GREENTECH

MV GREENTECH PVT LTD.

Product Catalogue

Ultra Precision Sensing Solutions

TRAVEL SWITCH

HIGH TEMPERATURE TRAVEL SWITCH

- Overposition alarm, safe and reliable,contact detection, small wear
- Operating temperature: -20-350°C Temperature resistance up to 350°C
- Double circuit limit switch with wide use
- With a strong one - piece cast aluminum alloy case, High mechanical strength
- Roller arm, adjustable rod, pressure plunger, roller pressure column and more than ten models

I. XW2K High temperature resistant travel limit switch 350°C

Operation speed	1mm to 2m/S
Action frequency	Mechanically:120 times/minute Electically:30 times/Minute
Contact resistance	Under 15mΩ(initial)
Insulation resistance	100mΩ above (at 500VDC)
Bearing voltage	Non-contact end:1,000VAC,50/60Hz for one minute Current parts and noncurrent parts and end and connect position:2,200VAC,50/60Hz for one minute
Vibration	Action:10 to 55Hz,1.5mm pairs swing
Hitting	Machine:1,000m/Sec2(about 100G,S) Action:300m/Sec2(about 30G,S)
Ambient temperature	use: -60 to +350℃
Humidity	Max 95% RH
Serve life	Mechanically:15,000,000 times above(at rated ot) Electrically:500,000 times above
Weight	About 275g
Protection structure	IEC specification:IP66/IP67

Note:

1. The power factor of the inductive load is above 0.4 (AC), & the time constant is below 7msec (DC).

2. The inrush current of the light bulb load is 10 times the steady state current, and the inrush current of the motor load is 6 times the steady state current.

TRAVEL SWITCH

WATERPROOF TRAVEL SWITCH

- Voltage :24V/0-48V DC/220VAC/380V AC can be customized
- Grade :IP67
- Aluminum alloy casting shell, durable, high mechanical strength
- High level protection, with waterproof, oil-proof and dust-proof structure, can be used in underwater work for open-air equipment, shield equipment, painting equipment and other in the field or in the waterproof and oil-proof requirements of the high level of the occasion.

Environmental Characteristics			Characteristics of Contact Module	
Normative reference	Product	IEC60947-5-1, EN60947-5-1, UL508, CSAc22-2N° 14	Rated operating characteristics	Inductive load: AC15, B300 (Ue=240V, Ie=1.5A) --DC-13, R300 (Ue=250V, Ie=0.1A) Resistive load: 250V, 5A
	Components	IEC60204-1, EN60204-1		
Ambient temperature	Operation	-25…+70°C	Rated insulation voltage	Ui=500V, class of pollution is 3, comply with IEC 60947-1 Ui=300V, comply with UL508, CSA C22-2n° 14
	Storage	-40…+70°C		
Vibration resistance	Comply with IEC60068-2-6	55Hz, 1.5mm double-amplitude	Insulation resistance	>100MΩ at 500V
Shock resistance	Comply with IEC60068-2-27	30gn 18ms, in any position	Operating frequency	120 times/min
Degree of protection		IP67, comply with IEC60529	Electrical life	200,000 times, AC-15 (Ue=240V, Ie=1.5A)
Mechanical life		10,000,000 times	Contact resistance	≤25MΩ 5V, 5mA, after 10 million times of operation

HEAVY DUTY TRAVEL SWITCH

- Rated insulation voltage :250V AC Protection level: IP65
- Resistance to vibration, impact and harsh environment
- It is widely used in steel equipment, large conveying machinery, loading and unloading machinery, etc. It can replace the famous brands such as Schmersal and Yamatake.

TRAVEL SWITCH

I. Heavy Duty Travel Limit Switch-M20, T-2512, 2512 Series

Product parameters					
Model	MD 441-11Y-M20	TD 441-11Y-M20	MD 441-11Y-T-M20	MD 441-11Y-T-2512	TD 441-11Y-2512
Principle of action	Mechanical				
Rated insulation voltage	250 VAC	400 VAC	250 VAC	250 VAC	250 VAC
Protection level	IP65				
Gross weight	1,650g	1,675g	1,695g	1,650g	1,845g
Mechanical life	5,000,000 operations	10,000,000 operations	5,000,000 operations	5,000,000 operations	5,000,000 operations
Ambient temperature	-30 ... +90°C	-30 ... +90°C	‘-40 ... +200°C	‘-40 ... +200°C	‘-40 ... +200°C

