

Fractional Horsepower Manual Starters with Melting Alloy Type Thermal Overload Relay

Table 16.1: Single-Unit Types—Class 2510—Rated 16 A—Thermal Units (see Thermal Unit Selection, page 16-132)

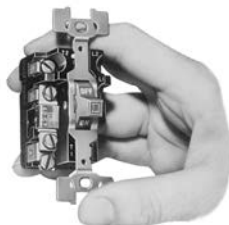
Type of Operator	No. of Poles	Features	NEMA 1 General Purpose Enclosure Surface Mounting		General Purpose Flush Mounting (Without Pull Box)			NEMA Type 4 [1] Enclosure Watertight and Dusttight	NEMA Types 3R, 7 & 9 Enclosure Hazardous Locations Div. 1 & 2 Class I Groups B, C, & D, & Class II Groups E, F, & G	Open Type	Number of Thermal Units Required
			Standard	Oversized	Gray Flush Plate	Standard Stainless Steel Flush Plate	Jumbo Stainless Steel Flush Plate				
			Type	Type	Type	Type	Type				
Basic Starter—Class 2510											
Toggle	1	Standard	FG1	FGJ1	FF1	FS1	—	—	—	FO1	1
		With Red Pilot Light [2]	FG1P	FGJ1P	FF1P	FS1P	FSJ1P	—	—	FO1P	1
	2	Standard	FG2	FGJ2	FF2	FS2	—	—	—	FO2	1
		With Red Pilot Light [2]	FG2P	FGJ2P	FF2P	FS2P	FSJ2P	—	—	FO2P	1
Key	1	Standard	FG3	FGJ3	FF3	FS3	—	—	—	FO3	1
		With Red Pilot Light [2]	FG3P	FGJ3P	FF3P	FS3P	FSJ3P	—	—	FO3P	1
	2	Standard	FG4	FGJ4	FF4	FS4	—	—	—	FO4	1
		With Red Pilot Light [2]	FG4P	FGJ4P	FF4P	FS4P	FSJ4P	—	—	FO4P	1
Starter with Handle Guard/Lock-Off—Class 2510											
Toggle	1	Standard	FG5	FGJ5	Order basic starter plus separate handle guard kit.			FW1	FR1	[3] [4]	1
		With Red Pilot Light [2]	FG5P	FGJ5P				FW1P	—	[3] [4]	1
	2	Standard	FG6	FGJ6				FW2	FR2	[3] [4]	1
		With Red Pilot Light [2]	FG6P	FGJ6P				FW2P	—	[3] [4]	1

Table 16.2: Duplex Units—Class 2510

Type of Operator	No. of Poles	Features	NEMA 1 General Purpose Enclosure Surface Mounting	General Purpose Flush Mounting (Without Pull Box)		Replacement Starter Class 2510	Number of Thermal Units Required
			Type	Gray Flush Plate for Wall or Cavity Mounting	Stainless Steel Flush Plate for Wall or Cavity Mounting		
One Starter in Duplex Enclosure—Class 2510							
Toggle	2	Standard	FG02	—	—	—	1
		With Red Pilot Light [2]	FG02P	—	—	—	
Key	2	With Red Pilot Light [2]	FG04P	—	—	—	1
Two Starters in One Enclosure—Class 2510							
Toggle	2 Each Str.	Standard	FG22	FF22	—	—	2
		With Red Pilot Light on Each [2]	FG22P	FF22P	FS22P	—	
Key	2 Each Str.	With Red Pilot Light on Each [2]	FG44P	FF44P	FS44P	—	2
Starter and Auto-Off-Hand SPDT Selector Switch (AC Only)—Class 2510							
Toggle	1	Standard	FG71	FF71	—	—	1
		With Red Pilot Light [2]	FG71P	FF71P	FS71P	—	
	2	Standard	FG72	FF72	—	—	1
		With Red Pilot Light [2]	FG72P	FF72P	FS72P	—	
Key	2	With Red Pilot Light [2]	FG74P	FF74P	FS74P	—	1
Two Speed Starters (AC Only)—Class 2512						Replacement Starter—Class 2510	
Toggle	1	With Mechanical Interlock:	—	—	—	—	2
		Standard	FG11	FF11	—	FO1T	
		With 2 Red Pilot Lights [2]	FG11P	FF11P	—	FO1PT	
	2	With High-Off-Low Selector Switch:	—	—	FS101P	FO1PT	2
		Standard	FG22	FF22	—	FO2T	
		With 2 Red Pilot Lights [2]	FG22P	FF22P	—	FO2PT	
		With High-Off-Low Selector Switch:	—	—	FS202P	FO2PT	



