



## PULSE ISOLATION RELAYS - SOLID STATE

# DPR-22PS PULSE DIVIDING RELAY

## DESCRIPTION

The DPR-22PS is a microcontroller-based dividing pulse relay designed to provide two sets of isolated "dry" 3-wire Form C contacts (K, Y, & Z) from a field selectable 2-wire (Form A) or 3-wire (Form C) pulse input. The output is divided by a user-selected number. The divider's ratio of input pulses to output pulses may be set between 1 and 255. Selection of the desired division ratio is by two small selection switches mounted on the relay's board and is easily adjustable with a small screwdriver. The DPR-22PS microcontroller checks the input pulses for the correct sequence and timing, and counts the input pulses for division only when a correct and valid sequence of pulses occur, thus assuring a high degree of noise rejection. Two sets of bright red and green LED lamps indicate the input and output status of the system at all times thus allowing a rapid visual check-out of the system's performance without requiring any additional test equipment.



The input and output circuits' terminal strip are "Euro" type connectors. The K leads of each of the DPR-22PS's isolated outputs are fused to prevent damage to the relays under almost any condition a user might subject it to such as excessive current, voltage, or incorrect wiring. The DPR-22PS provides a "pulled up" sense voltage of approximately +13 VDC on the Y and Z terminals of the input to the external sending contacts. The K terminal is system ground allowing the use of standard electro-mechanical, dry contact switches or solid state open-collector NPN or open-drain FET transistor pulse initiators. The DPR-22PS has built-in MOV transient protection for the solid-state relay contacts that eliminates the need for external or off-the-board transient suppressors. All component parts of the DPR-22PS, which have power applied to them with the exception of the input/output terminal strips and the divider switches, are enclosed in a polycarbonate cover for maximum user protection. The mounting base plate is also made of polycarbonate and offers excellent electrical insulation. The DPR-22PS is intended to be mounted in an enclosure appropriate for the application and the operating environment.

### FUNCTIONAL SUMMARY

	IN	OUT
#	1	2
TYPE	2 or 3 Wire	3 Wire
FORM	A or C	C
SPECIAL FEATURES	Divide by 1 to 255	

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## SPECIFICATIONS

### ELECTRICAL

Power Input:	120,208-277 VAC; Burden: 10 mA at 120 VAC
Pulse Input Voltage:	+13VDC "pulled-up" on Yin and Zin terminals. Common return is Kin terminal.
Pulse Output:	Two sets of dry Form "C" contacts (K, Y, & Z) for time or energy pulses. The contacts are solid state relays rated at 250VAC/VDC @ 500 mA MAX. The maximum rating of the contacts is 100 VA. Factory fused at 1/4 amp. (3AG)
Contact On-State Resistance:	2.7 ohms maximum, 1.7 ohms typical
Operate and Release Time:	Turn on-time - 8 mS typical; 20 mS MAX Turn off-time - 1 mS typical; 5 mS MAX
Input/Output Isolation Voltage:	2500Vrms

### MECHANICAL

Mounting:	Any position
Size:	3.5" wide, 7.2" high, 1.5" deep
Weight:	12 ounces

### TEMPERATURE

Temperature Range:	-38° C to +70° C, -36.4° F to +158° F
Humidity:	0 to 98% non-condensing

### OPTIONS

Input Voltages:	Contact Factory
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