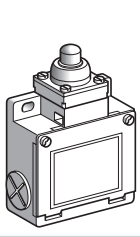
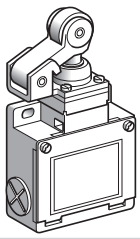
# Limit switches
## XC Standard range, Classic format
Metal, XCKM, XCKL and XCKML

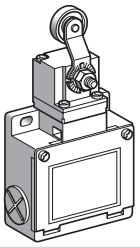
### ■ XCKM, with 3 cable entries

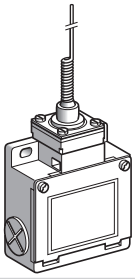
**□ With head for linear movement (plunger)**





**□ With head for rotary movement (lever) or multi-directional**





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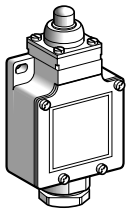
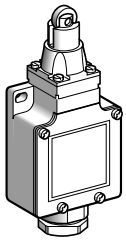
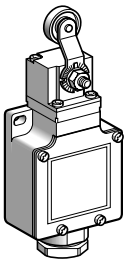
### ■ XCKL, with 1 cable entry

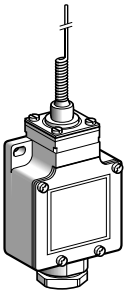
**□ With head for linear movement (plunger)**





**□ With head for rotary movement (lever) or multi-directional**





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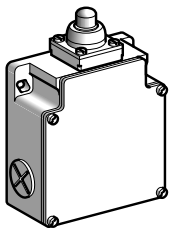
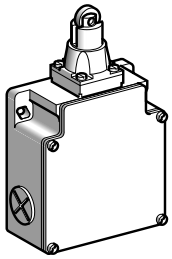
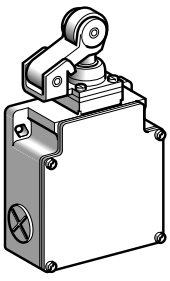
### ■ XCKML, with 3 cable entries and 2 x 2-pole contacts

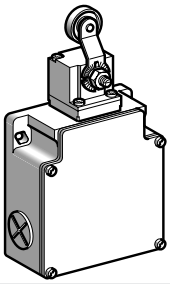
**□ With head for linear movement (plunger)**





**□ With head for rotary movement (lever)**





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## 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<br>CCC (only for XCKM)<br>BV (only for XCKM and XCKL) |
| **Protective treatment** | Version | Standard: “TC”. Special: “TH” |
| **Ambient air temperature** | For operation | - 25…+ 70°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 05 conforming to IEC 62262 |
| **Repeat accuracy** | | **XCKML** 0.1 mm; **XCKM** and **XCKL** 0.05 mm on the tripping points, with 1 million operating cycles for head with end plunger |
| **Cable entry or connector** | Depending on model | **XCKM:** 3 tapped entries for Pg 11 cable gland or tapped ISO M20, or with 1/2" NPT adaptor<br>**XCKL**: 1 tapped entry incorporating Pg 13.5 cable gland or 1 entry tapped 1/2" NPT<br>**XCKML**: 3 tapped entries for Pg 13.5 cable gland or tapped ISO M20 |
| **Materials** | | Bodies: Zamak.<br>Rotary heads: Zamak or plastic, depending on product reference. Other heads: plastic |

## Contact block characteristics

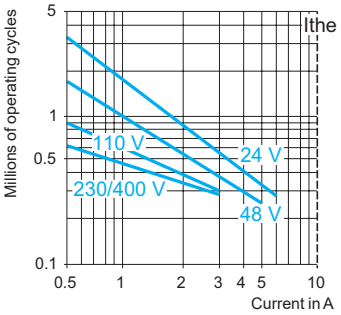
| | | |
|---|---|---|
| **Rated operational characteristics** | XE2●P | ∼ AC-15; A300 (Ue = 240 V, Ie = 3 A); Ithe = 10 A<br>⎓ DC-13; Q300 (Ue = 250 V, Ie = 0.27 A), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1 |
| | XE3●P | ∼ AC-15; B300 (Ue = 240 V, Ie = 1.5 A); Ithe = 6 A<br>⎓ DC-13; R300 (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<br>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<br>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 mm², max: 2 x 1.5 mm² |
| | XE2NP21●1 | Clamping capacity, min: 1 x 0.5 mm², max: 2 x 2.5 mm² |
| | XESP2151L and XENP2151L | Clamping capacity, min: 1 x 0.34 mm², max: 2 x 1.5 mm² or 1 x 2.5 mm² |
| | XE3NP and XE3SP | Clamping capacity, min: 1 x 0.34 mm², max: 1 x 1 mm² or 2 x 0.75 mm² |
| **Minimum actuation speed** | | **XE2SP21●1, XESP2151L** and **XE3S**P: 0.01 m/minute |
| | | **XE2NP21●1, XENP2151L** and **XE3N**P: 6 m/minute |

**Electrical durability**

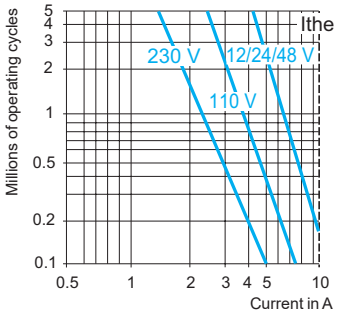
- Conforming to IEC 60947-5-1 Appendix C
- Utilisation categories AC-15 and DC-13
- Maximum operating rate: 3600 operating cycles/hour
- Load factor: 0.5

AC supply
50/60 Hz ∼
⎓ inductive circuit

**XE2SP21●1, XE2SP2141, XESP2151L**




**XE2NP21●1, XENP2151L**




DC supply ⎓

Power broken in W for 5 million operating cycles.

| Voltage | V | 24 | 48 | 120 |
|---|---|---|---|---|
| ⎓ | W | 10 | 7 | 4 |

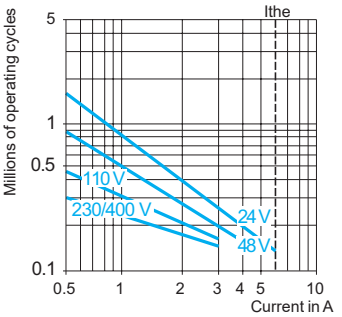
Power broken in W for 5 million operating cycles.

| Voltage | V | 24 | 48 | 120 |
|---|---|---|---|---|
| ⎓ | W | 13 | 9 | 7 |

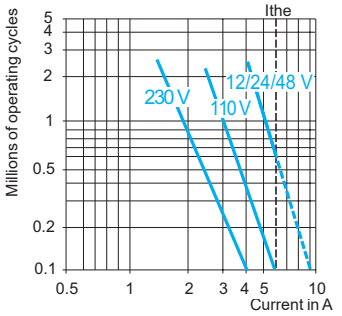
For XE2SP●151 on ∼ or ⎓, NC and NO contacts simultaneously loaded to the values shown with reverse polarity.

