#### Features/Benefits

- Up to 10 poles per module
- Various contact terminals
- Various mounting & switch ganging configurations
- Mechanical indicator buttons
- RoHS compliant

#### Typical Applications

- Audio selection
- Digital equipment interface
- Medical equipment interface





#### **Specifications**

SWITCHING POWER: F module max. AC/DC: Silver: 50 VA/15W, Gold: 1 VA/300 mW.

SWITCHING VOLTAGE: F module max. AC/DC: Silver: 125/30V, Gold: 50/30 V.

SWITCHING CURRENT: F module max. AC/DC: Silver: 0.5A/0.5A. Gold: 0.04A/0.01A.

CARRYING CURRENT: Max at d87u = 20C: Silver: < 2A, Gold: <0.5A.

DIELECTRIC STRENGTH (50 Hz, 1 min.): Chassis/contact: ^1500V Between contacts: ^1500V.

OPERATING LIFE "OA/EE" (24V/200mA): >10<sup>5</sup> operations "GR": >3.5 x 104 operations.

CONTACT RESISTANCE: Initial: Typical %10 m $\Omega$ , max. 20 m $\Omega$ After operating life:  $\%100 \text{ m}\Omega$ 

INSULATION RESISTANCE: ^10<sup>9</sup> Ω between open contacts.  $^{109}$   $\Omega$  between chassis and contacts.

CAPACITANCE (at f = 10 kHz): %0.7 pF between 2 contacts.

TOTAL TRAVEL/LATCHING TRAVEL: 4.7mm/3.3mm (.185 inch/ .130 inch).

All models and options are RoHS compliant and compatible.

NOTE: All models and options are RoHS compliant and compatible.

NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

TYPICAL F OPERATING FORCE: 2U: 6.5N (650 grams); 4U: 6.5N (650 grams); 6U: 7.5N (750 grams); 8U: 9.0N (900 grams); 10U: 9.0N (900 grams).

EUROPEAN TYPICAL SF OPERATING FORCE:

2U: 3.5N±0.5N (350 grams±100 grams): 4U: 5N±1N (500 grams±100 grams); 6U: 6.5N±1N (650 grams±100 grams); 8U: 9.0N±1N (900 grams±100 grams).

OPERATING TEMPERATURE RANGE: -40°C to 70°C.

#### **Materials**

HOUSING: Polycarbonate UL 94V-0 or polyester UL 94V-0.

ACTUATOR: Polyester UL 94V-0.

MOVABLE CONTACTS: Bimetal brass, silver plated, gold plate

STATIONARY CONTACTS & TERMINALS: Brass, silver plated,

gold plated.

TERMINAL BOARD: Polyester UL 94V-0.

RETURN SPRING: Music wire.

TERMINAL SEAL: RTV adhesive sealant.

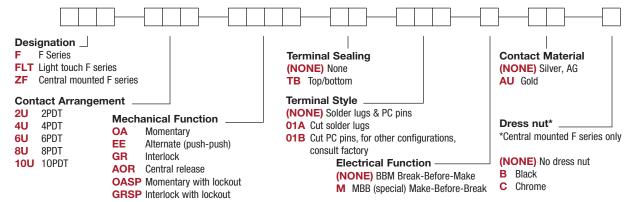
CHASSIS: Steel. LOCKOUT PIN: Steel. BLOCKERS: Steel.

#### **Build-A-Switch**

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages A-88 thru A-95. For additional options not shown in catalog, consult Customer Service Center.

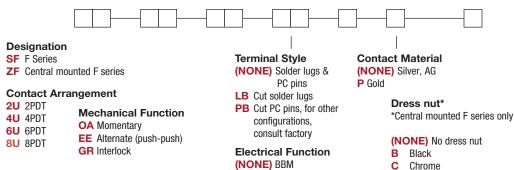
If requesting only a switch, select either a North American or European switch as noted below. Chassis and buttons are sold separately. If multiple stations are selected, we will assume all switches are the same unless noted otherwise.

