XE2N P3161)</p>	ZCT 26N12 + ZCE 10 	ZCT 26N12 + ZCE 11 	ZCT 26N12 + ZCE 02 	ZCT 26N12 + ZCE 21 	ZCT 26N12 + ZCE 06
<p>2-pole N.C. + N.C. simultaneous make and break contact (XE2N P3141)</p>	ZCT 27N12 + ZCE 10 	ZCT 27N12 + ZCE 11 	ZCT 27N12 + ZCE 02 	ZCT 27N12 + ZCE 21 	ZCT 27N12 + ZCE 06
<p>2-pole N.O. + N.O. simultaneous make and break contact (XE2N P3131)</p>	ZCT 28N12 + ZCE 10 	ZCT 28N12 + ZCE 11 	ZCT 28N12 + ZCE 02 	ZCT 28N12 + ZCE 21 	ZCT 28N12 + ZCE 06

Weight lb (kg)	0.22 (0.100)	0.22 (0.100)	0.23 (0.105)	0.25 (0.115)	0.20 (0.095)
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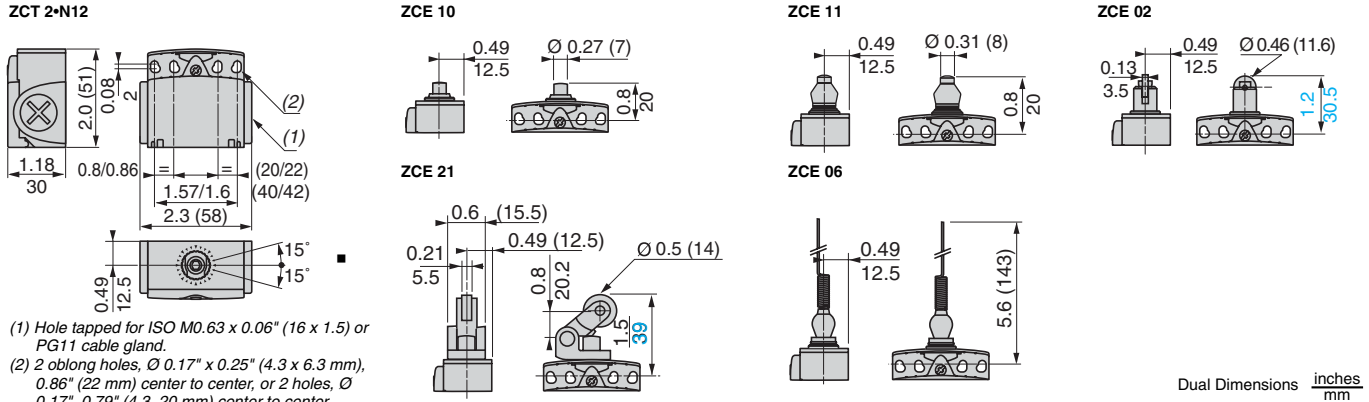
Contact Operation		(A) = cam displacement (P) = direct opening point	↻ N.C. contact direct opening operation		
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Characteristics

Switch Actuation	On end	By 30° cam	By any type
Type of Actuation			
Maximum Actuation Speed	0.5 m/sec.		1 m/sec. in all directions
Minimum Force of Torque	for tripping: 133 lb-in (15 N•m) for direct opening: 398 lb-in (45 N•m)	106 lb-in (12 N•m)	53 lb-in (6 N•m) 159 lb-in (18 N•m)
Cable Output (1)	2 tapped inputs, M16 x 1.5, for ISO cable gland. Clamping capacity 4-8 mm. 1/2" NPT adapter supplied.		

(1) For a cable entry for 11 press gland, replace N12 with G11. Example: XCKT 2110N12 becomes XCKT 2110G11 or ZCTE N12 becomes ZCTE G11.
 (2) For devices with gold or ring-tongue contacts, contact your regional office.
 (3) Value taken with mobile actuation at 100 mm from mounting attachment.

