

Limit switches

Osiswitch® Universal, Osiconcept®
Compact design, plastic, types XCK P and XCK T
Compact design, metal, type XCK D

■ XCK P, XCK D

with 1 cable entry
Conforming to CENELEC EN 50047

□ With head for linear movement (plunger). Fixing by the head or by the body.

XCK D

XCK P



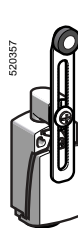
Pages 37606/2 and 37607/2

Pages 37608/2 and 37609/2

□ With head for rotary movement (lever) or multi-directional. Fixing by the body.

XCK D

XCK P



Pages 37606/3 and 37606/3

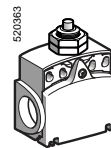
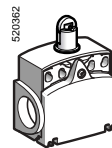
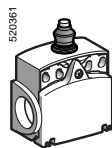
Pages 37608/3 and 37609/3

■ XCK T

with 2 cable entries
Tripping/resetting points and fixing centres conform to
CENELEC EN 50047

□ With head for linear movement (plunger). Fixing by the head or by the body.

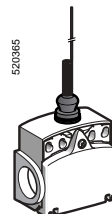
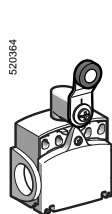
XCK T



Page 37610/2

□ With head for rotary movement (lever) or multi-directional. Fixing by the body.

XCK T



Page 37610/2

Environment characteristics

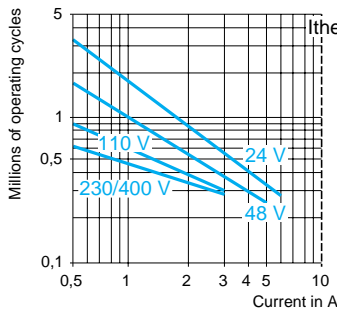
Conforming to standards	Products	IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C22-2 n° 14
	Machine assemblies	IEC 60204-1, EN 60204-1
Product certifications		UL, CSA
Protective treatment	Standard version	"TC"
Ambient air temperature	Operation	- 25...+ 70 °C
	Storage	- 40...+ 70 °C
Vibration resistance	Conforming to IEC 60068-2-6	25 gn (10...500 Hz) except switch with head ZCE 24: 20 gn
Shock resistance	Conforming to IEC 60068-2-27	50 gn (11 ms) except heads ZCE 08 : 15 gn (11 ms) and ZCE 24 : 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		IP 66 and IP 67 conforming to IEC 60529; IK 04 conforming to EN 50102 for XCK P and XCK T, IK 06 conforming to EN 50102 for XCK D
Repeat accuracy		0.1 mm on the tripping points, with 1 million operating cycles for head with end plunger
Cable entry or integral connector	Depending on model	Either: tapped entry for n° 11 or n° 13 cable gland, tapped ISO M16 x 1.5 or ISO M20 x 1.5, tapped 1/2" NPT, tapped PF 1/2 (G1/2) or integral M12 connector
Materials		XCK D: zamak bodies and heads, XCK P and XCK T: plastic bodies, zamak heads