### North American Order Code - Switch Only



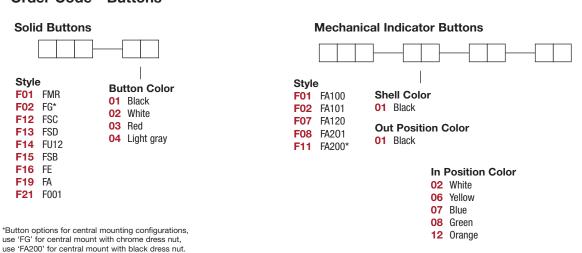


#### **European Order Code - Switch Only**



<sup>\*</sup>Minimum order quantities apply.

#### Order Code - Buttons



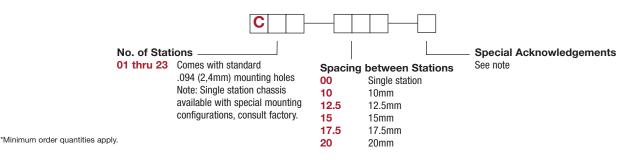
#### **BUTTON REMOVAL**

A button of a push-push switch should only be removed in the "OFF" non-latching position.

#### Order Code - Chassis

To order a switch with chassis, create the switch part number listed above and add the Chassis part number configurator information at the end of the part number.

Note: We do not guarantee or recommend interlocking beyond 10 stations.

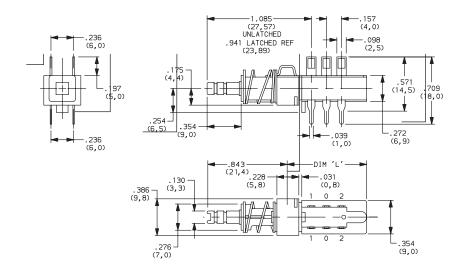




# **SWITCHES WITH STANDARD OPTIONS**

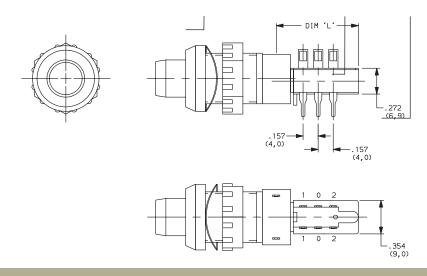
#### **F2UEE**

CONTACT ARRANGEMENT	LENGTH DIM 'L'	
2U	0.827 (21,00)	
4U	1.300 (33,00)	
6U	1.770 (45,00)	
8U	2.240 (57,00)	
10U	2.720 (69,00)	



#### **ZF2UEEBF11010108**

CONTACT ARRANGEMENT	LENGTH DIM 'L'
2U	0.827 (21,00)
4U	1.300 (33,00)
6U	1.770 (45,00)
8U	2.240 (57,00)
10U	2.720 (69,00)



#### **DESIGNATION** -----

**Designation, North America** 

F Series

FLT Light touch F series

Central mounted F series

Designation, Europe

SF F Series

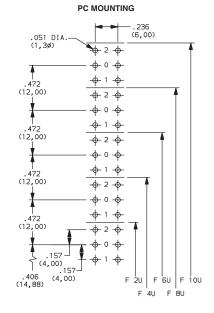
**ZF** Central mounted F series



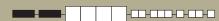


#### CONTACT ARRANGEMENT -----

OPTION CODE	NO. OF POLES	SCHEMATIC
2U	2PDT	1 • 2 1 • 2
4U	4PDT	2X 1 0 0 0 0 2
6U	6PDT	3X 1 0 0 0 0 0
8U	8PDT	4X 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
10U	10PDT	5X 1 0 0 0



# MECHANICAL FUNCTION -



#### **North America**

OPTION CODE	FUNCTION	
OA	Momentary	
EE	Alternate (push-push)	
GR	Interlock	
AOR	Central release	
OASP	Momentary with lockout	
GRSP	Interlock with lockout	

