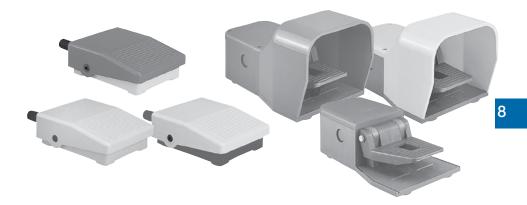


Foot switches





Description of Mini foot switches

- Reduced dimensions: 100 x 75 x 34 mm.
- Materials: cover and base made of selfextinguishing ABS.
- Color choice: black or grey base; black, grey, yellow or red cover.

Description of foot switches with covers

- Dimensions: 285 x 140 x 145.
- Materials: base, cover and pedal made of shock resistant Bayblend® FR 90 material (alloyed polycarbonate and ABS).
- Color choice: grey base; grey, yellow or red cover.
- Variations: grey base, half-red cover. Especially used for emergency stop function.

Note: this emergency stop function must never contain the «locked in neutral position» device.

UL Listed file #E191693

Application

Foot switch-operated machines such as: shearing machines, folding machines, spinning lathes, machine tools, wrapping machines, riveting presses, etc.

Foot switches with covers come in three operation formats:

- Free movement: contact position follows pedal movement: actuated when the pedal is pushed down, released when pedal is in a state of rest.
- Foot switch locked in neutral position: same operation as above, after unlocking the pedal with the end of the foot.
- Foot switch latched in low position: same operation as free movement, except that a state of rest is obtained only after having unlatched the pedal with the end of the foot.

Low Voltage Products & Systems 8.63



General information IPM Mini foot switches, IPS Foot switches with covers Description

Application

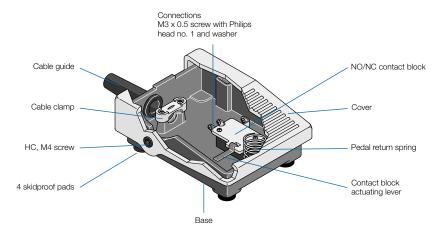
Foot switch-operated machines such as: shearing machines, folding machines, spinning lathes, machine tools, wrapping machines, riveting

Foot switches with covers come in three operation formats:

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

Description of Mini foot switches

- Reduced dimensions: 100 x 75 x 34 mm.
- Materials: cover and base made of self-extinguishing ABS.
- Color choice: black or grey base; black, grey, yellow or red cover.



Description of foot switches with covers

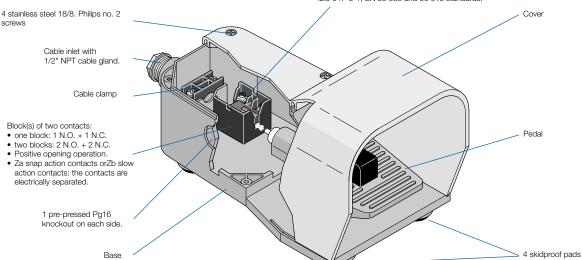
- Dimensions: 285 x 140 x 145.
- Materials: base, cover and pedal made of shock resistant Bayblend® FR 90 material (alloyed polycarbonate and ABS).
- Color choice: grey base; grey, yellow or red cover.
- Variations: grey base, half-red cover. Especially used for emergency stop function.

Note: this emergency stop function must never contain the «locked in neutral position» device.

Connecting terminals

- M 3.5 (+, -) Philips no. 1 screw

 Screw head with captive cable clamp.
- Markings conform with IEC 947-1, IEC 947-5-1, EN 50 005 and 50 013 standards.



Comment: Foot switches with covers can be assembled on a plate and equipped with a transportation handle. Upon request, instead of the handle an emergency stop button can be installed above a tube that allows for connection cable passage.

Foot switches

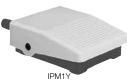
Mini foot switches, IP 40



IPM Mini foot switches





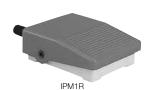


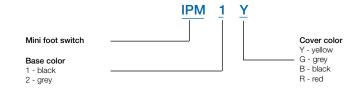
NC NO. + N.C. C contact block	Cover color	Unit weight in kg Packing 1 piece	Catalog number
Black base 1 1 1 1	Yellow Grey Black Red	0.130 0.130 0.130 0.130 0.130	IPM1Y IPM1G IPM1B IPM1R
Grey base 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Yellow Grey Black Red	0.130 0.130 0.130 0.130	IPM2Y IPM2G IPM2B IPM2R

Catalog number explanation









8.65 Low Voltage Products & Systems

Foot switches

Foot switches

Foot switches with covers, IP 65

IPSY1A11

IPSR1A11



IPSG1A11



IPS foot switches

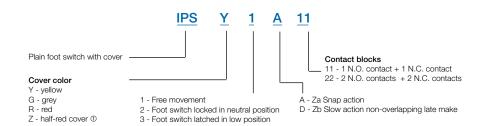
Contact blocks (set of 1 N.O. + 1 N.C.)					
Snap action		Non-overlapping slow action		Unit weight in kg	Catalog
Za	Za Za	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Packing 1 piece	number
Free move	ement				
1 - - -	- - 1+1 -	_ 1 _ _	- - - 1+1	1.100 1.100 1.100 1.100	IPSΔ1A11 IPSΔ1D11 IPSΔ1A22 IPSΔ1D22
Locked in	neutral position				
1 - -	- - 1+1 -	_ 1 _ _	- - - 1+1	1.100 1.100 1.100 1.100	IPSΔ2A11 IPSΔ2D11 IPSΔ2A22 IPSΔ2D22
Latched in	n low position				
1 - -	- - 1+1 -	_ 1 _ _	- - - 1+1	1.100 1.100 1.100 1.100	IPS∆3A11 IPS∆3D11 IPS∆3A22 IPS∆3D22
Free move	ement foot switch v	vith half-re	ed cover		
1 - -	_ _ 1 + 1 _	_ 1 _ _	_ _ _ _ 1+1	0.800 0.800 0.800 0.800	IPSZ1A11 IPSZ1D11 IPSZ1A22 IPSZ1D22
Foot switch latched in low position with half-red cover					
1 - - -	- - 1+1 -	_ 1 _ _	- - - 1+1	0.800 0.800 0.800 0.800	IPSZ3A11 IPSZ3D11 IPSZ3A22 IPSZ3D22

