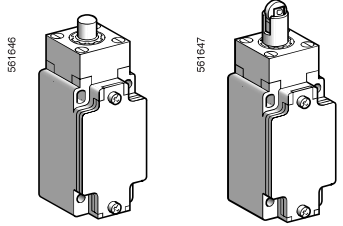


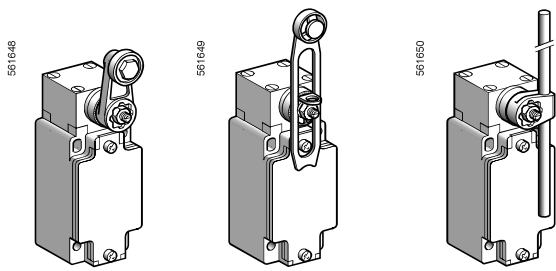
■ XCKJ
fixed body with 1 cable entry

□ With head for linear movement (plunger)



Page 1/104

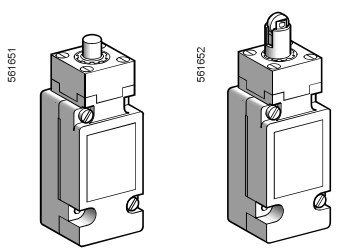
□ With head for rotary movement (lever)



Page 1/104

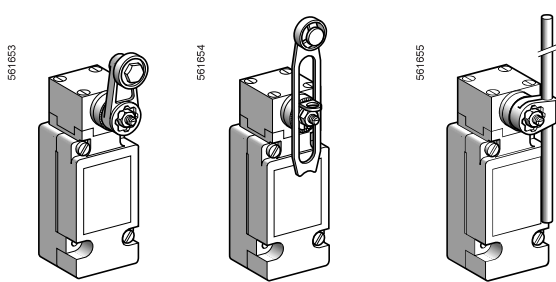
■ XCKJ
plug-in body with 1 cable entry

□ With head for linear movement (plunger)



Page 1/106

□ With head for rotary movement (lever)



Page 1/106

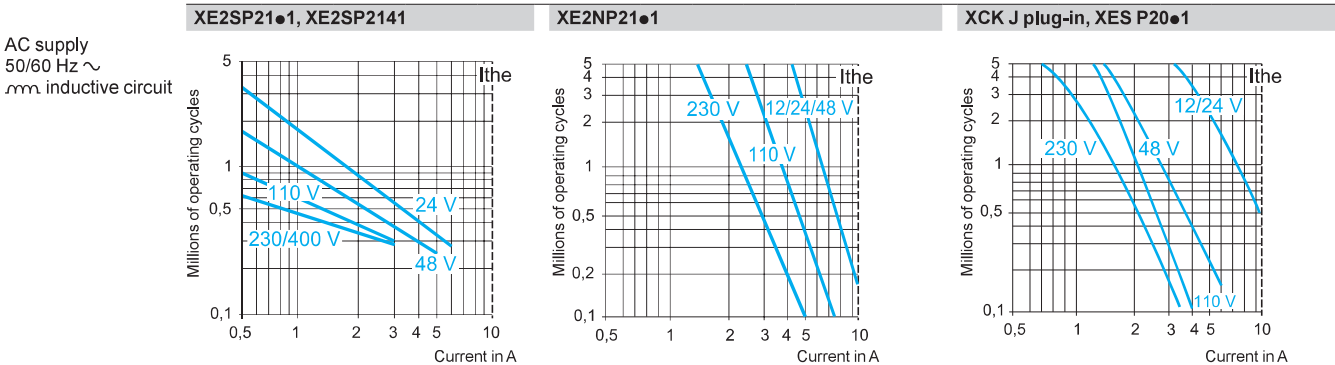
Environment characteristics

| | | |
|---------------------------|------------------------------|---|
| Conformity 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, CCC, BV, GOST |
| Protective treatment | Version | Standard: "TC", special: "TH" |
| Ambient air temperature | For operation | - 25... + 70°C, special sub-assemblies for use at - 40°C or + 120°C |
| | For storage | - 40... + 70°C |
| Vibration resistance | Conforming to IEC 60068-2-6 | 25 gn (10... 500 Hz) |
| Shock resistance | Conforming to IEC 60068-2-27 | 50 gn (11 ms) |
| Electric shock protection | | Class I conforming to IEC 61140 and NF C 20-030 |
| Degree of protection | | IP 66 conforming to IEC 60529; IK 07 conforming to EN 50102 |
| Repeat accuracy | | 0.01 mm on the tripping points, with 1 million operating cycles for head with end plunger |
| Cable entry or connector | Depending on model | Tapped entry for Pg 13.5 cable gland, tapped ISO M20 x 1.5 or tapped 1/2" NPT, or M12 connector |
| Materials | | Bodies and heads in Zamak |

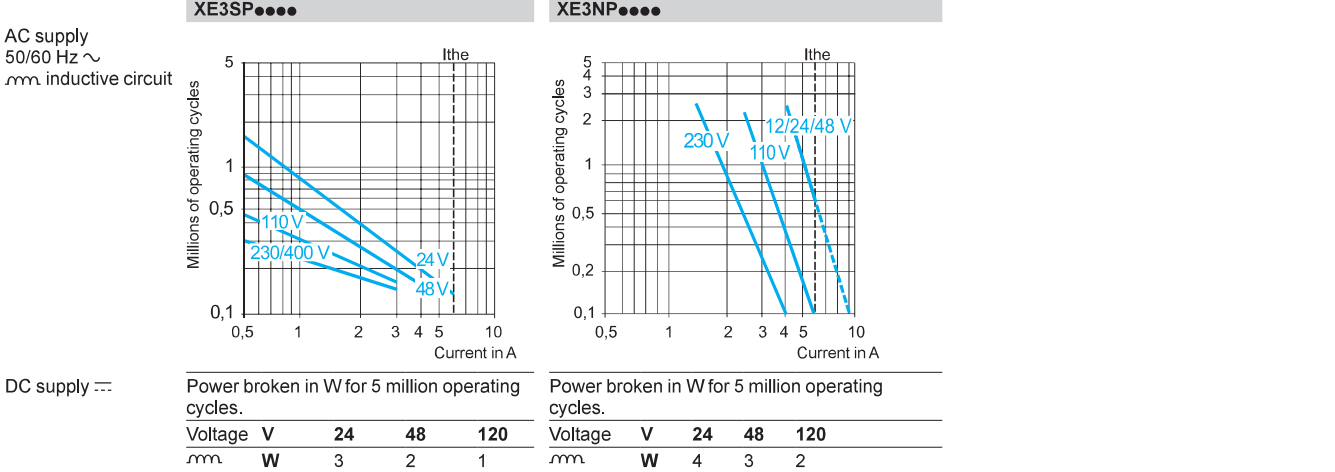
| Contact block characteristics | | |
|---|---------------------------|---|
| Rated operational characteristics | XE2●P | ~AC-15; A300 (Ue = 240 V, Ie = 3 A); Ithe = 10 A --- DC-13; Q300 (Ue = 250 V, Ie = 0.27 A), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1 |
| | XE3●P | ~AC-15; B300 (Ue = 240 V, Ie = 1.5 A); Ithe = 6 A --- DC-13; R300 (Ue = 250 V, Ie = 0.1 A), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1 |
| Rated insulation voltage | XE2●P | Ui = 500 V degree of pollution 3 conforming to IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14 |
| | XE3●P | Ui = 400 V degree of pollution 3 conforming to IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14 |
| Rated impulse withstand voltage | XE2●P | U imp = 6 kV conforming to IEC 60947-1, IEC 60664 |
| | XE3●P | U imp = 4 kV conforming to IEC 60947-1, IEC 60664 |
| Positive operation (depending on model) | | NC contacts with positive opening operation conforming to IEC 60947-5-1 Appendix K, EN 60947-5-1 |
| Resistance across terminals | | ≤ 25 mΩ 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) |
| Connection (screw clamp terminals) | XE2SP21●1 | Clamping capacity, min: 1 x 0.34 mm ² , max: 2 x 1.5 mm ² |
| | XE2NP21●1 | Clamping capacity, min: 1 x 0.5 mm ² , max: 2 x 2.5 mm ² |
| | XCKJ plug-in and XESP20●1 | Clamping capacity, min: 1 x 0.75 mm ² , max: 2 x 1.5 mm ² |
| | XE3NP and XE3SP | Clamping capacity, min: 1 x 0.34 mm ² , max: 1 x 1 mm ² or 2 x 0.75 mm ² |
| Minimum actuation speed | | XE2SP21●1 and XE3SP: 0.01 m/minute XE2NP21●1 and XE3NP: 6 m/minute |

Electrical durability

- 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



| DC supply --- | XE2SP21●1, XE2SP2141 | | | | XE2NP21●1 | | | | XCK J plug-in, XES P20●1 | | | |
|---------------|---|----|----|-----|-----------|----|----|-----|--------------------------|----|----|-----|
| | Voltage V | 24 | 48 | 120 | Voltage V | 24 | 48 | 120 | Voltage V | 24 | 48 | 120 |
| | mm W | 10 | 7 | 4 | mm W | 13 | 9 | 7 | mm W | 10 | 7 | 4 |
| | Power broken in W for 5 million operating cycles. | | | | | | | | | | | |
| | For XE2S P●151 on ~ or ---, NC and NO contacts simultaneously loaded to the values shown with reverse polarity. | | | | | | | | | | | |



| DC supply --- | XE3SP●●●● | | | | XE3NP●●●● | | | |
|---------------|---|----|----|-----|-----------|----|----|-----|
| | Voltage V | 24 | 48 | 120 | Voltage V | 24 | 48 | 120 |
| | mm W | 3 | 2 | 1 | mm W | 4 | 3 | 2 |
| | Power broken in W for 5 million operating cycles. | | | | | | | |

Limit switches

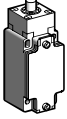
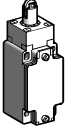


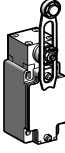

OsiSense XC Standard

Industrial format EN 50041

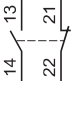
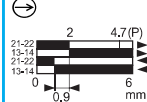
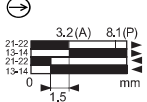
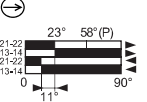
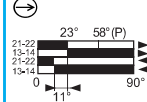
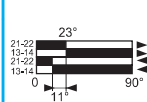
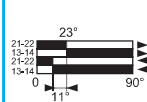
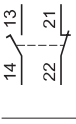
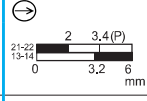
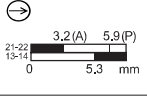
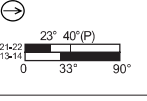
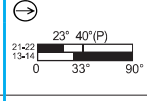
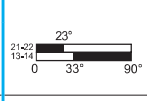
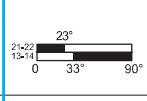
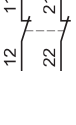
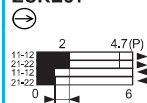

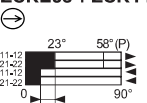
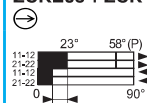
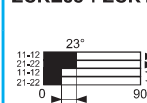
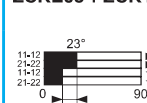
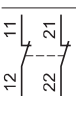



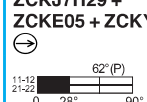
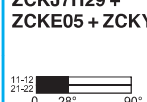
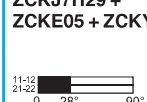
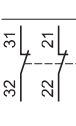

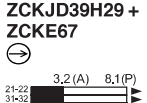



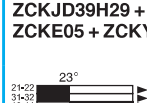
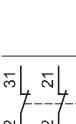
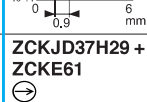

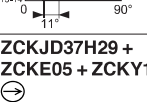
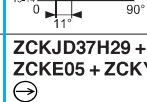
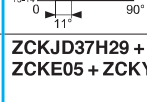
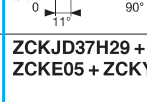



Metal, conforming to CENELEC EN 50041, type XCKJ

Complete fixed body switches with 1 cable entry

1

| Type of head | Plunger (fixing by the body) | | Rotary (fixing by the body) (switches supplied for actuation from left AND right) | | | |
|------------------|---|---|--|---|---|---|
| | Form B (1) | Form C (1) | Form A (1) | | | Form D (1) |
| |  |  |  |  |  |  |
| Type of operator | Metal end plunger | Steel roller plunger | Thermoplastic roller lever (2) | Steel roller lever (2) | Variable length thermoplastic roller lever (2) | Round thermoplastic rod lever, Ø 6 mm (2) (4) |

References of complete switches with 1 ISO M20 x 1.5 cable entry (3)

| | | | | | | | |
|---|--|--|--|---|--|--|---|
|  | 2-pole NC + NO snap action (XE2SP2151) | XCKJ161H29  | XCKJ167H29  | XCKJ10511H29  | XCKJ10513H29  | XCKJ10541H29  | XCKJ10559H29  |
|  | 2-pole NC + NO break before make, slow break (XE2NP2151) | XCKJ561H29  | XCKJ567H29  | XCKJ50511H29  | XCKJ50513H29  | XCKJ50541H29  | XCKJ50559H29  |
|  | 2-pole NC + NC snap action (XE2SP2141) | ZCKJ9H29 + ZCKE61  | ZCKJ9H29 + ZCKE67  | ZCKJ9H29 + ZCKE05 + ZCKY11  | ZCKJ9H29 + ZCKE05 + ZCKY13  | ZCKJ9H29 + ZCKE05 + ZCKY41  | ZCKJ9H29 + ZCKE05 + ZCKY59  |
|  | 2-pole NC + NC simultaneous, slow break (XE2NP2141) | ZCKJ7H29 + ZCKE61  | ZCKJ7H29 + ZCKE67  | ZCKJ7H29 + ZCKE05 + ZCKY11  | ZCKJ7H29 + ZCKE05 + ZCKY13  | ZCKJ7H29 + ZCKE05 + ZCKY41  | ZCKJ7H29 + ZCKE05 + ZCKY59  |
|  | 3-pole NC + NC + NO snap action (XE3SP2141) | ZCKJD39H29 + ZCKE61  | ZCKJD39H29 + ZCKE67  | ZCKJD39H29 + ZCKE05 + ZCKY11  | ZCKJD39H29 + ZCKE05 + ZCKY13  | ZCKJD39H29 + ZCKE05 + ZCKY41  | ZCKJD39H29 + ZCKE05 + ZCKY59  |
|  | 3-pole NC + NC + NO break before make, slow break (XE3NP2141) | ZCKJD37H29 + ZCKE61  | ZCKJD37H29 + ZCKE67  | ZCKJD37H29 + ZCKE05 + ZCKY11  | ZCKJD37H29 + ZCKE05 + ZCKY13  | ZCKJD37H29 + ZCKE05 + ZCKY41  | ZCKJD37H29 + ZCKE05 + ZCKY59  |
| Weight (kg) | 0.430 | 0.455 | 0.480 | 0.490 | 0.485 | 0.485 | |
| Contact operation |  closed  open | | (A) = cam displacement (P) = positive opening point | | |  NC contact with positive opening operation | |

References of complete switches with 1 Pg 13.5 cable entry (2)

For complete switches with entry for Pg 13.5 cable gland, delete H29 from the end of the reference. Example: XCKJ161H29 becomes XCKJ161.