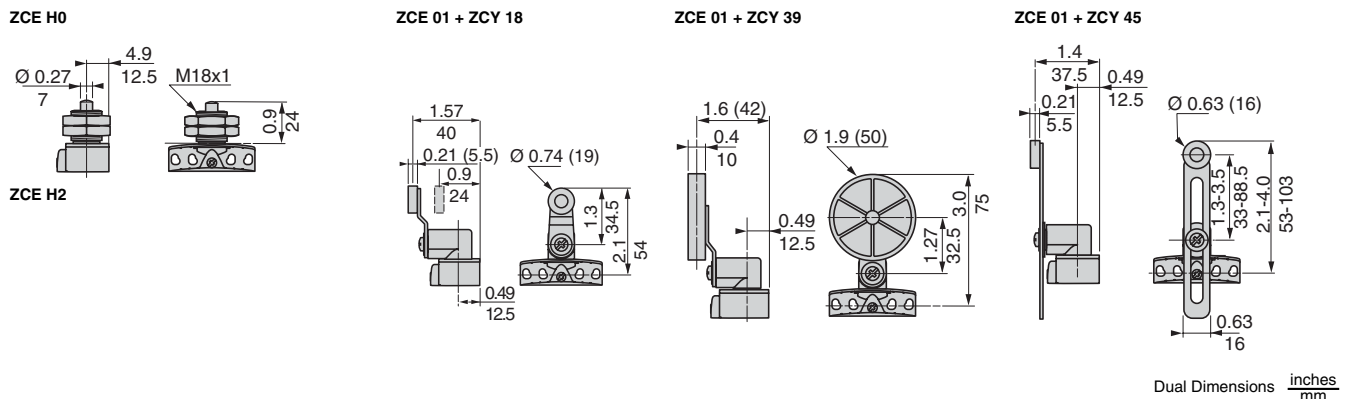
Dimensions



(1) Hole tapped for ISO M0.63 x 0.06" (16 x 1.5) or PG11 cable gland.
 (2) 2 oblong holes, Ø 0.17" x 0.25" (4.3 x 6.3 mm), 0.86" (22 mm) center to center, or 2 holes, Ø 0.17", 0.79" (4.3, 20 mm) center to center.
 ■ Heads can be rotated in 15° increments thru 360°

Type of Operating Head	Linear movement, head-mounted			Rotary movement, body-mounted	
Type of Operator	M18 with metal top plunger	M18 with steel roller plunger	Thermoplastic roller lever	Adjustable length lever arm with thermoplastic roller	Thermoplastic roller lever, Ø 50 mm
Catalog Numbers (2)					
	XCK T21H0N12 2-pole N.C. + N.O. snap action contact (XE2S P3151) 1.8 4.5(P) 0.9 5mm	XCK T21H2N12 3.1(A) 7.8(P) 1.5 mm	XCK T21H18N12 25° 70°(P) 12° 90°	XCK T2145N12 25° 70°(P) 12° 90°	XCK T2139N12 25° 70°(P) 12° 90°
	ZCT 25N12 + ZCE H0 1.8 3.2(P) 0 3 5mm	ZCT 25N12 + ZCE H2 3.1(A) 5.6(P) 0 5.2 mm	ZCT 25N12 + ZCE 01 + ZCY 18 25° 70°(P) 0 42° 90°	ZCT 25N12 + ZCE 01 + ZCY 45 25° 70°(P) 0 42° 90°	ZCT 25N12 + ZCE 01 + ZCY 39 25° 70°(P) 0 42° 90°
	ZCT 26N12 + ZCE H0 3 4.4(P) 0 1.8 5mm	ZCT 26N12 + ZCE H2 5.2 7.6(P) 0 3.1 mm	ZCT 26N12 + ZCE 01 + ZCY 18 43° 0 25° 90°	ZCT 26N12 + ZCE 01 + ZCY 45 43° 0 25° 90°	ZCT 26N12 + ZCE 01 + ZCY 39 43° 0 25° 90°
	ZCT 27N12 + ZCE H0 1.8 3.2(P) 0 5mm	ZCT 27N12 + ZCE H2 3.1 5.6(P) 0 mm	ZCT 27N12 + ZCE 01 + ZCY 18 25° 70°(P) 0 90°	ZCT 27N12 + ZCE 01 + ZCY 45 25° 70°(P) 0 90°	ZCT 27N12 + ZCE 01 + ZCY 39 25° 70°(P) 0 90°
	ZCT 28N12 + ZCE H0 1.8 0 5mm	ZCT 28N12 + ZCE H2 3.1(A) 0 mm	ZCT 28N12 + ZCE 01 + ZCY 18 25° 0 90°	ZCT 28N12 + ZCE 01 + ZCY 45 25° 0 90°	ZCT 28N12 + ZCE 01 + ZCY 39 25° 0 90°
Weight lb (kg)	0.32 (0.145)	0.32 (0.145)	0.32 (0.145)	0.34 (0.155)	0.35 (0.160)
Contact Operation	 (A) = cam displacement (P) = direct opening point		 N.C. contact direct opening operation		
Characteristics					
Switch Actuation	On end		By 30° end		
Type of Actuation					
Maximum Actuation Speed	0.5 m/sec.		1.5 m/sec.		
Minimum Force of Torque	for tripping	133 lb-in (15 N•m)	88.5 lb-in (10 N•m)	14.16" oz-in (0.1 N•m)	
	for positive opening	398 lb-in (45 N•m)	318 lb-in (36 N•m)	35.40" ox-in (0.25 N•m)	
Cable Output (1)	2 tapped inputs, M16 x 1.5, for ISO cable gland. Clamping capacity 4-8 mm. 1/2" NPT adapter supplied				
(1) For a cable entry for 11 press gland, replace N12 with G11. Example: XCKT 2110N12 becomes XCKT 2110G11. (2) For devices with gold or ring-tongue contacts, contact your regional office.					