#### Europe

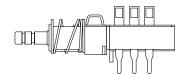
OPTION CODE	FUNCTION
OA	Momentary
EE	Alternate (push-push)
GR	Interlock

#### TERMINAL SEALING

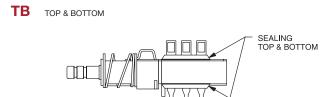


(NONE)

NO SEAL

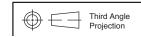


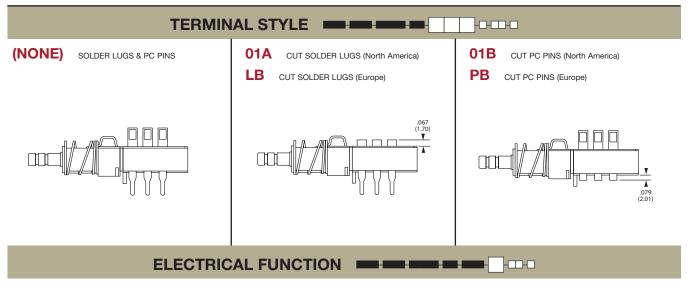
F2UEE shown in example above.



NOTE: Available for North America only







OPTION CODE	FUNCTION
(NONE)	BBM Non-shorting
M	MBB Shorting (North America only)

#### CONTACT MATERIAL

NORTH AMERICA OPTION CODE	EUROPE OPTION CODE	RoHS COMPLIANT *	RoHS COMPATIBLE *	MATERIAL	RATING
(NONE)	(NONE)	YES	YES	SILVER, AG	50 VA/15 W; 125/30 V; 0.5/0.5 A
AU	Р	YES	YES	GOLD	1 VA/300mW; 50/30 V; 0.04 A/0.01 A

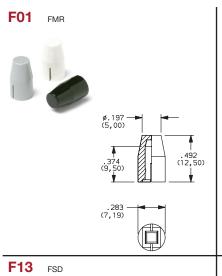
<sup>\*</sup> Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

#### **DRESS NUT** (NONE) NO DRESS NUT FOR F & F/LT BLACK CHROME M12 X 0.75 DESIGNATIONS -KNURL .098 (2,49) -ø.689 (17,50) ø.415<sup>-</sup> (10,54) M14 X 1 THD .098 .197 (5,00) PANEL CUTOUT PANEL CUTOUT .472 DIA. (12,0ø) .551 DIA. (14,0ø) .020 — (0,5) .035 (0,9) NOTE: Available with ZF designation and FG button. NOTE: Available with ZF designation and FA200 buttons. Third Angle Projection



