

Limit switches

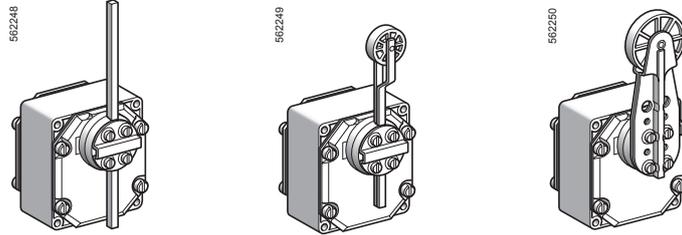
OsiSense™ XC Special

For hoisting applications,
types XCR, XCKMR, XCKVR

■ XCR

□ With head for rotary movement operators, spring return to the Off position

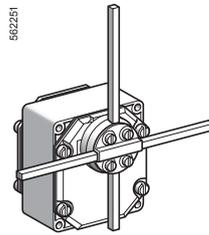
1 contact actuation position per direction



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□ With head for rotary movement operators, maintained

1 contact actuation position per direction



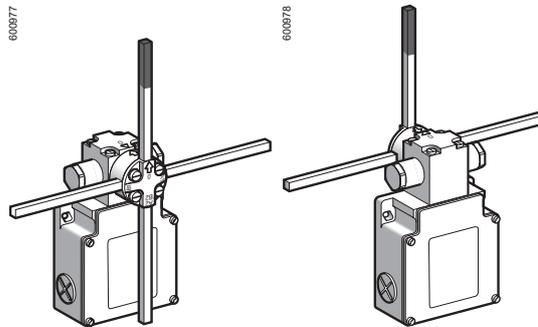
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■ XCKMR (metal)

□ With head for rotary movement operators, maintained

4 mechanical actuation positions of 4 contacts

From 2 to 5 electrical positions depending on model



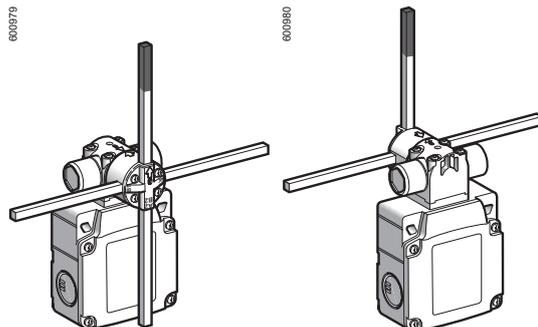
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■ XCKVR (plastic)

□ With head for rotary movement operators, maintained

4 mechanical actuation positions of 4 contacts

From 2 to 5 electrical positions depending on model



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Environmental specifications				
Limit switches		XCR	XCKMR (metal)	XCKVR (plastic)
Conformity to standards	Products	EN/IEC 60947-5-1, CSA C22-2 no. 14, CCC	EN/IEC 60947-5-1, CSA C22-2 no. 14, UL 508, CCC	
	Machine assemblies	EN/IEC 60204-1		
Product certifications		XCRA, B, E, F: CE, CSA, CCC, GOST	CE, UL, CSA, CCC, GOST	
Protective treatment	Standard version	TC		
Ambient air temperature	For operation	-13 to +158 °F (-25 to +70 °C)	-13 to +158 °F (-25 to +70 °C)	-13 to +158 °F (-25 to +70 °C)
	For storage	-40 to +158 °F (-40 to +70 °C)	-40 to +185 °F (-40 to +85 °C)	-40 to +158 °F (-40 to +70 °C)
Vibration resistance	Conforming to EN/IEC 60068-2-6	9 gn (10-500 Hz)	25 gn (10-500 Hz)	25 gn (10-500 Hz)
Shock resistance	Conforming to EN/IEC 60068-2-27	XCRA, B, E, F: 68 gn, XCR : 30 gn (18 ms)	50 gn	50 gn
Electric shock protection		Class I conforming to IEC 60536		Class II conforming to IEC 60536
Degree of protection	Conforming to EN/IEC 60529	XCRA, B, E, F: IP54	IP66	IP65
Degree of protection against mechanical impacts	Conforming to EN 50102	IK07	IK07	IK04
Materials	Enclosure	Metal	Zamak ZP3	(PBT + PC) - GF 30 FR (Valox)
	Cover	Metal	DC03 steel	(PBT + PC) - GF 30 FR (Valox)
	Head	Metal	Zamak ZP3	(PBT + PC) - GF 30 FR (Valox)
Cable entry	Depending on model	1/2"-14 NPT conduit entry using optional adapter (sold separately).	1/2"-14 NPT conduit entry using optional adapter (sold separately). Other options available.	1/2"-14 NPT conduit entry using optional adapter (sold separately). Other options available.
Contact block specifications				
Rated operational specifications	Conforming to EN/IEC 60947-5-1 Appendix A	XCRA, B, E, F: ~ AC-15; A300 (Ue = 240 V, Ie = 3 A), Ithe = 10 A --- DC-13; Q300 (Ue = 250 V, Ie = 0.27 A)	~ AC-15; A300 (Ue = 240 V, Ie = 3 A), Ithe = 10 A --- DC-13; Q150 (Ue = 125 V, Ie = 0.55 A)	
Rated insulation voltage		Ui = 500 V degree of pollution 3 conforming to EN/IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 no. 14		
Rated impulse withstand voltage		Uimp = 6 kV conforming to EN/IEC 60947-1, IEC 60664		
Positive operation (depending on model)		NC contacts with positive opening operation conforming to EN/IEC 60947-5-1 Section 3	NC contacts with positive opening operation conforming to EN/IEC 60947-5-1 Section 3 (contacts 21-22)	
Resistance across terminals		≤ 25 mΩ conforming to NF C 93-050 method A or IEC 60255-7 category 3		
Short-circuit protection		10 A cartridge fuse type gG (gl)		
Connection	Screw clamp terminals	Clamping capacity XE2N P2151: min: 1 x 0.5 mm ² , max: 2 x 2.5 mm ² XE2S P2151: min: 1 x 0.34 mm ² , max: 2 x 1.5 mm ²	Clamping capacity min: 1 x 0.5 mm ² max: 2 x 2.5 mm ²	