Dimensions



Limit Switches

OSICONCEPT™ Limit Switches
XCKP, XCKD and XCKT Compact Modular
Cross Reference, Old to New and Catalog Number Selection



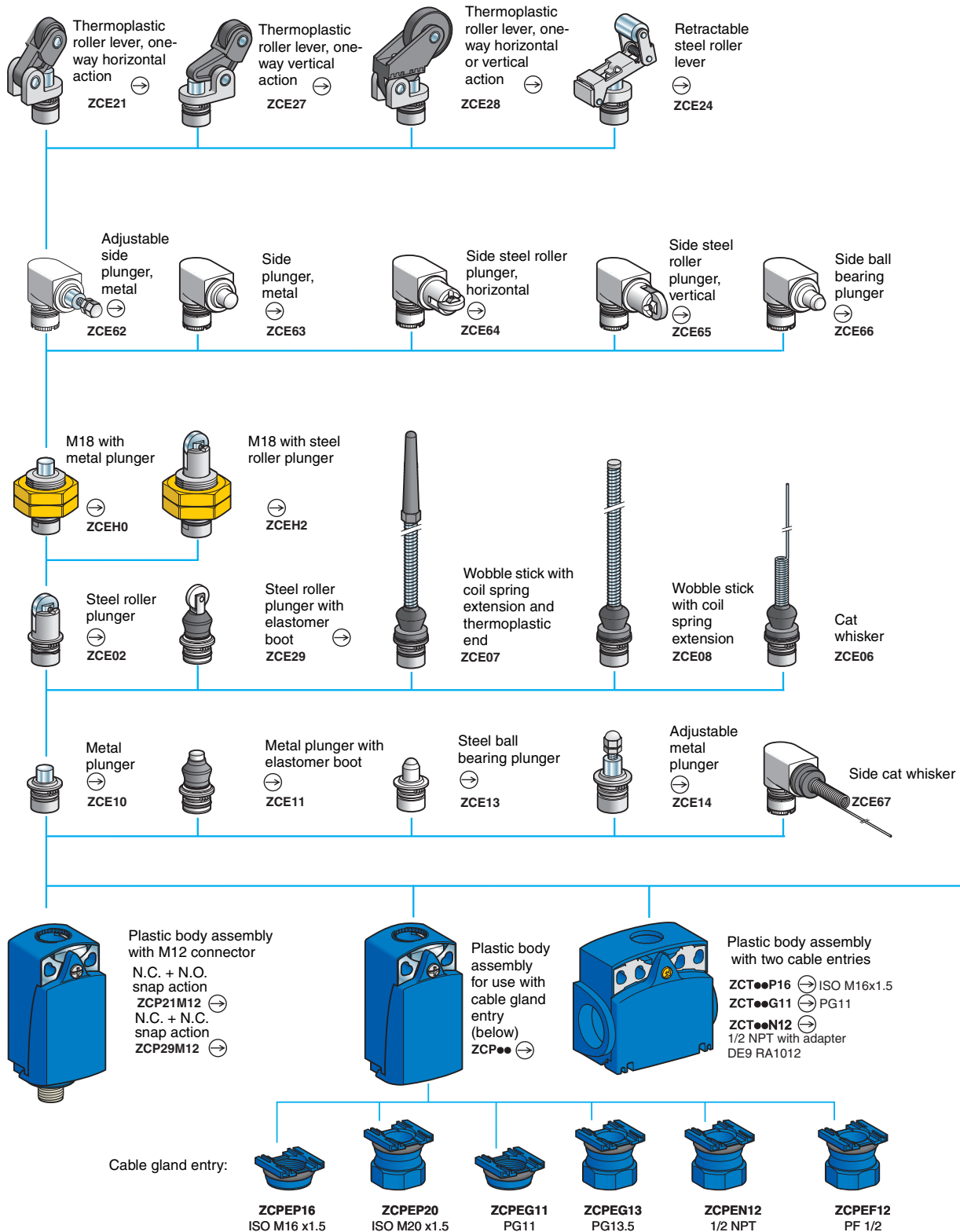
XCKP, XCKD and XCKT Cross Reference from Old to New