Contact block characteristics

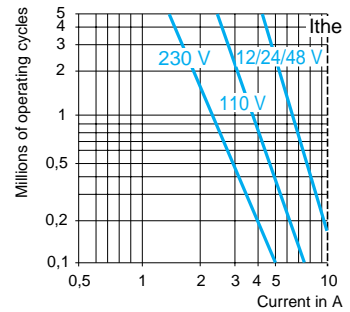
Rated operational characteristics	XE2● P	\sim AC-15; A300 ($U_e = 240\text{ V}$, $I_e = 3\text{ A}$); $I_{the} = 10\text{ A}$ \equiv DC-13; Q300 ($U_e = 250\text{ V}$, $I_e = 0.27\text{ A}$), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1
	XE3● P	\sim AC-15; B300 ($U_e = 240\text{ V}$, $I_e = 1.5\text{ A}$); $I_{the} = 6\text{ A}$ \equiv DC-13; R300 ($U_e = 250\text{ V}$, $I_e = 0.1\text{ A}$), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1
Rated insulation voltage	XE2● P	$U_i = 500\text{ V}$ degree of pollution 3 conforming to IEC 60947-1 $U_i = 300\text{ V}$ conforming to UL 508, CSA C22-2 n° 14
	XE3● P	$U_i = 400\text{ V}$ degree of pollution 3 conforming to IEC 60947-1 $U_i = 300\text{ V}$ conforming to UL 508, CSA C22-2 n° 14
Rated impulse withstand voltage	XE2● P	$U_{imp} = 6\text{ kV}$ conforming to IEC 60947-1, IEC 60664
	XE3● P	$U_{imp} = 4\text{ kV}$ conforming to IEC 60947-1, IEC 60664
Positive operation (depending on model)		N/C contacts with positive opening operation conforming to IEC 60 947-5-1 Appendix K, EN 60947-5-1
Resistance across terminals		$\leq 25\text{ m}\Omega$ conforming to IEC 60255-7 category 3
Short-circuit protection	XE2● P	10 A cartridge fuse type gG (gl)
	XE3● P	6 A cartridge fuse type gG (gl)
Cabling (screw clamp terminals)	XE2S P●151 and XE2S P2141	Clamping capacity, min: $1 \times 0.34\text{ mm}^2$, max: $2 \times 1.5\text{ mm}^2$
	XE2N P21●1 and XE2N P31●1	Clamping capacity, min: $1 \times 0.5\text{ mm}^2$, max: $2 \times 2.5\text{ mm}^2$
	XE3N P and XE3S P	Clamping capacity, min: $1 \times 0.34\text{ mm}^2$, max: $1 \times 1\text{ mm}^2$ or $2 \times 0.75\text{ mm}^2$
Minimum actuation speed (for head with end plunger)	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		<ul style="list-style-type: none"> Conforming to IEC 60947-5-1 Appendix C Utilisation categories AC-15 and DC-13 Maximum operating rate: 3600 operating cycles/hour Load factor: 0.5

a.c. supply
 \sim 50/60 Hz
 m inductive circuit

XE2S P●151, XE2S P2141



XE2N P21●1, XE2N P31●1



d.c. supply \equiv

Power broken in W for 5 million operating cycles.

Voltage	V	24	48	120
m	W	10	7	4

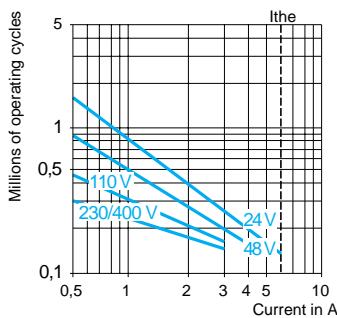
Power broken in W for 5 million operating cycles.

Voltage	V	24	48	120
m	W	13	9	7

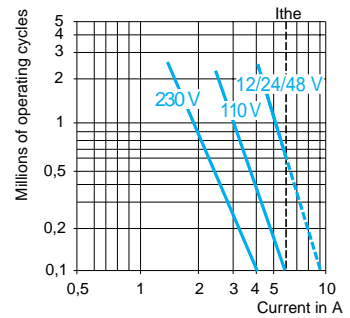
For XE2S P●151 on \sim or \equiv , N/C and N/O contacts simultaneously loaded to the values shown with reverse polarity.

a.c. supply
 \sim 50/60 Hz
 m inductive circuit

XE3N P●●●●



XE3S P●●●●



d.c. supply \equiv

Power broken in W for 5 million operating cycles.

Voltage	V	24	48	120
m	W	3	2	1

Power broken in W for 5 million operating cycles.

