## F- Fuji Electric Command Non-Illuminated **16mm Plastic Pushbuttons**





AF16F0T-C2R











Command Non-Illuminated 16mm Plastic Pushbuttons									
Part Number	Color	Price	Drawing Link	Operator	Type*	Protection	Contacts	Material	
AR16F0T-C2G	Green	\$15.00	PDF	•			Comunic		
AR16F0T-C2R	Red	\$15.00	PDF						
AR16F0T-C2W	White	\$15.00	PDF	Momentary					
AR16F0T-C2Y	Yellow	\$15.00	PDF	flush,	Standard				
AR16F0T-C2S	Blue	\$15.00	PDF	24.0 x 18.0 mm rectangular					
AR16F0T-C2A	Orange	\$15.00	PDF	Ŭ					
AR16F0T-C2B	Black	\$15.00	PDF		1	IP65			
AF16F0T-C2G	Green	\$18.50	PDF						
AF16F0T-C2R	Red	\$18.50	PDF					Base: Plastic Bezel: Plastic	
AF16F0T-C2W	White	\$18.50	PDF	Momentary					
AF16F0T-C2Y	Yellow	\$18.50	PDF	flush, 24.0 x 18.0 mm	Thin				
AF16F0T-C2S	Blue	\$18.50	PDF	rectangular					
AF16F0T-C2A	Orange	\$18.50	PDF						
AF16F0T-C2B	Black	\$18.50	PDF						
AR16F5T-C2G	Green	\$15.00	PDF						
AR16F5T-C2R	Red	\$15.00	PDF						
AR16F5T-C2W	White	\$15.00	PDF	Push ON - push OFF,	Standard		DPDT		
AR16F5T-C2Y	Yellow	\$15.00	<u>PDF</u>	flush, 24.0 x 18.0 mm					
AR16F5T-C2S	Blue	\$15.00	<u>PDF</u>	rectangular					
AR16F5T-C2A	Orange	\$15.00	PDF						
AR16F5T-C2B	Black	\$15.00	PDF						
AF16F5T-C2G	Green	\$18.50	PDF		Thin				
AF16F5T-C2R	Red	\$18.50	PDF						
AF16F5T-C2W	White	\$18.50	PDF	Push ON - push OFF, flush,					
AF16F5T-C2Y	Yellow	\$18.50	PDF	28.0 x 22.0 mm					
AF16F5T-C2S	Blue	\$18.50	<u>PDF</u>	rectangular					
<u>AF16F5T-C2A</u>	Orange	\$18.50	PDF						
<u>AF16F5T-C2B</u>	Black	\$18.50	PDF						
AR16G0T-C2G	Green	\$15.00	PDF						
AR16G0T-C2R	Red	\$15.00	PDF	Momentary					
AR16G0T-C2W	White	\$15.00	PDF	flush,					
AR16G0T-C2Y	Yellow	\$15.00	PDF	24.0 x 18.0 mm rectangular	Standard			İ	
AR16G0T-C2S	Blue	\$15.00	PDF	guarded					
AR16G0T-C2A	Orange	\$15.00	PDF						
AR16G0T-C2B	Black	\$15.00	PDF						
AR16G5T-C2G	Green	\$15.00	PDF						
AR16G5T-C2R	Red	\$15.00	PDF	Push ON - push OFF,					
AR16G5T-C2W	White	\$15.00	PDF	flush,	01				
AR16G5T-C2Y	Yellow	\$15.00	PDF	24.0 x 18.0 mm rectangular	Standard				
AR16G5T-C2S	Blue	\$15.00	PDF	guarded					
AR16G5T-C2A	Orange	\$15.00	PDF						
<u>AR16G5T-C2B</u>	Black	\$15.00	PDF						



## Fruji Electric Command Series 16mm/19mm **Pilot Devices Specifications**

Specifications (Indoor Use)							
	Pushbuttons / Selector Switches / Indicating Lights	Emergency Stop Pushbuttons					
Rated thermal current (contact block)	D300	C300 / R300					
Mechanical durability	Pushbuttons: Momentary 1 million operations Alternate: 250,000 operations Selector Switch: 250,000 operations Indicating Lights: NA	100,000 operations					
Electrical durability	100,000 operations (220 VAC 0.7A)	100,000 operations (AC-15, AC-13, AC-12, DC-13, DC-12)					
Operating frequency	1200 operations/hour (On-load factor: 40%)						
Operating force (Avg)	Pushbuttons: 10N max Selector switches 0.1 N·m max	Push to lock: 25N max Pull to reset: 20N max Turn to reset: 0.3 N⋅m max					
Dielectric strength	2000 VAC	C for 1 min					
Insulation resistance	100ΜΩ (500	VDC megger)					
Rated impulse dielectric strength	2.5	5kV					
Conditional short-circuit current	100	00A					
Short-circuit protective device	2A	6A					
Pollution degree	3 (inside the	enclosure 2)					
Vibration	Resonance: 10 to 55Hz, double amplitude 0.1 mm	mm* / Constant: 16.7 Hz, double amplitude 3mm					
Shock	Malfunction: 100 m/s² Mechanical: 500 m/s²	Malfunction:150m/s <sup>2</sup> Durability: 1000 m/s <sup>2</sup>					
Ambient temperature	-10 to +55°C [+14 to +131°F] (no icing or no condensation)						
Temperature ratings	Storage: -40 to +70°C [-40 to +158°F]						
Humidity	45 to 85% RH (within -5° to +40°C) (no icing or no condensation)						
Degree of protection	IP	65					
Initial contact resistance		C 1A voltage drop					
Connections	0.3 to 0.75 mm² (22 to 18 AWG) Stripping length: 11 ± 1mm Solder connection or 2.8 mm crimp-on disconnect connector						
Mounting tightening torque	0.6 to 1.0 N•m,	, 5.3 to 8.8 in·lb					
Contacts operation	Self-cleaning types. Slow	action. Positive opening.					
Operation frequency	1,200 cycle/hour (A	pplication ratio 40%)					
Utilization category/contact ratings	120 VAC 1A (AC-13), 24 VDC 0.7 A (DC-13, to 0.95 = 21ms) 240 VAC 0.7 A (AC-13), 125 VDC 0.15 A (DC-13, to 0.95 = 21ms)	_					
Rated insulation voltage	250V AC/DC						
Materials	Enclosure: Polyamide	/ Contacts: silver, nickel					
Standards	TUV - EN Pushbutton, Illuminated Selector: F	3, CSA C22.2, No.14, IV - EN60947-5-1 ninated pushbutton: R50116757 ector: R50116759 : lights: R50116762					
Approvals	cURus File Num	nber E44592, CE					

