For the latest prices, please check AutomationDirect.com.

1-800-633-0405

For Fuji Electric Command 22mm Pilot Lights



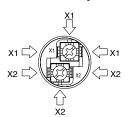
DR22E3L-E3GZA



DR22E3L-L3SZA

Command 22mm Pilot Lights									
Part Number	Color	Price	Drawing Link	Lens	Lamp Voltage				
DR22E3L-E3RZA	Red	\$20.00	PDF						
DR22E3L-E3GZA	Green	\$20.00	<u>PDF</u>						
DR22E3L-E3YZA	Yellow	\$20.00	PDF		24V AC/DC without transformer				
DR22E3L-E3SZA	Blue	\$28.50	<u>PDF</u>						
DR22E3L-E3WZA	White	\$20.00	<u>PDF</u>	extended round					
DR22E3L-L3RZA	Red	\$25.00	PDF	extended round					
DR22E3L-L3GZA	Green	\$25.00	PDF						
DR22E3L-L3YZA	Yellow	\$25.00	PDF		115-127 VAC with transformer				
DR22E3L-L3SZA	Blue	\$38.00	PDF						
DR22E3L-L3WZA	White	\$25.00	PDF						

DR22E3L-E3xxx Terminal Layout



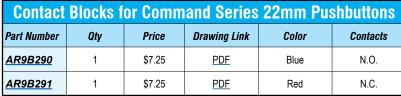
## 1-800-633-0405 Fuji Electric Accessories for 22mm **Command Series Pilot Devices**



AR9B290



AR9B291



Minimum current requirement AC/DC is 5mA

#### **Terminal Layout**



Terminal No.3, 4

3 -

Terminal No.1, 2

\_\_\_\_\_ 4 AR9B290



AR9B291

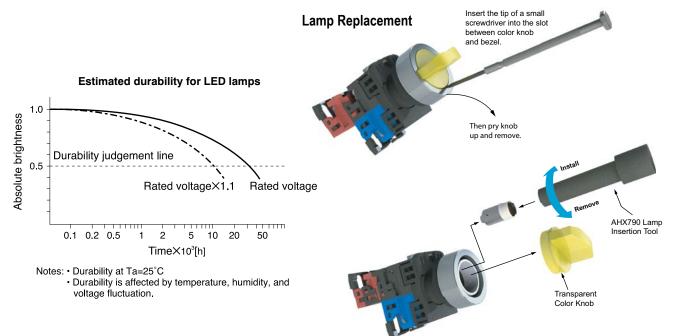
Max 6 contacts for non-illuminated momentary devices. Max 4 for alternate action non-illuminated devices. Max 5 contacts for illuminated momentary devices. Max 3 for alternate action illuminated devices. \*Exceeding the maximum number of contacts could affect the mechanical durability of the operators.



APX510-24R

	LED Bulbs for Command Series 22mm Pilot Devices										
Part Number	Color	Qty	Price	Use With	Lamp Voltage	Current Consumption	Power Consumption	Lamp Durability			
APX510-24R	Red	2	\$18.50			12mA AC 11mA DC	0.8 W	30,000h			
APX510-24G	Green	2	\$18.50	AR22 /							
<u>APX510-24Y</u>	Yellow	2	\$18.50	DR22	24V AC/DC						
<u>APX510-24S</u>	Blue	2	\$68.00	Series							
<u>APX510-240</u>	Orange	2	\$18.50								

\*Lamp base: Ba9s/13



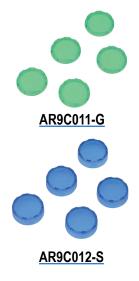


# For Fuji Electric Accessories for 22mm **Command Series Pilot Devices**





Lenses for Command Series 22mm Illuminated Pushbuttons									
Part Number	Color	Qty	Price	Drawing Link	Use With				
<u>AR9C016-R</u>	Red	5	\$5.75	PDF	AR22MOL, AR22M5L				
<u>AR9C021-R</u>	Red	5	\$17.50	PDF	AR22VOR, AR22VOL				
<u>AR9C011-R</u>	Red	5	\$2.75	PDF					
<u>AR9C011-G</u>	Green	5	\$2.75	PDF					
<u>AR9C011-Y</u>	Yellow	5	\$2.75	PDF	AR22FOL AR22F5L				
<u>AR9C011-S</u>	Blue	5	\$2.75	PDF					
<u>AR9C011-C</u>	Clear	5	\$2.75	PDF					
<u>AR9C012-R</u>	Red	5	\$2.75	PDF					
<u>AR9C012-G</u>	Green	5	\$2.75	PDF					
<u>AR9C012-Y</u>	Yellow	5	\$2.75	PDF	AR22EOL				
<u>AR9C012-S</u>	Blue	5	\$2.75	PDF					
<u>AR9C012-C</u>	Clear	5	\$2.75	PDF					

