

Engineering Plastic Combination Stations EFCS Series

Wet Locations
NEMA 3,3R,4,4X,7,9

❖ Type of Explosion-proof
Flameproof-Increase Safety
(Ex de IIC T6 IP66)

© Rating : Max. 250 Volt, Max. 5 Ampere.

❖ Features

- Enclosure in glass fiber reinforced polyester resin, provide excellent resistant to corrosion so have a long life.
- Enclosure contains ultraviolet interception ingredient to resist transformation.
- Easy installation and maintenance.
- All fixtures are designed to perform from -20 to 40°C ambient temperature.
- Any combination of units (1 push button switch, 2 push button switch, pilot lamps, selector switch, ampere meters, and so on) are available.

❖ Standard Finish

- Dark Gray
- If you want another color, contact us please.

❖ Standard Materials

- Main Enclosure : Glass fiber reinforced polyester resin

❖ Application

EFCS series are used:

- in manufacturing plants, refineries, chemical, petrochemical, and other industrial process facilities, and other industrial applications.
- in areas in which ignitable concentrations of flammable gases or vapors will be present only due to abnormal, unusual, accidental conditions.
- where combustible dust are present.
- in installations where moisture, dirt, dust, vibration, corrosion, and rough usage are problems.
- wherever the damaging effects of water, wind, snow, sleet, hot sun, or any combination of these elements are found.

❖ Options

- Sunshade cover



Units	Specification	Electrical Ratings
Am-meter Volt-meter	-The Am-meters and Volt-meters are moving iron instruments with an accuracy class 1.5 -Standard overload scales are max.3 times -On Am-meters for 1 and 5 Amp C.T connection	500V, n/1 or n/5A
Pilot Lamp	-The pilot system based on the use of luminescent diodes as the lamp source.	LED : AC 110,220V/20mA max.,DC24V Filament Lamp : AC100,220V/3W
Cam Switch	-Cam Switches max 4 positions are available with conventional contactors or as a contact-free version. -The contact arrangements can be selected, spring return or notched positions can be supplied (refer to contact arrangement on this page).	Contact Ratings AC 110V 15Amp. 300V 10Amp. 440V 3Amp. DC 24V 10Amp. 110V 5Amp. 220V 3Amp.
Selector Switch	-Selector switches max 4 positions are available. -The switching arrangements can be selected, spring return or notched position are available.	AC 250V 6A Contact Rating.
Tumbler Switch	-Tumbler switches max 4 positions are available. -The switching arrangements can be selected, spring return or notched position are available.	AC 250V 6A Contact Rating.
Push Button Switch	-The standard contact block is double pole, 1 NC (Normally closed), and 1 NO (Normally Open contact)	AC 250V 6A Contact Rating.
Illuminated Push Button Switch	-The illuminated push button switch is combination with pilot lamp and push button switch.	LED : AC 110,220V/20mA max., DC24V

Suffix No.	For Operating Magnetic Motor Starter		Suffix No.	For ON-OFF or Selective Transfer Operation	
	Handle Positions	Contact Arrangements		Handle Positions	Contact Arrangements
1			7		
2			8		
3			9		
4			10		
5			11		
6			12		

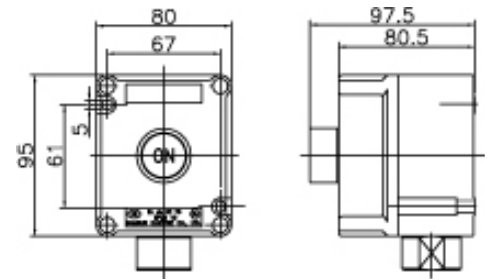
Explanation on Operating Diagrams in the Table

In the operating diagrams in the table above, the longitudinal dotted lines show the operating positions of switch, the small circles on the both ends of lateral line show the terminals, and the figures show the terminal numbers.

The marks showing the conditions of contacts at each operating position are explained as follows:

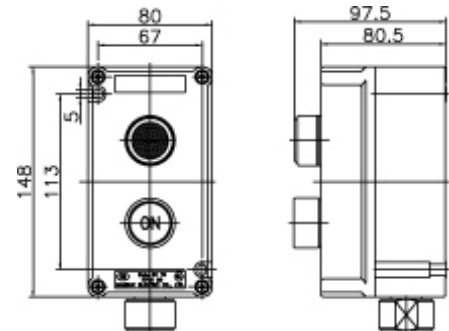
- The contact between both terminals is closed at this position.
- The contact is closed successively between the two positions.
- ←● The mark of residual contact. The contact is closed when the handle is set to this position and keeps closed after the handle returns. The contact is open at the fine point of the arrow mark when the handle is operated in this direction.
- ↖ A The mark of spring return. The arrow mark shows the direction of automatic spring return form 'A' to the fine point of it.