Old Plastic	New Plastic	New Metal	Old Plastic	New Plastic	New Metal	Old Plastic	New Plastic
XCKP101	XCKP2101N12	XCKD2101N12	XCKP154	XCKP2154N12	XCKD2154N12	XCKT102	XCKT2102N12
XCKP102	XCKP2102N12	XCKD2102N12	XCKP155	XCKP2155N12	XCKD2155N12		
XCKP102CM	XCKP2102G11	XCKD2102G11	XCKP502	XCKP2502N12	XCKD2502N12	XCKT106	XCKT2106N12
XCKP102H29	XCKP2102P16	XCKD2102P16	XCKP502H7	XCKP2502N12	XCKD2502N12	XCKT110	XCKT2110N12
XCKP106	XCKP2106N12	XCKD2106N12	XCKP506	XCKP2506N12	XCKD2506N12	XCKT111	XCKT2111N12
XCKP106H7	XCKP2106N12	XCKD2106N12	XCKP510	XCKP2510N12	XCKD2510N12	XCKT118	XCKT2118N12
XCKP110	XCKP2110N12	XCKD2110N12	XCKP518	XCKP2518N12	XCKD2518N12	XCKT121	XCKT2121N12
XCKP110CM	XCKP2110G11	XCKD2110G11	XCKP521	XCKP2521N12	XCKD2521N12	XCKT145	XCKT2145N12
XCKP111	XCKP2111N12	XCKD2111N12	XCKP527	XCKP2527N12	XCKD2527N12	XCKT501	XCKT2501N12
XCKP118	XCKP2118N12	XCKD2118N12	XCKP628	XCKP2628N12	XCKD2628N12	XCKT502	XCKT2502N12
XCKP118CM	XCKP2118G11	XCKD2118G11	XCKP721	XCKP2721N12	XCKD2721N12	XCKT510	XCKT2510N12
XCKP121	XCKP2121N12	XCKD2121N12	XCKP791	XCKP2791N12	XCKD2791N12	XCKT518	XCKT2518N12
XCKP121CM	XCKP2121G11	XCKD2121G11	XCKP791H7	XCKP2791N12	XCKD2791N12	XCKT521	XCKT2521N12
XCKP127	XCKP2127N12	XCKD2127N12	XCKP802	XCKP2802N12	XCKD2802N12	XCKT528	XCKT2528N12
XCKP127H7	XCKP2127N12	XCKD2127N12	XCKP810H7	XCKP2810N12	XCKD2810N12		
XCKP128	XCKP2128N12	XCKD2128N12	XCKP902	XCKP2902N12	XCKD2902N12		
XCKP1305979	XCKP2191N12	XCKD2191N12	XCKP910H7	XCKP2910N12	XCKD2910N12		
XCKP145	XCKP2145N12	XCKD2145N12	XCKPMEQ3412	XCKP2145N12	XCKD2145N12		
XCKP145CM	XCKP2145G11	XCKD2145G11					

