



## Main

Range of product	XR and XF
Product or component type	Single-stage heavy duty screw limit switch
Device short name	XR2
Product specific application	Liquid level control in pumping systems Position control of moving parts of hoisting or materials handling equipment
Material	Sheet steel: enclosure
Type of operator	Drive shaft, end fittings with sprocket key and washer
Maximum revolution speed	250 rpm of input drive shaft
Theoretical number of turns	20 of input drive shaft
Number of poles	1

## Complementary

Mechanical durability	10000000 cycles
Maximum number of turns	6 of threaded shaft
Threaded shaft screw pitch	4 mm
Operating finger radius	40 mm
Length of developed helical travel	4 mm
Differential snap over angle	30 ° contact actuators measured at finger
Repeat accuracy	0.02 % on the tripping point
Number of teeth	26 (pinion A) 26 (pinion C) 49 (pinion B) 49 (pinion D)
Actual number of turns	21.3 (input drive shaft)
Contacts type and composition	12 C/O
Contact operation	Snap action
[I <sub>e</sub> ] rated operational current	A300, AC-15, U <sub>e</sub> = 240 V, I <sub>e</sub> = 3 A conforming to EN/IEC 60947-5-1 Q300, DC-13, U <sub>e</sub> = 250 V, I <sub>e</sub> = 0.27 A conforming to EN/IEC 60947-5-1
[I <sub>the</sub> ] conventional enclosed thermal current	10 A
[U <sub>i</sub> ] rated insulation voltage	500 V conforming to EN/IEC 60947-1 600 V conforming to CSA C22.2 No 14
[U <sub>imp</sub> ] rated impulse withstand voltage	6 kV EN/IEC 60947-1

Maximum resistance across terminals	25 MOhm
Short-circuit protection	10 A cartridge fuse gG
Connections - terminals	Screw clamp terminals, 2 x 1.5 mm <sup>2</sup> with or without cable end Screw clamp terminals, 2 x 2.5 mm <sup>2</sup> without cable end
Electrical durability	<p>10000000 cycles AC-15 50/60 Hz inductive at 12 V, 70 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz inductive at 127 V, 270 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz inductive at 220 V, 290 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz inductive at 24 V, 120 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz inductive at 380 V, 300 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz inductive at 48 V, 180 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz inductive at 500 V, 300 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz resistive at 12 V, 45 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz resistive at 127 V, 180 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz resistive at 220 V, 200 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz resistive at 24 V, 75 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz resistive at 380 V, 200 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz resistive at 48 V, 120 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles AC-15 50/60 Hz resistive at 500 V, 200 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz inductive at 12 V, 100 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz inductive at 127 V, 1050 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz inductive at 220 V, 1150 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz inductive at 24 V, 220 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz inductive at 380 V, 1150 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz inductive at 48 V, 480 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz inductive at 500 V, 1200 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz resistive at 12 V, 100 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz resistive at 127 V, 700 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz resistive at 220 V, 750 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz resistive at 24 V, 200 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz resistive at 380 V, 800 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz resistive at 48 V, 400 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>3000000 cycles AC-15 50/60 Hz resistive at 500 V, 800 VA, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles DC-13 inductive at 110 V, 80 W, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles DC-13 inductive at 12 V, 100 W, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles DC-13 inductive at 220 V, 60 W, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles DC-13 inductive at 24 V, 90 W, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles DC-13 inductive at 440 V, 33 W, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles DC-13 inductive at 48 V, 85 W, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p> <p>10000000 cycles DC-13 resistive at 110 V, 30 W, operating rate &lt;3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1</p>

10000000 cycles DC-13 resistive at 12 V, 45 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 10000000 cycles DC-13 resistive at 220 V, 20 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 10000000 cycles DC-13 resistive at 24 V, 40 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 10000000 cycles DC-13 resistive at 440 V, 7.5 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 10000000 cycles DC-13 resistive at 48 V, 35 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 inductive at 110 V, 110 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 inductive at 12 V, 100 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 inductive at 220 V, 95 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 inductive at 24 V, 140 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 inductive at 440 V, 65 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 inductive at 48 V, 130 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 resistive at 110 V, 95 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 resistive at 12 V, 100 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 resistive at 220 V, 80 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 resistive at 24 V, 120 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 resistive at 440 V, 45 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1  
 3000000 cycles DC-13 resistive at 48 V, 110 W, operating rate <3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1

Cable entry	Removable gland plate
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## Environment

Standards	EN/IEC 60947-5-1
Protective treatment	TC
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...70 °C
Shock resistance	50 gn for 11 ms
Vibration resistance	> 5 gn (f= 10...55 Hz)
IP degree of protection	IP54 conforming to EN/IEC 60529

## Offer Sustainability

EU RoHS Directive	Not applicable, out of EU RoHS legal scope
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## Contractual warranty

Warranty	18 months
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