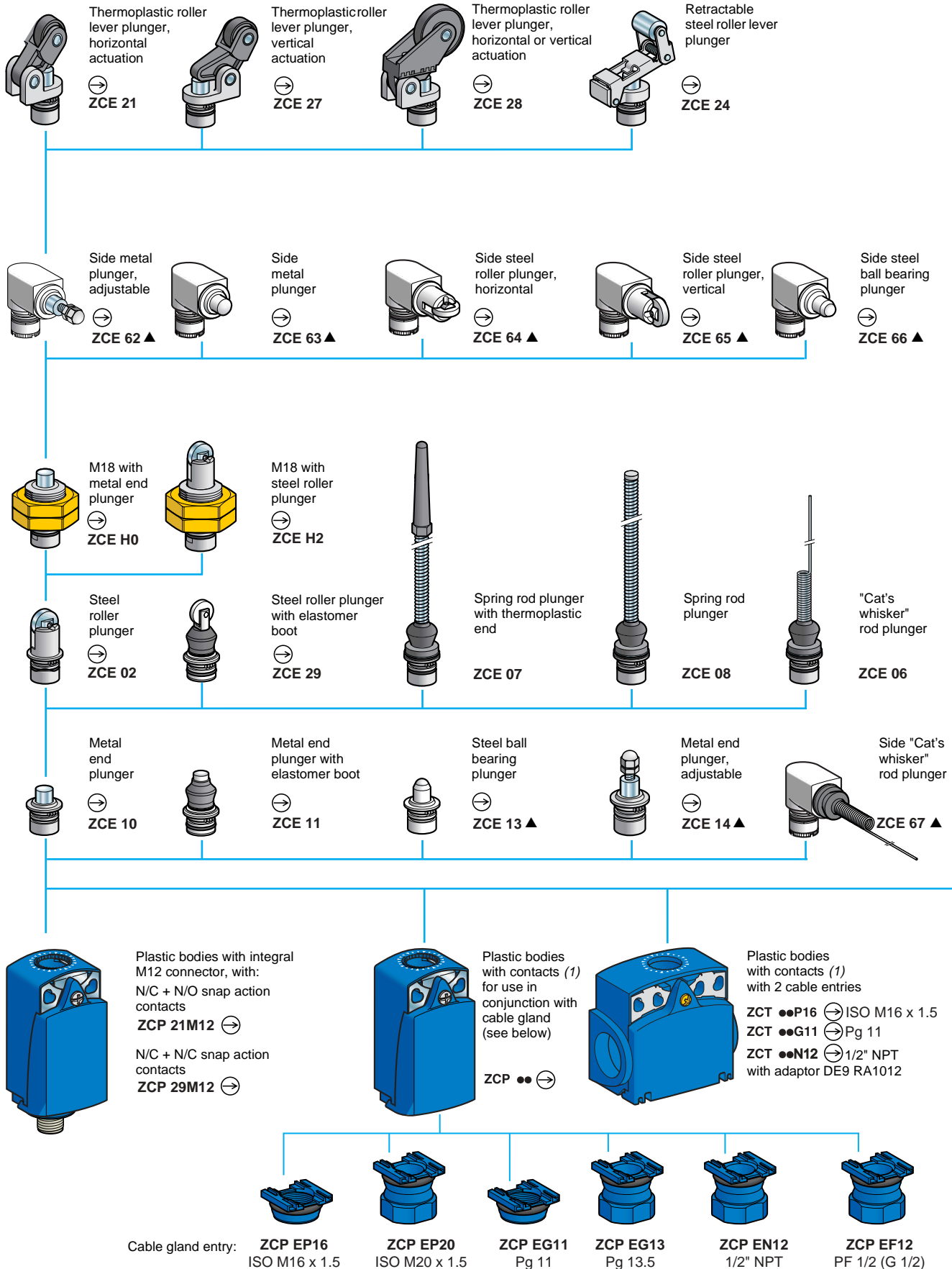
Voltage	V	24	48	120
m	W	4	3	2

Limit switches

Osiswitch® Universal, Osiconcept®

Compact design, types XCK D, XCK P and XCK T

Variable composition



▲ Available 2nd half 2003.

(1) For further details, see page 37612/4.