AC supply
50/60 Hz ∼
⎓ inductive circuit

**XE3SP●●●●**




**XE3NP●●●●**




DC supply ⎓

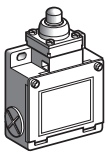
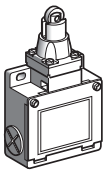
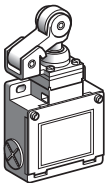
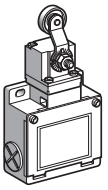
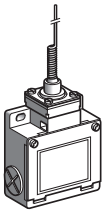
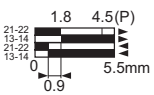
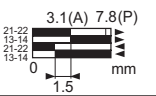
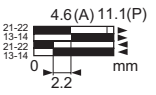
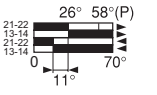
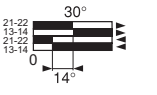
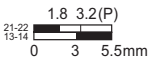
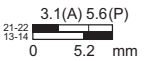
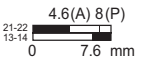
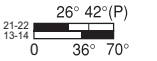
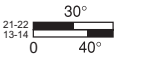
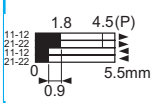
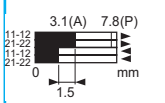
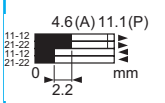
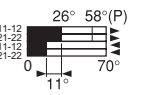
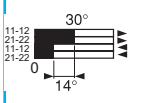
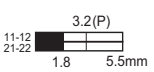
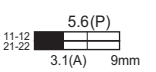
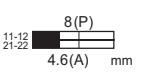
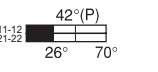
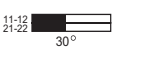
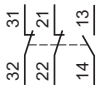
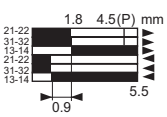
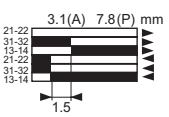
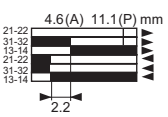
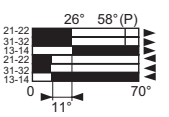
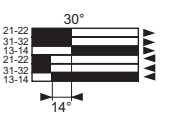
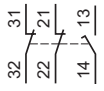
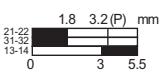
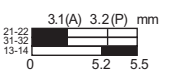
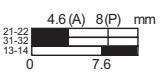
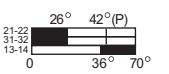
Power broken in W for 5 million operating cycles.

| Voltage | V | 24 | 48 | 120 |
|---|---|---|---|---|
| ⎓ | W | 3 | 2 | 1 |

Power broken in W for 5 million operating cycles.

| Voltage | V | 24 | 48 | 120 |
|---|---|---|---|---|
| ⎓ | W | 4 | 3 | 2 |

# Limit switches
## XC Standard range, Classic format
## Metal, XCKM
## Complete units with 3 cable entries

| Type of head | Plunger (fixing by the body) | | | Rotary (fixing by the body) | Multi-directional, (fixing by the body) |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| **Type of operator** | Metal end plunger | Steel roller plunger | Thermoplastic roller lever plunger, horizontal actuation in 1 direction | Thermoplastic roller lever *(1)* | "Cat's whisker" *(2)* |
| **References of complete units with 3 ISO M20 x 1.5 cable entries** *(3)* | | | | | |
| **2-pole NC + NO snap action (XE2SP2151)**  | **XCKM110H29**  | **XCKM102H29**  | **XCKM121H29**  | **XCKM115H29**  | **XCKM106H29**  |
| **2-pole NC + NO break before make, slow break (XE2NP2151)**  | **XCKM510H29**  | **XCKM502H29**  | **XCKM521H29**  | **XCKM515H29**  | **XCKM506H29**  |
| **2-pole NC + NC snap action (XE2SP2141)**  | **ZCKM9H29 + ZCKD10**  | **ZCKM9H29 + ZCKD02**  | **ZCKM9H29 + ZCKD21**  | **ZCKM9H29 + ZCKD15**  | **ZCKM9H29 + ZCKD06**  |
| **2-pole NC + NC simultaneous, slow break (XE2NP2141)**  | **ZCKM7H29 + ZCKD10**  | **ZCKM7H29 + ZCKD02**  | **ZCKM7H29 + ZCKD21**  | **ZCKM7H29 + ZCKD15**  | **ZCKM7H29 + ZCKD06**  |
| **3-pole NC + NC + NO snap action (XE3SP2141)**  | **ZCKMD39H29 + ZCKD10**  | **ZCKMD39H29 + ZCKD02**  | **ZCKMD39H29 + ZCKD21**  | **ZCKMD39H29 + ZCKD15**  | **ZCKMD39H29 + ZCKD06**  |
| **3-pole NC + NC + NO break before make, slow break (XE3NP2141)**  | **ZCKMD37H29 + ZCKD10**  | **ZCKMD37H29 + ZCKD02**  | **ZCKMD37H29 + ZCKD21**  | **ZCKMD37H29 + ZCKD15**  | **ZCKMD37H29 + ZCKD06**  |
| **Weight (kg)** | 0.250 | 0.255 | 0.300 | 0.280 | 0.250 |
| **Contact operation** | closed / open | *(A) = cam displacement* *(P) = positive opening point* | | ⊖ *NC contact with positive opening operation* | |

## References of complete units with 3 Pg 11 cable entries

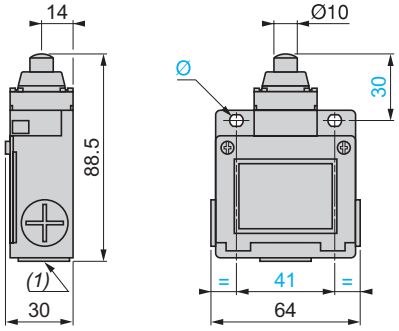
For complete units with 3 Pg 11 cable entries, delete **H29** from the end of the reference. Example: **XCKM110H29** becomes **XCKM110**.

| Characteristics | | | | | | |
|---|---|---|---|---|---|---|
| **Switch actuation** | | On end | By 30° cam | | | By any moving part |
| **Type of actuation** | |  |  |  |  |  |
| **Maximum actuation speed** | | 0.5 m/s | | 1.5 m/s | | 1 m/s (any direction) |
| **Mechanical durability** *(4)* **(in millions of operating cycles)** | | 20 | | | 15 | 10 |
| **Minimum force or torque** | For tripping | 15 N | 12 N | 8 N | 0.1 N.m | 0.13 N.m |
| | For positive opening | 45 N | 36 N | 24 N | 0.25 N.m | – |
| **Cable entry** | | 3 entries tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm | | | | |

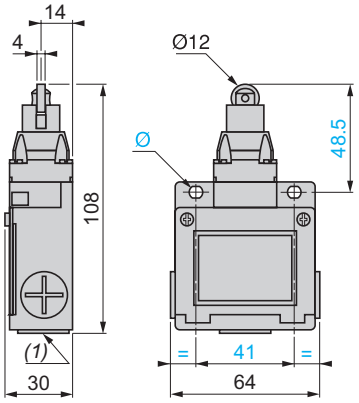
*(1) Adjustable throughout 360° in 5° steps, or in 90° steps by reversing the notched washer.*
*(2) Value taken with actuation by moving part at 100 mm from the fixing.*
*(3) Switches with gold contacts or eyelet type connections: please consult our Customer Care Centre.*
*(4) Limited to 15 million operating cycles for switches with contacts XE3●P.*

