

FEATURES

- · Cutoff frequency of resistor tuneable filters can be set with BCD logic.
- · Single inline hybrid.
- · Small size, low cost

GENERAL DESCRIPTION

FLJ-ACR series are logic controlled resistor networks. They are designed to be used with resistor tuneable filters such as FLJ-UR series.

Four separate resistor networks are included in one package. One network consists of four resistors such as R, R/2, R/4 and R/8. The value of R in FLJ-ACR1 is $1.59M\Omega$ while that of FLJ-ACR2 is $150k\Omega$.

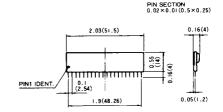
A combination of an FLJ-ACR and an FLJ-UR makes it possible to make a filter whose cutoff frequency or center frequency is set with BCD logic. It is also possible to use this resistor network in the negative feedback loop of an amplifier circuit and control the gain with BCD logic.

GND +15V -15V R=1.59M Ω (FLJ-ACR1)

R= 159k Ω (FLJ-ACR2)

For Immediate Assistance, Dial 1-800-233-2765

MECHANICAL DIMENSIONS (Fig. 2) INCHES (mm)



FLJ-UR Series List

Model No.	fc Range	No. of Pole	Туре
FLJ-UR4LA1		4	LP, Butt.
FLJ-UR4LB1		4	LP, Cheb.
FLJ-UR4HA1		4	HP, Butt.
FLJ-UR4HB1	40Hz ~	4	HP, Cheb.
FLJ-UR2LH1	1.6KHz	2	LP/HR, Butt.
FLJ-UR1BA1		1 pair	BP, Butt.
FLJ-UR2BA1		2 pair	BP, Butt.
FLJ-UR2EA1		2 pair	BE, Butt.
FLJ-UR4LA2		4	LP, Butt.
FLJ-UR4LB2		4	LP, Cheb.
FLJ-UR4HA2		4	HP, Butt.
FLJ-UR4HB2	400Hz ~	4	HP, Cheb.
FLJ-UR2LH2	20KHz	2	LP/HP.Butt.
FLJ-UR1BA2		1 pair	BP, Butt.
FLJ-UR2BA2		2 pair	BP, Butt.
FLJ-UR2EA2		2 pair	BE, Butt.

LP: Lowpass

HP: Highpass

BP: Bandpass

BE: Band elimination Butt.: Butterworth Cheb.: Chebychev



SPECIFICATIONS

Typical at 25°C, ±15VDC power supplies unless otherwise specified.

ABSOLUTE RATINGS

Power Supply Voltage (±Vs) ±18' Input Signal Voltage ±V Control Logic Voltage +5.5Vmax., -0.5V mir	s
FREQUENCY SET MODE BCD 1 Digit	

BCD Digit	
BCD 1 Digit +1	1 to 16

Table 1. Frequency Set Range (with FLJ-UR) Unit: Hz

1a. FLJ-ACR1 or ACR2 Single Use

FLJ-UR Suffix Frequency Set Mode		-1 (Low Range)		-2 (High Range)	
		BCD	BCD+1	BCD	BCD+1
	From	0*	10	0*	100
FLJ-ACR1	То	150	160	1.5k	1.6k
	Resolution	10	10	100	100
	From	0*	100	0*	1 k
FLJ-ACR2	То	1.5k	1.6k	15k	16k
	Resolution	100	100	1k	1k

1b. FLJ-ACR1 and ACR2 (Parallel Use) for Greater Frequency Resolution

FLJ-UR Suffix		-1 (Low Range)		-2 (High Range)			
Frequency	-ACR2	BCD	BCD	BCD+1	BCD	BCD	BCD+1
Set Mode	-ACR1	BCD	BCD+1	BCD	BCD	BCD+1	BCD
From		0,	10	100	0*	100	1k
То		1.59k	1.60k	1.69k	15.9k	16.0k	16.9k
Resolution		10	10	10	100	100	100

^{*} Output saturates at 11V dc with zero logic code input (0000); however, digital code correspons to value of fc directly

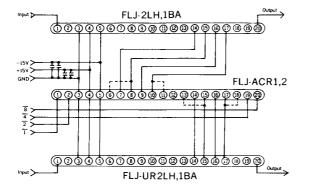
PERFORMANCE

Frequency Set E	rror		±1% or less
	RACTERISTICS Logic Code		0V: ON
		+5V a	or Open: OFF

POWER SUPPLIES AND ENVIRONMENT

Power Supply (Operating Range) ±15\	√ (±5V to ±18V)
Current	+6.2mA, −1.2mA
Operating Temperature Range	0 to 70°C
Storage Temperature Range	
Operating Humidity Range	
Storage Temperature Range	10% to 80% RH

TYPICAL CONNECTION (Fig. 3)



TECHNICAL NOTES

- FLJ-ACR1 and FLJ-ARC2 contain four separate resistor networks which are controlled by common logic inputs. There are two types of FLJ-UR's (resistor tuneable filters) which are to be connected with FLJ-ACR's to build BCD Logic Programmable Filters. One type such as FLJ-UR2LH or FLJ-UR1BA requires two external resistors while all other FLJ-UR's require four external resistors to set a cutoff frequency. Therefore, one FLJ-ACR can control two FLJ-UR2LH's or FLJ-UR1BA's. See Figure 3.
- BCD + 1 connections are made by connecting pins 6 to 8, 11 to 10, 13 to 15, and 18 to 17 on the units required per Table 1a. or 1b.

ORDERING INFORMATION

MODEL RESISTANCE

FLJ-ACR1 1.59 M Ω FLJ-ACR2 159 K Ω for FLJ-UR Filter Series

DATEL, Inc. 11 Cabot Boulevard, Mansfield, MA 02048-1194/TEL (508) 339-3000/TLX 174388/FAX (508) 339-6356