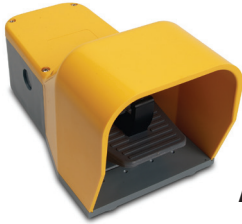


Foot Switches



APS1211-V0



APD1231-V0



APS1151-V0

Applications

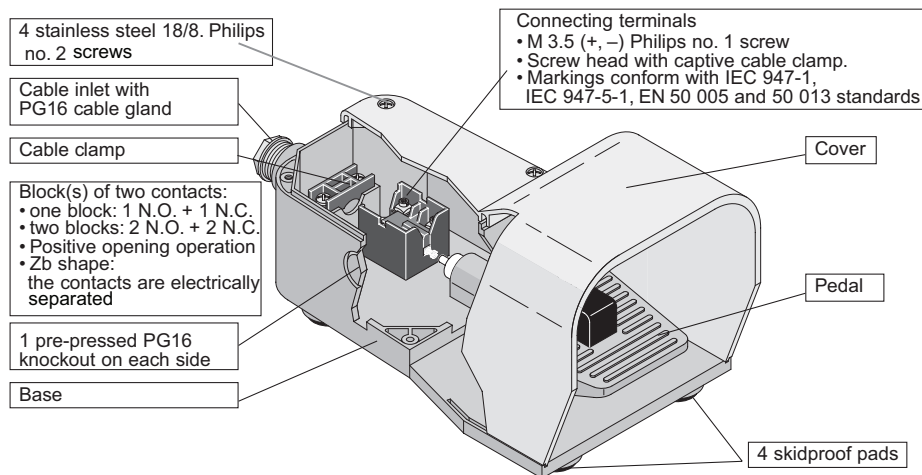
Choose these switches for foot switch-operated machines such as shearing machines, spinning machines, spinning lathes, machine tools, wrapping machines, riveting machines, and riveting presses.

AutomationDirect stocks foot switches in these operational formats:

- Free movement (momentary):
Contact position follows pedal movement; actuated when the pedal is pushed down, released when pedal is in state of rest.
- Foot switch locked in neutral position (safety anti-trip momentary):
Same operation as above, after unlocking the pedal with the foot.
- Foot switch latched in low position (maintained):
Same operation as free movement, except that a state of rest is obtained only after pedal is unlatched.

Description

- Plastic Unit Material
- Base, cover and pedal of shock-resistant ABS plastic material
- Aluminum Unit Materials Base and pedal of shock-resistant ABS plastic material; cover of die-cast aluminum
- Double switches include a 16" carrying rod



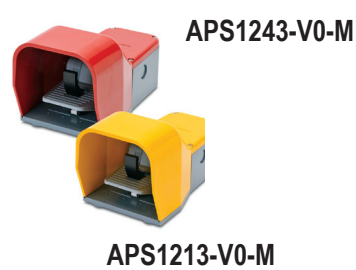
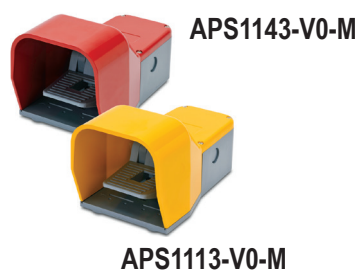
Foot Switches

All footswitches have heavy duty ABS plastic bases.

ABS Plastic Foot Switch Selection				
Part Number	Cover Color	Price	Drawing Link	Description
APS1211-V0	Yellow		PDF	Single, ABS plastic, safety actuating lever, 1 N.O. and 1 N.C. snap action contacts
APS1213-V0	Yellow		PDF	Single, ABS plastic, safety actuating lever, 2 N.O. and 2 N.C. snap action contacts
APS1151-V0	Half Red		PDF	Single, ABS plastic, free-moving mounting, 1 N.O. and 1 N.C. snap action contacts
APD1231-V0	One Yellow One Gray		PDF	Double, ABS plastic, safety actuating lever, 1 N.O. and 1 N.C. snap action contacts for each switch



