Fuji Electric Command 30mm Buzzers

DR30B5-EBZC

DR30B5-HBZC

Command 30mm Buzzers							
Part Number	*Qty*	*Price*	*Drawing Link*	*Sound Type*	*Sound Level*	*LED Indicator*	*Operating Voltage*
DR30B5-EBZC	1		PDF	Intermittent/continuous electronic sound	90dB @ 0.1 m 70dB @ 1m	Red	12-24V AC/DC
DR30B5-HBZC	1		PDF				100-110VAC

Specifications	
DR30B5-xBZC	
Rated insulation voltage	Without transformer: 60V AC/DC With transformer: 250VAC
Durability	1000h
Frequency	2.4 to 3.3 kHz
Intermittent cycle	Approx. 170-cycle/min
Dielectric strength	Without transformer: 1000VAC 1 minute With transformer: 2000VAC 1 minute
Insulation resistance	100MΩ or more (500VDC megger)
Pollution degree	3
Vibration	Resonance: 10 to 55Hz, double amplitude 0.1 mm Constant: 16.7 Hz, double amplitude 3.0 mm
Shock	Mechanical durability: 500 m/s²
Ambient temperature	-20 to +60°C [-4 to +140°F] no condensation or no icing
Storage temperature	-30 to +70°C [-22 to +158°F]
Humidity	45 to 85% RH (within -5 to 40°C [23 to 104°F])
Degree of protection	IP00

Current Consumption	
24V AC/DC	40mA AC, 25mA DC
110VAC	30mA AC

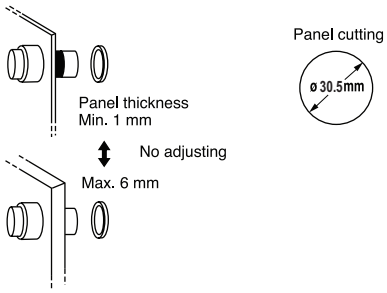
Fuji Electric 30mm Pilot Devices Overview

Pushbuttons, Selectors, Pilot Lights, Joysticks, Buzzers

Fuji Electric AR30 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 AR30 pilot devices can be mounted on panels between 1 and 6mm thick and are mountable in panel cutouts of 30.5 mm.

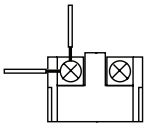


Wiring

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.

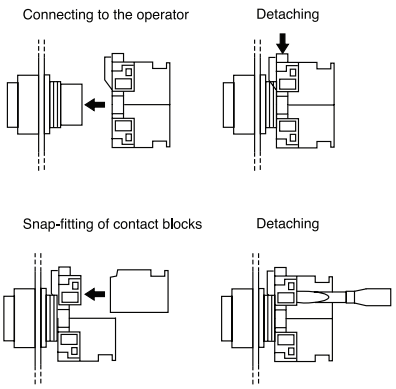
1N.O. Blue, 1N.C. Red

Lamp terminal and transformer unit: black



Quick contact block and transformer replacement

Fuji AR30 pilot devices have a snap-on mounting that makes replacing or adding a contact block and transformer unit easier.



Pushbuttons

AR30F0R-01RZC

Illuminated Pushbuttons

AR30E0L-10L3GZC

Pilot Lights

DR30D0L-L9SZC

E-Stop Pushbuttons

AR30Q2R-01RZC

Selector Switches

AR30PR-210BZC

Buzzers

DR30B5-EBZC

Short depth

Fuji AR30 pilot devices are designed to occupy less space than traditional 30mm devices.

Safety

AR30 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

Protection

AR30 pilot devices feature oil and dust-tight operator construction (IP65), except for buzzers DR30B5 (IP00).

