

Pulse Repeater v4 PLR155

DESCRIPTION

The PLR155 is for applications where a pulse is required to be isolated, re-powered and repeated up to a maximum frequency of 10kHz. Input signals of various types or from a variety of sensors can be accommodated:

- 1) **Low level AC**, sine waves as produced by coil-type pick up (min 200mVpp).
- 2) **Low level AC**, any wave shape having a consistent frequency pattern (200mVpp up to 20Vpp).
- 3) **DC pulse**, zero going (200mVpp up to 50Vpp).
- 4) **NAMUR proximity sensor or pulsing contact** - the sensor is directly connected to the PLR155 as the module provides the 8Vdc auxiliary supply.
- 5) **All types of 3-wire proximity sensors**, optical sensors or any devices with NPN/PNP open collector transistor output requiring 5-24Vdc auxiliary supply at 20mA maximum.



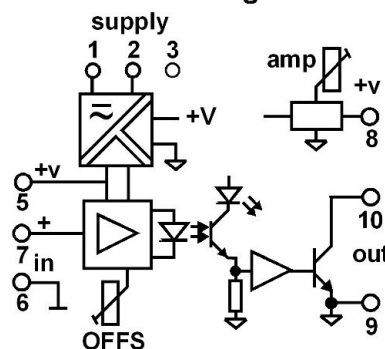
A pulse with a DC offset can also be accommodated by adjusting the 'OFFS' adjustment to trim out the DC offset. The output pulse amplitude is adjustable via the 15-turn reference front potentiometer that allows exact pulse voltage levels to be set. The module output is indicated by a front mounted LED which provides clear indication of module function and frequency output. The PLR155 provides true 3-way galvanic isolation up to 1500Vdc. RF and power transient protection are standard as it is with all APCs modules. Power supply variations from 240Vac down to 8Vdc are available.

General Specifications

Size:	52 W x 70 H x 110 D (mm).
Mounting:	DIN-Rail, gear plate.
Termination:	Top mounted screw terminals.
Protection class:	IP40
Weight:	0.300 kg.
Housing material:	ABS.
Operating temperature:	0 - 50°C.
Storage temperature:	-10...+70°C.
Frequency range:	Up to 10kHz.
Input/Output isolation:	1000Vac rms /1500Vdc.
Output transistor rating:	30V, 100mA.
Output Pulse Length:	1:1 (Up to 10kHz).
Power requirements:	3W.
Power supply isolation:	2kVrms.

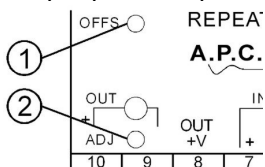
Electromagnetic compatibility: Complies with AS/NZS 4251.1 (EN 50081.1)

Block Diagram



Front Panel Adjustments

1. Offset adjustment.
2. Output pulse amplitude adjustment.



For input / output combinations refer to TYPE NO. DESIGNATION overleaf.

TYPE NO. DESIGNATION

Power Supply:

- 1 = 90-280Vac 50/60Hz (65-280Vdc). *) 6 = 8 - 60Vdc.
 *) 3 = 16-48Vac 50/60Hz (10-60Vdc) *) 9 = Other specify.

Input:

Auxiliary Power (specify frequency & amplitude)

- 01 = Sine, sawtooth or pulse (200mVpp min)
 02 = 24Vdc pulse external source pulse (0.2 - 50Vdc).
 03 = NAMUR proximity sensor or contact (8V).
 04 = 3-wire NPN proximity sensor 15Vdc auxiliary.
 05 = 3-wire PNP proximity sensor 15Vdc auxiliary.
 06 = 3-wire NPN proximity sensor 24Vdc auxiliary.
 07 = 3-wire PNP proximity sensor 24Vdc auxiliary.
 08 = 2-wire 24V DC/AC proximity sensor.
 *) 09 = Other AUX powered specify.

Signal Powered

- 10 = 45 - 55Hz.
 11 = 350 - 450Hz.
 12 = 55 - 65Hz.
 *) 99 = Other signal powered specify.

Output Pulse Ref. Level:

- 1 = 1 - 5Vdc. 2 = 4 - 24Vdc (4-21Vdc, DC power).

Options:

- 00 = None. *) 04 = Stretched output pulse, specify.
 *) 02 = Preamp for <200mVpp input.
 *) 03 = Special input filtering, specify *) 09 = Other specify.
 *) = Price Extra.

Connections

Input AUX Supply

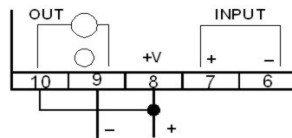
Terminal 5 is the auxiliary power supply for the input sensors. It should **not** be connected to the output terminals to maintain input output isolation.

Output AUX Supply

Terminal 8 is the "pulse reference level" and should only be used in the output connections.

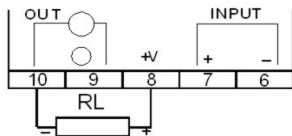
Voltage Output Connection

Low = 0V
 High = Voltage set by amplitude adjustment



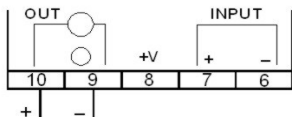
Current Output Connection

Low = 0V High = 20mA
 RL = Instrument Input.

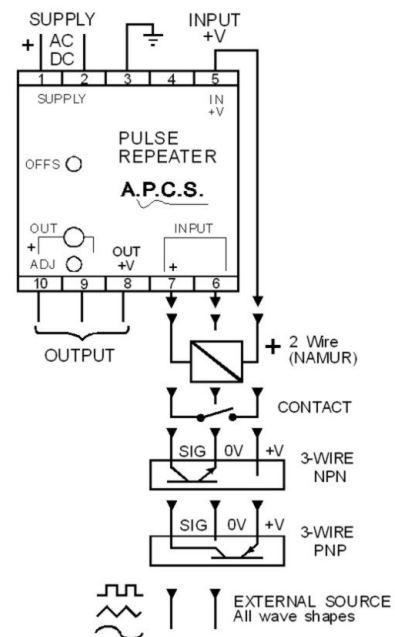


Open Output Connection (externa supply)

Low = Closed High = Open



Input Connections



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