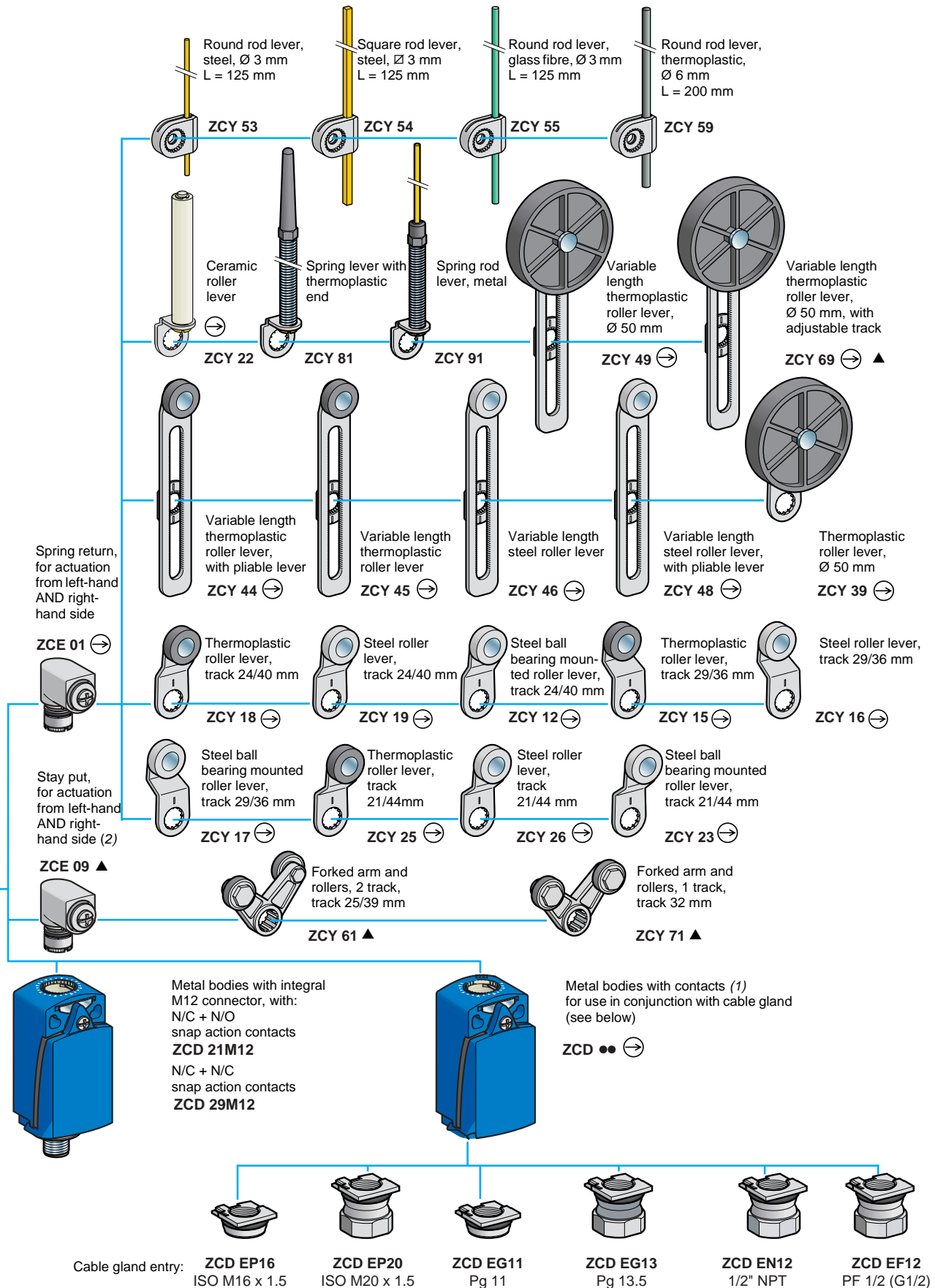
(2) Cannot be used on ZCD 21, ZCP 21, ZCT 21, ZCD 29, ZCP 29, ZCD 31, ZCP 31, ZCD 39, ZCP 39, ZCD 2●M12 and ZCP 2●M12 bodies.

Limit switches

Osiswitch® Universal, Osiconcept®

Compact design, types XCK D, XCK P and XCK T

Variable composition



▲ Available 2nd half 2003.

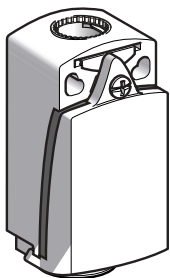
Limit switches

Osiswitch® Universal, Osiconcept®

Compact design, metal, type XCK D or plastic, types XCK P and XCK T

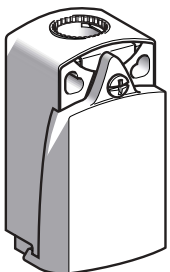
Adaptable sub-assemblies: bodies with contacts