❖ 1 Gang



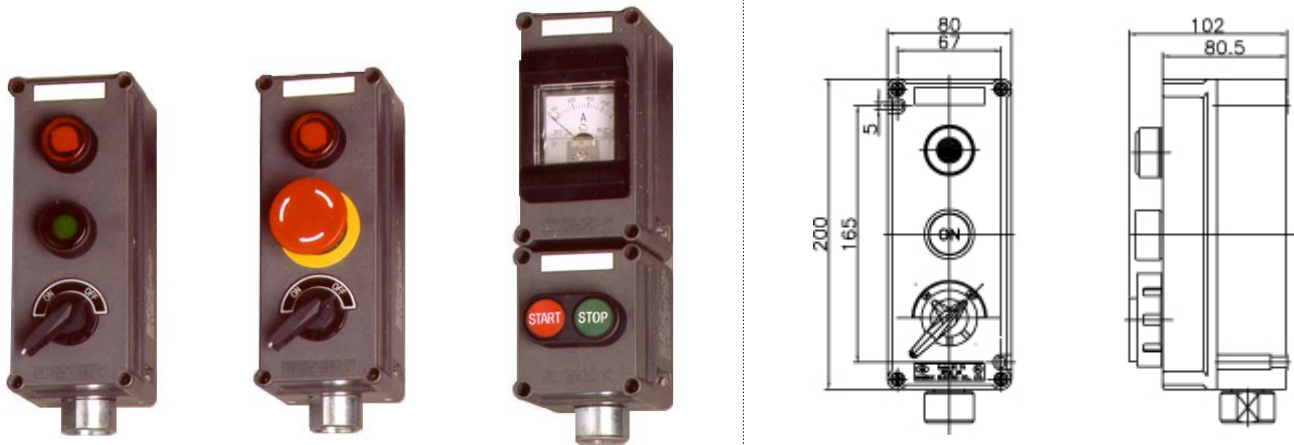
Catalog No.	Push Button S/W		Selector S/W	Tumbler S/W	Pilot Lamp	Illuminated Push Button	Emergency Push Button	Ampere Meter	Weight (Kg)
	Single	Double							
EFCS 101	○								0.45
EFCS 102			○						0.54
EFCS 103					○				0.45
EFCS 104		○							0.5
EFCS 105						○			0.46
EFCS 106							○		0.47

❖ 2 Gang



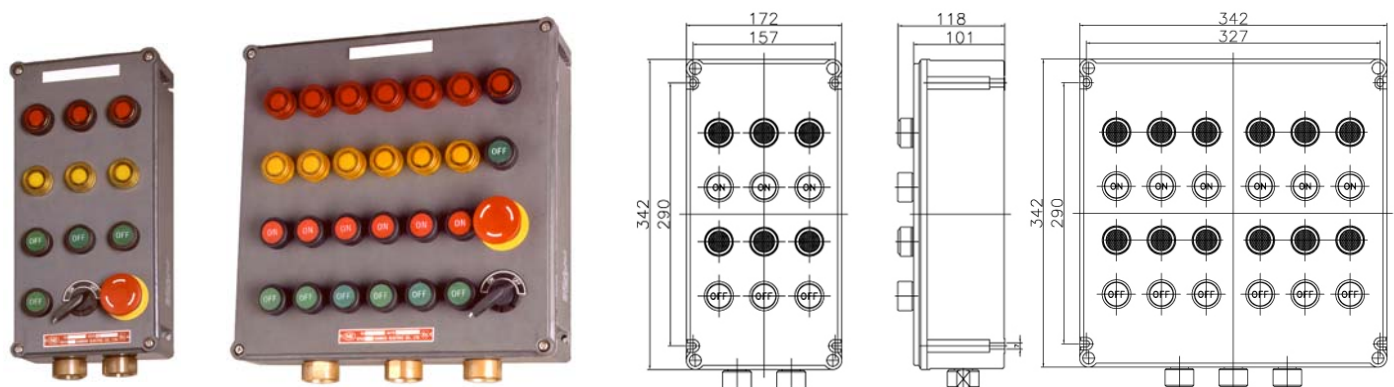
Catalog No.	Push Button S/W		Selector S/W	Tumbler S/W	Pilot Lamp	Illuminated Push Button	Emergency Push Button	Ampere Meter	Weight (Kg)
	Single	Double							
EFCS 201	○○								0.59
EFCS 202	○				○				0.6
EFCS 203					○○				0.6
EFCS 204			○		○				0.64
EFCS 205		○			○				0.63
EFCS 206		○	○						0.8
EFCS 207A								○	0.66
EFCS 208	○						○		0.61
EFCS 209						○○			0.58
EFCS 210		○					○		0.7

❖ 3 Gang



Catalog No.	Push Button S/W		Selector S/W	Tumbler S/W	Pilot Lamp	illuminated Push Button	Emergency Push Button	Ampere Meter	Weight (Kg)
	Single	Double							
EFCS 301			○		○○				0.83
EFCS 302			○			○○			0.85
EFCS 303		○			○○				0.8
EFCS 304					○○○				0.78
EFCS 305						○○○			0.75
EFCS 306	○		○		○				0.84
EFCS 307	○○		○						0.84
EFCS 308		○						○	0.85
EFCS 309			○					○	0.9
EFCS 310	○				○		○		0.84
EFCS 311	○○				○				0.8
EFCS 312		○			○		○		0.85
EFCS 313	○○○								0.8

❖ 12, 28 Gang



Catalog No.	Units
EFCS 1200	pilot lamp/ push button S/W(single)/ push button S/W(double)/ emergency push button S/W ampere meter/ selector S/W(small)/ Tumbler S/W(small)/ illuminated push button S/W and so on.
EFCS 2800	