Type FG2P



Type FO2

Table 16.3: Horsepower Ratings, Type F (continuous current rating: 16 A)

Volts	Maximum Horsepower		
	AC Single Phase		DC 2-Pole Only
	1-Pole	2-Pole	
115-230	1	1	3/4
277	1	1	—

Table 16.4: Approvals—2510 Type F and K

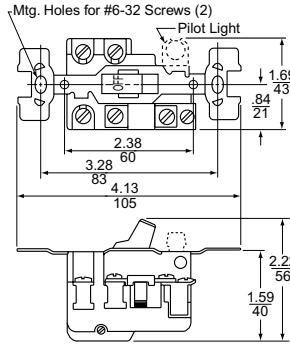
Agency	Enclosed	Open
UL	UL Listed File: E42243, CCN: NLRV	UL Component Recognized File: E42243, CCN: NLRV2
CSA	CSA Certified File: LR25490, Class: 3211-05	

Table 16.5: How to Order

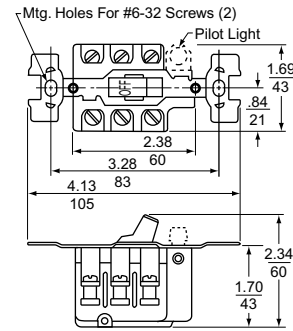
To Order Specify:	Catalog Number	
• Class Number	Class	Type
• Type Number	2510	FG1

[1] Furnished with one 3/4" pipe tap in the bottom (reversible for top feed). For a 3/4" pipe tap in the top and bottom, add the suffix H to the Type.
 [2] For a green pilot light, add the letter G to the catalog number (i.e. 2510FG2PG).
 [3] For a replacement starter, order the Open type above.
 [4] When replacing a starter equipped with a pilot light in NEMA 4 enclosure, retain the pilot light mounting bracket from the original device.

Open Type

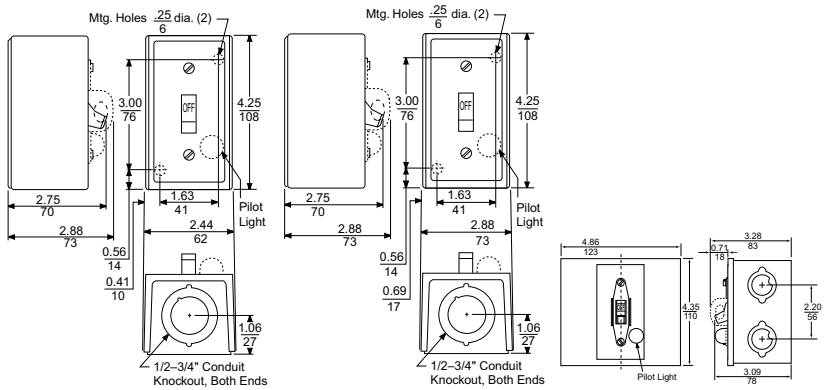


Types FO1, 1P, 2
Fractional Hp Starter



Types KO1, 1A, 1B, 2, 2B, 2C
Types KO5, 5A, 5B, 6, 6B, 6C
Motor Starting Switch

NEMA 1 General Purpose Enclosure (Surface Mount)



Standard
(Class 2510 Types FG & KG, Single Unit)