XCKP, XCKD and XCKT Component and Catalog Number Selection

XCKD Components					XCKP Components					XCKT Components			
Metal Body	Consists of:			Conduit	Plastic Body	Consists of:			Conduit	Plastic Body	Consists of:		
Cat Number	Body	Head	Lever	Adapter	Cat Number	Body	Head	Lever	Adapter	Cat Number	Body	Head	Lever
XCKD2118G11	ZCD21	ZCE01	ZCY18	ZCDEG11	XCKP2101N12	ZCP21	ZCE01	N/A	ZCPEN12	XCKT2102N12	ZCT21N12	ZCE02	
XCKD2102N12	ZCD21	ZCE02		ZCDEN12	XCKP2102G11	ZCP21	ZCE02		ZCPEG11	XCKT2106N12	ZCT21N12	ZCE06	
XCKD2121G11	ZCD21	ZCE21		ZCDEG11	XCKP2102N12	ZCP21	ZCE02		ZCPEN12	XCKT2110N12	ZCT21N12	ZCE10	
XCKD2118N12	ZCD21	ZCE01	ZCY18	ZCDEN12	XCKP2106N12	ZCP21	ZCE06		ZCPEN12	XCKT2111N12	ZCT21N12	ZCE11	
XCKD2145N12	ZCD21	ZCE01	ZCY45	ZCDEN12	XCKP2110G11	ZCP21	ZCE10		ZCPEG11	XCKT2118N12	ZCT21N12	ZCE01	ZCY18
XCKD2121N12	ZCD21	ZCE21		ZCDEN12	XCKP2110N12	ZCP21	ZCE10		ZCPEN12	XCKT2121N12	ZCT21N12	ZCE21	
XCKD2145N12	ZCD21	ZCE01	ZCY45	ZCDEN12	XCKP2111N12	ZCP21	ZCE11		ZCPEN12	XCKT2145N12	ZCT21N12	ZCE01	ZCY45
XCKD2191N12	ZCD21	ZCE01	ZCY91	ZCDEN12	XCKP2118G11	ZCP21	ZCE01	ZCY18	ZCPEG11	XCKT2501N12	ZCT25N12	ZCE01	N/A
XCKD2106N12	ZCD21	ZCE06		ZCDEN12	XCKP2118N12	ZCP21	ZCE01	ZCY18	ZCPEN12	XCKT2502N12	ZCT25N12	ZCE02	
XCKD2102G11	ZCD21	ZCE02		ZCDEG11	XCKP2121G11	ZCP21	ZCE21		ZCPEG11	XCKT2510N12	ZCT25N12	ZCE10	
XCKD2110N12	ZCD21	ZCE10		ZCDEN12	XCKP2121N12	ZCP21	ZCE21		ZCPEN12	XCKT2518N12	ZCT25N12	ZCE01	ZCY18
XCKD2145G11	ZCD21	ZCE01	ZCY45	ZCDEG11	XCKP2127N12	ZCP21	ZCE27		ZCPEN12	XCKT2521N12	ZCT25N12	ZCE21	
XCKD2127N12	ZCD21	ZCE27		ZCDEN12	XCKP2127N12	ZCP21	ZCE27		ZCPEN12	XCKT2528N12	ZCT25N12	ZCE28	