520710



ZCD ●●

520711



ZCP ●●

Bodies with contact, types XCK D and XCK P⁽¹⁾

Type of contact	Positive operation ⁽²⁾	Scheme	Body material	Reference	Weight kg
2-pole					
N/C + N/O snap action (XE2S P2151)	⊕		Metal	ZCD 21	0.140
			Plastic	ZCP 21	0.070
N/C + N/C snap action (XE2S P2141)	⊕		Metal	ZCD 29	0.140
			Plastic	ZCP 29	0.070
N/C + N/O break before make, slow break (XE2N P2151)	⊖		Metal	ZCD 25	0.140
			Plastic	ZCP 25	0.070
N/O + N/C make before break, slow break (XE2N P2161)	⊕		Metal	ZCD 26	0.140
			Plastic	ZCP 26	0.070
N/C + N/C simultaneous, slow break (XE2N P2141)	⊕		Metal	ZCD 27	0.140
			Plastic	ZCP 27	0.070
N/O + N/O simultaneous, slow break (XE2N P2131)	-		Metal	ZCD 28	0.140
			Plastic	ZCP 28	0.070
3-pole					
N/C + N/O + N/O snap action (XE3S P2151)	⊕		Metal	ZCD 31	0.140
			Plastic	ZCP 31	0.070
N/C + N/C + N/O snap action (XE3S P2141)	⊕		Metal	ZCD 39	0.140
			Plastic	ZCP 39	0.070
N/C + N/C + N/O break before make, slow break (XE3N P2141)	⊕		Metal	ZCD 37	0.140
			Plastic	ZCP 37	0.070
N/C + N/O + N/O break before make, slow break (XE3N P2141)	⊕		Metal	ZCD 35	0.140
			Plastic	ZCP 35	0.070

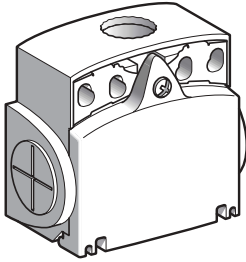
⁽¹⁾ Bodies with gold contact or ring, type connections: please consult our Regional Sales Office.

⁽²⁾ ⊕ : bodies with contacts assuring positive opening operation.

Limit switches

Osiswitch® Universal, Osiconcept®
Compact design, metal, type XCK D or
plastic, types XCK P and XCK T
Adaptable sub-assemblies: bodies with contacts

561390



ZCT ●●●

Bodies with contact, type XCK T plastic, 2 cable entries

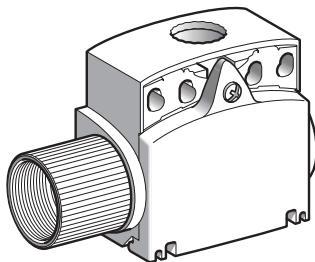
Type of contact	Positive operation (1)	Scheme	Cable entries	Reference	Weight kg
2-pole					
N/C + N/O snap action (XE2S P3151)	⊕		ISO	ZCT 21P16	0.085
			M16 x 1.5 Pg 11	ZCT 21G11	0.085
N/C + N/O break before make, slow break (XE2N P3151)	⊕		ISO	ZCT 25P16	0.085
			M16 x 1.5 Pg 11	ZCT 25G11	0.085
N/C + N/C simultaneous, slow break (XE2N P3141)	⊕		ISO	ZCT 27P16	0.085
			M16 x 1.5 Pg 11	ZCT 27G11	0.085
N/O + N/O simultaneous, slow break (XE2N P3131)	-		ISO	ZCT 28P16	0.085
			M16 x 1.5 Pg 11	ZCT 28G11	0.085
N/O + N/C make before break, slow break (XE2N P3161)	⊕		ISO	ZCT 26P16	0.085
			M16 x 1.5 Pg 11	ZCT 26G11	0.085

Bodies with contact, type XCK T plastic, 2 cable entries with 1/2" NPT adaptor

Type of contact	Positive operation (1)	Scheme	Reference	Weight kg
2-pole				
N/C + N/O snap action (XE2S P3151)	⊕		ZCT 21N12	0.130
N/C + N/O break before make, slow break (XE2N P3151)	⊕		ZCT 25N12	0.130
N/C + N/C simultaneous, slow break (XE2N P3141)	⊕		ZCT 27N12	0.130
N/O + N/O simultaneous, slow break (XE2N P3131)	-		ZCT 28N12	0.130
N/O + N/C make before break, slow break (XE2N P3161)	⊕		ZCT 26N12	0.130

(1) ⊕ : bodies with contact assuring positive opening operation.

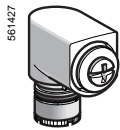
561397



ZCT ●●N12

Limit switches

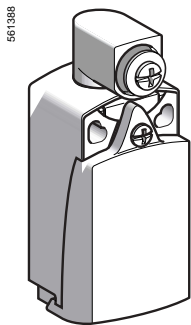
Osiswitch® Universal, Osiconcept®
Compact design, metal, type XCK D or
plastic, types XCK P and XCK T,
Adaptable sub-assemblies: contact blocks