References of complete switches with 1 entry for 1/2" NPT conduit (2)

For complete switches with entry for 1/2" NPT (USAS B2-1) conduit, replace H29 at the end of the reference by H7. Example: XCKJ161H29 becomes XCKJ161H7.

(1) Form conforming to EN 50041, see page 1/137.

(2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.

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

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

Limit switches

OsiSense XC Standard

Industrial format EN 50041

Metal, conforming to CENELEC EN 50041, type XCKJ

Complete fixed body switches with 1 cable entry



Characteristics

| Switch actuation | On end | By 30° cam | | | By any moving part |
|--|---|------------|---------|----------|--------------------|
| Type of actuation | | | | | |
| Maximum actuation speed | 0.5 m/s | 1 m/s | 1.5 m/s | | |
| Mechanical durability (1) (in millions of operating cycles) | 30 | 25 | 30 | | |
| Minimum force or torque | For tripping | 20 N | 16 N | 0.25 N.m | |
| | For positive opening | 50 N | 40 N | 0.50 N.m | |
| Cable entry (3) | 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 9 to 12 mm | | | | |

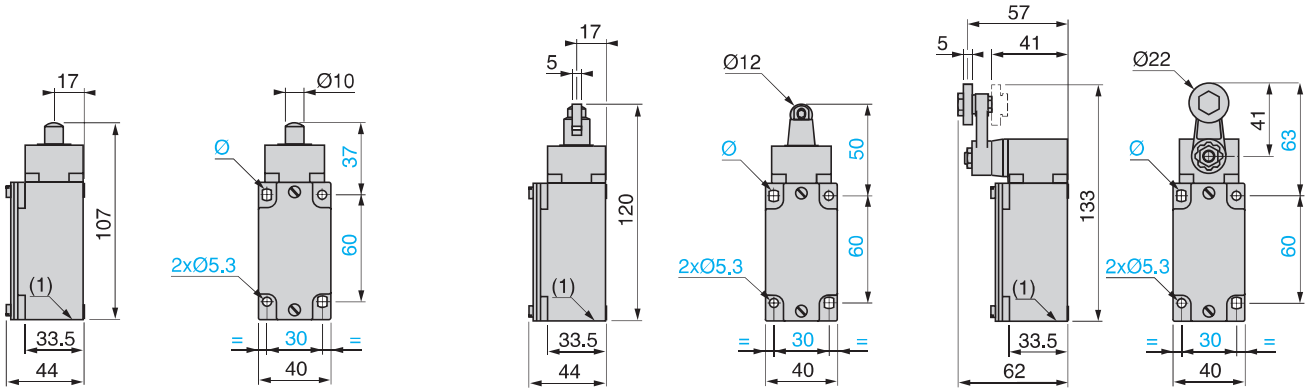
(1) Limited to 15 million operating cycles for switches with contacts XE3●P.

Dimensions

XCKJ●61H29
ZCKJ● + ZCKE61

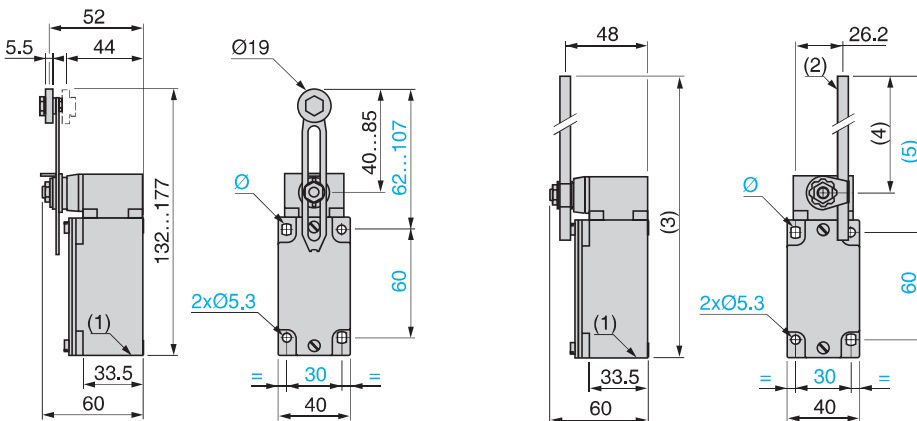
XCKJ●67H29
ZCKJ● + ZCKE67

XCKJ●051●H29
ZCKJ● + ZCKE05 + ZCKY11 or Y13



XCKJ●0541H29
ZCKJ● + ZCKE05 + ZCKY41

XCKJ●0559H29
ZCKJ● + ZCKE05 + ZCKY59



(1) 1 tapped entry for ISO M20 x 1.5 or Pg 13.5 cable gland or tapped 1/2" NPT.

(2) Ø 6 rod, length 200 mm.

(3) 282 max.

(4) 190 max.

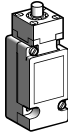




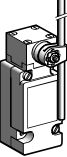
(5) 212 max.

Ø: 2 elongated holes Ø 5.3 x 7.3.

Limit switches


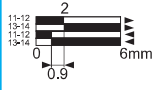
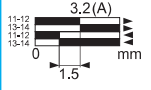
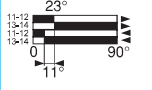
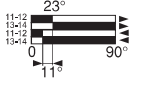
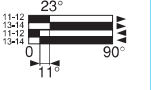


OsiSense XC Standard, industrial format EN 50041
Metal, conforming to CENELEC EN 50041, type XCKJ
Complete switches, plug-in body
With 1 cable entry

1

| Type of head | Plunger (fixing by the body) | | Rotary (fixing by the body) (switches supplied for actuation from left AND right) | | | |
|--------------|---|---|--|--|---|---|
| | Form B (1) | Form C (1) | Form A (1) | | Form D (1) | |
| |  |  |  |  |  |  |

| Type of operator | Metal end plunger | Steel roller plunger | Thermoplastic roller lever (2) | Steel roller lever (2) | Variable length thermoplastic roller lever (2) | Round thermoplastic rod lever, Ø 6 mm (2) (4) |
|------------------|-------------------|----------------------|--------------------------------|------------------------|--|---|
|------------------|-------------------|----------------------|--------------------------------|------------------------|--|---|

References of complete switches with 1 ISO M20 x 1.5 cable entry (3)

| Single-pole CO snap action | XCKJ1161H29 | XCKJ1167H29 | XCKJ110511H29 | XCKJ110513H29 | XCKJ110541H29 | XCKJ110559H29 |
|----------------------------|---|---|---|---|--|---|
| |  |  |  |  |  |  |
| Weight (kg) | 0.430 | 0.455 | 0.480 | 0.490 | 0.485 | 0.485 |
| Contact operation |  closed  open | | (A) = cam displacement | | | |





References of complete switches with 1 Pg 13.5 cable entry (3)

For complete switches with entry for Pg 13.5 cable gland, delete H29 from the end of the reference.
Example: XCKJ1161H29 becomes XCKJ1161.

References of complete switches with 1 entry for 1/2" NPT conduit (3)

For complete switches with entry for 1/2" NPT (USAS B2-1) conduit, replace H29 at the end of the reference by H7.
Example: XCKJ1161H29 becomes XCKJ1161H7.

Characteristics

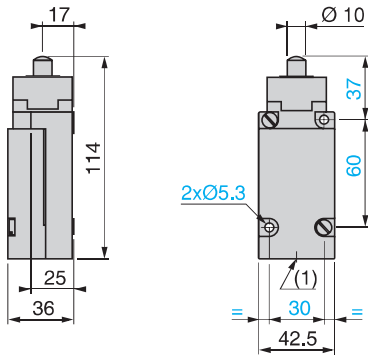
| Switch actuation | On end | By 30° cam | | By any moving part |
|--|---|---|---|---|
| Type of actuation |  |  |  |  |
| Maximum actuation speed | 0.5 m/s | 1 m/s | 1.5 m/s | |
| Mechanical durability (in millions of operating cycles) | 30 | 25 | 30 | |
| Minimum tripping force or torque | 20 N | 16 N | 0.25 N.m | |
| Cable entry | 1 entry tapped M20 x 1.5 for ISO cable gland Clamping capacity 7 to 13 mm | | | |

(1) Form conforming to EN 50041, see page 1/137.
 (2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.
 (3) Switches with gold contacts: please consult our Customer Care Centre.
 (4) Value taken with actuation by moving part at 100 mm from the fixing.

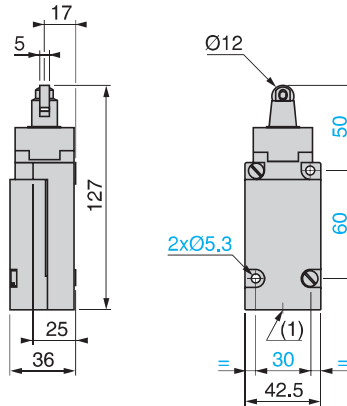
Limit switches

OsiSense XC Standard, industrial format EN 50041
 Metal, conforming to CENELEC EN 50041, type XCKJ
 Complete switches, plug-in body
 With 1 cable entry

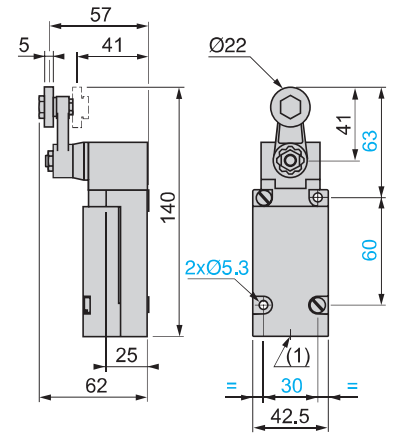
XCKJ1611H29



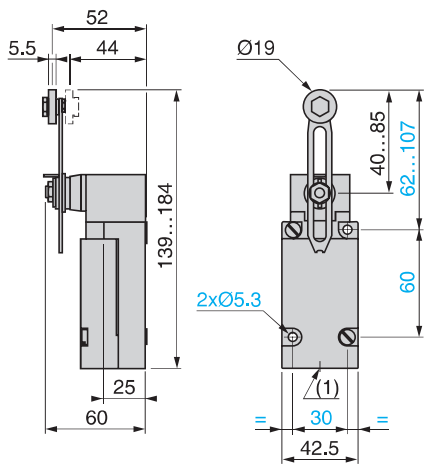
XCKJ1167H29



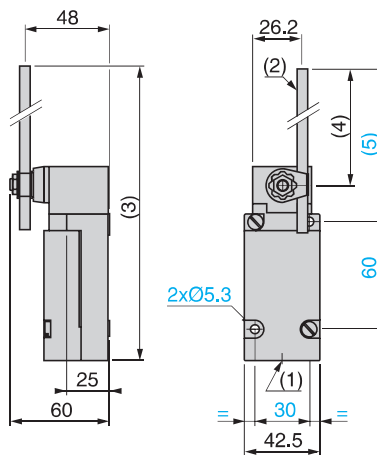
XCKJ110511H29, XCKJ110513H29



XCKJ110541H29



XCKJ110559H29

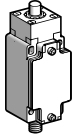
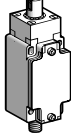
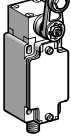
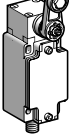
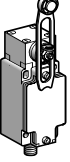
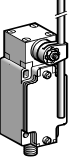



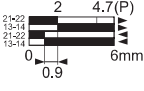
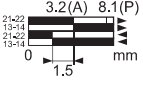
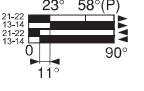
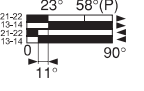
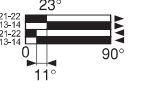


(1) 1 tapped entry for ISO M20 x 1.5 or Pg 13.5 cable gland or for 1/2" NPT conduit.
 (2) Ø 6 rod, length 200 mm.
 (3) 289 max.
 (4) 190 max.
 (5) 212 max.