**SOLID BUTTON** 

#### **STYLE**

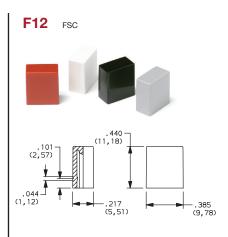


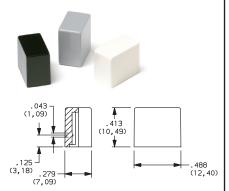


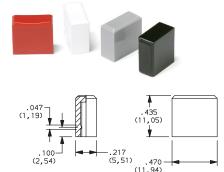
F14

**F19** FA

FU12







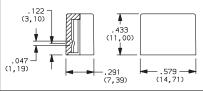


F15

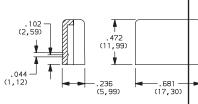
F21

F001

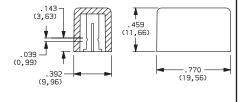
FSB





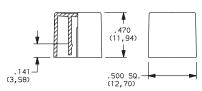






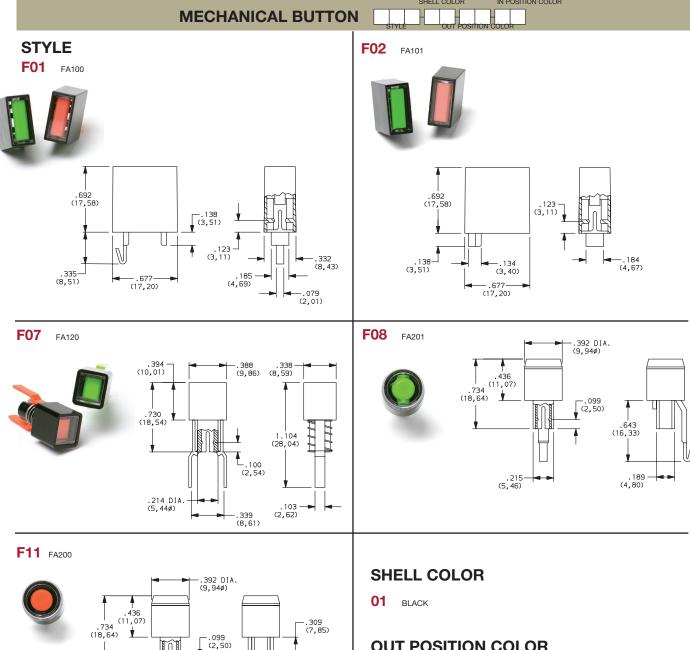
OPTION CODE	COLOR	
01	BLACK	
02	WHITE	
03	RED	
04	LT. GRAY	







**F16** FE



#### **OUT POSITION COLOR**

01 BLACK

.189

-.344 (8,74)

#### IN POSITION COLOR

OPTION CODE	COLOR	
02	WHITE	
06	YELLOW	
07	BLUE	
08	GREEN	
12	ORANGE	



CHASSIS

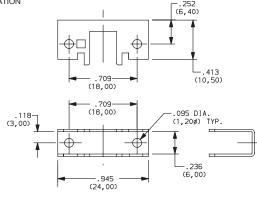
#### **NUMBER OF STATIONS**

C00 Thru C10 Comes with standard 0.094 (2,44mm) mounting holes

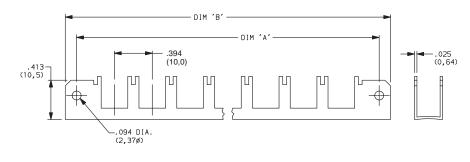
NOTE: Single station chassis available with mounting configurations, consult factory.

#### **SPACING**

00 SINGLE STATION

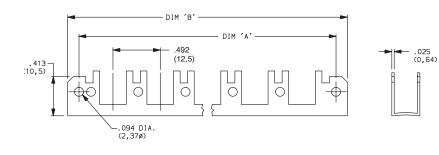


10 10mm



No. of Stations	Dim. 'A'	Dim. 'B'	Tolerance
2	1.182 (30,02)	1.418 (36,02)	0.005
3	1.575 (40,01)	1.811 (46,00)	0.010
4	1.969 (50,01)	2.205 (56,01)	0.010
5	2.363 (60,02)	2.599 (66,01)	0.010
6	2.757 (70,03)	2.993 (76,02)	0.015
7	3.150 (80,01)	3.386 (86,00)	0.015
8	3.544 (90,02)	3.780 (96,01)	0.015
9	3.938 (100,03)	4.174 (106,02)	0.015
10	4.331 (110,01)	4.567 (116,00)	0.015

12.5 12.5mm



No. of Stations	Dim. 'A'	Dim. 'B'	Tolerance
2	1.200 (30,48)	1.436 (36,47)	0.005
3	1.692 (42,98)	1.928 (48,97)	0.010
4	2.184 (55,47)	2.420 (61,47)	0.010
5	2.676 (67,97)	2.912 (73,96)	0.010
6	3.169 (80,49)	3.405 (86,49)	0.015
7	3.661 (92,99)	3.897 (98,98)	0.015
8	4.153 (105,49)	4.389 (111,48)	0.015
9	4.645 (117,98)	4.881 (123,98)	0.015
10	5.137 (130,48)	5.373 (136,47)	0.015