XCKD2191N12	ZCD21	ZCE01	ZCY91	ZCDEN12	XCKP2128N12	ZCP21	ZCE28		ZCPEN12				
XCKD2502N12	ZCD25	ZCE02		ZCDEN12	XCKP2145G11	ZCP21	ZCE01	ZCY45	ZCPEG11				
XCKD2910N12	ZCD29	ZCE10		ZCDEN12	XCKP2145N12	ZCP21	ZCE01	ZCY45	ZCPEN12				
XCKD2721N12	ZCD27	ZCE21		ZCDEN12	XCKP2154N12	ZCP21	ZCE01	ZCY54	ZCPEN12				
XCKD2518N12	ZCD25	ZCE01	ZCY18	ZCDEN12	XCKP2155N12	ZCP21	ZCE01	ZCY55	ZCPEN12				
XCKD2791N12	ZCD27	ZCE01	ZCY91	ZCDEN12	XCKP2191N12	ZCP21	ZCE01	ZCY91	ZCPEN12				
XCKD2902N12	ZCD29	ZCE02		ZCDEN12	XCKP2502N12	ZCP25	ZCE02		ZCPEN12				
XCKD2111N12	ZCD21	ZCE11		ZCDEN12	XCKP2506N12	ZCP25	ZCE06		ZCPEN12				
XCKD2106N12	ZCD21	ZCE06		ZCDEN12	XCKP2510N12	ZCP25	ZCE10		ZCPEN12				
XCKD2521N12	ZCD25	ZCE21		ZCDEN12	XCKP2518N12	ZCP25	ZCE01	ZCY18	ZCPEN12				
XCKD2791N12	ZCD27	ZCE01	ZCY91	ZCDEN12	XCKP2521N12	ZCP25	ZCE21		ZCPEN12				
XCKD2128N12	ZCD21	ZCE28		ZCDEN12	XCKP2527N12	ZCP25	ZCE27		ZCPEN12				
XCKD2810N12	ZCD28	ZCE10		ZCDEN12	XCKP2628N12	ZCP26	ZCE28		ZCPEN12				
XCKD2101N12	ZCD21	ZCE01	N/A	ZCDEN12	XCKP2721N12	ZCP27	ZCE21		ZCPEN12				
XCKD2510N12	ZCD25	ZCE10		ZCDEN12	XCKP2791N12	ZCP27	ZCE01	ZCY91	ZCPEN12				
XCKD2155N12	ZCD21	ZCE01	ZCY55	ZCDEN12	XCKP2802N12	ZCP28	ZCE02		ZCPEN12				
XCKD2110G11	ZCD21	ZCE10		ZCDEG11	XCKP2810N12	ZCP28	ZCE10		ZCPEN12				
XCKD2102D16	ZCD21	ZCE02		ZCDED16	XCKP2902N12	ZCP29	ZCE02		ZCPEN12				
XCKD2506N12	ZCD25	ZCE06		ZCDEN12	XCKP2910N12	ZCP29	ZCE10		ZCPEN12				
XCKD2802N12	ZCD28	ZCE02		ZCDEN12									
XCKD2502N12	ZCD25	ZCE02		ZCDEN12									
XCKD2527N12	ZCD25	ZCE27		ZCDEN12									
XCKD2154N12	ZCD21	ZCE01	ZCY54	ZCDEN12									
XCKD2127N12	ZCD21	ZCE27		ZCDEN12									
XCKD2628N12	ZCD26	ZCE28		ZCDEN12									