# Limit switches
## XC Standard range, Classic format
Metal, XCKM
Complete units with 3 cable entries

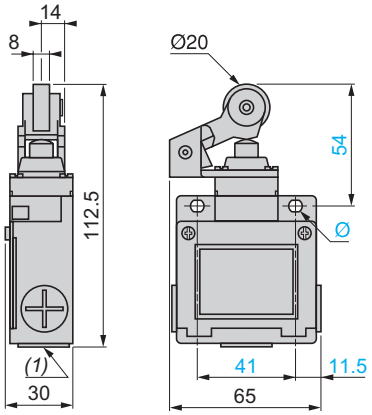
**XCKM●10**
**ZCKMD3● + ZCKD10**



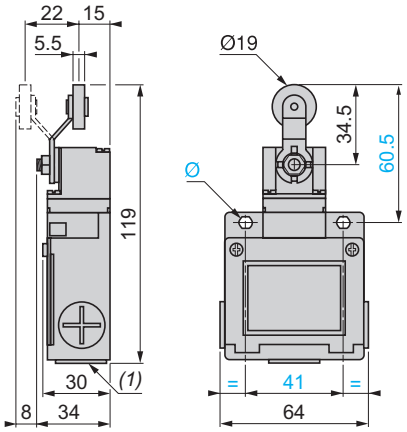

**XCKM●02**
**ZCKMD3● + ZCKD02**



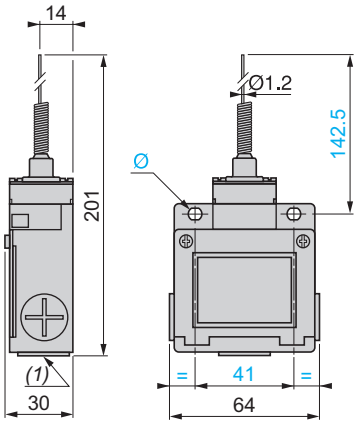

**XCKM●21**
**ZCKMD3● + ZCKD21**



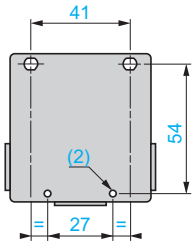

**XCKM●15**
**ZCKMD3● + ZCKD15**




**XCKM●06**
**ZCKMD3● + ZCKD06**

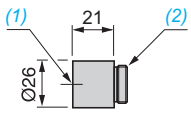



**Rear view XCKM●●●, ZCKM●, ZCKMD3●**




*(1) 3 tapped entries for ISO M20 x 1.5 or Pg 11 cable gland or with 1/2" NPT conduit adaptor DE9RA1012.*
*(2) 2 x Ø 4 H 11, depth 10.*
*Ø: 2 elongated holes Ø 5.2 x 6.2*

**Adaptor for 1/2" NPT conduit**
**DE9RA1012**



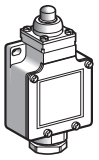
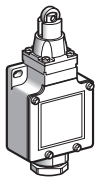
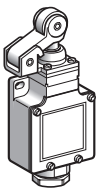
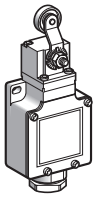
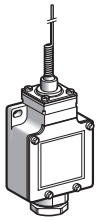
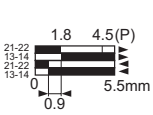
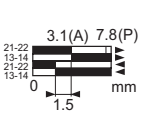
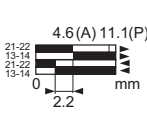
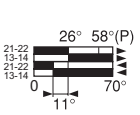
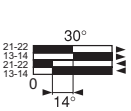
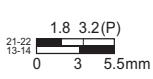
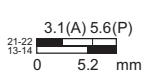
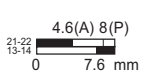
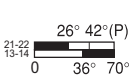
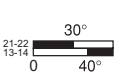
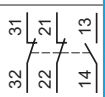
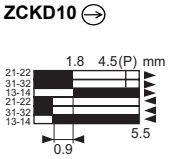
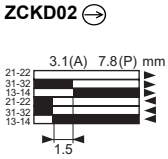
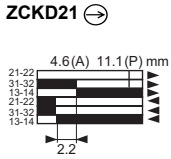
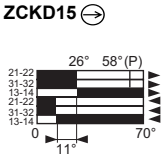
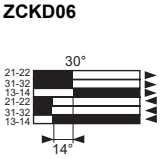
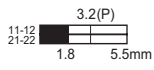
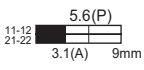
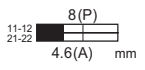
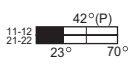
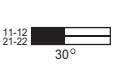
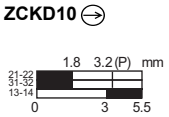
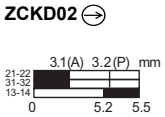
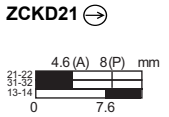
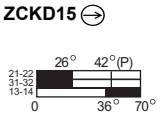
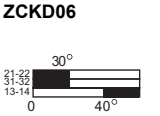

*(1) Tapped entry for 1/2" NPT conduit.*
*(2) Pg 11 threaded sleeve.*

# Limit switches

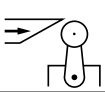
## XC Standard range, Classic format

Metal, XCKL

Complete units incorporating Pg 13.5 cable gland

| Type of head | Plunger (fixing by the body) | | | Rotary (fixing by the body) | Multi-directional, (fixing by the body) |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| **Type of operator** | Metal end plunger | Steel roller plunger | Thermoplastic roller lever plunger, horizontal actuation in 1 direction | Thermoplastic roller lever *(1)* | "Cat's whisker" *(2)* |
| **References** *(3)* | | | | | |
| **2-pole NC + NO snap action (XE2SP2151)**  | **XCKL110**  | **XCKL102**  | **XCKL121**  | **XCKL115**  | **XCKL106**  |
| **2-pole NC + NO break before make, slow break (XE2NP2151)**  | **XCKL510**  | **XCKL502**  | **XCKL521**  | **XCKL515**  | **XCKL506**  |
| **3-pole NC + NC + NO snap action (XE3SP2141)**  | **ZCKLD39 + ZCKD10**  | **ZCKLD39 + ZCKD02**  | **ZCKLD39 + ZCKD21**  | **ZCKLD39 + ZCKD15**  | **ZCKLD39 + ZCKD06**  |
| **2-pole NC + NC simultaneous, slow break (XE2NP2141)**  | **ZCKL7 + ZCKD10**  | **ZCKL7 + ZCKD02**  | **ZCKL7 + ZCKD21**  | **ZCKL7+ ZCKD15**  | **ZCKL7 + ZCKD06**  |
| **3-pole NC + NC + NO break before make, slow break (XE3NP2141)**  | **ZCKLD37 + ZCKD10**  | **ZCKLD37 + ZCKD02**  | **ZCKLD37 + ZCKD21**  | **ZCKLD37 + ZCKD15**  | **ZCKLD37 + ZCKD06**  |
| **Weight (kg)** | 0.255 | 0.260 | 0.305 | 0.285 | 0.255 |
| **Contact operation** | ■ *closed* □ *open* | *(A) = cam displacement* *(P) = positive opening point* | | ⊖ *NC contact with positive opening operation* | |

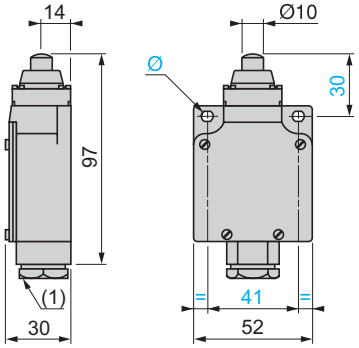
## Characteristics

| | | | | | | |
|---|---|---|---|---|---|---|
| **Switch actuation** | | On end | By 30° cam | | | By any moving part |
| **Type of actuation** | |  |  |  |  |  |
| **Maximum actuation speed** | | 0.5 m/s | | 1.5 m/s | | 1 m/s (any direction) |
| **Mechanical durability** *(4)* **(in millions of operating cycles)** | | 20 | | | 15 | 10 |
| **Minimum force or torque** | For tripping | 15 N | 12 N | 8 N | 0.1 N.m | 0.13 N.m |
| | For positive opening | 45 N | 36 N | 24 N | 0.25 N.m | – |
| **Cable entry** | | 1 entry incorporating metal cable gland. Clamping capacity 6 to 13.5 mm. | | | | |

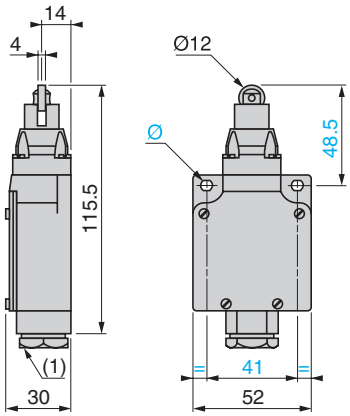
*(1) Adjustable throughout 360° in 5° steps, or in 90° steps by reversing the notched washer.*
*(2) Value taken with actuation by moving part at 100 mm from the fixing.*
*(3) Switches with gold contacts or eyelet type connections: please consult our Customer Care Centre.*
*(4) Limited to 15 million operating cycles for switches with contacts XE3●P.*

