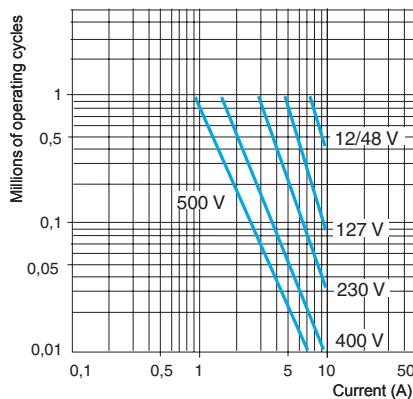


| Environment | | | |
|--|---------------------------------|-----|---|
| Conformity to standards | | | EN/IEC 60947-5-1, CSA C22-2 n° 14 |
| Product certifications | | | CSAA600, Q 600, CCC, RMRS |
| Protective treatment | | | Standard version “TC” |
| Ambient air temperature | For storage | °C | - 40...+ 70 |
| | For operation | °C | - 20...+ 70 |
| Operating position | | | All positions |
| Vibration resistance | | | 2 gn (10 to 500 Hz) conforming to IEC 60068-2-6 |
| Shock resistance | | | 15 gn, duration 11 ms, conforming to IEC 60068-2-27 |
| Electric shock protection | | | Class I, conforming to IEC 61140 |
| Maximum operating lever force required in each direction | | daN | Notched positions, with stayput operation: < 1.5 Notched or unnotched positions, with spring return to zero operation: < 3.5 |
| Degree of protection | | | IP 54 conforming to IEC 60529 (unit with simple handle mounted in dust and damp proof enclosure) |
| Mechanical durability | In millions of operating cycles | | XKD F : 3 in each direction |
| Weight | XKD F | kg | Mechanical block: 0.950 4-contact assembly: 0.350 8-contact assembly: 0.560 |

| Contact block characteristics | | |
|-------------------------------|-----------|---|
| Type | | N/C contact (ZB2 BE102) |
| Conventional thermal current | A | 10 conforming to IEC 60947-5-1, CSA C 22-2 n° 14 |
| Rated insulation voltage | V | ≈ 500 conforming to IEC 60947-1, degree of pollution 3 |
| Contact operation | | Slow break, double-break contacts with positive opening operation |
| Resistance across terminals | mΩ | ≤ 25 (in accordance with NF C 93-050, at 1 A) |
| Short-circuit protection | | 10 A cartridge fuse type gG conforming to IEC 337-1B, VDE 0660 part 2 |

Operational power
 Conforming to IEC 337-1
 Utilisation categories AC-11 and DC-11
 Operating rate: 3600 operating cycles/hour
 Load factor: 0.5

a.c. supply ~ 50-60 Hz
 Inductive circuit



d.c. supply ---

Power broken in W for 1 million operating cycles

| Voltage V | 24 | 48 | 120 |
|-----------|----|----|-----|
| <i>m</i> | 65 | 48 | 40 |

| | |
|------------|--|
| Connection | Captive screw clamp terminals Clamping capacity: <input type="checkbox"/> minimum 1 x 0.5 mm ² , <input type="checkbox"/> maximum, with or without cable end: 2 x 1.5 mm ² or 1 x 2.5 mm ² |
|------------|--|

Reference of controller type XKD

| | Lever | Handle | Movement AB | | | Movement CD | | |
|--------------|----------|--------|---------------|----------------|--------------------------|---------------|----------------|--------------------------|
| | | | No. of blocks | Lever movement | Potentiometer adaptation | No. of blocks | Lever movement | Potentiometer adaptation |
| XKD F | 1 | | | | | | | |

Control lever

Standard model, length 200 mm

Handle

| | |
|--|---|
| Simple (standard model) | 1 |
| With zero (centre) position mechanical interlocking | 2 |
| With zero (centre) position mechanical & electrical interlocking (1 C/O contact) | 3 |
| “Dead man’s” type | |
| With N/C + N/O contact | 4 |
| With N/O + N/O contact | 5 |
| With built-in flush pushbutton | |
| With N/C + N/O contact | 6 |
| With N/O + N/O contact | 7 |
| With built-in projecting pushbutton | |
| With N/C + N/O contact | 8 |
| With N/O + N/O contact | 9 |