Oversized
(Class 2510 Types FGJ & KGJ, Single Unit)

Jumbo
(Class 9991 Type KE2, see Table 16.29)

NEMA 1 General Purpose Enclosure (Flush Mount)

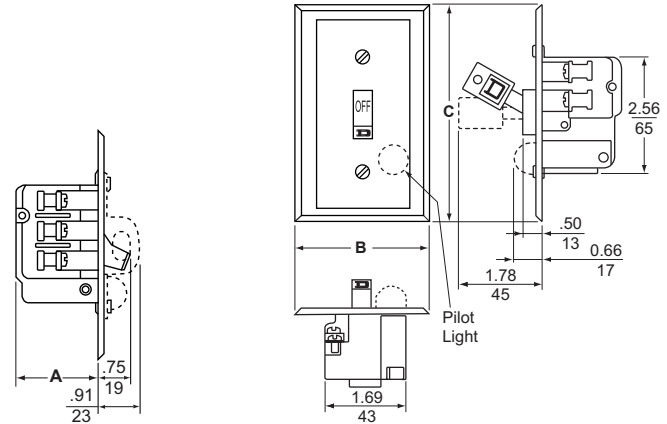


Table 16.12: General Purpose Enclosure (Flush Mount)

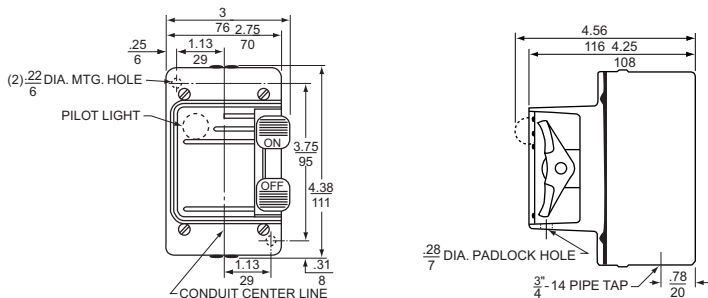
Device	Type of Operator	Class 2510 Type	Dimensions		
			A	B	C
Fractional Hp Starter	Toggle	FF1, 1P, 2, 2P, FS1, 1P, 2, 2P	1.44	2.75	4.5
		FSJ1P, 2P	1.44	3.5	5.25
	Key	FF3, 3P, 4, 4P, FS3, 3P, 4, 4P	1.44	2.75	4.5
FSJ3P, 4P		1.44	3.5	5.25	
Motor Starting Switch	Toggle	KF1, 1A, 1B, 2, 2B, 2C KS1, 1A, 1B, 2, 2B, 2C	1.75	2.75	4.5
		KSJ1A, 1B, 2B, 2C	1.75	3.5	5.25
	Key	KF3, 3A, 3B, 4, 4B, 4C KS3, 3A, 3B, 4, 4B, 4C	1.75	2.75	4.5
KSJ3A, 3B, 4B, 4C		1.75	3.5	5.25	

NOTE: These dimensions are for reference only. If you need precise measurements, contact the Customer Care Center at 1-888-778-2733.

Table 16.13: NEMA 4 Watertight Die-Cast Zinc Enclosure

Device	Class	Type
Fractional Hp Starter	2510	FW1, 1P, 2, 2P
Motor Starting Switch	2510	KW1, 1A, 1B, 2, 2B, 2C

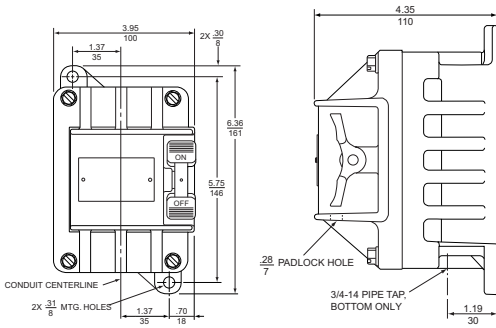
NEMA 4 Watertight Die-Cast Zinc Enclosure



NEMA 3R, 7, and 9 Aluminum Enclosure for Hazardous Locations

Table 16.14: NEMA 3R, 7, and 9 Aluminum Enclosure for Hazardous Locations

Device	Class	Type
Fractional Hp Starter	2510	FR1, 2
Motor Starting Switch	2510	KR1, 2



Dimensions for Duplex Devices

NOTE: These dimensions are for reference only. If you need precise measurements, contact the Customer Care Center at 1-888-778-2733.