Limit Switches



Limit Switches

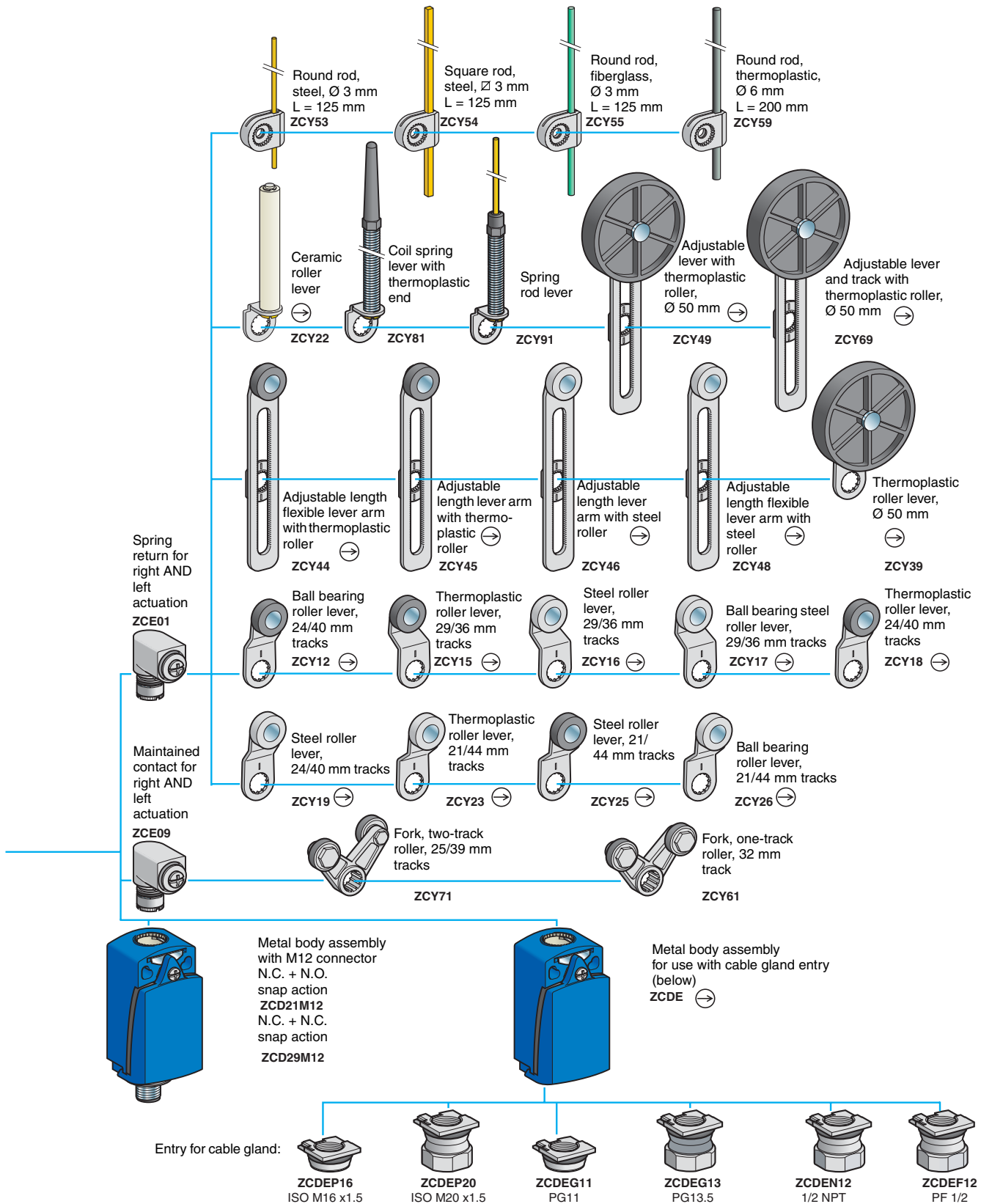
See page 403 for female connection adapters.

OSICONCEPT™ Limit Switches







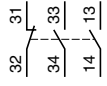
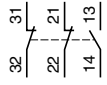
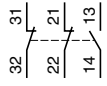
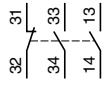
XCKP, XCKD and XCKT Compact Modular Components



Limit Switches



See page 403 for female connection adapters.

Contact Assemblies ⁽¹⁾					
Contact Type	Direct Opening (2)	Diagram	Body Material	Catalog Number	Weight lb (Kg)
2-pole					
2-pole N.C. + N.O. snap action (XE2SP 2151)	⊕		metal	ZCD 21	0.31 (0.140)
			plastic	ZCP 21	0.15 (0.070)
2-pole N.C. + N.C. snap action (XE2SP 2141)	⊕		metal	ZCD 29	0.31 (0.140)
			plastic	ZCP 29	0.15 (0.070)
2-pole N.C. + N.O. slow break-before-make (XE2NP 2151)	⊕		metal	ZCD 25	0.31 (0.140)
			plastic	ZCP 25	0.15 (0.070)
2-pole N.O. + N.C. slow make-before-break (XE2NP 2161)	⊕		metal	ZCD 26	0.31 (0.140)
			plastic	ZCP 26	0.15 (0.070)
2-pole N.C. + N.C. simultaneous make and break (XE2NP 2141)	⊕		metal	ZCD 27	0.31 (0.140)
			plastic	ZCP 27	0.15 (0.070)
2-pole N.O. + N.O. simultaneous make and break (XE2NP 2131)	-		metal	ZCD 28	0.31 (0.140)
			plastic	ZCP 28	0.15 (0.070)
3-pole					
3-pole N.C. + N.O. + N.O. snap action (XE3SP 2151)	⊕		metal	ZCD 31	0.31 (0.140)
			plastic	ZCP 31	0.15 (0.070)
3-pole N.C. + N.C. + N.O. snap action (XE3SP 2141)	⊕		metal	ZCD 39	0.31 (0.140)
			plastic	ZCP 39	0.15 (0.070)
3-pole N.C. + N.C. + N.O. slow break-before-make (XE3NP 2141)	⊕		metal	ZCD 37	0.31 (0.140)
			plastic	ZCP 37	0.15 (0.070)
3-pole N.C. + N.O. + N.O. slow break-before-make (XE3NP 2151)	⊕		metal	ZCD 35	0.31 (0.140)
			plastic	ZCP 35	0.15 (0.070)
<p>(1) For gold flashed contacts or ring tongue terminals contact your regional office</p> <p>(2) ⊕ : Assembly that ensures a direct opening operation</p>					

