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## ASY0700 CONTACT LOAD UNIT

Fixturing



The ASY0700 contact load unit extends the contact load current capability of the RT290 and Reflex parametric test systems to a maximum of 10 Amps at up to 30 Volts when used with an external power supply.

## **Key Features**

- 10 Amp, 30 Volt contact load capability
- Handles up to 8 pole form C (for RT290 use only)
- Automatically configured under software control via ART's device connector serial data lines.
- Optional IEEE control pack for use with suitable bench top contact load power supply e.g. HP 6038A.
- Front panel LEDs for status information
- Low cost heavy duty contact power connectors
- Supplied with parametric interface cabling
- Full documentation

## Overview

The ASY0700 contact load unit is designed for seamless integration with ART's parametric relay test systems. The unit extends the contact load environment to provide contact voltage tests up to 30V DC at up to 10 Amps. All current switching is performed using solid state devices to ensure long term reliability.

The unit is controlled by a custom serial data bus which is built into the device interface connector of the ART parametric relay test systems. Contact voltage drop (CVD) test steps may be inserted into the standard test program sequences at any point in the test sequence.

The module can be supplied with a suitable USB controlled programmable power supply to provide a complete turnkey solution.

Contact voltage range	0 to 30 V DC
Contact current range	0 to 10 A DC
Power supply interface	4 mm terminals (fused)
Device interface	Contacts: 37 way AMP CPC, coil: 25 way Dsub
Dimensions	340(w) x 206(d) x 140(h) mm (13.4 x 8.1 x 5.5")
Weight	4 kg (9 lb)



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# ASY0700 CONTACT LOAD UNIT

## **Product Features**

#### Kelvin device connections

All contact connections are 4-terminal (Kelvin).

### Contact load PSU

The unit is designed to work with either a customer supplied current limiting bench top, RS232 or IEEE controlled power supply. The load current is applied to each device contact in turn. Thus the maximum rating required by the contact load power supply is simply the maximum load current for a single contact.

#### **Contact configurations**

The unit may be used in conjunction with devices containing up to 4 changeover contacts when used in conjunction with the Reflex 10 or up to 8 changeover contacts when used with the RT290. Note that the unit may be fitted with less capability according to the configuration of the supplied RT290/Reflex system.

#### Test sequence

The device is put into the released state (normally open contacts open etc.). The normally closed contacts are tested in ascending order, the device is then operated and the normally open contacts are tested (also in ascending order).

All contact load switching is performed cold i.e. with zero contact load current. The unit features an electronic switch in series with the external contact load supply to enable and disable the supply during the test sequence whilst the different contact routes are being configured.

#### Signal quality

The earth bonded all-steel construction provides a high level of screening. Additionally all parametric signals are fully screened to optimise signal quality in electrically noisy environments.

#### Measurement

The unit measures the voltage drop across the device contact and this is amplified then output via a BNC connector on the rear panel to the Reflex/RT290 external measurement input.

The internal voltage amplification is used to maximise the DC measurement accuracy. The gain is automatically selected to accommodate an output of 10 x the programmed maximum allowable voltage drop (or 10 Volts whichever the greater).

The unit is also capable of measuring the load current as it incorporates a series current sense resistor in the load power supply path. Note this facility is not currently enabled.

#### **Device connection**

The unit is supplied with a 25 way D-type subminiature connector providing parametric connections to the device coil(s) and one or two TYCO AMP CPC connectors for the parametric connections to the device contacts. All parametric signal wires are fully screened.



#### Rear panel view

#### Front panel indicators

Five indicators are mounted on the front panel to indicate the current operating mode of the unit as follows:

- Off: In this mode the unit is bypassed. All contact load conditions are provided by the parametric test system.
- NC: In this mode contact power is connected to the normally closed contacts in sequence.
- NO: In this mode contact power is connected to the normally open contacts in sequence.
- Measure: In this mode contact voltage drop or contact current can be measured.
- Current: In this mode contact current can be measured. If this LED is not lit the measurement will be made on the contact voltage drop.

#### Order codes:

ASY0700 4PCO build - order code: ASY0700H ASY0700 6PCO build - order code: ASY0700D-6 ASY0700 8PCO build - order code: ASY0700D-8

See also: Reflex 10M Medium Power test system