Die-cast Aluminum Foot Switch Selection				
Part Number	Cover Color	Price	Drawing Link	Description
APS1113-V0-M	Yellow		PDF	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1114-V0-M	Yellow		PDF	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1123-V0-M	Gray		PDF	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1124-V0-M	Gray		PDF	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1143-V0-M	Red		PDF	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1144-V0-M	Red		PDF	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1213-V0-M	Yellow		PDF	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1214-V0-M	Yellow		PDF	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1223-V0-M	Gray		PDF	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1224-V0-M	Gray		PDF	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1243-V0-M	Red		PDF	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1244-V0-M	Red		PDF	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1313-V0-M	Yellow		PDF	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1314-V0-M	Yellow		PDF	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1323-V0-M	Gray		PDF	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1324-V0-M	Gray		PDF	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1343-V0-M	Red		PDF	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1344-V0-M	Red		PDF	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APD1113-V0-M	Yellow		PDF	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1114-V0-M	Yellow		PDF	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts
APD1123-V0-M	Gray		PDF	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1124-V0-M	Gray		PDF	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts
APD1133-V0-M	One Yellow One Gray		PDF	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1134-V0-M	One Yellow One Gray		PDF	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts
APD1213-V0-M	Yellow		PDF	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1214-V0-M	Yellow		PDF	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts
APD1223-V0-M	Gray		PDF	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1224-V0-M	Gray		PDF	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts
APD1233-V0-M	One Yellow One Gray		PDF	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1234-V0-M	One Yellow One Gray		PDF	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts



Foot Switches Technical Specifications

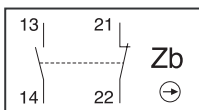
Foot Switch General Technical Data											
Standards	IEC 947-5-1										
Certifications - Approvals	UL/CUL file E191072, CE, RoHS										
Temperature	Operating (ambient) air temperature: - 10 to + 70°C (14°F to 158°F) Storage (non-operating) air temperature: - 30 to + 80°C (-22°F - 176°F)										
Environmental	According to IEC 68-2-3 and salty mist according to IEC 68-2-11										
Shock (according to IEC 68-2-27 and EN 60 068-2-27)	50g (1/2 sinusoidal shock for 11 ms) no change in contact position										
Degree of Protection (according to IEC 529 and EN 60 529)	IP 65										
Operating Torque	0.25 N·m (2.2 lb·in)										
Torque - Terminal Screw	Recommended: 0.8 N·m (7.0 lb.in); Maximum 0.9 N·m (8.0 lb.in)										
Torque - Cover Screw	Recommended: 5.0 N·m (4.3 lb.in); Maximum 0.8 N·m (7.0 lb.in)										
Operating Angle	15 Degree										
Cable Inlet	Pg 16 x 1.41 knockout										
Foot Switch Electrical Data											
Rated Insulation voltage U_i	690V (according to IEC 947-1 and EN 60-947-1) Degree of pollution 3										
Rated Impulse Withstand Voltage U_{imp}	6kV (according to IEC 947-1 and EN 60 947-1)										
Conventional Free Air Thermal Current I_{th} $\Theta < 40$ °C	10A (according to IEC 947-1)										
Short-circuit Protection $U_e < 500V$ AC. - gG (gl) type fuses	10A										
Rated Operational Current	A 600 (according to UL 508 and CSA C22-2 n° 14) Q 600 (according to UL 508 and CSA C22-2 n° 14)										
AC-15 (according to IEC 947-5-1)	<table border="0"> <tr><td>24V</td><td>10A</td></tr> <tr><td>120V</td><td>6A</td></tr> <tr><td>230V</td><td>3.1 A</td></tr> <tr><td>240V</td><td>3A</td></tr> <tr><td>400V</td><td>1.8 A</td></tr> </table>	24V	10A	120V	6A	230V	3.1 A	240V	3A	400V	1.8 A
24V	10A										
120V	6A										
230V	3.1 A										
240V	3A										
400V	1.8 A										
DC-13 (according to IEC 947-5-1)	<table border="0"> <tr><td>24V</td><td>2.8 A</td></tr> <tr><td>125V</td><td>0.55 A</td></tr> <tr><td>250V</td><td>0.27 A</td></tr> </table>	24V	2.8 A	125V	0.55 A	250V	0.27 A				
24V	2.8 A										
125V	0.55 A										
250V	0.27 A										
Resistance Between Contacts	25mΩ										
Connecting Terminals	M3.5 (±) Philips head #1 with cable clamp										
Positive Opening Operation (according to IEC 947-5-1)	Yes marked by										
Connecting Capacity	(1 or 2 x mm ²) 0.75 to 2.5										
Terminal Marking	According to EN 50 013										
Life Expectancy	Mechanical: 30 million operations Electrical Operations: Utilization categories AC-15 and DC-13 (Load factor of 0.5 according to curves)										