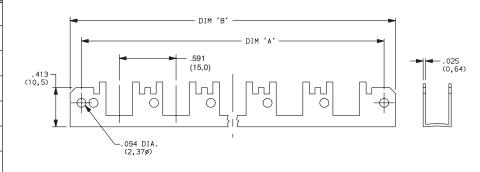


# **CHASSIS**

# **SPACING**

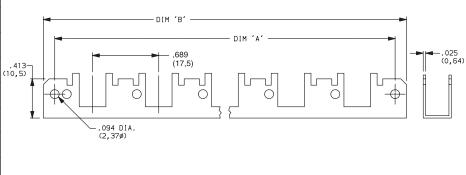
#### 15 15mm

No. of Stations	Dim. 'A'	Dim. 'B'	Tolerance
2	1.374 (34,90)	1.615 (41,02)	0.005
3	1.969 (50,01)	2.205 (56,01)	0.010
4	2.560 (65,02)	2.796 (71,02)	0.010
5	3.150 (80,01)	3.386 (86,00)	0.010
6	3.741 (95,02)	3.977 (101,02)	0.015
7	4.332 (110,03)	4.568 (116,03)	0.015
8	4.922 (125,02)	5.158 (131,01)	0.015
9	5.513 (140,03)	5.749 (146,02)	0.015
10	6.103 (155,02)	6.339 (161,01)	0.015



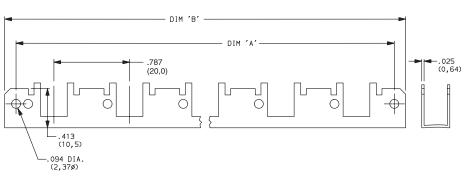
#### 17.5 17.5mm

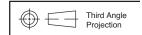
No. of Stations	Dim. 'A'	Dim. 'B'	Tolerance
2	1.477 (37,52)	1.713 (43,51)	0.005
3	2.166 (55,02)	2.402 (61,01)	0.010
4	2.855 (75,52)	3.091 (78.51)	0.010
5	3.544 (90,02)	3.780 (96,01)	0.010
6	4.233 (107,52)	4.469 (113,51)	0.015
7	4.922 (125,02)	5.158 (131,01)	0.015
8	5.611 (142,52)	5.847 (148.51)	0.015
9	6.300 (160,02)	6.536 (166,01)	0.015
10	6.989 (177,52)	7.225 (183,52)	0.015



#### 20 20mm

No. of Stations	Dim. 'A'	Dim. 'B'	Tolerance
2	1.575 (40,01)	1.811 (46,00)	0.005
3	2.363 (60,02)	2.599 (66,01)	0.010
4	3.150 (80,01)	3.386 (86,00)	0.010
5	3.938 (100,03)	4.174 (106,02)	0.010
6	4.725 (120,02)	4.961 (126,01)	0.015
7	5.512 (140,00)	5.748 (146,00)	0.015
8	6.300 (160,02)	6.536 (166,01)	0.015
9	7.087 (180,01)	7.323 (186,00)	0.015
10	7.875 (200,03)	8.111 (206,02)	0.015







# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Pushbutton Switches category:

Click to view products by C&K manufacturer:

Other Similar products are found below:

8940K2012 LW1L-M1C10V-A LW1L-M1C70-A LW2L-A1C20M-GD LW2L-M1C20M-A 60324L M22-D-R-GB0/K11 M7E-HRN2 67021K512 67081K512X 701PB580 7199K101 810K12910 810KSV30B MML21EA2ADK MML21KA3ABK MML23KA3AC05K-001 MML23KW3AA01W 8418K2 8442K3 8450K1 860K11911T01A 861901 861K11911T01A07 861K13810T00A14 861K13911 8646AB6X718UL 8646ABUL 9001KXRK 907AYY100 PMHD155A1 9533CD4+U574+U4922 95-414.000 99-450.837 99-453.837 PV3H2B0NN-341 1203MRA A22NZBGANGA A22NZBNANGA A22NZMPATRA A2PMA1X03EC56 A3A-5123-02 A3A-7140 A3A-7310 A3A-7340 A3U-TMW-A2C-5M A595 12037A2ULCSA ABD122N-B 1211390004