# Limit switches
## XC Standard range, Classic format
### Metal, XCKL
### Complete units incorporating Pg 13.5 cable gland

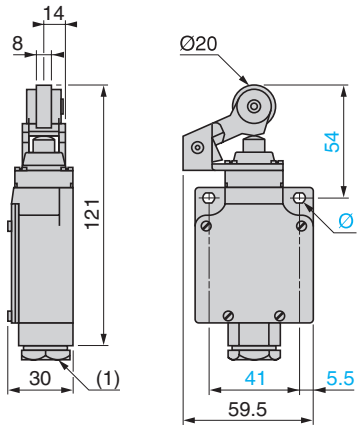
**XCKL●10**
**ZCKL● + ZCKD10**
**ZCKLD3● + ZCKD10**



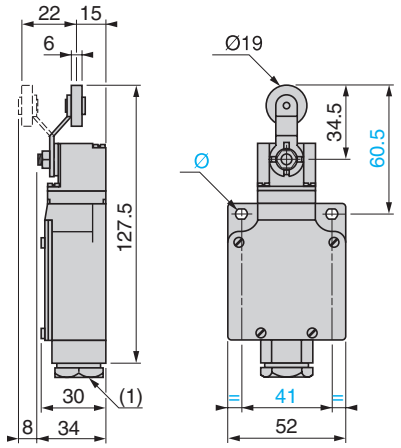

**XCKL●02**
**ZCKL3● + ZCKD02**
**ZCKLD3● + ZCKD02**



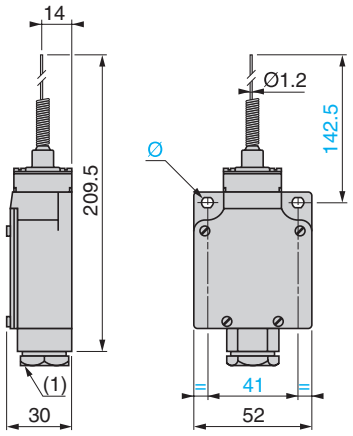

**XCKL●21**
**ZCKL● + ZCKD21**
**ZCKLD3● + ZCKD21**



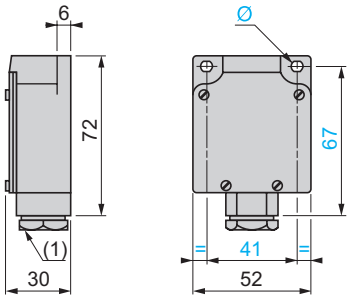

**XCKL●15**
**ZCKL● + ZCKD15**
**ZCKLD3● + ZCKD15**




**XCKL●06**
**ZCKL● + ZCKD06**
**ZCKLD3● + ZCKD06**




**Body fixings**



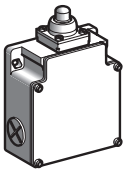
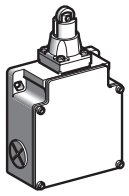
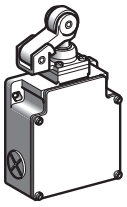
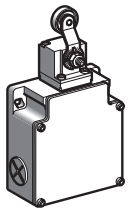
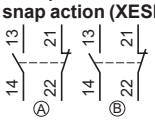
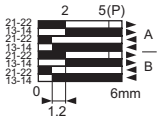
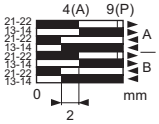
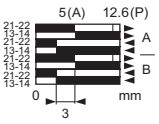
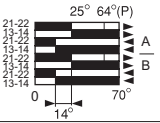
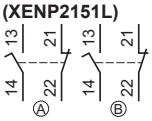
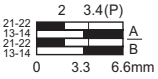
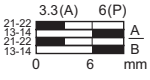
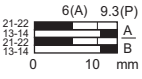
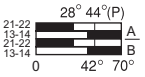
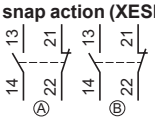
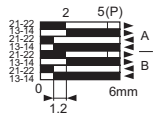
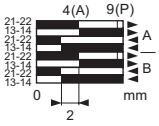
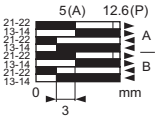
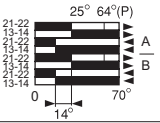
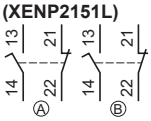
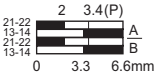
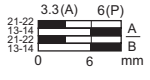
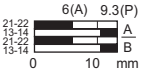
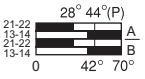

*(1) Incorporated Pg 13.5 cable gland*
*Ø: 2 elongated holes Ø 5.2 x 6.2*

# Limit switches

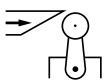
## XC Standard range, Classic format

Metal, 2 x 2-pole contacts, XCKML

Complete switches with 3 cable entries

| Type of head | Plunger (fixing by the body) | | | Rotary (fixing by the body) |
|---|---|---|---|---|
| |  |  |  |  |
| **Type of operator** | Metal end plunger | Steel roller plunger | Thermoplastic roller lever plunger, horizontal actuation in 1 direction | Thermoplastic roller lever *(1)* |
| **References of complete switches with 3 ISO M20 x 1.5 cable entries** *(2)* | | | | |
| **2 x 2-pole NC + NO snap action (XESP2151L)**  | **XCKML110H29** ⊖  | **XCKML102H29** ⊖  | **XCKML121H29** ⊖  | **XCKML115H29** ⊖  |
| **2 x 2-pole NC + NO break before make, slow break (XENP2151L)**  | **XCKML510H29** ⊖  | **XCKML502H29** ⊖  | **XCKML521H29** ⊖  | **XCKML515H29** ⊖  |
| **References of complete switches with 3 entries tapped for n° 13 cable gland** *(2)* | | | | |
| **2 x 2-pole NC + NO snap action (XESP2151L)**  | **XCKML110** ⊖  | **XCKML102** ⊖  | **XCKML121** ⊖  | **XCKML115** ⊖  |
| **2 x 2-pole NC + NO break before make, slow break (XENP2151L)**  | **XCKML510** ⊖  | **XCKML502** ⊖  | **XCKML521** ⊖  | **XCKML515** ⊖  |
| **Weight (kg)** | 0.400 | 0.405 | 0.450 | 0.430 |
| **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 | | |
| **Type of actuation** | |  |  |  |  |
| **Maximum actuation speed** | | 0.5 m/s | | 1.5 m/s | |
| **Mechanical durability** | | 3 million operating cycles | | | |
| **Minimum force** | For tripping | 15 N | 12 N | 8 N | 0.2 N.m |
| | For positive opening | 60 N | 50 N | 50 N | 0.5 N.m |
| **Cable entry** | | 3 entries tapped ISO M20 x 1.5, clamping capacity 7 to 13 mm, or 3 entries tapped for n° 13 cable gland conforming to NF C 68-300 (DIN Pg 13.5), clamping capacity 9 to 12 mm. | | | |

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

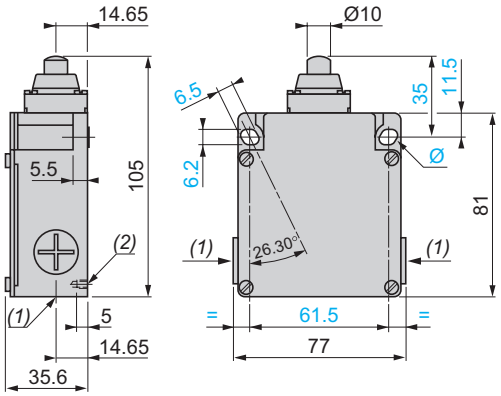
*(2) Switches available with other 2-pole slow break contact blocks: NO + NC make before break, NC + NC simultaneous (with positive opening operation), NO + NO simultaneous. Please consult our Customer Care Centre.*