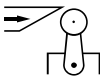

Limit switches

OsiSense XC Standard, industrial format EN 50041
Metal, conforming to CENELEC EN 50041, type XCKJ
Complete switches, fixed body
M12 connector

1

| Type of head | Plunger (fixing by the body) | | Rotary (fixing by the body) (switches supplied for actuation from left AND right) | | | |
|------------------|---|---|--|--|---|---|
| | Form B (1) | Form C (1) | Form A (1) | | Form D (1) | |
| |  |  |  |  |  |  |
| Type of operator | Metal end plunger | Steel roller plunger | Thermoplastic roller lever (2) | Steel roller lever (2) | Variable length thermoplastic roller lever (2) | Round thermoplastic rod lever, Ø 6 mm (2) (3) |

| References (4) | 2-pole NC + NO snap action (XE2S P2151) | | | | | |
|-------------------|--|--|--|--|---|--|
| |  | XCKJ161D  | XCKJ167D  | XCKJ10511D  | XCKJ10513D  | XCKJ10541D  |
| Weight (kg) | 0.430 | 0.455 | 0.480 | 0.490 | 0.485 | 0.485 |
| Contact operation |  closed  open | | (A) = cam displacement (P) = positive opening point | | | |

| Characteristics | | | | |
|--|--|---|---|---|
| Switch actuation | On end | By 30° cam | | By any moving part |
| Type of actuation |  |  |  |  |
| Maximum actuation speed | 0.5 m/s | 1 m/s | 1.5 m/s | |
| Mechanical durability (in millions of operating cycles) | 30 | 25 | 30 | |
| Minimum force or torque | For tripping | 20 N | 16 N | 0.25 N.m |
| | For positive opening | 50 N | 40 N | 0.50 N.m |
| Connection | M12 connector, U _i = 60 V, I _e = 4 A (see suitable pre-wired female connectors below). | | | |

- (1) Form conforming to EN 50041, see page 1/137.
- (2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.
- (3) Value taken with actuation by moving part at 100 mm from the fixing.
- (4) Switches with gold contacts: please consult our Customer Care Centre.

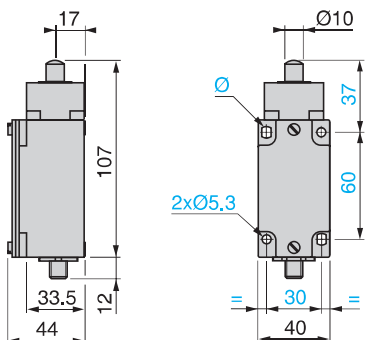
| References of suitable pre-wired female connectors | | |
|---|------------------------------------|-----------------------------------|
| Type of connector | M12 straight, 5-pin, 4 A/24 V max. | M12 elbowed, 5-pin, 4 A/24 V max. |
| With cable, Ø 5.8 mm (4 x 0.34 mm ² + 1 x 0.5 mm ²) | L = 2 m XZCP1164L2 | XZCP1264L2 |
| | L = 5 m XZCP1164L5 | XZCP1264L5 |
| | L = 10 m XZCP1164L10 | XZCP1264L10 |
| Weight (kg) | L = 2 m 0.115 | |
| | L = 5 m 0.270 | |
| | L = 10 m 0.520 | |

Limit switches

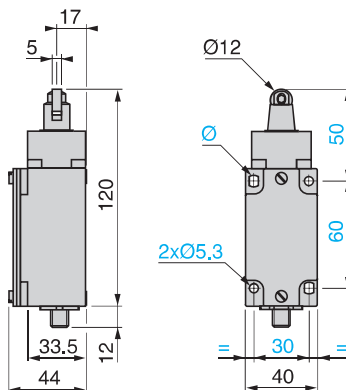
OsiSense XC Standard, industrial format EN 50041
Metal, conforming to CENELEC EN 50041, type XCKJ
Complete switches, fixed body
M12 connector

Dimensions

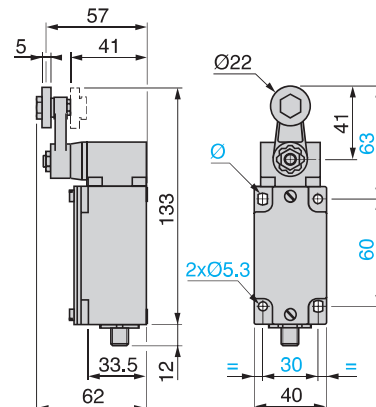
XCKJ161D



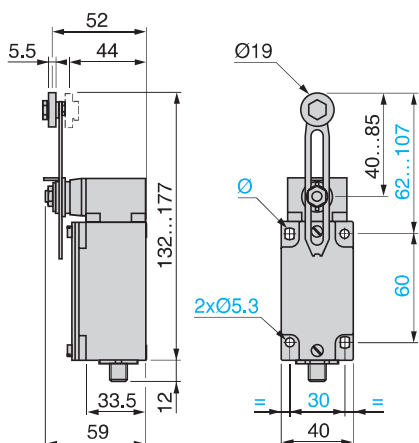
XCKJ167D



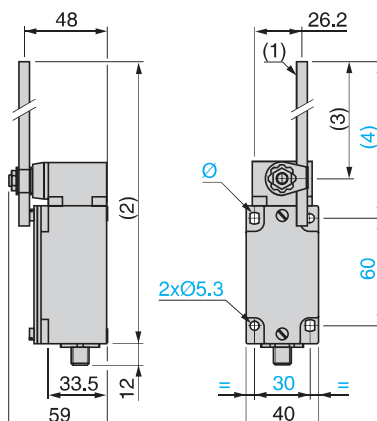
XCKJ1051D



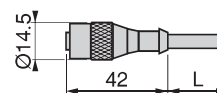
XCKJ10541D



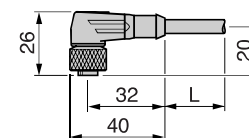
XCKJ10559D



XZCP1164L



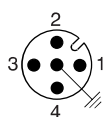
XZCP1264L



- (1) Ø 6 rod, length 200 mm.
- (2) 282 max.
- (3) 190 max.
- (4) 212 max.
- Ø: 2 elongated holes Ø 5.3 x 7.3.
- L: Cable length 2, 5 or 10 m.

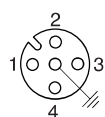
Connections

Limit switch XCKJ●●●●D



1-2 = NC
3-4 = NO
5 = \perp
4 A / 24 V max.

Pre-wired female connector XZCP1●64L

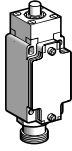
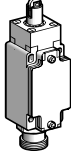
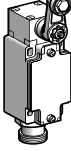
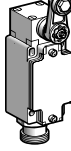
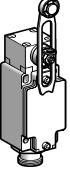
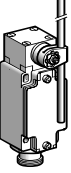







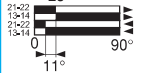
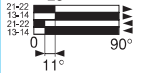



1 = brown
2 = white
3 = blue
4 = black
5 = \perp yellow/green




Limit switches

OsiSense XC Standard, industrial format EN 50041
Metal, conforming to CENELEC EN 50041, type XCKJ
Complete switches, fixed body
7/8"-16UN connector

1

| Type of head | Plunger (fixing by the body) | | Rotary (fixing by the body) (switches supplied for actuation from left AND right) | | | |
|------------------|---|---|--|--|---|---|
| | Form B (1) | Form C (1) | Form A (1) | | Form D (1) | |
| |  |  |  |  |  |  |
| Type of operator | Metal end plunger | Steel roller plunger | Thermoplastic roller lever (2) | Steel roller lever (2) | Variable length thermoplastic roller lever (2) | Round thermoplastic rod lever, Ø 6 mm (2) (3) |

| References (4) | 2-pole NC + NO snap action (XE2SP2151) | | | | | |
|---|--|---|---|--|--|---|
| | XCKJ161A | XCKJ167A | XCKJ10511A | XCKJ10513A | XCKJ10541A | XCKJ10559A |
|  |  |  |  |  |  |  |
| Weight (kg) | 0.430 | 0.455 | 0.480 | 0.490 | 0.485 | 0.485 |
| Contact operation |  closed  open | | (A) = cam displacement (P) = positive opening point | |  NC contact with positive opening operation | |

| Characteristics | | | |
|--|---|---|---|
| Switch actuation | On end | By 30° cam | By any moving part |
| Type of actuation |  |  |  |
| Maximum actuation speed | 0.5 m/s | 1 m/s | 1.5 m/s |
| Mechanical durability (in millions of operating cycles) | 30 | 25 | 30 |
| Minimum force or torque | For tripping: 20 N For positive opening: 50 N | 16 N 40 N | 0.25 N.m 0.50 N.m |
| Connection | 7/8"-16UN connector, Ui = 250 V; Ie = 6 A (see suitable pre-wired female connectors below). | | |

(1) Form conforming to EN 50041, see page 1/137.
 (2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.
 (3) Value taken with actuation by moving part at 100 mm from the fixing.
 (4) Switches with gold contacts: please consult our Customer Care Centre.

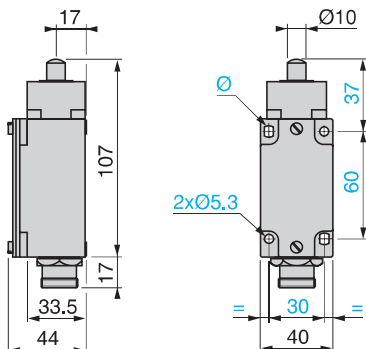
| References of suitable pre-wired female connectors | | |
|---|---|-------------|
| Type of connector | 7/8"-16UN straight, 5-pin, 4 A/250 V max. | |
| With cable, Ø 5.9 mm (5 x 0.34 mm ²) | L = 2 m | XZCP1764L2 |
| | L = 5 m | XZCP1764L5 |
| | L = 10 m | XZCP1764L10 |
| Weight (kg) | L = 2 m | 0.185 |
| | L = 5 m | 0.460 |
| | L = 10 m | 0.900 |

Limit switches

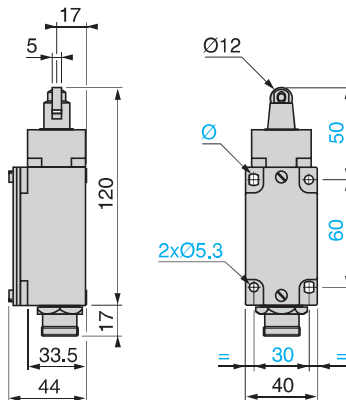
OsiSense XC Standard, industrial format EN 50041
Metal, conforming to CENELEC EN 50041, type XCKJ
Complete switches, fixed body
7/8"-16UN connector

Dimensions

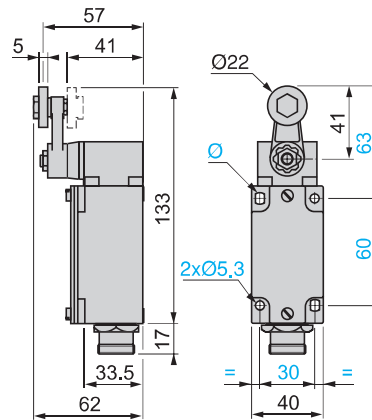
XCKJ161A



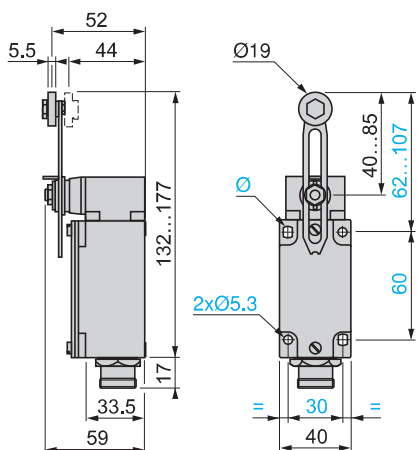
XCKJ167A



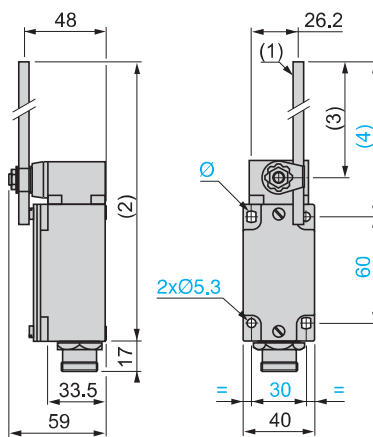
XCKJ1051●A



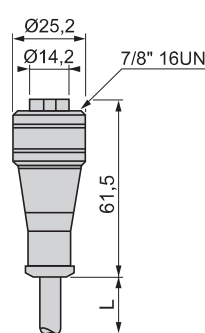
XCKJ10541A



XCKJ10559A



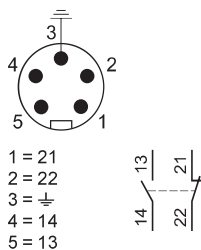
XZCP1764L●



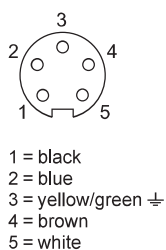
- (1) Ø 6 rod, length 200 mm.
- (2) 282 max.
- (3) 190 max.
- (4) 212 max.
- Ø: 2 elongated holes Ø 5.3 x 7.3.
- L: Cable length 2, 5 or 10 m.

