

M49 - Series

Encapsulated Metal Body
Position & Limit Switches



Position Switches

M49 Series - Metal Body

NEW



Product characteristics

- Flat and compact design
- Pre-installed connecting cable (1m length) for quick and easy installation
- Top-mounting versions available
- Cable or M12-connector outlet on the side or at the bottom
- High protection class IP67
- Suitable for safety applications according to DIN EN 60947-5-1 (positive

Good to know ...

Due to the space-saving enclosures and the high protection class IP67 the position switches of the M49 series are perfect for an installation where a flat design and a high protection class of IP67 is required. The switches are often used for the monitoring of covers and inspection doors, for position monitoring applications and similar applications. The high protection class allows outdoor applications.

Options

- Different cable lengths are available on request

Position Switches

M49 Series - Metal Body

Technical design

- Slow- and snap action
- **Versions:** 1 NC/1 NO, 2 NC, 2 NO, 2 NC/2 NO

Technical data

Electrical data		
Design insulation voltage	U _i max.	400 V AC
Conventional thermoelectric current	I _{the}	10 A
Rated operating voltage	U _e max.	240 V
Utilisation category		AC-15; 24 V / 10 A; 240 V / 3 A
Protection class		II, protective insulation
Mechanical data		
Ambient temperature		-25 °C to +70 °C (connecting cable firmly wired)
Mechanical lifetime		10 x 10 ⁶ switching cycles
Switching frequency		≤ 60/min.
Type of connection		Cable 4 x 0.75 mm ²
Protection class		IP67 conforming to IEC/EN 60529
Standards		
VDE 0660 T100, DIN EN 60947-1, IEC 60947-1		
VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1		

Application examples

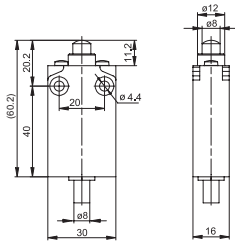
- Position monitoring of moving parts
- Object detection in conveying technology
- End position control of components
- Position monitoring on rolling doors
- Monitoring of sliding doors



Position Switches

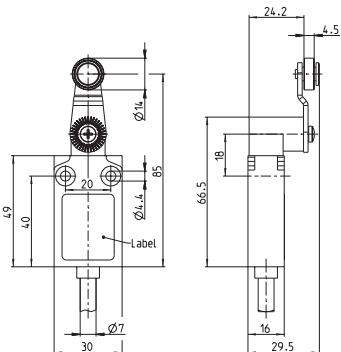
M49 Series - Metal Body

M49-... IW



	1 NC / 1 NO Snap-action	1 NC / 1 NO Slow-action	2 NC Slow-action	2 NO Slow-action	2 NC / 2 NO Slow-action
Switching diagram					
Cable outlet right	602300001 M49-SU1Z IW	602300003 M49-U1Z IW	602300005 M49-A2Z IW	602300007 M49-E2 IW	602300009 M49-U2Z IW
Cable outlet below	602300002 M49-SU1Z IW Z	602300004 M49-U1Z IW Z	602300006 M49-A2Z IW Z	602300008 M49-E2 IW Z	602300010 M49-U2Z IW Z
M12 connector right	602300011 M49-SU1Z IW M12	602300013 M49-U1Z IW M12	602300015 M49-A2Z IW M12	602300017 M49-E2 IW M12	
M12 connector below	602300012 M49-SU1Z IW Z M12	602300014 M49-U1Z IW Z M12	602300016 M49-A2Z IW Z M12	602300018 M49-E2 IW Z M12	

M49-... AH



	1 NC / 1 NO Snap-action	1 NC / 1 NO Slow-action	2 NC Slow-action	2 NO Slow-action	2 NC / 2 NO Slow-action
Switching diagram					
Cable outlet right	602300073 M49-SU1Z AH	602300075 M49-U1Z AH	602300077 M49-A2Z AH	602300079 M49-E2 AH	602300081 M49-U2Z AH
Cable outlet below	602300074 M49-SU1Z AH Z	602300076 M49-U1Z AH Z	602300078 M49-A2Z AH Z	602300080 M49-E2 AH Z	602300082 M49-U2Z AH Z
M12 connector right	602300083 M49-SU1Z AH M12	602300085 M49-U1Z AH M12	602300087 M49-AZ AH M12	602300089 M49-E2 AH M12	
M12 connector below	602300084 M49-SU1Z AH Z M12	602300086 M49-U1Z AH Z M12	602300088 M49-AZ AH Z M12	602300090 M49-E2 AH Z M12	