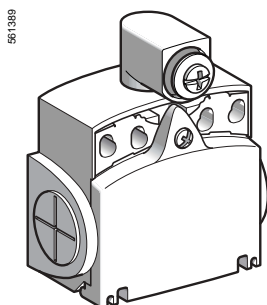
ZCE 05



DE9 RA1012



XCK #2#01#



XCK T2#01#

Accessories

Description	Head suitable for use with lever	Unit reference	Weight kg
Rotary head, without lever, spring return, for actuation from left-hand AND right-hand side OR from left-hand OR right-hand side (1)	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	ZCE 05	0.045
Tap-off terminal (for XCK T)	Sold in lots of 10	XAL Z09	0.010
Spacer for angular positioning of heads with adjustable levers for values other than - 90°, 0° and 90°	-	XCM Z07	0.002
Adaptor for 1/2" NPT conduit	Sold in lots of 10	DE9 RA1012	0.050

Bodies with contact, type XCK P plastic, with rotary head (without operating lever)

Type of contact	Scheme	Positive operation (2)	Cable entry	Reference	Weight kg
2-pole					
N/C + N/O snap action (XE2S P2151)		⊕	ISO M16 x 1.5	XCK P2101P16	0.115
		⊖	Pg 11	XCK P2101G11	0.115
		⊖	M12 Connector	XCK P2101M12	0.125
N/C + N/O make before break, slow break (XE2N P2151)		⊕	ISO M16 x 1.5	XCK P2501P16	0.115
		⊖	Pg 11	XCK P2501G11	0.115

Bodies with contact, type XCK D metal, with rotary head (without operating lever)

Type of contact	Scheme	Positive operation (2)	Cable entry	Reference	Weight kg
2-pole					
N/C + N/O snap action (XE2S P2151)		⊕	ISO M16 x 1.5	XCK D2101P16	0.185
		⊖	Pg 11	XCK D2101G11	0.185
		-	M12 Connector	XCK D2101M12	0.195
N/C + N/O make before break, slow break (XE2N P2151)		⊕	ISO M16 x 1.5	XCK D2501P16	0.185
		⊖	Pg 11	XCK D2501G11	0.185

Bodies with contact, type XCK T plastic, with rotary head (without operating lever)

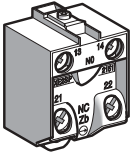
Type of contact	Scheme	Positive operation (2)	Cable entry	Reference	Weight kg
2-pole					
N/C + N/O snap action (XE2S P3151)		⊕	ISO M16 x 1.5	XCK T2101P16	0.130
		⊖	Pg 11	XCK T2101G11	0.130

(1) Programming, see page 31900/2.

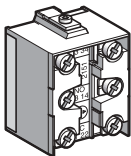
(2) ⊕ ⊖ : bodies with contact assuring positive opening operation.

Limit switches

Osiswitch® Universal, **Osiconcept**®
 Compact design, metal, type XCK D or
 plastic, types XCK P and XCK T
 Adaptable sub-assemblies: contact blocks



XE2●21●●



XE3●21●●

Contact blocks with screw clamp terminals for XCK D & XCK P

Type of contact	Positive operation (1)	Scheme	Reference for standard contacts	Weight kg
2-pole				
N/C + N/O snap action	⊕		XE2S P2151	0.020
N/C + N/C simultaneous, snap action	⊕		XE2S P2141	0.020
N/C + N/O break before make, slow break	⊕		XE2N P2151	0.020
N/O + N/C make before break, slow break	⊕		XE2N P2161	0.020
N/C + N/C simultaneous, slow break	⊕		XE2N P2141	0.020
N/O + N/O simultaneous, slow break	-		XE2N P2131	0.020
3-pole				
N/C + N/O + N/O snap action	⊕		XE3S P2151	0.035
N/C + N/C + N/O snap action	⊕		XE3S P2141	0.035
N/C + N/C + N/O break before make, slow break	⊕		XE3N P2141	0.035
N/C + N/O + N/O break before make, slow break	⊕		XE3N P2151	0.035

Contact blocks with screw clamp terminals for XCK T

Type of contact	Positive operation (1)	Scheme	Reference for standard contacts	Weight kg
2-pole				
N/C + N/O snap action	⊕		XE2S P3151	0.015
N/C + N/O break before make, slow break	⊕		XE2N P3151	0.015
N/O + N/C make before break, slow break	⊕		XE2N P3161	0.015
N/C + N/C simultaneous, slow break	⊕		XE2N P3141	0.015
N/O + N/O simultaneous, slow break	-		XE2N P3131	0.015

(1) ⊕ : contact blocks assuring positive opening operation.