OSICONCEPT™ Limit Switches
XCKP, XCKD and XCKT Compact Modular
Components



Plastic Body Assemblies With Two PG11 Cable Entries (1/2" NPT, page 439)






Contact Type	Direct Opening ⁽¹⁾	Diagram	Catalog Number	Weight lb (kg)
2-pole				
2-pole N.C. + N.O. snap action (XE2SP 3151)	⊕		ZCT 21G11	0.18 (0.085)
2-pole N.C. + N.O. slow break-before-make (XE2NP 3151)	⊕		ZCT 25G11	0.18 (0.085)
2-pole N.C. + N.C. simultaneous make and break (XE2NP 3141)	⊕		ZCT 27G11	0.18 (0.085)
2-pole N.O. + N.O. simultaneous make and break (XE2NP 3131)	-		ZCT 28G11	0.18 (0.085)
2-pole N.O. + N.C. slow make-before-break (XE2NP 3161)	⊕		ZCT 26G11	0.18 (0.085)

Plastic Body Assemblies With Two ISO M16x1.5 Cable Entries

Contact Type	Positive Operation ⁽¹⁾	Diagram	Catalog Number	Weight lb (kg)
2-pole				
2-pole N.C. + N.O. snap action (XE2SP 3151)	⊕		ZCT 21P16	0.18 (0.085)
2-pole N.C. + N.O. slow break-before-make (XE2NP 3151)	⊕		ZCT 25P16	0.18 (0.085)
2-pole N.C. + N.C. simultaneous make and break (XE2NP 3141)	⊕		ZCT 27P16	0.18 (0.085)
2-pole N.O. + N.O. simultaneous make and break (XE2NP 3131)	-		ZCT 28P16	0.18 (0.085)
2-pole N.O. + N.C. slow make-before-break (XE2NP 3161)	⊕		ZCT 26P16	0.18 (0.085)

(1) ⊕ : Assembly that ensures a direct opening operation

Limit Switches

Plastic Body Assemblies With One 1/2" NPT Cable Adapter ⁽¹⁾				
Contact Type	Direct Opening ⁽²⁾	Diagram	Catalog Number	Weight lb (kg)
2-pole				
2-pole N.C. + N.O. snap action (XE2SP 3151)	⊕		ZCT 21N12	0.28 (0.130)
2-pole N.C. + N.O. slow break-before-make (XE2NP 3151)	⊕		ZCT 25N12	0.28 (0.130)
2-pole N.C. + N.C. simultaneous make and break (XE2NP 3141)	⊕		ZCT 27N12	0.28 (0.130)
2-pole N.O. + N.O. simultaneous make and break (XE2NP 3131)	-		ZCT 28N12	0.28 (0.130)
2-pole N.O. + N.C. slow make-before-break (XE2NP 3161)	⊕		ZCT 26N12	0.28 (0.130)
Accessories				
Description		Use ZCE05 Head with these levers only	Catalog Number	Weight lb (kg)
Programmable Spring return, for right AND left actuation or right OR left actuation ⁽³⁾		ZCY 12, ZCY 15, ZCY 16, ZCY 17, ZCY 18, ZCY 19, ZCY 22, ZCY 23, ZCY 25, ZCY 26, ZCY 39, ZCY 53, ZCY 54, ZCY 55, ZCY 81	ZCE05	0.099 (0.045)

⁽¹⁾ With **DE9 RA1012** accessory (1 supplied).

⁽²⁾ ⊕ : Assembly that ensures a direct opening operation.

⁽³⁾ For programming, see page 453.