Connections

Limit switch XCKJ●●●●A



Pre-wired female connector XZCP1764L●



Limit switches

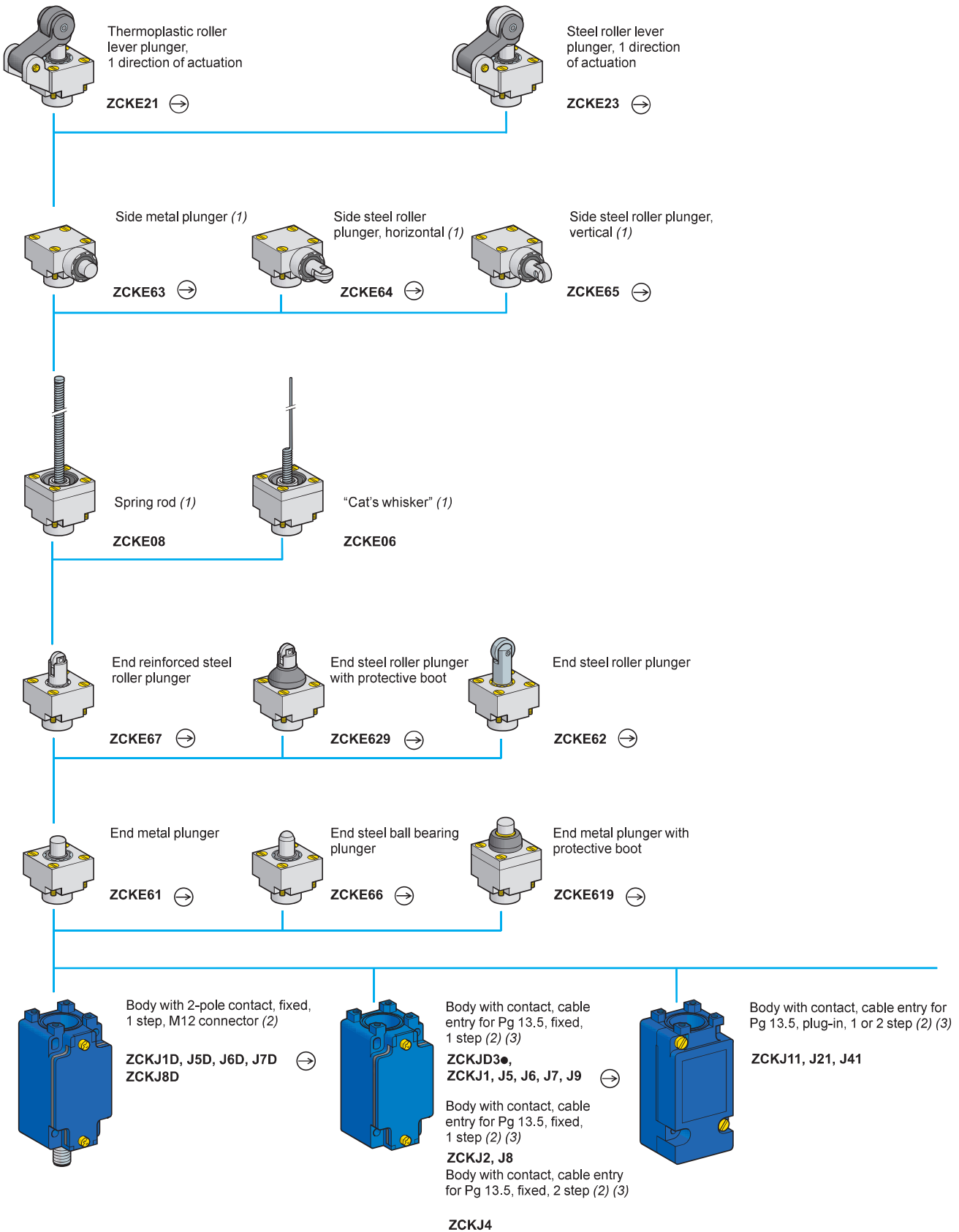
OsiSense XC Standard, industrial format EN 50041

Metal, conforming to CENELEC EN 50041, type XCKJ

Fixed or plug-in body

Variable composition: standard bodies

1



(1) Cannot be used with bodies ZCKJ4 and ZCKJ41.

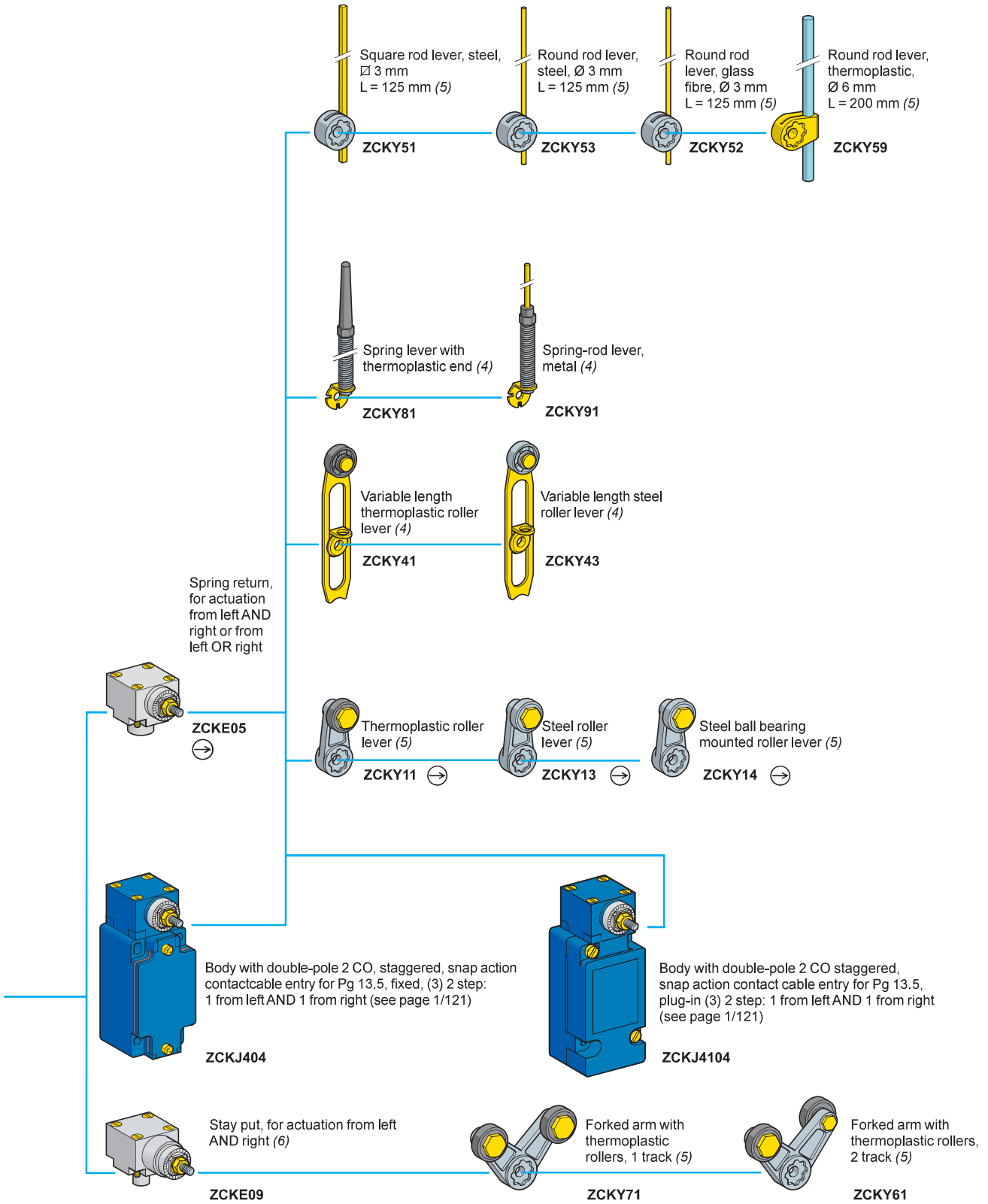
(2) For further information, see page 1/114.

(3) For a cable entry tapped ISO M20 x 1.5, add **H29** to the reference. Example: ZCKJ1 becomes **ZCKJ1H29**.

For a cable entry tapped 1/2" NPT, add **H7** to the reference. Example: ZCKJ1 becomes **ZCKJ1H7**.

Limit switches

OsiSense XC Standard, industrial format EN 50041
 Metal, conforming to CENELEC EN 50041, type XCKJ
 Fixed or plug-in body
 Variable composition: standard bodies



⊖ : head assuring positive opening operation.

(4) Adjustable throughout 360° in 5° steps, or in 90° steps by reversing the notched washer.

(5) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever mounting.

(6) Suitable for bodies with contacts ZCKJ1●, J2●, J31, J39.

Limit switches

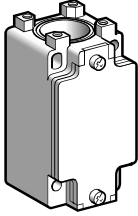
OsiSense XC Standard, industrial format EN 50041

Metal, conforming to CENELEC EN 50041, type XCKJ

Fixed or plug-in body

Adaptable sub-assemblies: standard bodies

1



ZCKJ●

Fixed bodies with 2-pole contact

| Type | With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
|--|--|--------|------------------------|---------------|-----------|-----------|
| 1 step | 1 NC + 1 NO snap action (XE2SP2151) | | ⊖ | Pg 13.5 | ZCKJ1 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ1H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ1H7 | 0.310 |
| | 2 CO simultaneous, snap action (XESP2021) | | - | Pg 13.5 | ZCKJ2 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ2H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ2H7 | 0.310 |
| | 1 NC + 1 NO break before make, slow break (XE2NP2151) | | ⊖ | Pg 13.5 | ZCKJ5 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ5H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ5H7 | 0.310 |
| 1 NO + 1 NC make before break, slow break (XE2NP2161) | | ⊖ | Pg 13.5 | ZCKJ6 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ6H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ6H7 | 0.310 | |
| 2 NC simultaneous, slow break (XE2NP2141) | | ⊖ | Pg 13.5 | ZCKJ7 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ7H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ7H7 | 0.310 | |
| 2 NO simultaneous, slow break (XE2NP2131) | | - | Pg 13.5 | ZCKJ8 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ8H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ8H7 | 0.310 | |
| 2 NC snap action (XE2SP2141) | | ⊖ | Pg 13.5 | ZCKJ9 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ9H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ9H7 | 0.310 | |
| 2 step | 2 CO staggered snap action (XESP2031) | | - | Pg 13.5 | ZCKJ4 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ4H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ4H7 | 0.310 |

Fixed bodies with 3-pole contact

| Type | With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
|--|---|--------|------------------------|---|------------|-----------|
| - | 1 NC + 2 NO snap action (XE3SP2151) | | ⊖ | Pg 13.5 | ZCKJD31 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJD31H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJD31H7 | 0.310 |
| | | | | 2 NC + 1 NO snap action (XE3SP2141) | | ⊖ |
| ISO M20 x 1.5 | ZCKJD39H29 | 0.310 | | | | |
| 1/2" NPT | ZCKJD39H7 | 0.310 | | | | |
| 2 NC + 1 NO break before make, slow break (XE3NP2141) | | ⊖ | Pg 13.5 | ZCKJD37 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJD37H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJD37H7 | 0.310 | |
| 1 NC + 2 NO break before make, slow break (XE3NP2151) | | ⊖ | Pg 13.5 | ZCKJD35 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJD35H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJD35H7 | 0.310 | |

(1) ⊖: NC contact with positive opening operation.

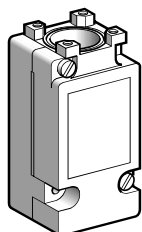
Limit switches

OsiSense XC Standard, industrial format EN 50041

Metal, conforming to CENELEC EN 50041, type XCKJ

Fixed or plug-in body

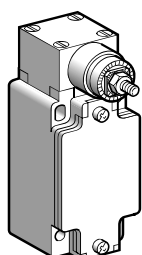
Adaptable sub-assemblies: standard bodies



ZCKJ01

Plug-in bodies with contact

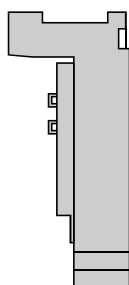
| Type | With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
|--------|--|--------|------------------------|---------------|-----------|-----------|
| 1 step | Single-pole 1 CO snap action | | - | Pg 13.5 | ZCKJ11 | 0.300 |
| | | | | ISO M20 x 1.5 | ZCKJ11H29 | 0.300 |
| | | | | 1/2" NPT | ZCKJ11H7 | 0.300 |
| 2 step | Double-pole 2 CO simultaneous, snap action | | - | Pg 13.5 | ZCKJ21 | 0.300 |
| | | | | ISO M20 x 1.5 | ZCKJ21H29 | 0.300 |
| | | | | 1/2" NPT | ZCKJ21H7 | 0.300 |
| 2 step | Double-pole 2 CO staggered, snap action | | - | Pg 13.5 | ZCKJ41 | 0.300 |
| | | | | ISO M20 x 1.5 | ZCKJ41H29 | 0.300 |
| | | | | 1/2" NPT | ZCKJ41H7 | 0.300 |



ZCKJ404

Bodies with contact, with rotary head (without operating lever)

| Type | With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
|---|---|--------|------------------------|---------------|-------------|-----------|
| Fixed body | | | | | | |
| 2 step 1 from left AND 1 from right (see page 1/125) | Double-pole 2 CO staggered, snap action | | - | Pg 13.5 | ZCKJ404 | 0.455 |
| | | | | ISO M20 x 1.5 | ZCKJ404H29 | 0.455 |
| | | | | 1/2" NPT | ZCKJ404H7 | 0.455 |
| Plug-in body | | | | | | |
| 2 step 1 from left AND 1 from right (see page 1/125) | Double-pole 2 CO staggered, snap action | | - | Pg 13.5 | ZCKJ4104 | 0.465 |
| | | | | ISO M20 x 1.5 | ZCKJ4104H29 | 0.465 |
| | | | | 1/2" NPT | ZCKJ4104H7 | 0.465 |



ZCKJ00

Plug-in housing only

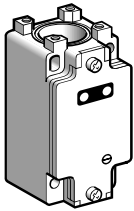
| Description | For use with | Contacts | Reference | Weight kg |
|---|--------------|----------|-----------|-----------|
| Single-pole 1 CO with positive opening operation | ZCKJ11 | Silver | ZCKJ01 | 0.150 |
| Double-pole 2 CO with positive opening operation | ZCKJ21 | Silver | ZCKJ02 | 0.160 |
| Double-pole 2 CO staggered | ZCKJ41 | Silver | ZCKJ04 | 0.160 |

(1) ⊕: NC contact with positive opening operation.