Limit switches

OsiSense™ XC Special

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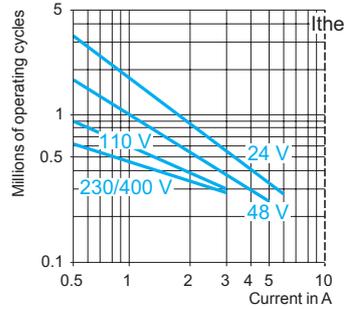
Contact block specifications (continued)

Electrical durability

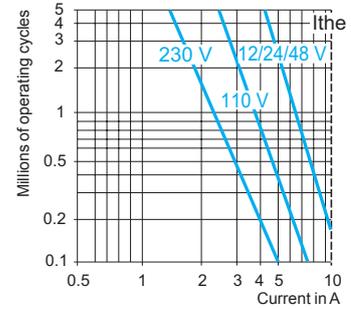
- Conforming to EN/IEC 60947-5-1 Appendix C
- Utilization categories AC-15 and DC-13
- Maximum operating rate: 3600 operating cycles/hour
- Load factor: 0.5

AC supply
~ 50/60 Hz
~ inductive circuit

XE2S P2151



XE2N P2151



DC supply ---

	Voltage V	24	48	120
Power (W) broken for 5 million operating cycles	XE2S P2151	10	7	4
	XE2N P2151	13	9	7

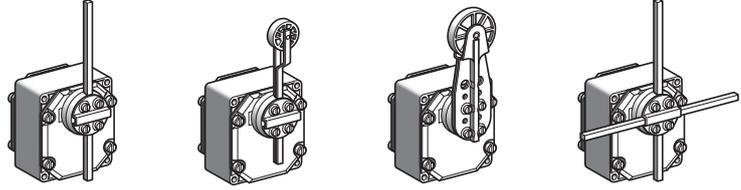
For XE2SP•151 AC or DC, the NC and NO contacts must be of the same polarity.

Limit switches

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For hoisting applications, types XCR
Complete switches with 1 cable entry

Type of head	Rotary with spring return to Off position	Maintained
Maximum displacement	55° in each direction	90° in each direction

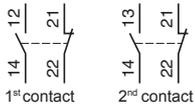


Type of operator	Metal rod, \varnothing 6 mm	Thermoplastic roller lever	Large thermoplastic roller lever	Metal rods, \varnothing 6 mm, crossed or "T" (1)
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(1) Crossed rods for XCR E●8, "T" rods for XCR F●7.