***Note: replacement parts***

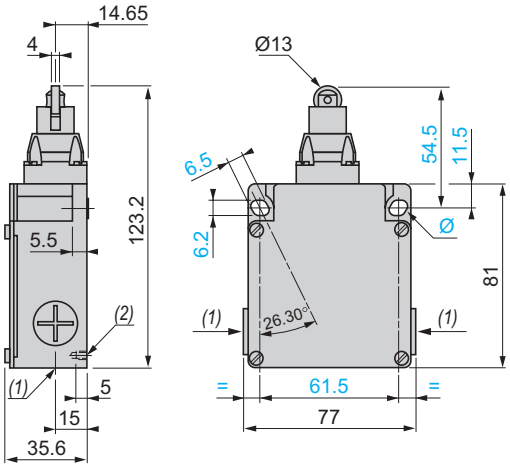
*The heads of limit switches XCKML are the same as those for XCKM and XCKL (see heads **ZCKD10**, **ZCKD02**, **ZCKD21** and **ZCKD15** on page 128).*

# Limit switches
## XC Standard range, Classic format
Metal, 2 x 2-pole contacts, XCKML
Complete switches with 3 cable entries

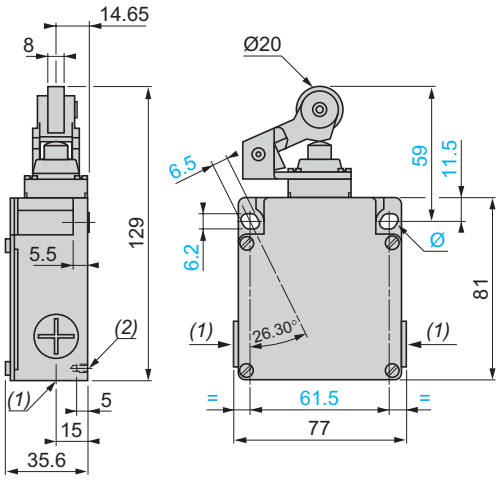
**XCKML110H29, XCKML510H29, XCKML110, XCKML510**