Limit switches

OsiSense XC Standard, industrial format EN 50041
Metal, conforming to CENELEC EN 50041, type XCKJ
Fixed or plug-in body. Adaptable sub-assemblies:
bodies with indicator light module

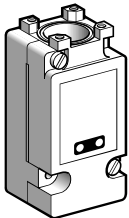
1



ZCKJ●●●

Fixed bodies with 2-pole contact

| Type | With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
|---|---|--------|------------------------|--------------------------|-------------------------------------|----------------|
| With module comprising 1 LED, 24 V $\ddot{\text{---}}$ | | | | | | |
| 1 step | 1 NC + 1 NO snap action (XE2SP2151) | | \odot | Pg 13.5 | ZCKJ120 | 0.320 |
| | 1 NC + 1 NO break before make, slow break (XE2NP2151) | | \odot | Pg 13.5 | ZCKJ520 | 0.320 |
| With module comprising 2 LEDs, 24 V $\ddot{\text{---}}$ | | | | | | |
| 1 step | 1 NC + 1 NO snap action (XE2SP2151) | | \odot | Pg 13.5 ISO M20 x 1.5 | ZCKJ121 ZCKJ121H29 | 0.320 0.320 |
| | 1 NC + 1 NO break before make, slow break (XE2NP2151) | | \odot | Pg 13.5 ISO M20 x 1.5 | ZCKJ521 ZCKJ521H29 | 0.320 0.320 |
| With module comprising 2 LEDs, 110/240 V \sim | | | | | | |
| 1 step | 1 NC + 1 NO snap action (XE2SP2151) | | \odot | Pg 13.5 ISO M20 x 1.5 | ZCKJ134 ZCKJ134H29 | 0.320 0.320 |
| | 1 NC + 1 NO break before make, slow break (XE2NP2151) | | \odot | Pg 13.5 ISO M20 x 1.5 | ZCKJ534 ZCKJ534H29 | 0.320 0.320 |



ZCKJ1●●●

Plug-in bodies with single-pole contact

| Type | With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
|---|--------------------|--------|------------------------|--------------------------|---------------------------------------|----------------|
| With module comprising 2 LEDs, 24 V $\ddot{\text{---}}$ | | | | | | |
| 1 step | CO snap action | | — | Pg 13.5 ISO M20 x 1.5 | ZCKJ1121 ZCKJ1121H29 | 0.340 0.340 |
| With module comprising 2 LEDs, 110/240 V \sim | | | | | | |
| 1 step | CO snap action | | — | Pg 13.5 ISO M20 x 1.5 | ZCKJ1134 ZCKJ1134H29 | 0.340 0.340 |

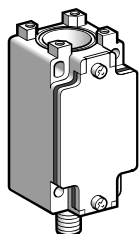
(1) \odot : NC contact with positive opening operation.

Indicator light module characteristics

| Type of indicator | 1 LED or 2 LEDs | 2 LEDs |
|-----------------------------|--|--|
| Rated insulation voltage | 50 V $\ddot{\text{---}}$, conforming to IEC 60947-1 | 250 V \sim , conforming to IEC 60947-1 |
| Current consumption | 7 mA per LED | 9 mA per LED |
| Rated operational voltage | 24 V $\ddot{\text{---}}$ | 110/240 V \sim |
| Voltage limits | 20...30 V $\ddot{\text{---}}$ (including ripple) | 95...264 V \sim |
| Service life | 100 000 hours | 100 000 hours |
| Reverse polarity protection | Yes | — |

Limit switches

OsiSense XC Standard, industrial format EN 50041
Metal, conforming to CENELEC EN 50041, type XCKJ
Fixed or plug-in body. Adaptable sub-assemblies:
bodies with M12 connector



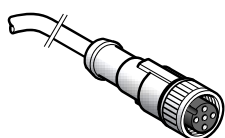
ZCKJ•D

Fixed bodies with 2-pole contact

| Type | With contact block | Scheme | Positive operation (1) | Reference | Weight kg |
|--------|--|--------|------------------------|-----------|-----------|
| 1 step | 1 NC + 1 NO snap action (XE2SP2151) | | | ZCKJ1D | 0.320 |
| | 1 NC + 1 NO break before make, slow break (XE2NP2151) | | | ZCKJ5D | 0.320 |
| | 1 NO + 1 NC make before break, slow break (XE2NP2161) | | | ZCKJ6D | 0.320 |
| | 2 NC simultaneous, slow break (XE2NP2141) | | | ZCKJ7D | 0.320 |
| | 2 NO simultaneous, slow break (XE2NP2131) | | - | ZCKJ8D | 0.320 |

Female pre-wired connectors

| Description | Cable length | Reference | Weight kg |
|---|--------------|-------------|-----------|
| Female pre-wired connectors, M12, straight Ø 5,0 mm cable Conductor c.s.a: 5 x 0.34 mm ² Nominal current : 4 A Nominal voltage: ~ 30 V, ~ 36 V | 1 m | XZCP1164L2 | 0.115 |
| | 5 m | XZCP1164L5 | 0.270 |
| | 10 m | XZCP1164L10 | 0.520 |



XZCP1164L•

(1) NC contact with positive opening operation.

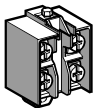
Limit switches

OsiSense XC Standard, industrial format EN 50041
 Metal, conforming to CENELEC EN 50041, type XCKJ
 Fixed or plug-in body
 Adaptable sub-assemblies: contact blocks

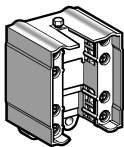
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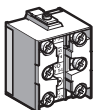
XE2SP21●1



XE2NP21●1



XESP20●1



XE3●P21●1

| Contact blocks | | | | | | |
|---|--------|-----------------|------------------------|-----------|-----------|--|
| Type of contact | Scheme | For bodies | Positive operation (1) | Reference | Weight kg | |
| 2-pole contact | | | | | | |
| 1 NC + 1 NO snap action | | ZCKJ1 ZCKJ1D | ⊖ | XE2SP2151 | 0.020 | |
| 1 NC + 1 NO break before make, slow break | | ZCKJ5 ZCKJ5D | ⊖ | XE2NP2151 | 0.020 | |
| 2 CO simultaneous snap action | | ZCKJ2 | - | XESP2021 | 0.045 | |
| 2 CO staggered, snap action | | ZCKJ4 | - | XESP2031 | 0.045 | |
| 1 NO + 1 NC make before break, slow break | | ZCKJ6 ZCKJ6D | ⊖ | XE2NP2161 | 0.020 | |
| 2 NC simultaneous, slow break | | ZCKJ7 ZCKJ7D | ⊖ | XE2NP2141 | 0.020 | |
| 2 NO simultaneous, slow break | | ZCKJ8 ZCKJ8D | - | XE2NP2131 | 0.020 | |
| 2 NC snap action | | ZCKJ9 | ⊖ | XE2SP2141 | 0.020 | |
| 3-pole contact | | | | | | |
| 1 NC + 2 NO snap action | | ZCKJD31 | ⊖ | XE3SP2151 | 0.035 | |
| 2 NC + 1 NO snap action | | ZCKJD39 | ⊖ | XE3SP2141 | 0.035 | |
| 2 NC + 1 NO break before make, slow break | | ZCKJD37 | ⊖ | XE3NP2141 | 0.035 | |
| 1 NC + 2 NO break before make, slow break | | ZCKJD35 | ⊖ | XE3NP2151 | 0.035 | |

(1) ⊖: NC contact with positive opening operation.

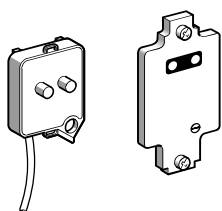
Limit switches

OsiSense XC Standard, industrial format EN 50041

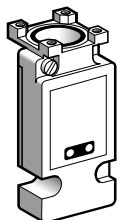
Metal, conforming to CENELEC EN 50041, type XCKJ

Fixed or plug-in body

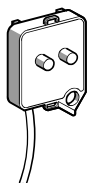
Adaptable sub-assemblies: add-ons



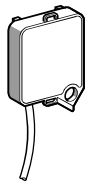
ZCKZ0●●



ZCKJ01●●



ZCKJ90●



ZCKJ82A

Covers + indicator light module

| For use with | Number and type of indicators | Voltage | Reference | Weight kg |
|--------------|-------------------------------|------------------------------|-----------|-----------|
| Fixed body | 1 LED | 24 V $\overline{\text{---}}$ | ZCKZ020 | 0.060 |
| | 2 LEDs | 24 V $\overline{\text{---}}$ | ZCKZ021 | 0.060 |
| | 2 LEDs | 110/240 V \sim | ZCKZ034 | 0.060 |
| Plug-in body | 2 LEDs | 24 V $\overline{\text{---}}$ | ZCKJ0121 | 0.200 |
| | 2 LEDs | 110/240 V \sim | ZCKJ0134 | 0.200 |

Indicator light modules

| For use with | Number and type of indicators | Voltage | Reference | Weight kg |
|--------------|-------------------------------|------------------------------|-----------|-----------|
| Fixed body | 1 LED | 24 V $\overline{\text{---}}$ | ZCKJ902 | 0.030 |
| | 2 LEDs | 24 V $\overline{\text{---}}$ | ZCKJ906 | 0.030 |
| | 2 LEDs | 110/240 V \sim | ZCKJ904 | 0.030 |

Module with resistor for machine diagnostics

| For use with | Resistor value | Reference | Weight kg |
|----------------------------|-----------------------|-----------|-----------|
| Fixed body (ZCKJ1 only) | 15 k Ω , 1/4 W | ZCKJ82A | 0.030 |

Other versions

Covers + indicator light module for other supply voltages.
Please consult our Customer Care Centre.

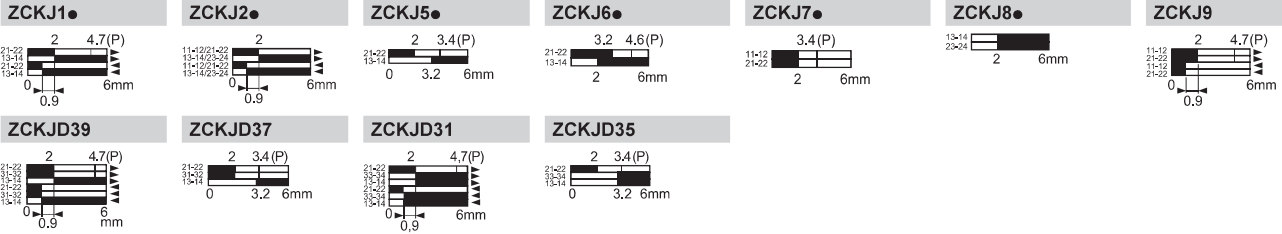
Limit switches

OsiSense XC Standard, industrial format EN 50041
 Metal, conforming to CENELEC EN 50041, type XCKJ
 Fixed or plug-in body
 Adaptable sub-assemblies

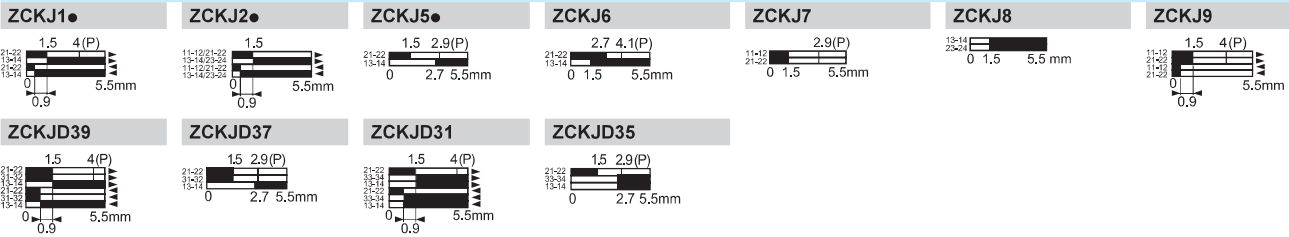
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Function diagrams (positive operation assured only if the associated sub-assemblies are ☞)