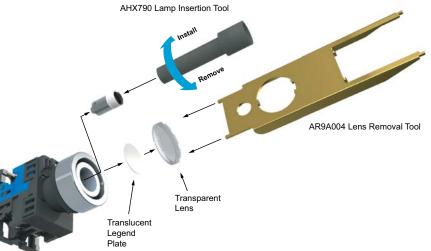


Tools and Lock Nut for Use with Command Series 22mm Pilot Devices									
Part Number	Qty	Qty Price Drawing Description							
<u>AHX790</u>	1	\$4.00	PDF	Bulb removal tool					
<u>AHX702</u>	1	\$7.00	N/A	Wrench/lamp removal tool					
<u>AR9A004</u>	1	\$5.75	N/A	Wrench					
<u>AR9R744</u>	5	\$2.75	PDF	Lock nut					



AHX790





## Fuji Electric Command Series 22mm **Pilot Devices Specifications**

	Specifications (	(Indoor Use)						
	Pushbuttons Emergency stop pushbuttons Selector switches	Joysticks	Pilot Lights					
Rated thermal current (contact block)	A600 / P600	-	-					
Mechanical durability	See durability table below	250,000 operations	_					
Electrical durability	500,000 operations at 220V AC 6A 1 million operations at 220V AC 3A	100,000 operations at 220V AC 1A (Res. load)	-					
Operating frequency	1200 operations/hour	r (On-load factor: 40%)	_					
Operating force (Avg)	9N – Pushbuttons   30-45 N – Emergency stop pushbuttons   0.15 - 0.1 N⋅m – Selector switches							
Positive opening operation	All functions in	corporating a N.C. contact are positive-openin	ng operation.					
Dielectric strength	2,500VAC, 1 minute (w/o transformer 2000VAC) 2000VAC, 1 minute (Pilot light with transformer: 2500 VAC, 1 m							
Insulation resistance		100MΩ or more (500VDC megger)						
Rated impulse dielectric strength	6kV –		6kV					
Conditional short-circuit current	10	_						
Short-circuit protective device	Fuse 15A (recommended, not supplied)	Fuse 1A (recommended, not supplied)	-					
Pollution degree	3							
Vibration	Resonance: 10 to 55Hz, dou	ble amplitude 0.1 mm* / Constant: 16.7 H	Hz, double amplitude 3mm					
Shock	Malfunction durability: 100 m/s <sup>2</sup> **	/ Mechanical durability: 500 m/s <sup>2</sup>	Mechanical durability: 500 m/s <sup>2</sup>					
Ambient temperature (no condensation or no icing)	-20 to +70°C [-4 to +158°F] Illuminated type: -20 to -50°C [-4 to -58°F]	-5 to +60°C [+23 to +140°F]	-2 to +50°C [-4 to +122°F]					
Temperature ratings		Storage: -40 to +80°C [-40 to +176°F]						
Humidity		45 to 85% RH (within -5° to +40°C)						
Degree of protection		IP65						
Initial contact resistance	≤ 50mΩ		-					
Terminal markings	IEC 60445	_	-					
Connections	AWG 18 to AWG 14; Stripping leng	th: 8mm to 11mm / Tightening torque: 0.8	8 to 1.0 N·m, 7.1 in·lb to 8.8 in·lb					
Contacts operation	Sel	f-cleaning types. Slow action. Positive opening	].					
Operation frequency	1,200 cycle/hour (Application ratio 40%)	–	_					
Utilization category/contact ratings	AC-15: 24VAC at 6A, 110VAC at 6A DC-13: 24VDC at 4A, 110VDC at 1.3 A	AC-1: 110VAC at 0.3 A DC-13: 24VDC at 0.7 A, 110VDC at 0.15 A	-					
Rated insulation voltage	600V AC/DC***	250V AC/DC 250V AC/DC (w/transformer 600V/						
Materials		losure: Polyamide / Contacts: silver, nick						
Standards	UL	- 508, CSA C22.2, No.14, TUV - EN60947-5-1						
Approvals		UL file E44592, CSA file LR20479						

