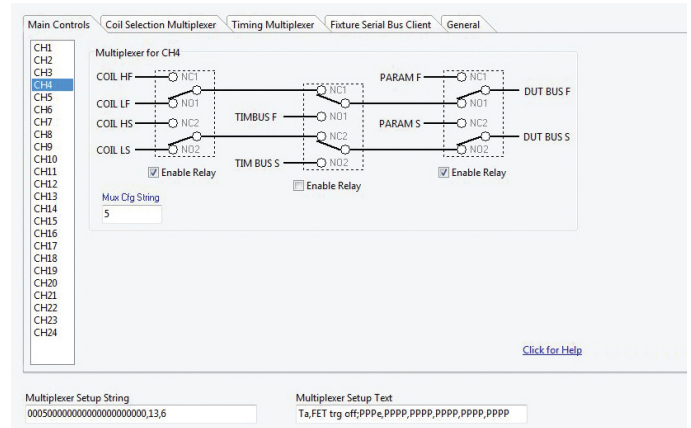


# ASY0725 – DEVICE MULTIPLEXER

Fixturing



The ASY0725 device multiplexer may be used to automate the testing of relays which use a common footprint but have a mix of coil and contact pins sharing the same physical pin locations depending on the relay type.

## Key Features

- Turn key solution for RT290 and Reflex users
- Device pin multiplexing between coil and contact paths
- Can be used with the ASY0710 AC/DC power supply module
- Dedicated Artworks software configuration step
- Internal solid state switching for triggered timing measurements
- Power and control signals via relay test system device connection
- Compact, all metal construction - excellent electrical screening characteristics
- Supplied with documentation and screened cables

## Overview

The ASY0725 has been specifically designed to work in conjunction with the ART range of parametric test systems and optionally an external power supply such as the ASY0710 AC/DC coil PSU unit. It provides a software controlled relay multiplexer to permit device pins to be connected to one or more coil drives or to a contact measurement circuit. The unit is controlled and powered from the host test system via the device connector.

The module consists of a bank of high power relays configured to multiplex contact or coil PSU resources to the standard 8 pole change over device contact connector pins (this equates to 24 channels in total).

An internal solid state switch can be used to trigger coil routing for the purposes of making contact timing measurements.

|                        |  |
|------------------------|--|
| Device connector       | 25 way subminiature D-type socket x2           |
| Max Kelvin device pins | up to 24 (8 pole C/O)                          |
| Max coil power         | 400 Vdc / 3 A , 282 Vrms / 3 A                 |
| Overall dimensions     | 366(W) x 259(D) x 44(H) (14.4" x 10.2" x 1.7") |
| Weight                 | 2.5 kg (5 1/2 lb)                              |
| Colour                 | RAL9002  |

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## Product Features

### Multiplexer routes

The multiplexer (shown on reverse) provides up to 24 Kelvin device connections to the following resources:

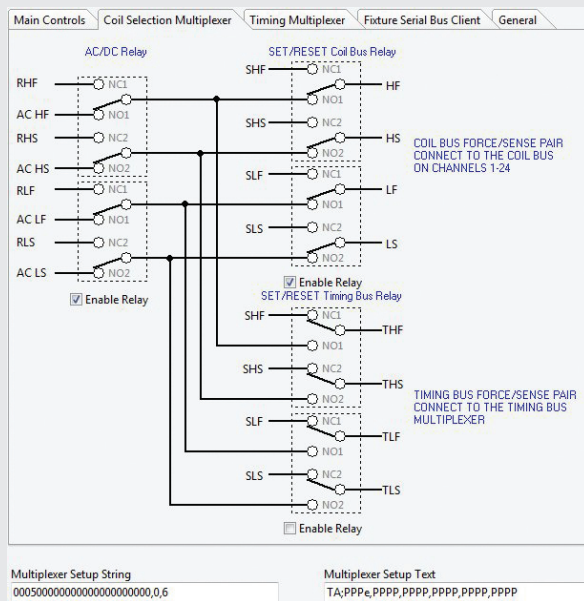
- Parametric test system contact
- Coil bus high side
- Coil bus low side
- Timing bus

A further multiplexer is incorporated to route the coil bus as follows:

- Set coil (coil A)
- Reset coil (coil B)
- External input

The timing bus can be in one of two modes:

- Static Mode (Kelvin)
- Timing Mode (non Kelvin)



Example: Coil multiplexer

### Timing Mode

In timing mode the timing bus output is either triggered ON or OFF depending on the test sequence requirement. This may be used for a triggered event such as a timing test, magnetic circuit test, dynamic contact resistance test etc. This mode is useful, for example, for operating the control pin of a timing relay. In static mode the programmed power supply is continuously routed to the device contact.

### Software control

The multiplexer is controlled using the Artworks test type called the 'Configuration Portal' and a multiplexer setup string which is used to configure the multiplexer routing. The character string can be either constructed directly or by using a dedicated graphical relay view.

```

-----
2 [-] Configuration Portal -----
CONDITION LIST
C1 Client Name = ASY230 Multiplexer
C2 Configuration setting = TA;FET trg off;PPPe,PPPP,PPPP,PPPP,PPPP,PPPP
HANDLER BIN Fail:0, Pass:0
RESULT SUMMARY []
TOTALS THIS STEP ON Batch[P:0,T:0,F:0] Seq[P:0,T:0,F:0]
JUMP Never [] to <End> ELSE <Continue>
-----
    
```

Example: Configuration portal test step

### Kelvin connections

All coil and contact multiplexing is designed to give a 4 terminal device connection up to 3 Amps. Note that the internal solid state switch timing connection provides a two terminal connection only when in Timing Mode.

### Power up mode

On power up all internal relays are disabled and the signals are routed through the unit as follows:

- Contact in connects to contact out
- Coil in connects to coil out

### 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.



See also:  
ASY0697 Twin test site multiplexer