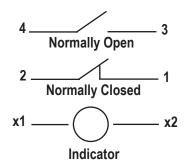
To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.

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## Fruji Electric NEMA Aux Contact Ratings

# **Control Circuit Contact Electrical Ratings and Wiring**

### Typical Wiring



NEMA Mechanical Switching Ratings and Test Values for DC Control Circuit Contacts								
Contact Rating Designation	Thermal	Maximum						
	Continuous Test Current (A)	125 Volts	250 Volts	301 to 600 Volts	Volt amperes			
P300	5.0	1.1	0.55		138			
P600	5.0	1.1	0.55	0.20	138			
Q300	2.5	0.55	0.27		69			
Q600	2.5	0.55	0.27	0.10	69			
R300	1.0	0.22	0.11		28			

This chart is provided as a guideline only, and the ratings and values are not guaranteed to be accurate. It is the users' responsibility to properly size their control circuit devices. The chart values are from NEMA Standard ICS 5-2000, Table 1-4-2.

NEMA Mechanical Switching Ratings and Test Values for AC Control Circuit Contacts											
Contact Rating Designation	Thermal Continuous Test Current (A)	Maximum AC Current, 50/60Hz (A)								Volt omnores	
		120 Volts		240 Volts		480 Volts		600 Volts		Volt amperes	
		Make	Break	Make	Break	Make	Break	Make	Break	Make	Break
A300	10	60	6.00	30	3.00					7200	720
A600	10	60	6.00	30	3.00	15	1.50	12	1.20	7200	720
B300	5	30	3.00	15	1.50					3600	360
B600	5	30	3.00	15	1.50	7.5	0.75	6	0.60	3600	360
C600	2.5	15	1.5	7.5	0.75	3.75	0.375	3.00	0.30	1800	180

This chart is provided as a guideline only, and the ratings and values are not guaranteed to be accurate. It is the users' responsibility to properly size their control circuit devices. The chart values are from NEMA Standard ICS 5-2000, Table 1-4-1.

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## F- Fuji Electric Command Series Pilot Devices

Fuji Electric Command Series pilot devices are used in machine tools, industrial machines, control panels, distribution panels, and instrumentation panels. Pushbuttons improve interfacing by allowing better layout and wiring, easier installation and increased safety. Reliability is also built in to handle complex multi-functional controls.

The AR16, AR22 and AR30 series are configurable with a wide range of choices. Our selection of 16mm, 19mm, 22mm and 30mm pushbuttons include non-illuminated as well as

illuminated models with flush round heads, extended round heads, and mushroom style heads. Other 16mm, 22mm and 30mm pilot devices available include emergency stop pushbuttons, selector switches, pilot lights, joystick selector switches, and buzzers.

We also offer a wide array of accessories to complement our selection of Fuji 16mm, 19mm, 22mm and 30mm Command Series pilot devices.

### **AR16 Series Features**

- 16.2 or 19.2 mm diameter hole
- Fits 1 to 6mm max panel thickness
- Integrated structure with built-in contacts that reduce control panel depth
- Offered in Thin-type profile with only 2mm of panel protrusion for high-density mounting and attractive panel designs
- Bright LED-illuminated surface with less power consumption
- Gold-plated contacts and snap-action mechanism with low 1mA at 5V switching
- Oil- and dust-proof operator modules (IP65)

### **AR22 Series Features**

- 22.3 mm diameter hole
- Fits 1 to 6mm max panel thickness
- Mountable in either a 22.3 or 25.5 mm diameter cutout (except for joysticks and buzzers)
- · Provided with release arm
- · Terminal cover included for added safety
- Wiring possible in vertical and horizontal directions
- Oil- and dust-proof operator modules (IP65), except for buzzers DR22B5 (IP00), DR22B8 (IP54)

### AR30 Series Features

- 30.5 mm diameter hole
- Fits 1mm to 6mm max panel thickness
- Quick snap-on replacement of contact blocks
- Double-break self-cleaning contacts
- Terminal cover included for added safety
- Wiring possible in vertical and horizontal directions
- Oil- and dust-proof operator modules (IP65) except for buzzer DR30B5 (IP00)



















**Pushbuttons** 

**E-Stop Pushbuttons** 

**Selector Switches** 





**Pilot Lights** 







**Joysticks** 

### **Command Series Accessories**





























TO OBTAIN THE MOST CURRENT AGENCY APPROVAL INFORMATION, SEE THE AGENCY COMPLIANCE & CERTIFICATIONS CHECKLIST SECTION ON THE SPECIFIC PART NUMBER'S WEB PAGE.

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