Product data sheet
Characteristics

XR2BB05K80
single-stage heavy duty screw limit switch XR2 - 5 NC - sheet steel enclosure

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	350 rpm of input drive shaft
Theoretical number of turns	80 of input drive shaft
Number of poles	1

Complementary

Mechanical durability	10000000 cycles
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	16 (pinion A) 16 (pinion C) 59 (pinion B) 59 (pinion D)
Actual number of turns	81.586 (input drive shaft)
Contacts type and composition	5 NC
Contact operation	Snap action
[Ie] rated operational current	A300, AC-15 (Ue = 240 V, Ie = 3 A) conforming to EN/IEC 60947-5-1 Q300, DC-13 (Ue = 250 V, Ie = 0.27 A) conforming to EN/IEC 60947-5-1
[Ithe] conventional enclosed thermal current	20 A
[Ui] rated insulation voltage	600 V conforming to CSA C22.2 No 14 500 V conforming to EN/IEC 60947-1
[Uimp] rated impulse withstand voltage	6 kV conforming to EN/IEC 60947-1

Resistance across terminals	<= 25 MOhm
Short-circuit protection	20 A cartridge fuse type gG
Connections - terminals	Screw clamp terminals, connection capacity: 2 x 1.5 mm² with or without cable end Screw clamp terminals, connection capacity: 2 x 2.5 mm² without cable end
Electrical durability	10000000 cycles AC-15 50/60 Hz inductive at 12 V, 220 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz inductive at 127 V, 740 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz inductive at 220 V, 750 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz inductive at 24 V, 440 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz inductive at 380 V, 750 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz inductive at 48 V, 600 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz inductive at 500 V, 750 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz resistive at 12 V, 220 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz resistive at 127 V, 500 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz resistive at 220 V, 500 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz resistive at 24 V, 350 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz resistive at 380 V, 520 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz resistive at 48 V, 450 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles AC-15 50/60 Hz resistive at 500 V, 520 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 inductive at 110 V, 330 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 inductive at 12 V, 220 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 inductive at 220 V, 280 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 inductive at 24 V, 450 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 inductive at 440 V, 240 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 inductive at 48 V, 400 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 resistive at 110 V, 35 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 resistive at 12 V, 55 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 resistive at 220 V, 32 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 resistive at 24 V, 45 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 resistive at 440 V, 30 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 10000000 cycles DC-13 resistive at 48 V, 38 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz inductive at 12 V, 240 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz inductive at 127 V, 1900 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz inductive at 220 V, 2200 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz inductive at 24 V, 450 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz inductive at 380 V, 2200 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz inductive at 48 V, 800 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz inductive at 500 V, 2200 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz resistive at 12 V, 240 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz resistive at 127 V, 1300 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1

	3000000 cycles AC-15 50/60 Hz resistive at 220 V, 1500 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz resistive at 24 V, 450 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz resistive at 380 V, 1500 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz resistive at 48 V, 800 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles AC-15 50/60 Hz resistive at 500 V, 1500 VA, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles DC-13 inductive at 110 V, 330 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles DC-13 inductive at 12 V, 220 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles DC-13 inductive at 220 V, 280 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles DC-13 inductive at 24 V, 450 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles DC-13 inductive at 440 V, 240 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles DC-13 inductive at 48 V, 400 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, 135 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles DC-13 resistive at 220 V, 90 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles DC-13 resistive at 24 V, 115 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles DC-13 resistive at 440 V, 85 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1 3000000 cycles DC-13 resistive at 48 V, 105 W, operating rate 3600 cyc/h, load factor 0.5 EN/IEC 60947-5-1
Cable entry	Removable gland plate
Product weight	15 kg

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 (10...55 Hz)
IP degree of protection	IP54 conforming to EN/IEC 60529

Offer Sustainability

RoHS (date code: YYWW)	Will be compliant on 4Q2013 Will be compliant on 4Q2013

Contractual warranty

Warranty period	18 months