\* Emergency stop type: 10 to 500 Hz, double amplitude 0.7mm(acceleration 50m/s<sup>2</sup>), according to test condition of EN60947-5-5 (1998) \*\* Emergency stop type: 150 m/s<sup>2</sup> \*\*\*Illuminated type without transformer

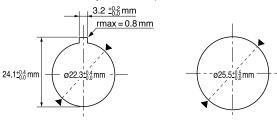
Mechanical Durability								
		Operations						
Pushbutton switch Illuminated pushbutton switch E-stop pushbutton switch E-stop illuminated pushbutton	Momentary action Alternate action Push-lock, turn-reset Push-lock, pull-reset	5 million 1 million 100,000 30,000						
Selector switch	Maintained 1, 2, 3, 4-contact Maintained 5, 6-contact Spring return, spring/manual return	1 million 500,000 200,000						
Illuminated selector switch	Maintained Without transformer 1, 2, 3-contact 4-contact With transformer 1, 2-contact 3-contact Spring return, spring/manual return	1 million 500,000 1 million 500,000 200,000						

Note: Key insertion/removal durability for selector switch key types

• Key type 10,000

## 22mm Pilot Devices Cutouts

AR22 pilot devices can be mounted in either 22.3 or 25.5 mm diameter holes as shown in the figure below without any extra adapter.

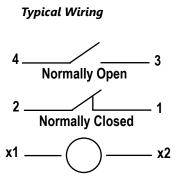


Note: If key washer or legend plate is not used, 3.2 mm-wide location holes do not need to be cut out.

1-800-633-0405

# For Fuji Electric NEMA Aux Contact Ratings

### Control Circuit Contact Electrical Ratings and 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.

Indicator

NEMA Mechanical Switching Ratings and Test Values for AC Control Circuit Contacts											
	Thermal		Maximum AC Current, 50/60Hz (A)								
Contact Rating Continuous Designation Test Current (A)		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.

Pilot Lights

DR22E3L-E3SZA

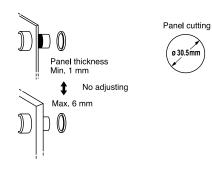
Buzzers

## 1-800-633-0405 Fuji Electric 22mm Pilot Devices Overview Pushbuttons, Selectors, Pilot Lights, Joysticks, Buzzers

Fuji Electric AR22 pilot devices can be mounted on panels up to 6mm thick by securing the operator with a locking nut from behind the panel without needing any adjustment.

#### Easy mounting

Fuji AR22 pilot devices can be mounted on panels between 1 and 6mm thick and are mountable in panel cutouts of 22.3 or 25.5 mm. The button and lens can be mounted on a panel while the operator is engaged.



#### Wiring

These pilot devices can be wired in both vertical and lateral directions making wiring in narrow spaces easier. Contact block color coding makes wiring even easier.

1N.O. Blue, 1N.C. Red Lamp terminal and

transformer unit: black



#### Short depth

Fuji AR22 pilot devices are designed to occupy less space than traditional 22mm devices.



AR22F0R-01RZA

E-Stop Pushbuttons



AR22V0R-01R

Quick contact block and

transformer replacement

Connecting to the operator

Snap-fitting of contact blocks

Fuji AR22 pilot devices have a snap-on

mounting that makes replacing or adding

a contact block and transformer unit easier.

Detaching

Detaching



Illuminated Pushbuttons

AR22F0L-10E3YZA

Selector Switches



AR22PR-210BZA

#### Safety

AR22 pilot devices include terminal covers for added safety and security. Emergency stop pushbuttons include a trigger action mechanism that prevents the contacts from moving until the button is pushed and locked.

DR22B8-EB

#### Protection

AR22 pilot devices feature oil and dust-tight operator construction (IP65), except for buzzers DR22B5 (IP00), DR22B8 (IP54).