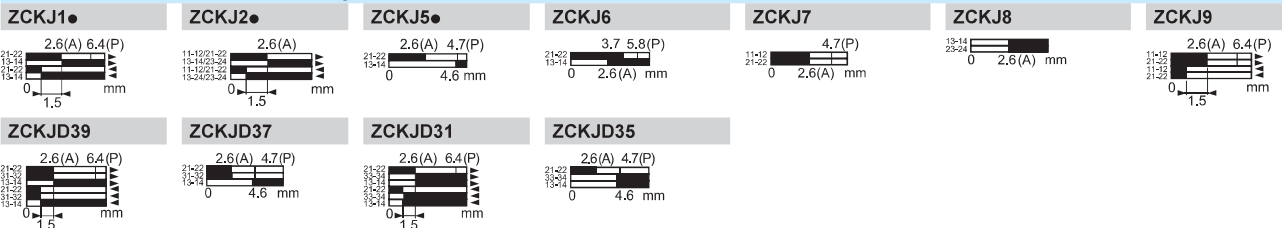
Heads ZCKE61, ZCKE619, ZCKE66 with body



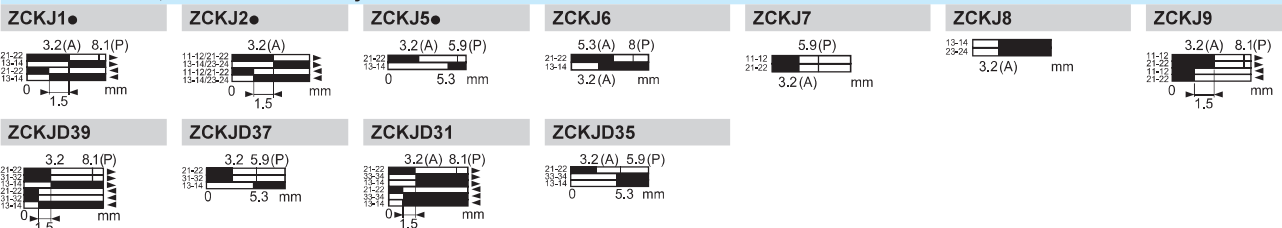
Head ZCKE63 with body



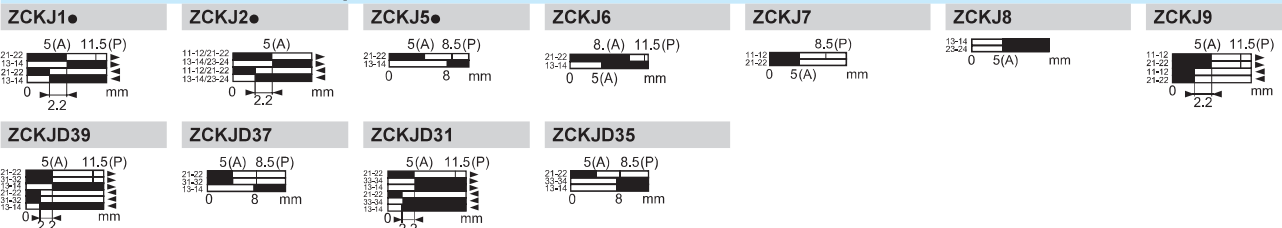
Heads ZCKE64, ZCKE65 with body



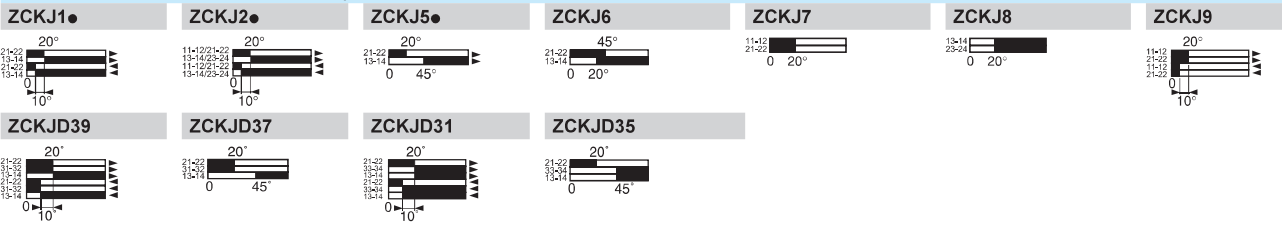
Heads ZCKE67, ZCKE629 with body



Heads ZCKE21, ZCKE23 with body

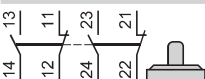


Heads ZCKE06, ZCKE08 with body

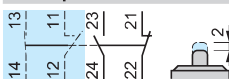


ZCKJ4

Unactuated



1st step



2nd step



Contact operation

■ closed
 □ open

(A) = cam displacement
 (P) = positive opening point

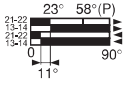
Limit switches

OsiSense XC Standard, industrial format EN 50041
Metal, conforming to CENELEC EN 50041, type XCKJ
Fixed or plug-in body
Adaptable sub-assemblies

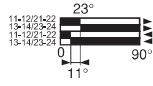
Function diagrams (positive operation assured only if the associated sub-assemblies are)

Head ZCKE05 with body

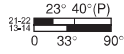
ZCKJ1●



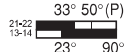
ZCKJ2●



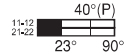
ZCKJ5●



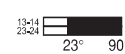
ZCKJ6



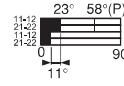
ZCKJ7



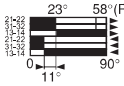
ZCKJ8



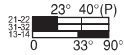
ZCKJ9



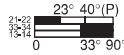
ZCKJD39



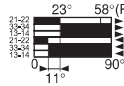
ZCKJD37



ZCKJD39

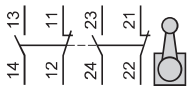


ZCKJD31

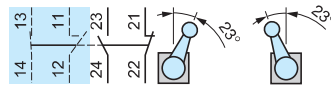


ZCKJ4●

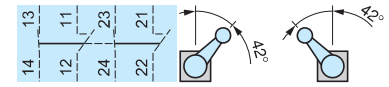
Unactuated



1st step, actuated from left or right

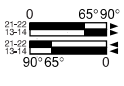


2nd step, actuated from left or right

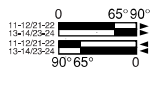


Head ZCKE09 with body

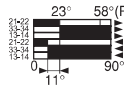
ZCKJ1●



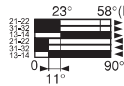
ZCKJ2●



ZCKJD31

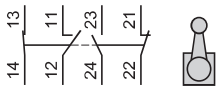


ZCKJD39

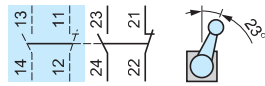


ZCKJ404, J4104 (body with head)

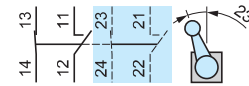
Unactuated



Actuated from left



Actuated from right



Contact operation

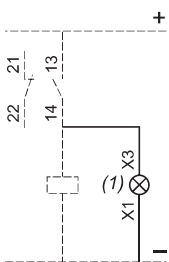
closed
 open

(P) = positive opening point

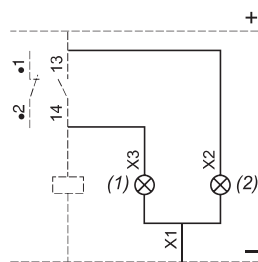
Wiring schemes

Indicator light modules

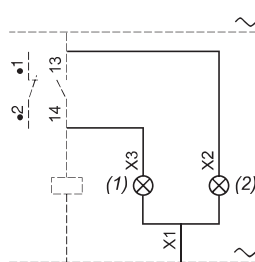
1 LED, 24 V ~



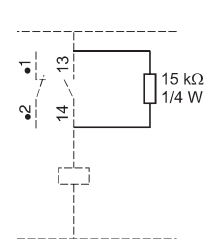
2 LEDs, 24 V ~



2 LEDs, 110/240 V ~

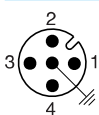


Module with resistor



(1) Orange indicator
(2) Green indicator

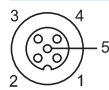
ZCKJ●D



1 - 2 = NC
3 - 4 = NO
5 = \perp
4 A / 24 V max.



Pre-wired connectors XZCP1164●



1 = brown
2 = white/black
3 = blue
4 = black
5 = yellow/green

Limit switches

OsiSense XC Standard, industrial format EN 50041
 Metal, conforming to CENELEC EN 50041, type XCKJ
 Fixed or plug-in body
 Adaptable sub-assemblies

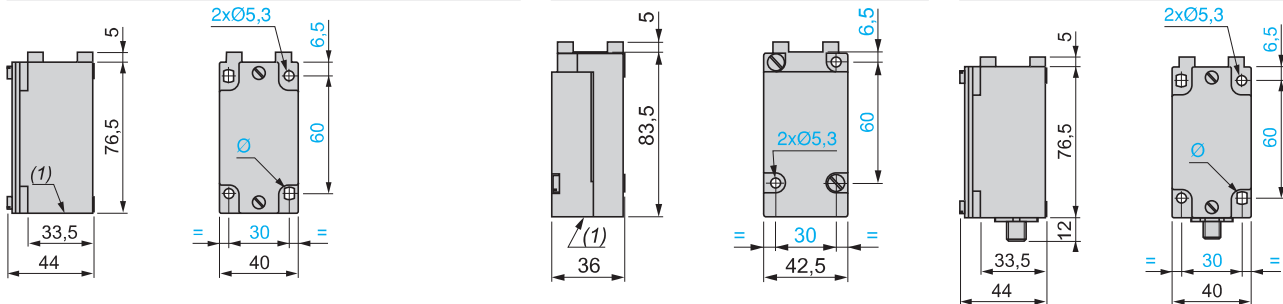
1

Bodies

ZCKJ1, J2, J5, J4, J●2●, J●3●, J6, J7, J8, J9
 ZCKJ1H29, J2H29, J5H29, J4H29, J●2●H29, J●3●H29,
 J6H29, J7H29, J8H29, J9H29
 ZCKJ1H7, J2H7, J5H7, J4H7, J●2●H7, J●3●H7, J6H7,
 J7H7, J8H7, J9H7

ZCKJ11, J21, J41, J11●●
 ZCKJ11H29, J21H29, J41H29, J11●●H29
 ZCKJ11H7, J21H7, J41H7, J11●●H7

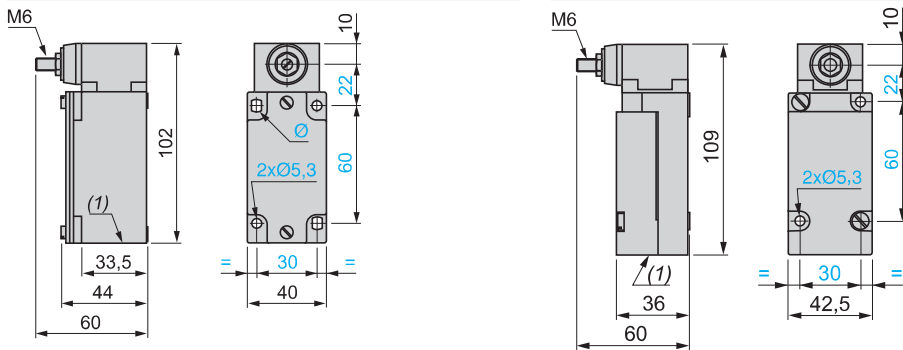
ZCKJ1D, J5D, J6D, J7D, J8D



Bodies with rotary head mounted

ZCKJ404, ZCKJ404H29, ZCKJ404H7

ZCKJ4104, ZCKJ4104H29, ZCKJ4104H7

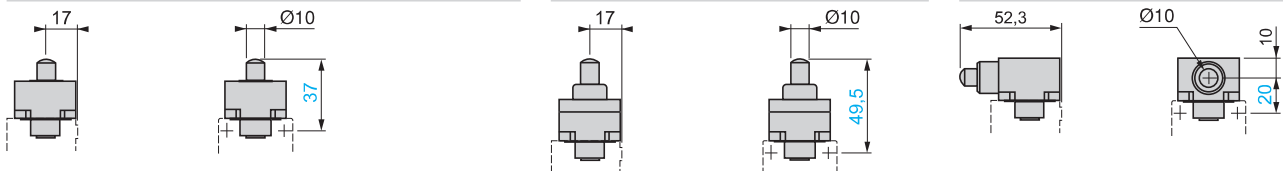


Plunger heads

ZCKE61

ZCKE619

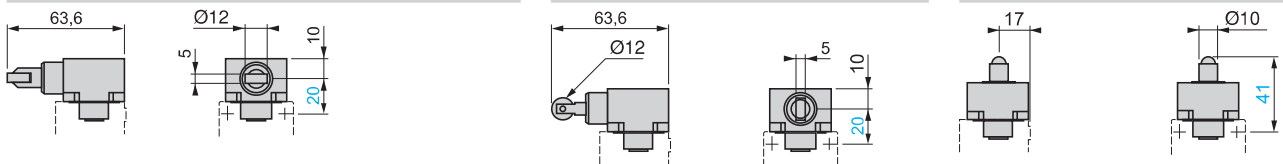
ZCKE63



ZCKE64

ZCKE65

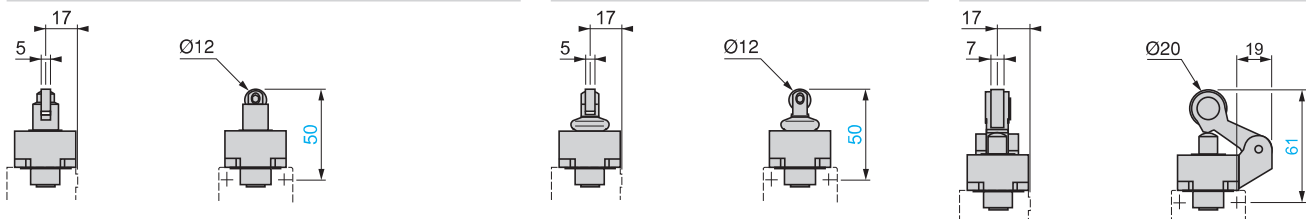
ZCKE66



ZCKE62, ZCKE67

ZCKE629

ZCKE21, ZCKE23



(1) 1 tapped entry for ISO M20 x 1.5 or Pg 13.5 cable gland or tapped 1/2" NPT.
 Ø: 2 elongated holes Ø 5.3 x 7.3.