Table 16.15: NEMA 1 General Purpose Surface Mount Enclosure for Duplex Devices

Device	Type of Operator	Class	Type
One Starter	Toggle	2510	FGO2, 02P
	Key	2510	FGO4P
Two Starters	Toggle	2510	FG22, 22P
	Key	2510	FG44P
One Starter and One Selector Switch ^[8]	Toggle	2510	FG71, 71P, 72, 72P
	Key	2510	FG74P
Reversing Switch ^[9]	Toggle	2511	KG11, 11A, 11B, 22, 22A, 22B, 22C
Two-Speed Starter	Toggle	2512	FG11, 11P, 22, 22P
Two-Speed Switch	Toggle	2512	KG11, 11A, 11B, 22, 22B, 22C

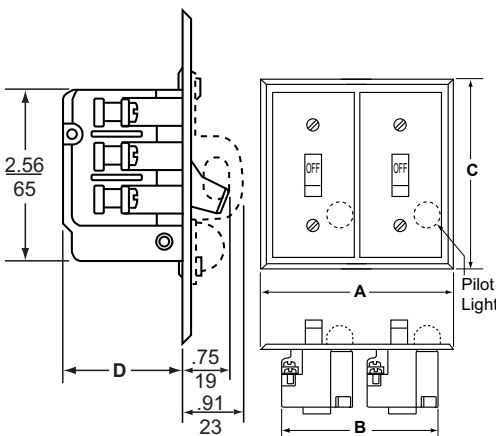
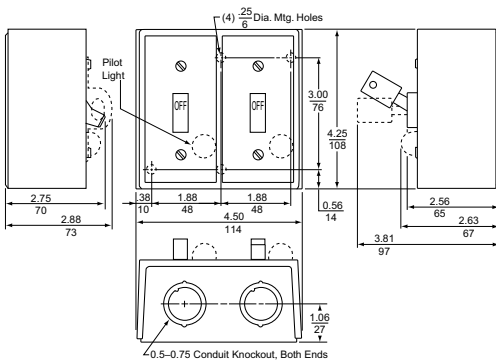


Table 16.16: General Purpose Flush Mounting Plate for Duplex Devices

Device	Type of Operator	Class	Type	Dimensions ^[10]			
				A	B	C	D
Two Starters	Toggle	2510	FF22, 22P	5.25	3.75	5.25	1.44
			FS22P	4.56	3.5	4.5	1.44
	Key	2510	FF44P	5.25	3.75	5.25	1.44
			FS44P	4.56	3.5	4.5	1.44
One Starter and One Selector Switch ^[11]	Toggle	2510	FF71, 71P, 72, 72P	5.25	0.75	5.25	2
			FS71P, 72P	4.56	3.5	4.5	2
	Key	2510	FF74P	5.25	3.75	5.25	2
			FS74P	4.56	3.5	4.5	2
Reversing Switch	Toggle	2511	KF11, 11A, 11B KF22, 22A KF22B, 22C	5.25	3.75	5.25	1.75
Two-Speed Starter	Toggle	2512	FF11, 11P, 22, 22P	5.25	3.75	5.25	1.44
Two-Speed Switch	Toggle	2512	KF11, 11A, 11B, KF22, 22B, 22C	5.25	3.75	5.25	1.75

[8] Selector switch is on the left and increases the overall depth to 3.5 in.
 [9] Only one pilot light (located on right) is used on Class 2511 switches.
 [10] Dimensions include factory wired power connections.
 [11] Selector Switch is on left, extends 1-5/8" from mounting surface.