Wiring

Snap-action contact: A contact element in which the contact motion is independent of the speed of the actuator. This feature ensures reliable electrical performance even in applications involving very slow moving actuators.

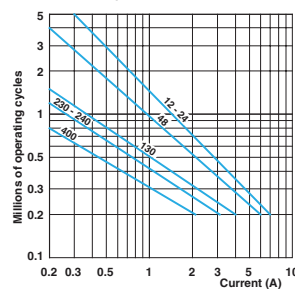
Slow-make/slow-break contact: A contact element in which the contact motion is dependent on the actuator speed.

Snap Action or Slow Action
1 N.O. and 1 N.C.

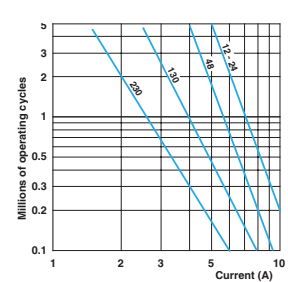


Note: See contact block accessories for AGZ11-SWITCH and AGX11-SWITCH replacement contact block (contact blocks have adjustable screw actuator).

AC-15 - Snap Action



AC-15 - Slow Action



DC-13	Snap Action	Slow Action
Power breaking for a durability of 5 million operating cycles		
Voltage 24V	9.5 W	12W
Voltage 48V	6.8 W	9W
Voltage 110V	3.6 W	6W

IEC Limit Switches Accessories

Replacement contact blocks

Easily-installed replacement contact blocks fit both heavy-duty IEC and double-insulated limit switches, including mini-DIN models.



Note: Limit switches come standard with snap-action contacts (AGZ11-SWITCH.) To replace contact block, remove limit switch cover. Carefully remove old contact block and install replacement. Contact blocks are supplied with an adapter to fit into larger ABM and ABP switches. Remove this adapter when installing contacts in mini-DIN AAP models.

Replacement Contact Blocks			
Part Number	Price	Contact Type	Action
AGZ11-SWITCH		Snap-action 1 N.C. and N.O.	3ms change-over time
AGZ02-SWITCH		Snap-action 2 N.C.	3ms change-over time
AGX11-SWITCH		Slow-action 1 N.C. and 1 N.O.	Break before make
AGY11-SWITCH		Slow-action overlay 1 N.C. and 1 N.O.	Make before break
AGW02-SWITCH		Slow-action delay 2 N.C.	Simultaneous
AGW20-SWITCH		Slow-action overlay 2 N.O.	Simultaneous

Additional lever arms, spare parts and accessories for ABM series

Additional Lever Arms/Spare Parts and Accessories			
Part Number	Price	Dimensions	Actuator Type
AGE42-LEVER		Figure 8	Lever with stainless steel roller for E42 models (replacement lever)
AGE44-LEVER		Figure 13	Lever with 50mm diameter rubber roller (fits E42 models)
AGE52-LEVER		Figure 9	Lever with stainless steel roller for E52 models (replacement lever)
AGE54-LEVER		Figure 14	Lever with 50mm diameter rubber roller (fits E52 models)

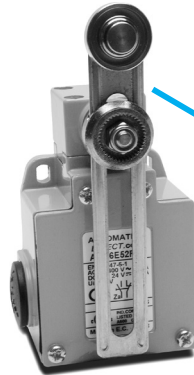
Note: See the Bar Charts page of this section for more information.



Replacement actuator levers for heavy-duty IEC models

Easily-replaceable actuators for E42 and E52 model limit switches.

Note: These models have an E42 or E52 in the part number, for example, ABM1E42Z11.



AGE52-LEVER

(Replacement lever shown installed on ABM5E52Z11 limit switch)

AGE44-LEVER



AGE54-LEVER