Movement AB

Number of 2-contact blocks

| | |
|----------|---|
| 0 blocks | 0 |
| 1 block | 1 |
| 2 blocks | 2 |
| 3 blocks | 3 |
| 4 blocks | 4 |
| 5 blocks | 5 |
| 6 blocks | 6 |
| 8 blocks | 8 |

Type of lever movement

| | | |
|---|---|---|
| Notched positions, with stayput operation | 3 notches (1) | 1 |
| | 5 notches (starting from 12°) or 6 notches (starting from 6°) (2) (3) | 2 |
| Notched positions, with spring return to zero operation | 3 notches (1) | 3 |
| | 5 notches (starting from 12°) or 6 notches (starting from 6°) (2) (3) | 4 |
| Unnotched positions, with spring return to zero operation (4) | | 5 |

Potentiometer adaptation

| | |
|--|---|
| Without adaptation nor potentiometer | 0 |
| With adaptation only (without potentiometer) | 1 |
| With adaptation + potentiometer (5) | 2 |

Movement CD

Number of 2-contact blocks

| | |
|----------|---|
| 0 blocks | 0 |
| 1 block | 1 |
| 2 blocks | 2 |
| 3 blocks | 3 |
| 4 blocks | 4 |
| 5 blocks | 5 |
| 6 blocks | 6 |
| 8 blocks | 8 |

Type of lever movement

| | | |
|---|---|---|
| Notched positions, with stayput operation | 3 notches (1) | 1 |
| | 5 notches (starting from 12°) or 6 notches (starting from 6°) (2) (3) | 2 |
| Notched positions, with spring return to zero operation | 3 notches (1) | 3 |
| | 5 notches (starting from 12°) or 6 notches (starting from 6°) (2) (3) | 4 |
| Unnotched positions, with spring return to zero operation (4) | | 5 |

Potentiometer adaptation

| | |
|--|---|
| Without adaptation nor potentiometer | 0 |
| With adaptation only (6) (without potentiometer) | 1 |
| With adaptation (6) + potentiometer (5) | 2 |

(1) 3 notches: restricted to 2-contact variable composition cams only.

(2) 5 notches: by using 1 or 2 variable composition 4 or 8-contact cams. 1st mechanical notch at 12° (6 electrical positions in each direction).

(3) It is possible to obtain 6 mechanical notches, 1st mechanical notch at 6° (6 electrical positions in each direction). Please consult your Regional Sales Office.

(4) Type of lever movement recommended when using a potentiometer.

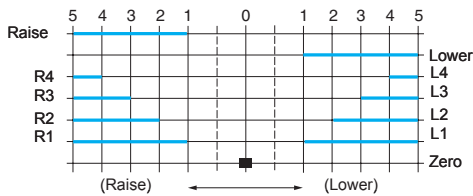
(5) Potentiometer type and value to be stated on the order form, see pages 6/100 and 6/101

(6) It is possible to obtain 6 mechanical notches, 1st mechanical notch at 6° (6 electrical positions in each direction). Please consult your Regional Sales Office.

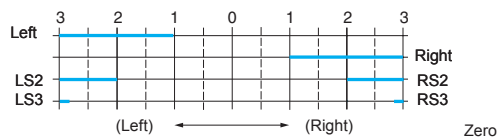
Requirement

A 2 movement controller: “hoist-traverse”.
 “Cross” type lever gate.
 No potentiometer adaptation on movements AB or CD.

Scheme for movement AB “hoist”



Scheme for movement CD “traverse”



Notes:

Movement AB

The scheme for movement AB requires 7 contacts, therefore, select 4 blocks of 2 contacts.
 The only alternative is the selection of either drum n° 3 or n° 1, depending on the available space.