II. ZX-5102X Heavy Duty Travel Limit Switch

Series	Single pole series, horn series
Contact structure	1a,1b,2a,2b,1a1b
Applicable ambient temp.	-10~+80℃
Applicable maximum frequency	1200 times/hour
Rated insulation voltage	AC 250V
Rated power current	3A
Rated voltage/current	AC220V/0.5A，DC110V/0.3A
Mechanical life	More than 5 million times
Electrical life	More than 5 million times
Protection level	IP56
Shell material	Aluminum alloy

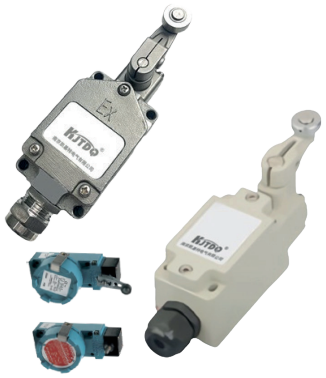
TRAVEL SWITCH

III. Heavy Duty Travel Limit Switch Series-Model No Specified

Product parameters													
Model	MK 441-11Y	MR 441-11Y-T	TK 441-11Y-T-M20	MS 441-11Y-M20	TS 441-11Y	M2C 441-11Y	TK 441-11Y	T2S 441-11Y	M2S 441-11Y	MAF/S 441-11Y	T2C 441-11Y	TJ 441-11Y	EN 60947-5-1
Principle of action	Mechanical												
Mechanical life	5,000,000 operations / 10,000,000 operations												
Application environmental conditions													
Protection level	IP65												
Ambient Temperature	-30 ... +90°C / - 40 ... +200°C												

EXPLOSION-PROOF TRAVEL SWITCH

- It is mainly used in dangerous places to control the stroke of moving parts on and off
- Explosion-proof mark Ex demb II C T6 Gb, compound explosion-proof is safer
- Suitable for all kinds of harsh environments; there are more than ten specifications such as roller arm type, adjustable rod type, pressure plunger and roller pressure column type, which can meet the requirements of different occasions.



TRAVEL SWITCH

I. Explosion-proof travel limit switch

Product Type	Micro Switch Hazardous Area Limit Switch
Actuator	Side plunger - adjustable Side plunger - pin Side roller plunger Side rotation Side rotation hold Top Plunger - Adjustable Top Plunger - Pin Top roller plunger Top rotation Swing-whiskers Swing-Plastic Rod
Circuit	1NC 1NO SPDT snap action, double break 2NC 2NO DPDT snap action, double break SNPC direct action 2NC 2NO DPDT Sequence 2NC 2NO DPDT Neutral
Electric	10A Thermal Single and double pole: AC15 A600; DC13 R300
Housing Material	aluminum
Terminal Type	0.5" - 14NPT conduit 0.75 in. - 14NPT conduit
Shell type	LSX non-plugin
Seal	NEMA 1, 3, 4, 6, 7 (Class 1, Division 1, Groups B, C, D), 9 (Class 2, Divisio n 1, Groups E, F, G), 13
Operating temperature	-12°C to 121°C [10°F to 250°F]
Certification and testing ag ency	UL, CSA
Dangerous area name	Divisions 1 and 2, Class I, Groups B, C and D Divisions 1 and 2, Class II, Groups E, F and G

II. Model Name: Direct acting plunger type, Roller arm type, Roller plunger type, Adjustable roller arm type, Adjustable roller arm, Kaykit roller plunger, Kejite roller arm type explosion-proof travel limit switch

Implementation Standards	GB 3836.1, GB 3836.2, GB 3836.3, GB12476.1, GB12476.5, IEC60079-0, IEC 60079-1, IEC60079-7, IEC61241-0, IEC61241-1 Explosion-proof mark: (Ex de IIC T6 Gb/Ex tD A21 IP66 T80C
Rated voltage	AC220/380V
Rated current	5A
Contact type	One normally open and one normally closed
Protection level	IP66
Corrosion resistance	WF1
Inlet specifications	M20 x1.5
Applicable cable outer diameter	D6mm~D9mm