Fuji Electric Accessories for 30mm Command Series Pilot Devices

AHX177-00

AHX177-0B

Legend Plates for Command Series 30mm Devices

Part Number	Price	Drawing Link	Legend	Material	Color
AHX177-00		PDF	blank	brass	Silver field, silver background
AHX177-0B		PDF	OFF	brass	Silver field, silver background, black text
AHX177-0A		PDF	ON	brass	
AHX177-0C		PDF	START	brass	
AHX177-0D		PDF	STOP	brass	
AHX177-2A		PDF	OFF-ON	brass	
AHX720-5A		PDF	EMERGENCY STOP	aluminum	Yellow field, yellow background, black text

AHX720-5A

Tools and Lock Nut for Use with Command Series 30mm Pilot Devices

Part Number	Qty	Price	Description
AR9A006	1		Mounting wrench, for use with AR22, AR30, DR22, and DR30 series pushbuttons, switches, indicators, and buzzers.
AR9R055	5		30mm guard ring replacement, for use with AR30G2L series pushbuttons.
AHX082	5		30mm key washer, for use with AR30 and DR30 series pushbuttons, indicators, and buzzers.
AHX088	5		30mm lock nut replacement for AR30F0R, DR30D0L, E0L, E0R, and Q7L series.
AHX093	5		30mm lock nut replacement for AR30M0R, A_N, JR, PL, PR, Q2R, and WR series.
AHX282	5		30mm sealing/spacing washer replacement, for use with AR30 and DR30 series pushbuttons, switches, indicators, and buzzers.

AR9R055

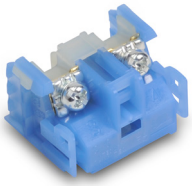
AHX082

AHX088

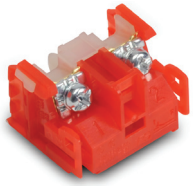
AHX282

Fuji Electric Accessories for 30mm Command Series Pilot Devices

Contact Blocks



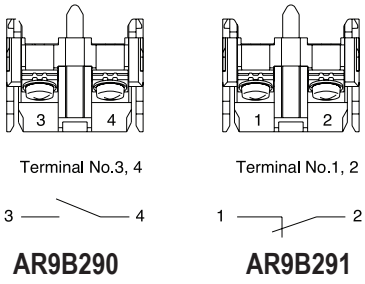
AR9B290



AR9B291

Contact Blocks for Command Series 30mm Pushbuttons					
Part Number	*Qty*	*Price*	*Drawing Link*	*Color*	*Contacts*
AR9B290	1		PDF	Blue	N.O.
AR9B291	1		PDF	Red	N.C.

Terminal Layout



AR9B290 AR9B291

Fuji Electric Command Series 30mm Pilot Devices Specifications

Assembly information

These pushbuttons are supplied with the appropriate contact blocks, unless otherwise indicated. Use these drawings as a guide to make sure there is adequate clearance behind the panel. Insert the switch unit in the panel hole at the back of the panel and secure it with a locking nut at the panel front.

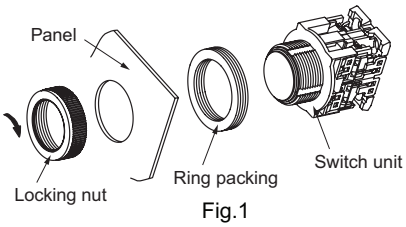


Fig.1

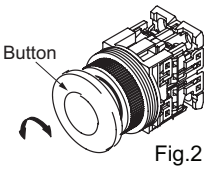
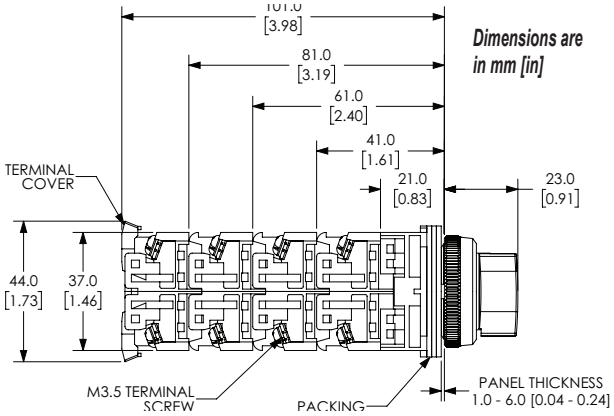