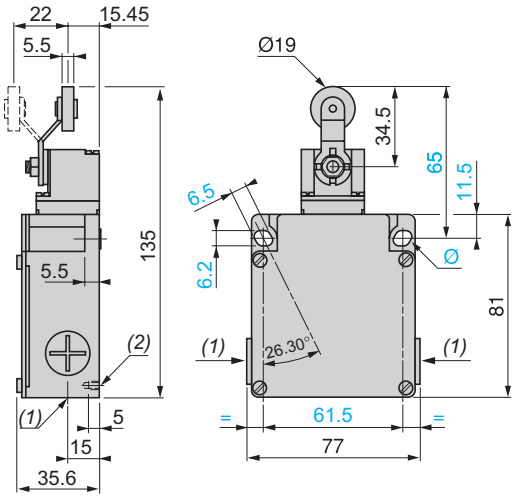

**XCKML102H29, XCKML502H29, XCKML102, XCKML502**




**XCKML121H29, XCKML521H29, XCKML121, XCKML521**

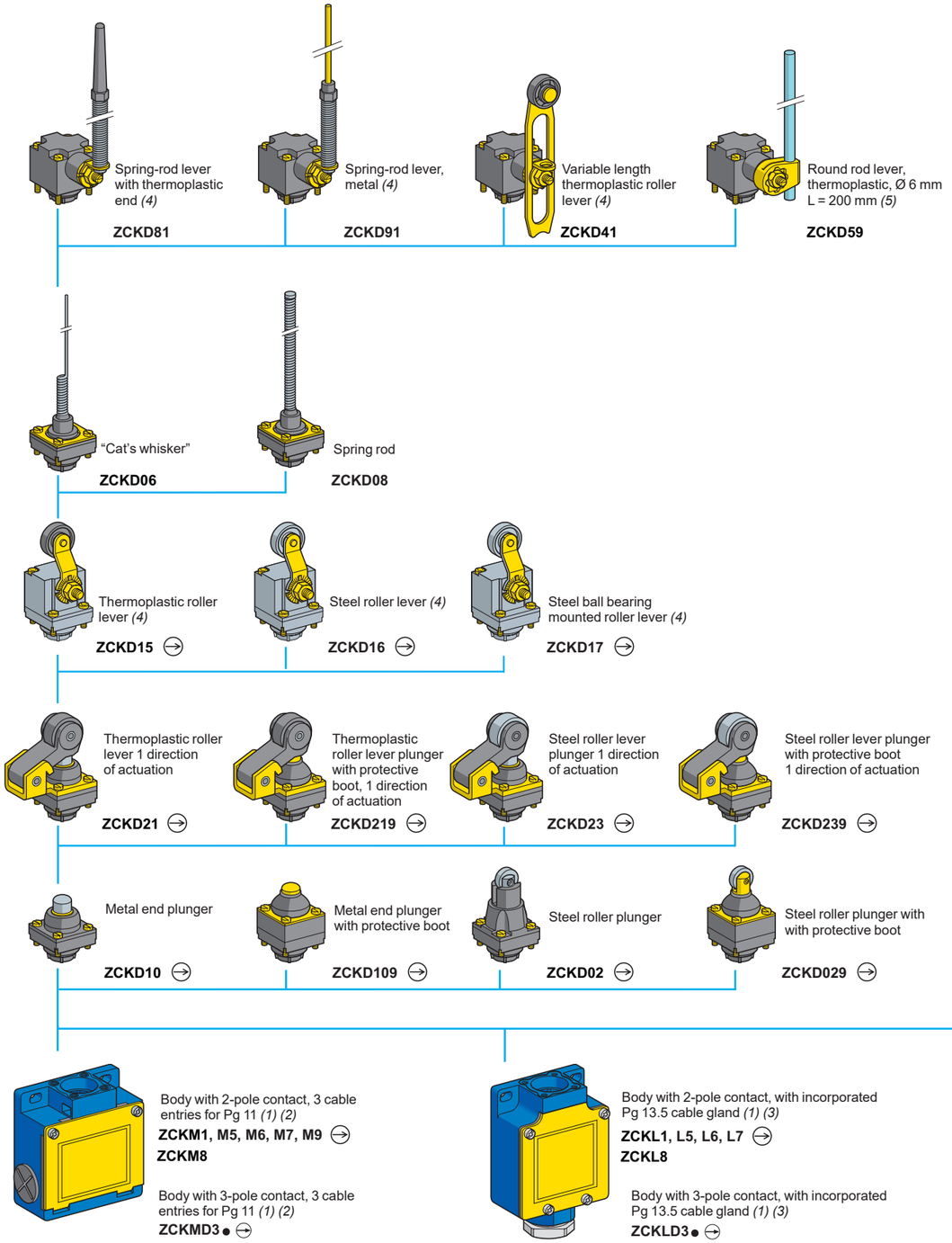


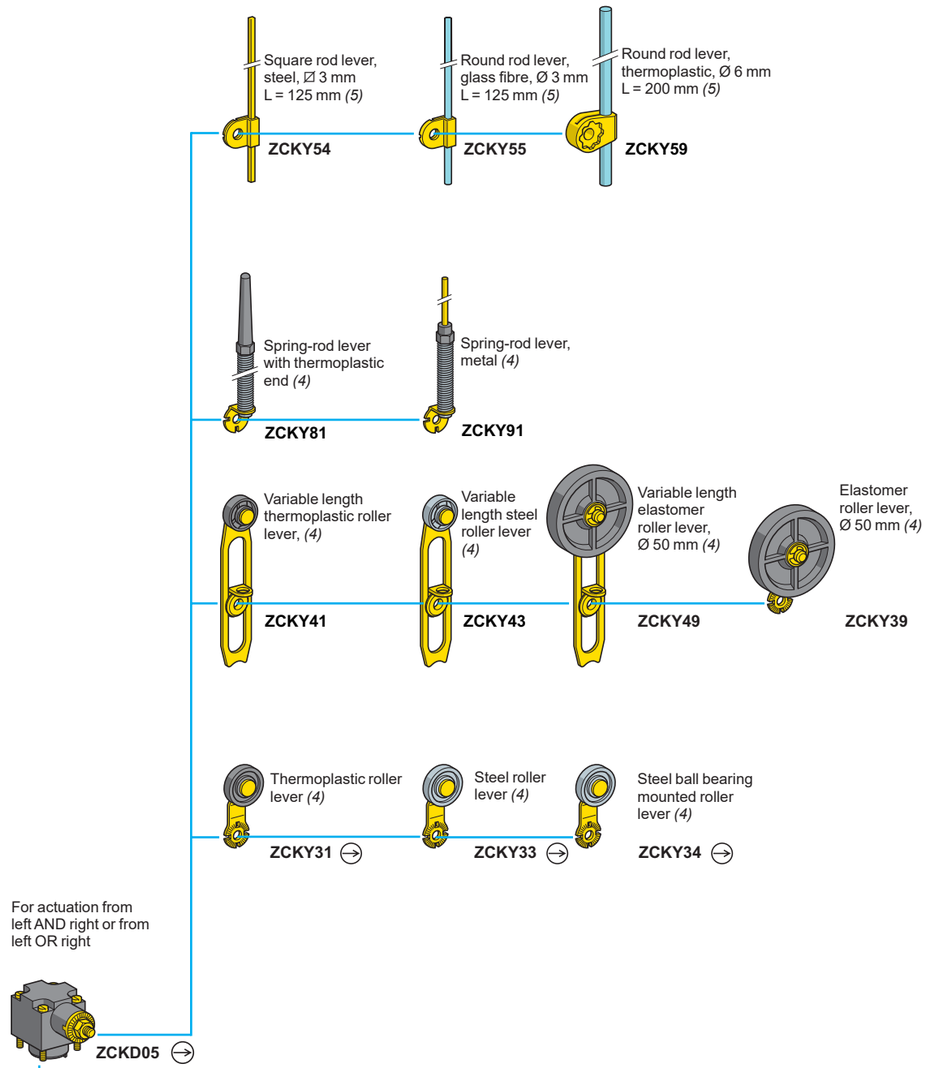

**XCKML115H29, XCKML515H29, XCKML115, XCKML515**




*(1) **XCKML●●●H29**: 3 entries tapped M20 x 1.5. **XCKML●●●**: 3 tapped entries for n° 13 cable gland.*
*(2) 2 centring holes Ø 3.9 ± 0.2, for cover fixing holes alignment.*
*Ø 2 elongated holes 6.2 x 6.5, inclined at 26° 30' to the vertical axis, for M5 screws.*

# Limit switches
## XC Standard range, Classic format
## Metal, XCKM and XCKL
## Variable composition

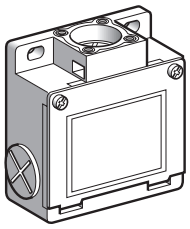


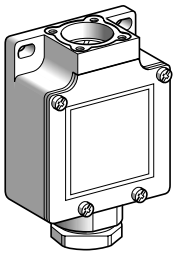

*(1) For further information, see page 130.*
*(2) For 3 cable entries tapped ISO M20 x 1.5, add **H29** to the reference. Example: ZCKM1 becomes **ZCKM1H29**.*
*For one cable entry with 1/2" NPT adaptor, add **H7** to the reference. Example: ZCKM1 becomes **ZCKM1H7**.*
*(3) For one cable entry tapped 1/2" NPT, add **H7** to the reference. Example: ZCKL1 becomes **ZCKL1H7**.*

*⊖: 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.*

# Limit switches
## XC Standard range, Classic format
### Metal, XCKM and XCKL
### Adaptable sub-assemblies



ZCKM●



ZCKL●

## Bodies with 2-pole contact

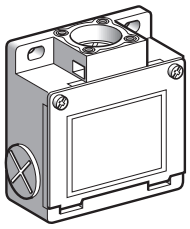
| With contact block | Scheme | Positive operation *(1)* | Cable entry | Reference | Weight kg |
|---|---|---|---|---|---|
| **For limit switches XCKM** | | | | | |
| **NC + NO snap action (XE2SP2151)** |  | ⊖ | Pg 11 | **ZCKM1** | 0.210 |
| | | | ISO M20 x 1.5 | **ZCKM1H29** | 0.210 |
| | | | 1/2" NPT *(2)* | **ZCKM1H7** | 0.210 |
| **NC + NO break before make, slow break (XE2NP2151)** |  | ⊖ | Pg 11 | **ZCKM5** | 0.210 |
| | | | ISO M20 x 1.5 | **ZCKM5H29** | 0.210 |
| | | | 1/2" NPT *(2)* | **ZCKM5H7** | 0.210 |
| **NO + NC make before break, slow break (XE2NP2161)** |  | ⊖ | Pg 11 | **ZCKM6** | 0.210 |
| | | | ISO M20 x 1.5 | **ZCKM6H29** | 0.210 |
| | | | 1/2" NPT *(2)* | **ZCKM6H7** | 0.210 |
| **NC + NC simultaneous, slow break (XE2NP2141)** |  | ⊖ | Pg 11 | **ZCKM7** | 0.210 |
| | | | ISO M20 x 1.5 | **ZCKM7H29** | 0.210 |
| | | | 1/2" NPT *(2)* | **ZCKM7H7** | 0.210 |
| **NO + NO simultaneous, slow break (XE2NP2131)** |  | – | Pg 11 | **ZCKM8** | 0.210 |
| | | | ISO M20 x 1.5 | **ZCKM8H29** | 0.210 |
| | | | 1/2" NPT *(2)* | **ZCKM8H7** | 0.210 |
| **NC + NC snap action (XE2SP2141)** |  | ⊖ | Pg 11 | **ZCKM9** | 0.210 |
| | | | ISO M20 x 1.5 | **ZCKM9H29** | 0.210 |
| **For limit switches XCKL** | | | | | |
| **NC + NO snap action (XE2SP2151)** |  | ⊖ | Pg 13.5 | **ZCKL1** *(3)* | 0.210 |
| | | | 1/2" NPT | **ZCKL1H7** | 0.210 |
| **NC + NO break before make, slow break (XE2NP2151)** |  | ⊖ | Pg 13.5 | **ZCKL5** *(3)* | 0.210 |
| | | | 1/2" NPT | **ZCKL5H7** | 0.210 |
| **NO + NC make before break, slow break (XE2NP2161)** |  | ⊖ | Pg 13.5 | **ZCKL6** *(3)* | 0.210 |
| | | | 1/2" NPT | **ZCKL6H7** | 0.210 |
| **NC + NC simultaneous, slow break (XE2NP2141)** |  | ⊖ | Pg 13.5 | **ZCKL7** *(3)* | 0.210 |
| | | | 1/2" NPT | **ZCKL7H7** | 0.210 |
| **NO + NO simultaneous, slow break (XE2NP2131)** |  | – | Pg 13.5 | **ZCKL8** *(3)* | 0.210 |
| | | | 1/2" NPT | **ZCKL8H7** | 0.210 |

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

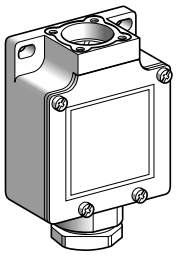
*(2) 3 tapped entries, one with metal adaptor for 1/2" NPT (USASB2-1) conduit.*

*(3) Pg 13.5 cable gland included with switch.*

# Limit switches
## XC Standard range, Classic format
## Metal, XCKM and XCKL
## Adaptable sub-assemblies

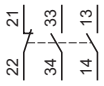
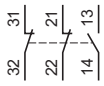
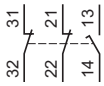
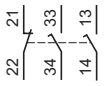
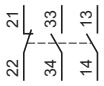
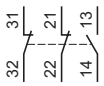
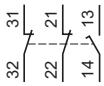
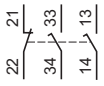


