

Heat-Resistant Positioning Switches

Contact / Ball Plunger / with Stoppers / with Stoppers (Mini Type)

For Mechanical / Electrical Specifications and Precautions for Use, refer to P.2188.

Heat Resistant Positioning Switches – Bolt (IP65)

MSTKD-HR

Use within the contact ratings. Do not pull or twist the cable with a force of 30N or more.

Contact Part		Main Body Material	Cable	Accessories
Material	Hardness	Material		
420 Stainless Steel	45-50 HRC min.	303 Stainless Steel	Cable 2 m, 2-Conductors Ø3, Heat Resistant Min. Bending Radius R7	Hex Nuts 2 pcs. (Thickness 3.2 Wrench Size 8)

Operating Temperature: ~200°C
The export application to the Ministry of Economy, Trade and Industry is necessary for exporting this product.

Part Number	Stroke S	Operating Point	Contact Force	Contact Mechanism
MSTKD-HR	2.8	0.3 from Tip (Repeatability 0.01 Ambient Temperature)	1N	NO (Normally Open)

For Mechanical / Electrical Specifications and Precautions for Use, refer to P.2188.

Heat Resistant Positioning Switches – Ball Plunger (IP40)

MSPB-HR

Care must be taken for the object not to hit the switch body before hitting the operating point.

Pin	Main Body Material	Cable	Accessories
Material	Hardness	Material	
440C Stainless Steel	50-55 HRC min.	303 Stainless Steel	Cable 2 m, 2-Conductors Ø3, Heat Resistance Min. Bending Radius R7 Hex Nut 2 pcs. (Coarse Thread JIS Class 3) Toothed Washer 1 pc.

Operating Temperature: ~200°C
The export application to the Ministry of Economy, Trade and Industry is necessary for exporting this product.

Part Number	Stroke S	Operating Point	Contact Force		Contact Mechanism
			min.	max.	
MSPB-HR	0.8	0.2-0.4 (Repeatability 0.01 Ambient Temperature)	6N	13N	NO (Normally Open)

For Mechanical / Electrical Specifications and Precautions for Use, refer to P.2188.

Heat Resistant Positioning Switches – With Stopper (IP40)

MSTB-HR

Use within the contact ratings. Do not pull or twist the cable with a force of 30N or more.

Tip of Contact		Stopper	Main Body	Cable	Accessories
Material	Hardness	Material	Material		
420 Stainless Steel	45-50 HRC min.	420 Stainless Steel	50 HRC min.	416 Stainless Steel	Cable 2 m, 2-Conductors Ø3, Heat Resistant Min. Bending Radius R7 Hex Nut 2 pcs. (Coarse Thread JIS Class 3) Toothed Washer 1 pc.

Operating Temperature: ~200°C
The export application to the Ministry of Economy, Trade and Industry is necessary for exporting this product.

Part Number	Stroke S	Operating Point	Contact Force	Allowable Static Load	Shock Resistance Energy	Contact Mechanism

Heat Resistant Positioning Switches – Mini (IP67)

MSNWL-HR

Use within the contact ratings. Do not pull or twist the cable with a force of 30N or more.

Calbe: Cab Tire
2 Conductors – Ø3, L 2 m, Oil Resistant
Min. Bending Radius 7R

Material
Main Body: 416 Stainless Steel (45 HRC min.)
Contact Part: 420 Stainless Steel (50 HRC min.)
Accessories:
Hex Nut 2 pcs. (Thickness 3 Hex Socket 13)
Toothed Washer 1 pc.

Operating Temperature: ~200°C
The export application to the Ministry of Economy, Trade and Industry is necessary for exporting this product.

Part Number Type	Stroke S	Operating Point	Contact Force	Static Load Capable Structure	Shock Resistance Energy	Contact Point
MSNWL-HR	0.3	Center Vicinity Repeatability 0.01 Ambient Temp.	1N	3000N	0.2J	NO (Normally Open)

Part Number Example: **MSTKD-HR**, **MSPB-HR**, **MSTB-HR**, **MSNWL-HR**

Contact Method of Detected Subject Except Ball Plunger Switch (Declination within ±3°)

Positioning Switches

Spring Plunger / Ball Plunger / Waterproof Ball Plunger

Cable Protectors are omitted for a shorter length design option.

For Mechanical / Electrical Specifications and Precautions for Use, refer to P.2188.

Positioning Switches – Spring Plunger (IP40)

MSPSS N-MSPSS-D With LED

Use within the contact ratings. Do not pull or twist the cable with a force of 30N or more.

Pin		Main Body	Cable	Accessories
Material	Hardness	Material		
440C Stainless Steel	50-55 HRC min.	303 Stainless Steel	Cable 2 m, 2-Conductors Ø3, Oil Resistant Min. Bending Radius R7	Hex Nut 2 pcs. (Coarse Thread JIS Class 3) Toothed Washer 1 pc.

Force must be applied normal to the switch. (Declination within ±3°)

Part Number Type	No.	M (Coarse)	d	Stroke S	Operating Point	Contact Force N		Contact Mechanism	B
						min.	max.		
MSPSS N-MSPSS-D	6	6	2.5	3	from Body End 0.8 (Repeatability 0.01)	6	11	NO (Normally Open)	5
	8	8				6	11		7

Cable Protectors are omitted for a shorter length design option.

For Mechanical / Electrical Specifications and Precautions for Use, refer to P.2188.

Positioning Switches – Ball Plunger (IP40)

MSPB N-MSPB-D With LED

Use within the contact ratings. Do not pull or twist the cable with a force of 30N or more.

Pin		Main Body	Cable	Accessories
Material	Hardness	Material		
440C Stainless Steel	50-55 HRC min.	303 Stainless Steel	Cable 2 m, 2-Conductors Ø3, Oil Resistant Min. Bending Radius R7	Hex Nut 2 pcs. (Coarse Thread JIS Class 3) Toothed Washer 1 pc.

Possible to contact objects in all directions.

Part Number Type	No.	M (Coarse)	Stroke S	Operating Point	Repeatability	Contact Force N		Contact Mechanism	L	d	B
						min.	max.				
MSPB N-MSPB-D	6	6	0.8	0.3	0.01	6	13	NO (Normally Open)	32	3	5
	6F					1					

Part Number Example: **MSPSS6**, **MSPB6**, **N-MSPB-D6F**