Catalog numbers of complete switches (→ NC contact with positive opening operation)

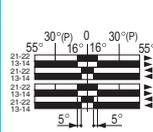
Two 2-pole NC + NO snap action XE2SP2151



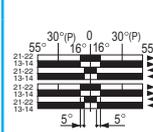
Both contacts operate in each direction

1 contact operates in each direction

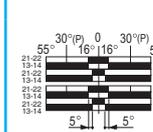
XCRA11 →



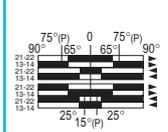
XCRA12 →



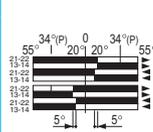
XCRA15 →



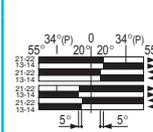
XCRE18 →



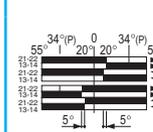
XCRB11 →



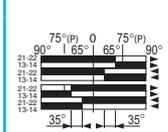
XCRB12 →



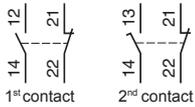
XCRB15 →



XCRF17 →



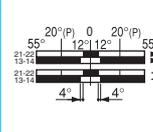
Two 2-pole NC + NO break before make, slow break XE2NP2151



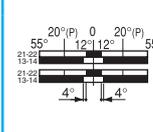
Both contacts operate in each direction

1 contact operates in each direction

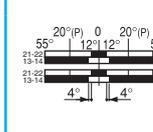
XCRA51 →



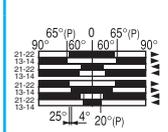
XCRA52 →



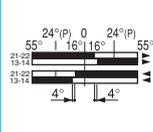
XCRA55 →



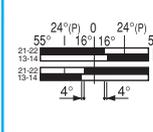
XCRE58 →



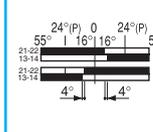
XCRB51 →



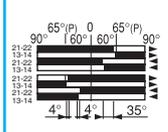
XCRB52 →



XCRB55 →



XCRF57 →



Weight lb (kg)	2.45 (1.110)	2.52 (1.145)	2.55 (1.155)	2.50 (1.135)
Contact operation	(P) = positive opening point □ = open			

Complementary specifications

Maximum actuation speed	1.5 ms		
Mechanical durability	10 million operating cycles		
Minimum torque	For tripping	3.98 lb-in. (0.45 N•m)	5.31 lb-in. (0.60 N•m)
	For positive opening	6.64 lb-in. (0.75 N•m)	6.20 lb-in. (0.70 N•m)
Cable entry	1 entry tapped for Pg 13.5 cable connector conforming to NF C 68-300 (DIN Pg 13.5) Clamping capacity 9 to 12 mm For 1/2"-14 NPT conduit entry, add H2 suffix (Example: XCRA11H2) DE9RA1212 Pg 13.5 to 1/2"-14 NPT conduit adapter can also be used (sold separately).		

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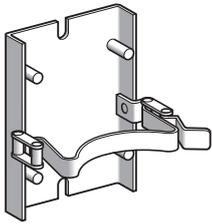
For hoisting applications, types XCR
Complete switches with 1 cable entry
Separate components



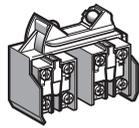
XCRZ02



XCRZ05



XCRZ09



XCRZ12



DE9RA1212 adapter

Separate components

Description	For switches	Type	Catalog number	Weight lb (kg)
Rod, \varnothing 6 mm	XCRA XCRB	200 mm long	XCRZ03	0.04 (0.020)
		300 mm long	XCRZ04	0.07 (0.030)
Roller lever thermoplastic roller	XCRA XCRB	–	XCRZ02	0.11 (0.050)
		–	XCRZ05	0.20 (0.090)
Large roller lever thermoplastic roller	XCRA XCRB	–	XCRZ05	0.20 (0.090)
Quick mounting/ release bracket	XCRA, XCRB XCRA, XCRB	–	XCRZ09	1.15 (0.520)
Contact block (2 contacts) with mounting plate	XCRA, XCRB XCRA, XCRB	2-pole NC + NO snap action	XCRZ12	0.30 (0.135)
		2-pole NC + NO break before make, snap action	XCRZ15	0.30 (0.135)

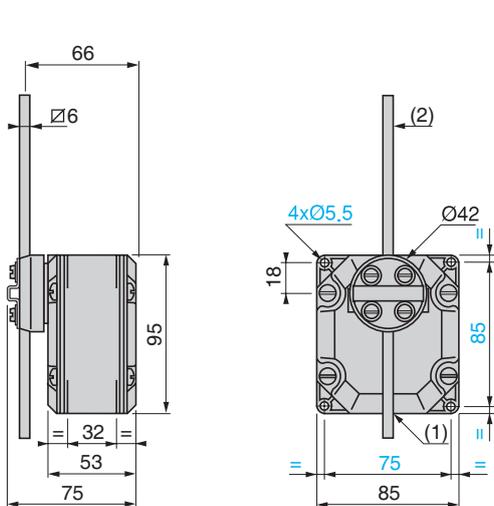
Description	Application	Sold in lots of	Unit catalog number	Weight lb (kg)
Adapter	For use with XCRA/B/E/F	10	DE9RA1212	0.11 (0.050)