ZCKMD3●



ZCKLD3●

### Bodies with 3-pole contact

| With contact block | Scheme | Positive operation (1) | Cable entry | Reference | Weight kg |
|---|---|---|---|---|---|
| **For limit switches XCKM** | | | | | |
| **NC + NO + NO snap action (XE3SP2151)** |  | ⊖ | Pg 11 | **ZCKMD31** | 0.210 |
| | | | ISO M20 x 1.5 | **ZCKMD31H29** | 0.210 |
| | | | 1/2" NPT (2) | **ZCKMD31H7** | 0.210 |
| **NC + NC + NO snap action (XE3SP2141)** |  | ⊖ | Pg 11 | **ZCKMD39** | 0.210 |
| | | | ISO M20 x 1.5 | **ZCKMD39H29** | 0.210 |
| | | | 1/2" NPT (2) | **ZCKMD39H7** | 0.210 |
| **NC + NC + NO break before make, slow break (XE3NP2141)** |  | ⊖ | Pg 11 | **ZCKMD37** | 0.210 |
| | | | ISO M20 x 1.5 | **ZCKMD37H29** | 0.210 |
| | | | 1/2" NPT (2) | **ZCKMD37H7** | 0.210 |
| **NC + NO + NO break before make, slow break (XE3NP2151)** |  | ⊖ | Pg 11 | **ZCKMD35** | 0.210 |
| | | | ISO M20 x 1.5 | **ZCKMD35H29** | 0.210 |
| | | | 1/2" NPT (2) | **ZCKMD35H7** | 0.210 |
| **For limit switches XCKL** | | | | | |
| **NC + NO + NO snap action (XE3SP2151)** |  | ⊖ | Pg 13.5 | **ZCKLD31** (3) | 0.210 |
| | | | 1/2" NPT | **ZCKLD31H7** | 0.210 |
| **NC + NC + NO snap action (XE3SP2141)** |  | ⊖ | Pg 13.5 | **ZCKLD39** (3) | 0.210 |
| | | | 1/2" NPT | **ZCKLD39H7** | 0.210 |
| **NC + NC + NO break before make, slow break (XE3NP2141)** |  | ⊖ | Pg 13.5 | **ZCKLD37** (3) | 0.210 |
| | | | 1/2" NPT | **ZCKLD37H7** | 0.210 |
| **NC + NO + NO break before make, slow break (XE3NP2151)** |  | ⊖ | Pg 13.5 | **ZCKLD35** (3) | 0.210 |
| | | | 1/2" NPT | **ZCKLD35H7** | 0.210 |

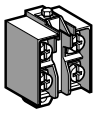
*(1) ⊖ : NC contact with positive opening operation.*

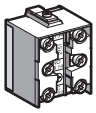
*(2) 3 tapped entries, one with metal adaptor for 1/2" NPT (USASB2-1) conduit.*

*(3) Pg 13.5 cable gland included with switch.*

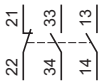
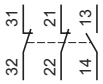
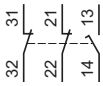
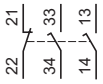
# Limit switches
## XC Standard range, Classic format
## Metal, XCKM and XCKL
## Adaptable sub-assemblies


XE2SP21●1


XE2NP21●1


XE3●P21●●

### Contact blocks

| Type of contact | Scheme | For bodies | Positive operation (1) | Reference | Weight kg |
|---|---|---|---|---|---|
| **2-pole contact** | | | | | |
| **NC + NO snap action** |  | ZCKM1 ZCKL1 | ⊖ | **XE2SP2151** | 0.020 |
| **NC + NO break before make, slow break** |  | ZCKM5 ZCKL5 | ⊖ | **XE2NP2151** | 0.020 |
| **NO + NC make before break, slow break** |  | ZCKM6 ZCKL6 | ⊖ | **XE2NP2161** | 0.020 |
| **NC + NC simultaneous, slow break** |  | ZCKM7 ZCKL7 | ⊖ | **XE2NP2141** | 0.020 |
| **NO + NO simultaneous, slow break** |  | ZCKM8 ZCKL8 | – | **XE2NP2131** | 0.020 |
| **NC + NC snap action** |  | ZCKM9 | ⊖ | **XE2SP2141** | 0.020 |
| **3-pole contact** | | | | | |
| **NC + NO + NO snap action** |  | ZCKMD31 ZCKLD31 | ⊖ | **XE3SP2151** | 0.035 |
| **NC + NC + NO snap action** |  | ZCKMD39 ZCKLD39 | ⊖ | **XE3SP2141** | 0.035 |
| **NC + NC + NO break before make, slow break** |  | ZCKMD37 ZCKLD37 | ⊖ | **XE3NP2141** | 0.035 |
| **NC + NO + NO break before make, slow break** |  | ZCKMD35 ZCKLD35 | ⊖ | **XE3NP2151** | 0.035 |

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


XCKZ09

### Accessory for limit switches XCKM

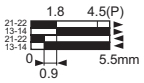
| Description | Sold in lots of | Unit reference | Weight kg |
|---|---|---|---|
| **Tap-off terminal** for cabling continuity | 1 | **XCKZ09** | 0.010 |

**Other versions** Gold flashed contacts.
Please consult our Customer Care Centre.

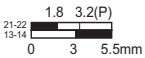
# Limit switches
## XC Standard range, Classic format
## Metal, XCKM and XCKL
## Adaptable sub-assemblies