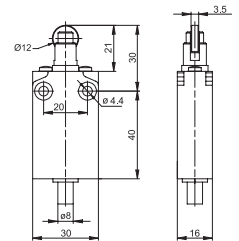
Position Switches

M49 Series - Metal Body



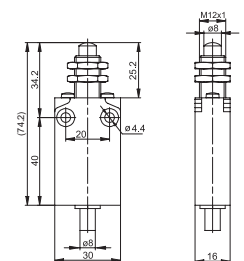
M49... RIW

	1 NC / 1 NO Snap-action	1 NC / 1 NO Slow-action	2 NC Slow-action	2 NO Slow-action	2 NC / 2 NO Slow-action
Switching diagram					
Cable outlet right	6023000019 M49-SU1Z RIW	6023000021 M49-U1Z RIW	6023000023 M49-A2Z RIW	6023000025 M49-E2 RIW	6023000027 M49-U2Z RIW
Cable outlet below	6023000020 M49-SU1Z RIW Z	6023000022 M49-U1Z RIW Z	6023000024 M49-A2Z RIW Z	6023000026 M49-E2 RIW Z	6023000028 M49-U2Z RIW Z
M12 connector right	6023000029 M49-SU1Z RIW M12	6023000031 M49-U1Z RIW M12	6023000033 M49-A2Z RIW M12	6023000035 M49-E2 RIW M12	
M12 connector below	6023000030 M49-SU1Z RIW Z M12	6023000032 M49-U1Z RIW Z M12	6023000034 M49-A2Z RIW Z M12	6023000036 M49-E2 RIW Z M12	



M49... IWF

	1 NC / 1 NO Snap-action	1 NC / 1 NO Slow-action	2 NC Slow-action	2 NO Slow-action	2 NC / 2 NO Slow-action
Switching diagram					
Cable outlet right	6023000037 M49-SU1Z IWF	6023000039 M49-U1Z IWF	6023000041 M49-A2Z IWF	6023000043 M49-E2 IWF	6023000045 M49-U2Z IWF
Cable outlet below	6023000038 M49-SU1Z IWF Z	6023000040 M49-U1Z IWF Z	6023000042 M49-A2Z IWF Z	6023000044 M49-E2 IWF Z	6023000046 M49-U2Z IWF Z
M12 connector right	6023000047 M49-SU1Z IWF M12	6023000049 M49-U1Z IWF M12	6023000051 M49-A2Z IWF M12	6023000053 M49-E2 IWF M12	
M12 connector below	6023000048 M49-SU1Z IWF Z M12	6023000050 M49-U1Z IWF Z M12	6023000052 M49-A2Z IWF Z M12	6023000054 M49-E2 IWF Z M12	