Color code

To select a foot switch color, substitute the appropriate color code for the Δ in the catalog number

Yellow	Y	
Grey	G	
Red	R	

Catalog number explanation



① Incompatible with locked in neutral position function.



Technical data

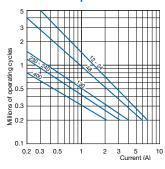
General technical data

		Mini foot switch	Foot switch with cover
Standards		IEC 1058-1	IEC 947-5-1
Certifications & Approvals		-	UL - CSA - BG
Air temperature near the device – during operation – for storage	°C °C	- 10 + 70 - 25 + 80	- 10 + 70 - 30 + 80
Climatic withstand		-	according to IEC 68-2-3 and salty mist according to IEC 68-2-11
Shock withstand (according to IEC 68-2-27 and EN 60 068-2-27)	g	-	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 40	IP 65
Actuation torque	N.m	1.2	0.25
Operating angle	Degree	2 to 4	15
Cable inlet		Cable guide ø min. 6mm; ø max. 8.5 mm	Pg 16

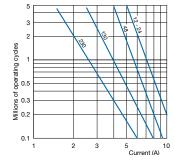
Electrical data

Electrical data				
Rated insulation voltage U		V	250	500 (according to IEC 947-1 and EN 60-947-1) Degree of pollution 3
Rated impulse withstand volt (according to IEC 947-1 and	age U _{imp} EN 60 947-1)	kV	1	6
Conventional free air thermal $(q < 40 ^{\circ}\text{C})$	current I _{th}	А	15	10 (according to IEC 947-1)
Short-circuit protection $U_e < 500 \text{ V a.c.} - gG (gl) \text{ type}$	fuses	А	10	10
Rated operational current		A A	3 (250 V a.c.) 0.06 (230 V d.c.)	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 acc. to IEC 947-5-1	24 V 130 V 230 V 240 V 400 V	A A A A	- - - - -	10 5.5 3.1 3 1.8
DC-13 acc. to IEC 947-5-1	24 V 110 V 250 V	A A A	_ _ _	2.8 0.6 0.27
Resistance between contacts	3	mΩ	30	25
Connecting terminals			M3 x 0.5 screw with Philips head no. 1 and washer	M3.5 (+, -) screw with Philips head no. 1 with cable clamp
Positive opening operation (according to IEC 947-5-1)			-	Θ
Connecting capacity		1 or 2 x mm ²	_	0.5 – 2.5
Terminal marking			_	According to EN 50 013
Mechanical durability		Millions of operations	10	30
Electrical durability		Operations	100,000	According to IEC 947-5-1, utilization categories AC-15 and DC-13 (Load factor of 0.5 according to curves below)

AC-15 - Snap action



AC-15 — Slow action



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

Technical data & approximate dimensions

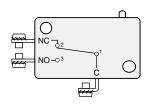
Mini-footswitches



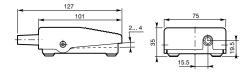
IPM Mini foot switches

Base color		Yellow	Grey	Black	Red
		cover	cover	cover	cover
Black base	Catalog number	IPM1Y	IPM1G	IPM1B	IPM1R
Grey base	Catalog number	IPM2Y	IPM2G	IPM2B	IPM2R
Weight (packing per unit)	kg	0.130	0.130	0.130	0.130

N.O. + N.C. Contact block



Dimensions (mm)





Technical data & approximate dimensionsFoot switches with covers

IDC:	トへへも	switc	hac
IFO	ヒいい	SVVIII	1165

ii o i oot owitonoo		Free movement	Locked in neutral position	Latched in low position
Snap action contacts	Catalog number	IPS1A11	IPS2A11	IPS3A11
13 11 Za	⊕ (Positive opening operation of the N.C. contact)	Θ	Θ	⊖
Snap action contacts	Catalog number	IPS1A22	IPS2A22	IPS3A22
$\begin{bmatrix} 13 \\ 14 \end{bmatrix} \begin{bmatrix} 11 \\ 12 \end{bmatrix} \begin{bmatrix} 2a \\ 14 \end{bmatrix} \begin{bmatrix} 11 \\ 12 \end{bmatrix} \begin{bmatrix} 2a \\ 14 \end{bmatrix} \begin{bmatrix} 2a \\ 14 \end{bmatrix}$	(Positive opening operation of the N.C. contact)	Θ	⊖	⊖
Non-overlapping	Catalog number	IPS1D11	IPS2D11	IPS3D11
Slow action contacts Slow action contacts	(Positive opening operation of the N.C. contact)	Θ	Θ	⊖
Non-overlapping	Catalog number	IPS1D22	IPS2D22	IPS3D22
Slow action contacts 3	(Positive opening operation of the N.C. contact)	Θ	Θ	⊖
Weight (packing per unit)	kg	1.10	1.10	1.10

Dimensions (mm)