TRAVEL SWITCH

III. LX7000 & VCX-7000 series explosion-proof travel switch

Technical Parameters		LX7000	VCX-7000
Structure	Contact form	2-circuit double break 2CKT-DB x1	Single pole double throw (SPDT) x2
	Terminal shape	M4 flat head small screw with spring washer	M3.5 small flat head screw with square washer
	Contact material	Silver-plated rivets	Silver : Rivets : Gold Alloy : Crosspoint
	Explosion-proof structure	Internal switch: d (pressure-proof explosion-proof), housing: e (increased safety explosion-proof)	
	Protective structure	IP67(IEC60529、JIS C 0920)	
Electrical properties	Electrical Ratings	Silver: 5A-250VAC, 0.8A-125VDC, 0.4A-250VDC Gold-plated: 0.1A-125VAC, 0.1A-30VDC	Silver : 5A-250VAC, 0.4A-125VDC, 0.2A-250VDC Gold alloy: 0.1A-125VAC, 0.1A-30VDC
	Withstand voltage	Between terminals of the same pole: 600VAC 50/60Hz 1 minute Between each terminal and non-conductive metal part: 2000VAC 50/60Hz 1 minute Between each terminal and ground: 2000VAC 50/60Hz 1 minute	Between terminals of the same pole: 600VAC 50/60Hz 1 minute Between clock terminals : 2000VAC 50/60Hz 1 minute Between each terminal and non-conductive metal part: 2000VAC 50/60Hz 1 minute Between each terminal and ground : 2000VAC 50/60Hz 1 minute
	Insulation resistance	100MΩ or more (500VDC insulation resistance meter)	
	Initial contact resistance	Silver: 50mΩ or less (measured by voltage drop method at 6~8VDC and current 1A) Gold: 100mΩ or less (measured by voltage drop method at 6~8 VDC and current 0.1A)	
	Recommended minimum contact voltage and current	Silver: 10mA-24V, 20mA-12V Gold-plated: 10mA-5V	
Mechanical properties	Actuator strength	5 times of 0.F. (1 minute in the direction of motion)	
	Terminal strength	Withstands 1.5N·m tightening torque for 1 minute	Withstands 0.6N·m tightening torque for 1 minute
	i. Shock resistance: 200m/s 2At free position and action limit position, contact opening time 1ms or less* 1; **ii**. Vibration resistance: Double amplitude 1.5mm frequency 10~55Hz continuous 2 hours, in free position and action limit position, contact opening less than 1ms; **iii.** Mechanical action frequency: Less than 120 times/min		
Environmental characteristics	**i.** Operating temperature range: -10~+60℃(no freezing); **ii.** Operating Humidity Range: 45-85%RH; **iii.** Storage temperature range: -10~+60℃; **iv.** Storage humidity range: 98%RH or less (with the plug of the electric conduit plugged in) **v.** Classification and temperature grade: IIC T6, **vi.** Hazardous area classification: Class I Hazardous Locations (Area 1), Class II Hazardous Locations (Area 2)		
Applicable wire diameter	**i.** Terminals Stranded wire: Nominal cross-sectional area 0.5mm2~1.5mm2 (AWG20~AWG16) **ii.** Terminal single line: Nominal cross-sectional area 0.5mm2~1.5mm2 (AWG20~AWG16)		
	Internal grounding	Use M4 insulation coating crimp terminal	Use M3 Insulation Coating Crimp Terminals
	External ground	M4 crimp terminals can be used to connect wires with a nominal cross-sectional area of less than 4"mm2	

TRAVEL SWITCH

INTRINSIC PROXIMITY SWITCH

- Mainly used in the need of explosion-proof occasion equipment and environment, such as coal mine, petrochemical, etc
- Nominal 8VDC power supply, 1mA and 3mA switching signals
- NAMUR sensors are intrinsically safe explosion-proof instruments and are usually used in conjunction with isolated safety grids

Product Model	NJ-4	NJ-5	NJ-6.5M	NJ-8M	NJ-8	NJ-F40M	NJ-F40M		NJ-30M	NJ-30	NJ-12	NJ18	NJ30
Installation method	Flush		Flush		NF	Non-Flush	Flush	Non-Flush	Flush	Non-Flush		Flush/NF	
Detection distance	0.8mm/1mm		1mm		2mm		15mm		10mm	15mm	4mm	5/8/15mm	10mm
Working temperature	-25℃~+70℃												
Specifications	D4-20 / D4-8	M5*0.5-20	D6.5-25 *(for NJ8M flush: M8*1-25)*			40*40*118			M30*1.5-40		M12*1-25	M18*1-30	M30*40
Operating Voltage	6-12V DC												
Protection level	IP66 *(for NJ30: IP67)*												

Model	NJK4	NJK5	NJK8	NJK12	NJK18
Specification(mm)	M4*1*20/ M4*1*20	M5*1*20/ M5*1*8	M8*1*25	M12*25	M18*30
Mounting	Flushed/ Non-flushed	Flushed	Flushed/Non-flushed	Flushed/ Non-flushed	Flushed/ Non-flushed
Sensing distance	0.8mm/ 1mm	0.8mm/ 1mm	1mm/2mm	2mm/4mm	5mm/8mm
Supply voltage	8.2VDC				
Output	NAMUR				
Insulation pressure resistance	500 V/AC,50/60Hz,60s				
Ambient temperature	-25~+70C				
Protection degree	IP67				