Limit switches

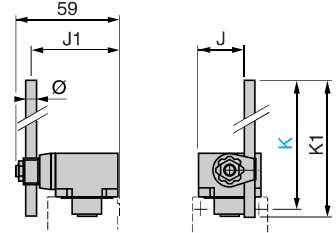
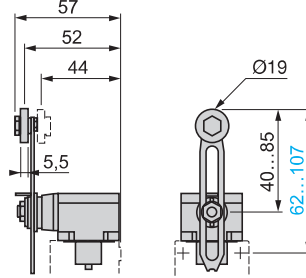
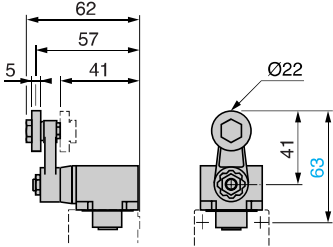
OsiSense XC Standard, industrial format EN 50041
 Metal, conforming to CENELEC EN 50041, type XCKJ
 Fixed or plug-in body
 Adaptable sub-assemblies

Rotary head ZCKE05 with operating lever

ZCKY11, Y13, Y14

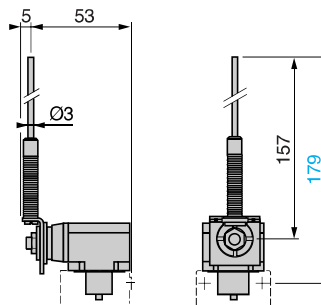
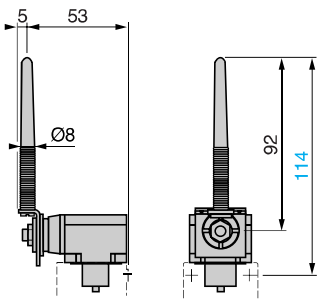
ZCKY41, Y43

ZCKY51, Y52, Y53, Y59



ZCKY81

ZCKY91

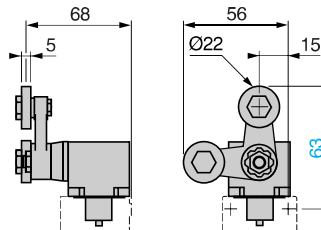
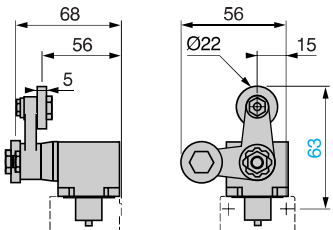


| | J | J1 | K max. | K1 | Ø |
|--------|------|----|-----------|-----|-----|
| ZCKY51 | 20 | 49 | 137 | 123 | ∓ 3 |
| ZCKY52 | 20 | 49 | 137 | 125 | Ø 3 |
| ZCKY53 | 20 | 49 | 137 | 125 | Ø 3 |
| ZCKY59 | 26.2 | 48 | 212 | 200 | Ø 6 |

Rotary head ZCKE09 with operating lever

ZCKY61

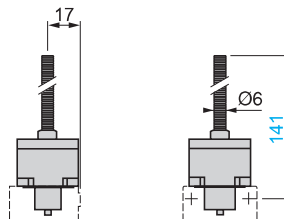
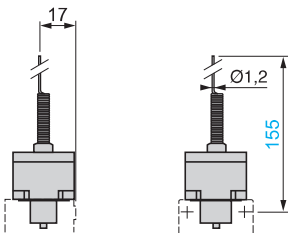
ZCKY71



Multi-directional heads

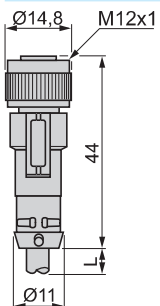
ZCKE06

ZCKE08



Note: operating lever spindle threaded M6.

Pre-wired connectors XZCP1164L●

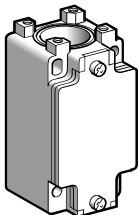


L = 2, 5 or 10 m.

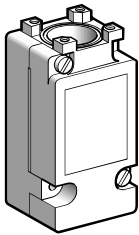
Limit switches

OsiSense XC Standard, industrial format EN 50041
 Metal, conforming to CENELEC EN 50041, type XCKJ
 Fixed or plug-in body
 Adaptable sub-assemblies for low temperature applications (- 40°C)

1



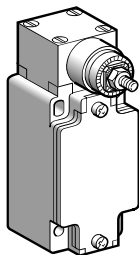
ZCKJ1



ZCKJ11

| Bodies with contacts For plunger or rotary head | | | | | | |
|--|--|--------|------------------------|---------------|--------------|-----------|
| Type | With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
| Fixed bodies | | | | | | |
| 1 step | 2-pole NC + NO snap action (XE2SP2151) | | ⊕ | Pg 13.5 | ZCKJ1 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ1H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ1H7 | 0.310 |
| | Double-pole 2 CO simultaneous, snap action (XESP2021) | | - | Pg 13.5 | ZCKJ2 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ2H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ2H7 | 0.310 |
| | 2-pole NC + NO break before make, slow break (XE2NP2151) | | ⊕ | Pg 13.5 | ZCKJ5 | 0.310 |
| ISO M20 x 1.5 | | | | ZCKJ5H29 | 0.310 | |
| 1/2" NPT | | | | ZCKJ5H7 | 0.310 | |
| 2-pole NO + NC make before break, slow break (XE2NP2161) | | ⊕ | Pg 13.5 | ZCKJ6 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ6H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ6H7 | 0.310 | |
| 2-pole NC + NC simultaneous, slow break (XE2NP2141) | | ⊕ | Pg 13.5 | ZCKJ7 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ7H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ7H7 | 0.310 | |
| 2-pole NO + NO simultaneous, slow break (XE2NP2131) | | - | Pg 13.5 | ZCKJ8 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ8H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ8H7 | 0.310 | |
| 2-pole NC + NC snap action (XE2SP2141) | | ⊕ | Pg 13.5 | ZCKJ9 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ9H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ9H7 | 0.310 | |
| 2 step | Double-pole 2 CO staggered, snap action (XESP2031) | | - | Pg 13.5 | ZCKJ4 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ4H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ4H7 | 0.310 |
| Plug-in bodies | | | | | | |
| 1 step | Single-pole CO snap action | | - | Pg 13.5 | ZCKJ11 | 0.300 |
| | | | | ISO M20 x 1.5 | ZCKJ11H29 | 0.300 |
| | | | | 1/2" NPT | ZCKJ11H7 | 0.300 |
| Double-pole 2 CO simultaneous snap action | | - | Pg 13.5 | ZCKJ21 | 0.300 | |
| | | | ISO M20 x 1.5 | ZCKJ21H29 | 0.300 | |
| | | | 1/2" NPT | ZCKJ21H7 | 0.300 | |
| 2 step | Double-pole 2 CO staggered, snap action | | - | Pg 13.5 | ZCKJ41 | 0.300 |
| | | | | ISO M20 x 1.5 | ZCKJ41H29 | 0.300 |
| | | | | 1/2" NPT | ZCKJ41H7 | 0.300 |
| Bodies with contacts With spring return rotary head (without operating lever) | | | | | | |
| Type | With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
| Fixed body | | | | | | |
| 2 step 1 from the left AND 1 from the right | Double-pole 2 CO staggered, snap action | | - | Pg 13.5 | ZCKJ4046 | 0.455 |
| | | | | ISO M20 x 1.5 | ZCKJ4046H29 | 0.455 |
| | | | | 1/2" NPT | ZCKJ4046H7 | 0.455 |
| Plug-in body | | | | | | |
| 2 step 1 from the left AND 1 from the right | Double-pole 2 CO staggered, snap action | | - | Pg 13.5 | ZCKJ41046 | 0.465 |
| | | | | ISO M20 x 1.5 | ZCKJ41046H29 | 0.465 |
| | | | | 1/2" NPT | ZCKJ41046H7 | 0.465 |

(1) ⊕: head assuring positive opening operation.



ZCKJ4046

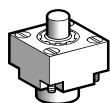
Limit switches

OsiSense XC Standard, industrial format EN 50041

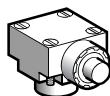
Metal, conforming to CENELEC EN 50041, type XCKJ

Fixed or plug-in body

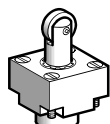
Adaptable sub-assemblies for low temperature applications (-40°C)



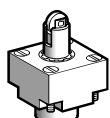
ZCKE616



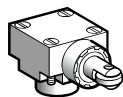
ZCKE636



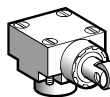
ZCKE626



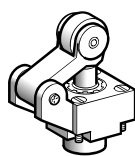
ZCKE676



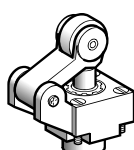
ZCKE646



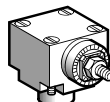
ZCKE656



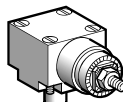
ZCKE216



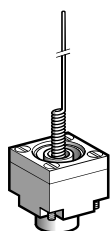
ZCKE236



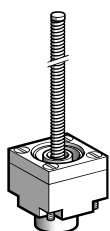
ZCKE056



ZCKE096



ZCKE066



ZCKE086

Plunger heads

| Type of operator | Compatible bodies | Maximum actuation speed | Positive operation (1) | Reference | Weight kg | |
|---|-------------------------------------|-------------------------------------|------------------------|-----------|-----------|-------|
| For actuation on end | | | | | | |
| End plunger metal | ZCKJ●, ZCKJ●● | 0.5 m/s | ⊕ | ZCKE616 | 0.140 | |
| Side plunger metal | ZCKJ●, ZCKJ●●, except ZCKJ4 and J41 | 0.5 m/s | ⊕ | ZCKE636 | 0.200 | |
| For actuation by 30° cam | | | | | | |
| Roller plunger steel | ZCKJ●, ZCKJ●● | 1 m/s | ⊕ | ZCKE626 | 0.155 | |
| End reinforced roller plunger steel | ZCKJ●, ZCKJ●● | 1 m/s | ⊕ | ZCKE676 | 0.155 | |
| Side roller plunger steel | Horizontal | ZCKJ●, ZCKJ●●, except ZCKJ4 and J41 | 0.6 m/s | ⊕ | ZCKE646 | 0.205 |
| | Vertical | ZCKJ●, ZCKJ●●, except ZCKJ4 and J41 | 0.6 m/s | ⊕ | ZCKE656 | 0.205 |
| Roller lever plunger (1 direction of actuation) | Thermoplastic | ZCKJ●, ZCKJ●● | 1.5 m/s | ⊕ | ZCKE216 | 0.185 |
| | Steel | ZCKJ●, ZCKJ●● | 1.5 m/s | ⊕ | ZCKE236 | 0.195 |

Rotary heads (without operating lever)

| Type | Compatible bodies | Maximum actuation speed | Positive operation (1) | Reference | Weight kg |
|---|--------------------------|-------------------------|------------------------|-----------|-----------|
| Spring return, for actuation from left AND right or from left OR right (see page 1/136) | ZCKJ●, ZCKJ●● | 1.5 m/s by 30° cam | ⊕ | ZCKE056 | 0.165 |
| Stay put, for actuation from left AND right (see page 1/136) | ZCKJ1, J11 ZCKJ2, J21 | 0.5 m/s | – | ZCKE096 | 0.190 |

Multi-directional heads

| Type of operator | Compatible bodies | Maximum actuation speed | Positive operation (1) | Reference | Weight kg |
|---|--|--------------------------|------------------------|-----------|-----------|
| For actuation by any moving part | | | | | |
| “Cat’s whisker” | ZCKJ●, ZCKJ●●, except ZCKJ4 and ZCKJ41 | 1 m/s in any direction | – | ZCKE066 | 0.115 |
| Spring rod | ZCKJ●, ZCKJ●●, except ZCKJ4 and ZCKJ41 | 0.5 m/s in any direction | – | ZCKE086 | 0.125 |

(1) ⊕: head assuring positive opening operation.

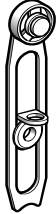
Limit switches

OsiSense XC Standard, industrial format EN 50041
 Metal, conforming to CENELEC EN 50041, type XCKJ
 Fixed or plug-in body
 Adaptable sub-assemblies for low temperature applications (- 40°C)

1



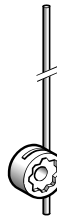
ZCKY1●



ZCKY4●



ZCKY51



ZCKY5●



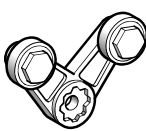
ZCKY59



ZCKY81



ZCKY91



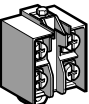
ZCKY71



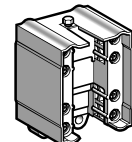
ZCKY61



XE2SP21●1



XE2NP21●1



XES P20●1

Operating levers for rotary heads

| Description | | Positive operation (1) | Reference | Weight kg |
|----------------------------------|-----------------------------|------------------------|-----------|-----------|
| For actuation by 30° cam | | | | |
| Roller lever (2) | Thermoplastic | ⊕ | ZCKY11 | 0.025 |
| | Steel | ⊕ | ZCKY13 | 0.035 |
| | Steel, ball bearing mounted | ⊕ | ZCKY14 | 0.030 |
| Variable length roller lever (3) | Thermoplastic | - | ZCKY41 | 0.030 |
| | Steel | - | ZCKY43 | 0.040 |

For actuation by any moving part

| | | | | |
|----------------------------|----------------------------------|---|--------|-------|
| Square rod (2) | □ 3 mm steel, L = 125 mm | - | ZCKY51 | 0.025 |
| Round rod (2) | ∅ 3 mm steel, L = 125 mm | - | ZCKY53 | 0.025 |
| | ∅ 3 mm glass fibre, L = 125 mm | - | ZCKY52 | 0.020 |
| | ∅ 6 mm thermoplastic, L = 200 mm | - | ZCKY59 | 0.030 |
| Spring lever (3) | | - | ZCKY81 | 0.020 |
| Spring-metal rod lever (3) | | - | ZCKY91 | 0.025 |

For actuation by specific cam (only for operation with head ZCKE096)

| | | | | |
|-----------------------------|---------|---|--------|-------|
| Forked arm with rollers (2) | 1 track | - | ZCKY71 | 0.035 |
| | 2 track | - | ZCKY61 | 0.035 |

2-pole and double-pole contact blocks

| Type of contact | Scheme | For body | Positive operation (1) | Reference | Weight kg |
|---------------------------------------|--------|----------|------------------------|-----------|-----------|
| NC + NO snap action | | ZCKJ1 | ⊕ | XE2SP2151 | 0.020 |
| NC + NO break before make, slow break | | ZCKJ5 | ⊕ | XE2NP2151 | 0.020 |
| 2 CO simultaneous, snap action | | ZCKJ2 | - | XESP2021 | 0.045 |
| 2 CO staggered, snap action | | ZCKJ4 | - | XESP2031 | 0.045 |
| NC + NO make before break, slow break | | ZCKJ6 | ⊕ | XE2NP2161 | 0.020 |
| NC + NC simultaneous, slow break | | ZCKJ7 | ⊕ | XE2NP2141 | 0.020 |
| NO + NO simultaneous, slow break | | ZCKJ8 | - | XE2NP2131 | 0.020 |
| NC + NC snap action | | ZCKJ9 | ⊕ | XE2SP2141 | 0.020 |

(1) ⊕: NC contact with positive opening operation or sub-assembly assuring positive opening operation.