### Heads ZCKD10, D109 with body

**ZCKM1, L1**




**ZCKM5, L5**



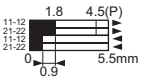

**ZCKM6, L6**


**ZCKM7, L7**

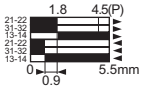

**ZCKM8, L8**



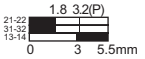

**ZCKM9**



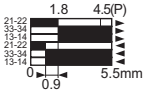

**ZCKMD39, LD39**



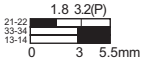

**ZCKMD37, LD37**




**ZCKMD31, LD31**

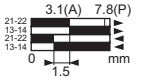



**ZCKMD35, LD35**

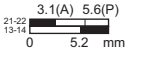



### Heads ZCKD02, D029 with body

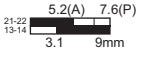
**ZCKM1, L1**




**ZCKM5, L5**




**ZCKM6, L6**

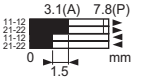



**ZCKM7, L7**

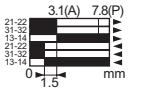

**ZCKM8, L8**



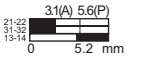

**ZCKM9**



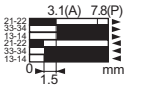

**ZCKMD39, LD39**



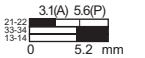

**ZCKMD37, LD37**




**ZCKMD31, LD31**

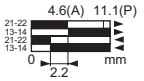



**ZCKMD35, LD35**

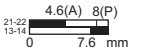



### Heads ZCKD21, D23, D219, D239 with body

**ZCKM1, L1**




**ZCKM5, L5**



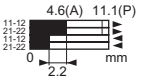

**ZCKM6, L6**


**ZCKM7, L7**

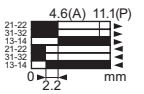

**ZCKM8, L8**



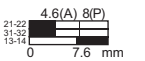

**ZCKM9**



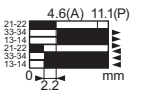

**ZCKMD39, LD39**



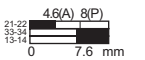

**ZCKMD37, LD37**




**ZCKMD31, LD31**

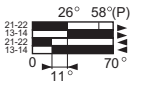



**ZCKMD35, LD35**

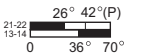



### Heads ZCKD15, D16, D17 with body

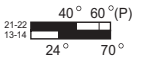
**ZCKM1, L1**




**ZCKM5, L5**




**ZCKM6, L6**

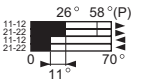



**ZCKM7, L7**

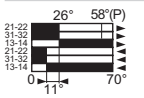

**ZCKM8, L8**



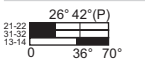

**ZCKM9**



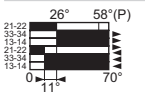

**ZCKMD39, LD39**



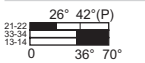

**ZCKMD37, LD37**




**ZCKMD31, LD31**




**ZCKMD35, LD35**




### Heads ZCKD41, D59, D81, D91 with body

**ZCKM1, L1**




**ZCKM5, L5**




**ZCKM6, L6**




**ZCKM7, L7**




**ZCKM8, L8**




**ZCKM9**




**ZCKMD39, LD39**




**ZCKMD37, LD37**




**ZCKMD31, LD31**




**ZCKMD35, LD35**




### Heads ZCKD06, D08 with body

**ZCKM1, L1**




**ZCKM5, L5**




**ZCKM6, L6**




**ZCKM7, L7**




**ZCKM8, L8**




**ZCKM9**




**ZCKMD39, LD39**




**ZCKMD37, LD37**




**ZCKMD31, LD31**




**ZCKMD35, LD35**



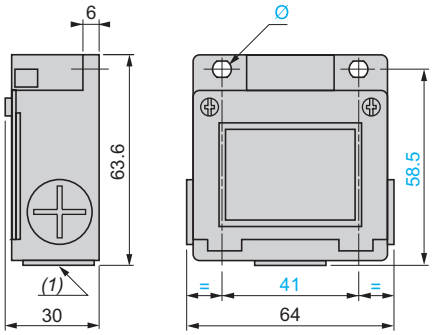

Contact operation — closed / open

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

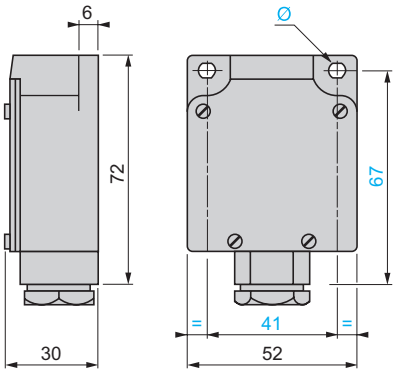
# Limit switches
## XC Standard range, Classic format
## Metal, XCKM and XCKL
## Adaptable sub-assemblies

### Bodies with contacts

**ZCKM1, M5, M6, M7, M8, M9, MD3●, MD3H●29, MD3●H7**
**ZCKM1H29, M5H29, M6H29, M7H29, M8H29, M9H29**
**ZCKM1H7, M5H7, M6H7, M7H7, M8H7**

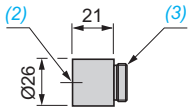



**ZCKL1, L5, L6, L7, L8, LD3●** (with incorporated Pg 13.5 cable gland)
**ZCKL1H7, L5H7, L6H7, L7H7, L8H7, LD3●H7** (with 1/2" NPT cable entry)




### Adaptor for 1/2" NPT conduit

**DE9RA1012**

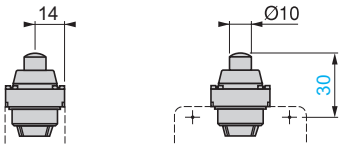



*(1) 3 tapped entries for ISO M20 x 1.5 or Pg 11 cable gland.*
*Ø: 2 elongated holes Ø 5.2 x 6.2*
*(2) Tapped entry for 1/2" NPT conduit.*
*(3) Pg 11 threaded sleeve.*

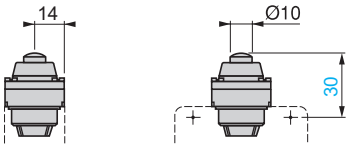
# Limit switches
## XC Standard range, Classic format
## Metal, XCKM and XCKL
## Adaptable sub-assemblies

### Plunger heads

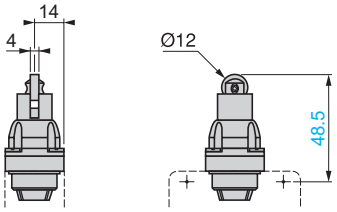
**ZCKD10**



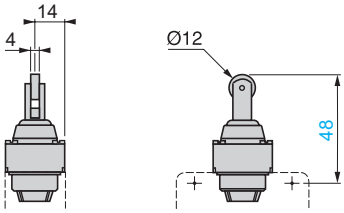

**ZCKD109**



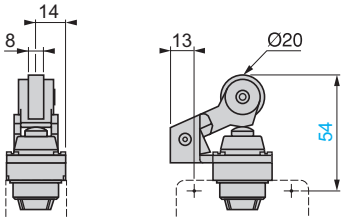

**ZCKD02**



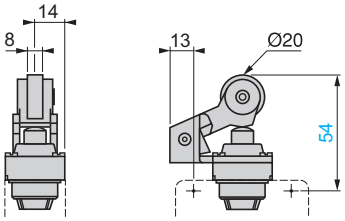

**ZCKD029**




**ZCKD21, ZCKD23**

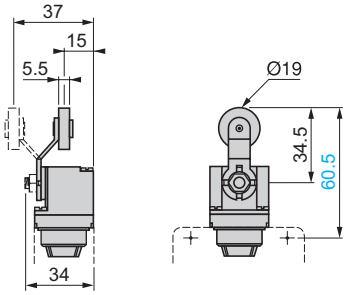



**ZCKD219, ZCKD239**

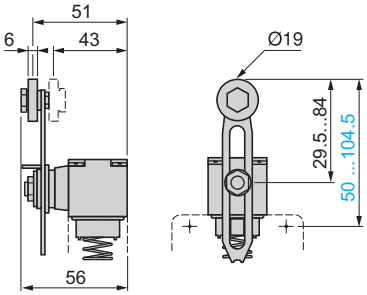



### Rotary heads

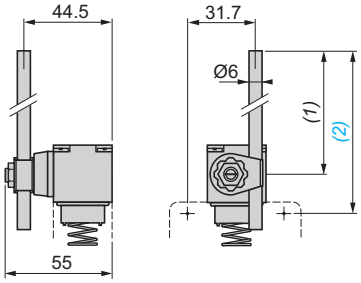
**ZCKD15, ZCKD16, ZCKD17**



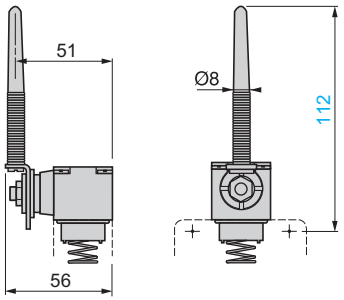

**ZCKD41**



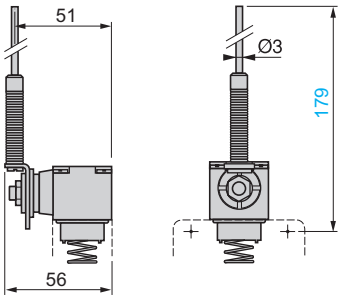

**ZCKD59**




**ZCKD81**

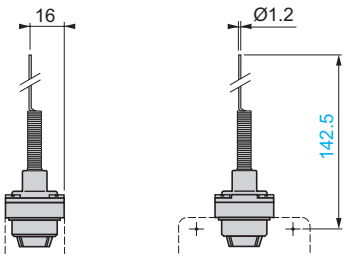



**ZCKD91**

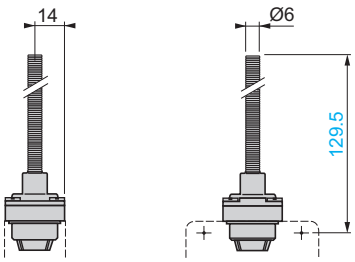



### Multi-directional heads

**ZCKD06**




**ZCKD08**




*(1) 190 max.*
*(2) 215.5 max.*

***Note:*** *operating lever spindle threaded M6.*