Movement CD

The space between each notch indicated on the 3 position scheme cannot be adhered to.
 Effectively, to obtain 4 contacts, a 2-contact block can be selected (drum n° 2), which does not increase the size of the base, together with 1 x 2-contact block (drum n° 4).
 The lever gate will limit the lever travel to 3 notches.

Composition of the reference (see page 6/78)

| | XKD F | 1 | 2 | 4 | 4 | 0 | 2 | 3 | 3 |
|--|-------|---|---|---|---|---|---|---|---|
| Control lever Standard, length 200 mm | | 1 | | | | | | | |
| Handle With zero (centre) position mechanical interlocking | | | 2 | | | | | | |
| Movement AB “hoist” | | | | | | | | | |
| Number of 2-contact blocks 4 blocks | | | | 4 | | | | | |
| Type of lever movement 5 notched positions, with spring return to zero operation | | | | | 4 | | | | |
| Potentiometer adaptation Without adaptation nor potentiometer | | | | | | 0 | | | |
| Movement CD “traverse” | | | | | | | | | |
| Number of 2-contact blocks 2 blocks | | | | | | | 2 | | |
| Type of lever movement 3 notched positions, with spring return to zero operation | | | | | | | | 3 | |
| Potentiometer adaptation Without adaptation nor potentiometer | | | | | | | | | 3 |

Controllers

For "medium hoisting" applications, type **XKD F**
Ordering form completion example

| | | | | | |
|-----------------|----------------------|--------------------------------------|--------|-------------------|----------|
| Customer | | Schneider Electric Industries | | | |
| Company | Customer's reference | Sales office - Subsid. - Plant | Editor | Geographical zone | Order N° |
| | | | | | |

Reference (use the grid for composing the reference of a controller on page 6/78)

| Lever | Handle | Movement AB | | | Movement CD | | |
|-------|--------|---------------|----------------|--------------------------|---------------|----------------|--------------------------|
| | | No. of blocks | Lever movement | Potentiometer adaptation | No. of blocks | Lever movement | Potentiometer adaptation |

Number of identical units **XKD F**

For Schneider Electric Industries use only

| | | | | | | | | | | | | | |
|----------|---------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Order N° | Item N° | MOD | LEV | POI | GLV | CT1 | CT3 | MAB | P13 | CT2 | CT4 | MCD | P24 |
| | | XKD | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Scheme: viewed from above

Lever gate
Sketch and crosshatch the lever's field of movement on the grid

Movement CD
Adaptation Potentiometer

Drum n°2

Potentiometer adaptation
Cross the position on the scheme

On movement AB
Type/Size: _____
Value: _____

On movement CD
Type/Size: _____
Value: _____

Drum n°3

Item (2)

Zero 4 3 2 1 Lower Raise

LOWER (north) Ex: 5 notches
36° 30° 24° 18° 12° 6° 12° 18° 24° 30° 36°

RAISE (south) Ex: 3 notches
36° 30° 24° 18° 12° 6° 12° 18° 24° 30° 36°

LEFT (west) Ex: 6 notches
6° 12° 18° 24° 30° 36°

RIGHT (east)

Direction A → 0 ← Direction B
Direction D ← 0 → Direction C

Drum n°1

Item (2)

Drum n°1

Item (2)

Choice of cam carriers
(1) Cross the type of cam carrier required:
(a): 3 notch cam carrier, 2 contacts max.,
(b): 5 notch cam carrier, 4 contacts max.,
(c): 5 notch cam carrier, 8 contacts max.
(2) Reserved for contact identification in the automation system scheme. It is not possible to mark it on the controller.
Contact at lever base
N70 51-52
N70 K1-K2
Item (2)

Drum n°4

Adaptation Potentiometer

Movement CD

Legend

Without legend

With blank legend, **XKD Y1**

Legend with specific engraving, **XKD Y1001** (clearly state text on this scheme)

Left-hand operated unit

Right-hand operated unit

■ Electrical overlapping of contacts is not possible between the 5th and 6th notches.
■ Spring return operation: 2 simultaneous contacts maximum with spring return can be used at 6° and then 4 contacts at each subsequent 6° position.
(1) Additional help for completing the order form is available from your Regional Sales Office.