(2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.

(3) Adjustable throughout 360° in 5° steps.

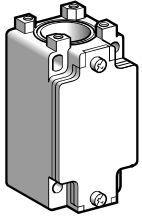
Limit switches

OsiSense XC Standard, industrial format EN 50041

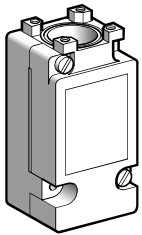
Metal, conforming to CENELEC EN 50041, type XCKJ

Fixed or plug-in body

Adaptable sub-assemblies for high temperature applications (+ 120°C)



ZCKJ●



ZCKJ●15

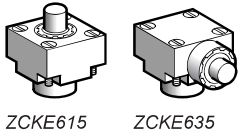
| Bodies with contacts | | For plunger or rotary head | | | | |
|---|--|---|------------------------|---------------|--------------|-----------|
| Type | With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
| Fixed bodies | | | | | | |
| 1 step | 2-pole NC + NO snap action (XE2SP2151) | | ⊕ | Pg 13.5 | ZCKJ1 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ1H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ1H7 | 0.310 |
| | Double-pole 2 CO simultaneous, snap action (XESP20215) | | - | Pg 13.5 | ZCKJ25 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ25H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ25H7 | 0.310 |
| | 2-pole NC + NO break before make, slow break (XE2NP2151) | | ⊕ | Pg 13.5 | ZCKJ5 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ5H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ5H7 | 0.310 |
| | 2-pole NO + NC make before break, slow break (XE2NP2161) | | ⊕ | Pg 13.5 | ZCKJ6 | 0.310 |
| ISO M20 x 1.5 | | | | ZCKJ6H29 | 0.310 | |
| 1/2" NPT | | | | ZCKJ6H7 | 0.310 | |
| 2-pole NC + NC simultaneous, slow break (XE2NP2141) | | ⊕ | Pg 13.5 | ZCKJ7 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ7H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ7H7 | 0.310 | |
| 2-pole NO + NO simultaneous, slow break (XE2NP2131) | | - | Pg 13.5 | ZCKJ8 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ8H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ8H7 | 0.310 | |
| 2-pole NC + NC snap action (XE2SP2141) | | ⊕ | Pg 13.5 | ZCKJ9 | 0.310 | |
| | | | ISO M20 x 1.5 | ZCKJ9H29 | 0.310 | |
| | | | 1/2" NPT | ZCKJ9H7 | 0.310 | |
| 2 step | Double-pole 2 CO staggered, snap action (XESP20315) | | - | Pg 13.5 | ZCKJ45 | 0.310 |
| | | | | ISO M20 x 1.5 | ZCKJ45H29 | 0.310 |
| | | | | 1/2" NPT | ZCKJ45H7 | 0.310 |
| Plug-in bodies | | | | | | |
| 1 step | Single-pole CO snap action | | - | Pg 13.5 | ZCKJ115 | 0.300 |
| | | | | ISO M20 x 1.5 | ZCKJ115H29 | 0.300 |
| | | | | 1/2" NPT | ZCKJ115H7 | 0.300 |
| | Double-pole 2 CO simultaneous, snap action | | - | Pg 13.5 | ZCKJ215 | 0.300 |
| | | | | ISO M20 x 1.5 | ZCKJ215H29 | 0.300 |
| | | | | 1/2" NPT | ZCKJ215H7 | 0.300 |
| 2 step | Double-pole 2 CO staggered, snap action | | - | Pg 13.5 | ZCKJ415 | 0.300 |
| | | | | ISO M20 x 1.5 | ZCKJ415H29 | 0.300 |
| | | | | 1/2" NPT | ZCKJ415H7 | 0.300 |
| Bodies with contacts | | With spring return rotary head (without operating lever) | | | | |
| Type | With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
| Fixed body | | | | | | |
| 2 step 1 from the left AND 1 from the right | Double-pole 2 CO staggered, snap action | | - | Pg 13.5 | ZCKJ4045 | 0.455 |
| | | | | ISO M20 x 1.5 | ZCKJ4045H29 | 0.455 |
| | | | | 1/2" NPT | ZCKJ4045H7 | 0.455 |
| Plug-in body | | | | | | |
| 2 step 1 from the left AND 1 from the right | Double-pole 2 CO staggered, snap action | | - | Pg 13.5 | ZCKJ41045 | 0.465 |
| | | | | ISO M20 x 1.5 | ZCKJ41045H29 | 0.465 |
| | | | | 1/2" NPT | ZCKJ41045H7 | 0.465 |

(1) ⊕: head assuring positive opening operation.

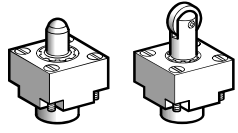
Limit switches

OsiSense XC Standard, industrial format EN 50041
 Metal, conforming to CENELEC EN 50041, type XCKJ
 Fixed or plug-in body
 Adaptable sub-assemblies for high temperature applications (+ 120°C)

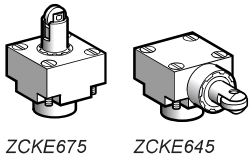
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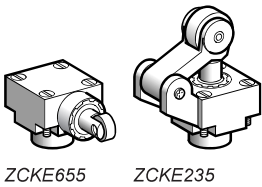
ZCKE615 ZCKE635



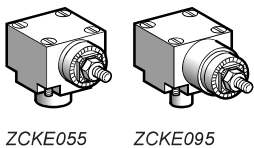
ZCKE665 ZCKE625



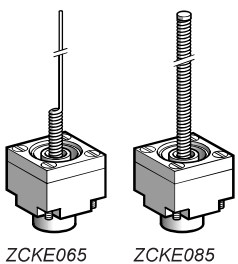
ZCKE675 ZCKE645



ZCKE655 ZCKE235



ZCKE055 ZCKE095



ZCKE065 ZCKE085

| Plunger heads | | | | | | |
|---|------------------|--|--------------------------|------------------------|-----------|-----------|
| Type of operator | | Compatible bodies | Maximum actuation speed | Positive operation (1) | Reference | Weight kg |
| For actuation on end | | | | | | |
| End plunger | Metal | ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9 | 0.5 m/s | ⊕ | ZCKE615 | 0.140 |
| Side plunger | Metal | ZCKJ1, J2, ZCKJ115, J215, ZCKJ5, J6, J7, J8, J9 | 0.5 m/s | ⊕ | ZCKE635 | 0.200 |
| For actuation by 30° cam | | | | | | |
| End ball bearing plunger | Steel | ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9 | 0.1 m/s | ⊕ | ZCKE665 | 0.150 |
| End roller plunger | Steel | ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9 | 1 m/s | ⊕ | ZCKE625 | 0.155 |
| End reinforced roller plunger | Steel | ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9 | 1 m/s | ⊕ | ZCKE675 | 0.155 |
| Side roller plunger | Steel Horizontal | ZCKJ1, J2, ZCKJ115, J215, ZCKJ5, J6, J7, J8, J9 | 0.6 m/s | ⊕ | ZCKE645 | 0.205 |
| | Steel Vertical | ZCKJ1, J2, ZCKJ115, J215, ZCKJ5, J6, J7, J8, J9 | 0.6 m/s | ⊕ | ZCKE655 | 0.205 |
| Roller lever plunger (1 direction of actuation) | Steel | ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9 | 1.5 m/s | ⊕ | ZCKE235 | 0.195 |
| | Thermoplastic | ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9 | 1.5 m/s | ⊕ | ZCKE215 | 0.185 |
| Rotary heads (without operating lever) | | | | | | |
| Type | | Compatible bodies | Maximum actuation speed | Positive operation (1) | Reference | Weight kg |
| Spring return, for actuation from left AND right or from left OR right (see page 1/136) | | ZCKJ1, J2, J4, ZCKJ115, J215, ZCKJ415, ZCKJ5, J6, J7, J8, J9 | 1.5 m/s by 30° cam | ⊕ | ZCKE055 | 0.165 |
| Stay put, actuation from left AND right (see page 1/136) | | ZCKJ1, J2, ZCKJ115, J215 | 0.5 m/s | – | ZCKE095 | 0.190 |
| Multi-directional heads | | | | | | |
| Type of operator | | Compatible bodies | Maximum actuation speed | Positive operation (1) | Reference | Weight kg |
| For actuation by any moving part | | | | | | |
| “Cat’s whisker” | | ZCKJ1, J2, ZCKJ115, J215, ZCKJ5, J6, J7, J8, J9 | 1 m/s in any direction | – | ZCKE065 | 0.115 |
| Spring rod | | ZCKJ1, J2, ZCKJ115, J215, ZCKJ5, J6, J7, J8, J9 | 0.5 m/s in any direction | – | ZCKE085 | 0.125 |

(1) ⊕: head assuring positive opening operation.

Limit switches

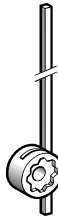
OsiSense XC Standard, industrial format EN 50041
 Metal, conforming to CENELEC EN 50041, type XCKJ
 Fixed or plug-in body
 Adaptable sub-assemblies for high temperature applications (+ 120°C)



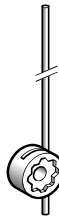
ZCKY1●



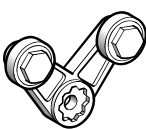
ZCKY43



ZCKY51



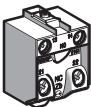
ZCKY5●



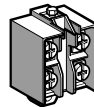
ZCKY715



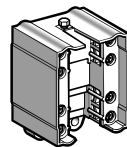
ZCKY615



XE2SP21●1



XE2NP21●1



XESP20●15

Operating levers for rotary heads

| Description | | Positive operation (1) | Reference | Weight kg |
|---|--------------------------------|------------------------|-----------|-----------|
| For actuation by 30° cam | | | | |
| Roller lever (2) | Thermoplastic | ⊕ | ZCKY115 | 0.025 |
| | Steel | ⊕ | ZCKY13 | 0.035 |
| | Steel, ball bearing mounted | ⊕ | ZCKY14 | 0.030 |
| Variable length roller lever (3) | Thermoplastic | – | ZCKY415 | 0.030 |
| | Steel | – | ZCKY43 | 0.040 |
| For actuation by any moving part | | | | |
| Square rod (2) | ∅ 3 mm steel, L = 125 mm | – | ZCKY51 | 0.025 |
| Round rod (2) | ∅ 3 mm steel, L = 125 mm | – | ZCKY53 | 0.025 |
| | ∅ 3 mm glass fibre, L = 125 mm | – | ZCKY52 | 0.020 |
| For actuation by specific cam (only for operation with head ZCKE095) | | | | |
| Forked arm with rollers (2) | 1 track | – | ZCKY715 | 0.035 |
| | 2 track | – | ZCKY615 | 0.035 |

2-pole and double-pole contact blocks

| Type of contact | Scheme | For bodies | Positive operation (1) | Reference | Weight kg |
|---------------------------------------|--------|------------|------------------------|-----------|-----------|
| NC + NO snap action | | ZCKJ1 | ⊕ | XE2SP2151 | 0.020 |
| NC + NO break before make, slow break | | ZCKJ5 | ⊖ | XE2NP2151 | 0.020 |
| 2 CO simultaneous, snap action | | ZCKJ25 | – | XESP20215 | 0.045 |
| 2 CO staggered, snap action | | ZCKJ45 | – | XESP20315 | 0.045 |
| NC + NO make before break, slow break | | ZCKJ6 | ⊖ | XE2NP2161 | 0.020 |
| NC + NC simultaneous, slow break | | ZCKJ7 | ⊖ | XE2NP2141 | 0.020 |
| NO + NO simultaneous, slow break | | ZCKJ8 | – | XE2NP2131 | 0.020 |
| NC + NC snap action | | ZCKJ9 | ⊕ | XE2SP2141 | 0.020 |

(1) ⊕: NC contact with positive opening operation or sub-assembly assuring positive opening operation.
 (2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.
 (3) Adjustable throughout 360° in 5° steps.