Fig.2

Example mounting diagram for AR30M0R

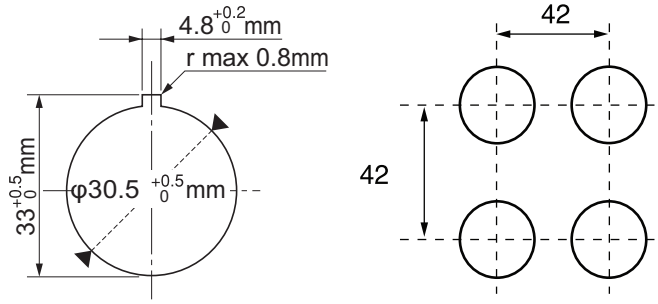


NOTE: Contact blocks can be arranged up to four deep by two wide.

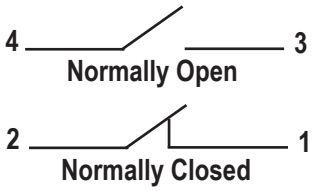
Panel holes

For safe operation, use these mounting hole drawings to ensure that there is adequate space between switches.

Note: Location hole 4.8mm x 33mm is for use with a key washer or legend plate. If key-washer or legend plate are not used, this location hole is not needed. ADC does not currently carry an appropriate 4.8mm punch if the hole is needed.



Typical Wiring



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

Note: Key insertion/removal durability for selector switch key types
Key type 10,000

Fuji Electric Command Series 30mm 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 mechanical durability table	250,000 operations	-
Electrical durability	500,000 operations at 220VAC 6A 1,000,000 operations at 220VAC 3A	100,000 operations at 220VAC 1A (res. load)	-
Operating frequency	1200 operations/hour (on-load factor: 40%)		-
Operating force (Avg)	9N – Pushbuttons 30-45 N – Emergency stop pushbuttons 0.15 - 0.1 N·m – Selector switches	Less than 100N	
Positive opening operation	All functions incorporating an N.C. contact are positive-opening operation.		
Dielectric strength	2,000VAC, 1 minute*** 2,500VAC, 1 minute****	2,000VAC, 1 minute	
Insulation resistance	100MΩ or more (500VDC megger)		
Rated impulse dielectric strength	6kV	-	6kV
Conditional short-circuit current	1000A		-
Short-circuit protective device	Fuse 15A	Fuse 1A	-
Pollution degree	3		
Vibration	Resonance: 10 to 55 Hz, double amplitude 0.1mm*, Constant: 16.7 Hz, double amplitude 3mm		
Shock	Malfunction durability: 100m/s^2** Mechanical durability: 500m/s^2		Mechanical durability: 500m/s2
Ambient temperature (no condensation or no icing)	-20 to 70°C (-4 to 158°F)	-5 to 60°C (23 to 140°F)	-20 to 50°C (-4 to 122°F)
Temperature ratings	Storage: -40 to 80°C (-40 to 176°F) Operating: -20 to 70°C (-4 to 158°F)	Storage: -40 to 80°C (-40 to 176°F)	Storage: -40 to 80°C (-40 to 176°F)
Humidity	45 to 85% RH (within -5°C to 40°C)		
Degree of protection	IEC IP65		
Initial contact resistance	m 50mΩ	-	-
Terminal markings	IEC 60445	-	-
Connections	AWG 18 to AWG 14; Stripping length: 5mm to 11mm Tightening torque: 0.8 to 1.0 N·m, 7.1 in·lb to 8.8 in·lb		
Contacts operation	Self-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	250V AC/DC*** 600V AC/DC	250V AC/DC	250V AC/DC*** 600VAC w/transformer
Materials	Enclosure: Polyamide, Contacts: Silver, nickel		
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/s²), according to test condition of EN60947-5-5 (1998)**
**** Emergency stop type: 150 m/s²**
***** Illuminated type without transformer**
****** Illuminated type with transformer**
To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.