Limit switches

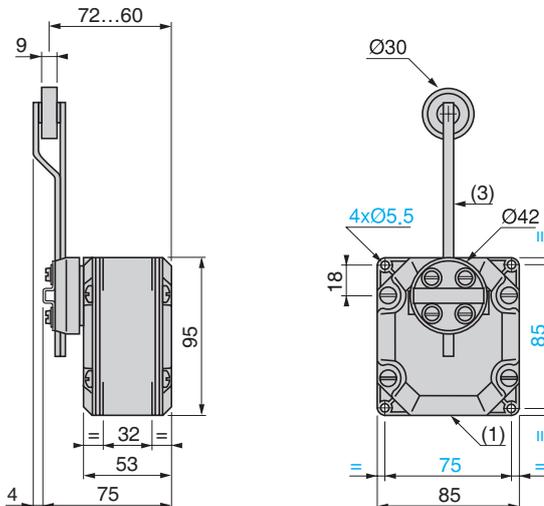
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Complete switches with 1 cable entry

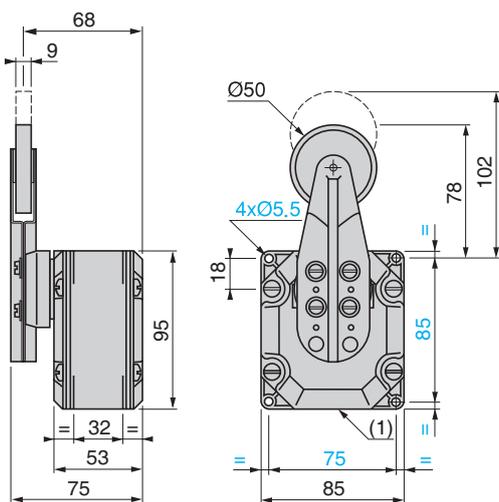
XCRA11, B11, A51, B51



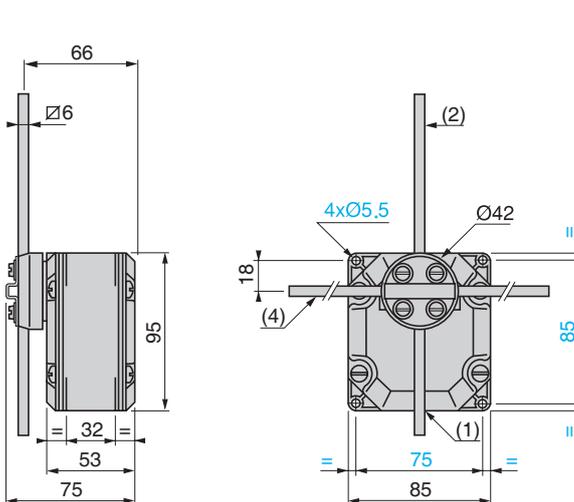
XCRA12, B12, A52, B52



XCRA15, B15, A55, B55



XCRE18, E58, F17, F57



(1) 1 tapped entry for Pg 13.5 cable connector. H2-suffix versions tapped for 1/2"-14 NPT or supplied with DE9RA1212 adapter.

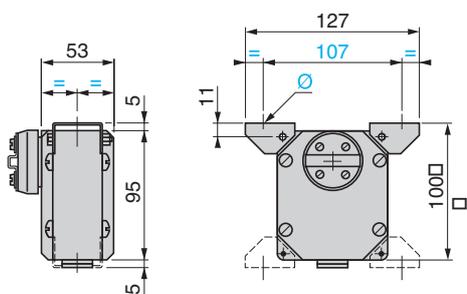
(2) Rod length: 200 mm.

(3) Rod + roller length: 160 mm.

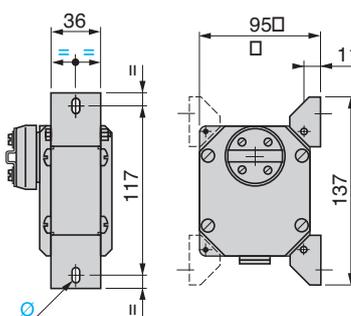
(4) Rod length: 300 mm for XCRF17 and F57, 200 mm for XCRE18 and E58.

Supplementary mounting using 2 adjustable lugs (included with switch)

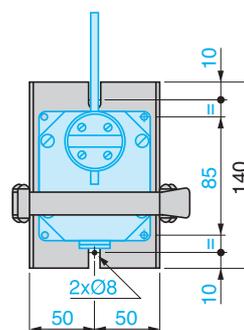
Horizontally positioned



Vertically positioned



Quick mounting/release bracket XCRZ09



Ø: 1 elongated hole Ø 6 x 8.