Position Switches

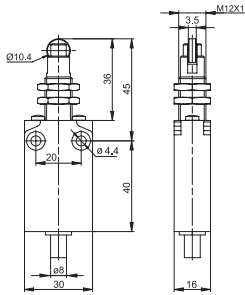
M49 Series - Metal Body



M49-... RIWF



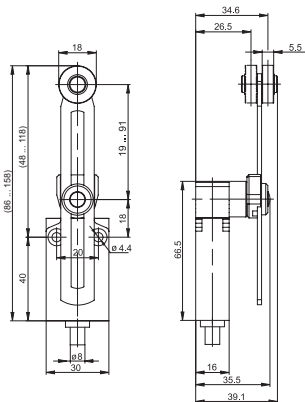
	1 NC / 1 NO Snap-action	1 NC / 1 NO Slow-action	2 NC Slow-action	2 NO Slow-action	2 NC / 2 NO Slow-action
Switching diagram					
Cable outlet right	6023000055 M49-SU1Z RIWF	6023000057 M49-U1Z RIWF	6023000059 M49-A2Z RIWF	6023000061 M49-E2 RIWF	6023000063 M49-U2Z RIWF
Cable outlet below	6023000056 M49-SU1Z RIWF Z	6023000058 M49-U1Z RIWF Z	6023000060 M49-A2Z RIWF Z	6023000062 M49-E2 RIWF Z	6023000064 M49-U2Z RIWF Z
M12 connector right	6023000065 M49-SU1Z RIWF M12	6023000067 M49-U1Z RIWF M12	6023000069 M49-A2Z RIWF M12	6023000071 M49-E2 RIWF M12	
M12 connector below	6023000066 M49-SU1Z RIWF Z M12	6023000068 M49-U1Z RIWF Z M12	6023000070 M49-A2Z RIWF Z M12	6023000072 M49-E2 RIWF Z M12	



M49-... AV



	1 NC / 1 NO Snap-action	1 NC / 1 NO Slow-action	2 NC Slow-action	2 NO Slow-action	2 NC / 2 NO Slow-action
Switching diagram					
Cable outlet right	6023000091 M49-SU1 AV	6023000093 M49-U1 AV	6023000095 M49-A2 AV	6023000097 M49-E2 AV	6023000099 M49-U2 AV
Cable outlet below	6023000092 M49-SU1 AV Z	6023000094 M49-U1 AV Z	6023000096 M49-A2 AV Z	6023000098 M49-E2 AV Z	6023000100 M49-U2 AV Z
M12 connector right	6023000101 M49-SU1 AV M12	6023000103 M49-U1 AV M12	6023000105 M49-A2 AV M12	6023000107 M49-E2 AV M12	
M12 connector below	6023000102 M49-SU1 AV Z M12	6023000104 M49-U1 AV Z M12	6023000106 M49-A2 AV Z M12	6023000108 M49-E2 AV Z M12	



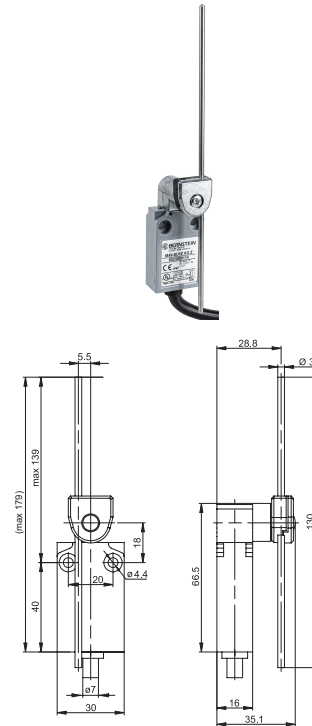
Position Switches

M49 Series - Metal Body



M49... AD

	1 NC / 1 NO Snap-action	1 NC / 1 NO Slow-action	2 NC Slow-action	2 NO Slow-action	2 NC / 2 NO Slow-action
Switching diagram					
Cable outlet right	6023000113 M49-SU1 AD	6023000115 M49-U1 AD	6023000117 M49-A2 AD	6023000119 M49-E2 AD	6023000121 M49-U2 AD
Cable outlet below	6023000114 M49-SU1 AD Z	6023000116 M49-U1 AD Z	6023000118 M49-A2 AD Z	6023000120 M49-E2 AD Z	6023000122 M49-U2 AD Z
M12 connector right	6023000123 M49-SU1 AD M12	6023000125 M49-U1 AD M12	6023000127 M49-A2 AD M12	6023000129 M49-E2 AD M12	
M12 connector below	6023000124 M49-SU1 AD Z M12	6023000126 M49-U1 AD Z M12	6023000128 M49-A2 AD Z M12	6023000130 M49-E2 AD Z M12	



M49... FF

	1 NC / 1 NO Snap-action
Switching diagram	
Cable outlet right	6023000109 M49-SU1 FF
Cable outlet below	6023000110 M49-SU1 FF Z
M12 connector right	6023000111 M49-SU1 FF M12
M12 connector below	6023000112 M49-SU1 FF Z M12

