

TY370/GRP01 - QTD4

Datasheet

Slow to Release Delay units



Description

The TY370/GRP01 is used in safety critical applications where a delay is required between the opening of a control contact and the release of a normally energised slave relay.

The slave relay is powered from the TY370/GRP01 and thus does not require a separate supply.

Mors Smitt Relays

- Modular plug in design
- Non weld contacts
- Silver and carbon impregnated with silver contact tips
- Proven reliability
- Low life cycle cost

Mors Smitt Catalogue Number	Mors Smitt Reference (Westinghouse Reference)	Rated Voltage	Contacts	Pin Code (Pins)	Network Rail Acceptance Number	Specification
TY370/GRP01	STD4 (QTD4)	12 V D.C.	N/A	(B, C, E, G & X)	N/A	N/A

TY370/GRP01 is a slow release timer module which adds a release delay to a slave relay. When a control contact connected to terminals D3/D4 is opened the delay is added between the control contact opening and the relay connected to terminals R3 and R4 being opened. The safety critical nature of this design does not allow the release delay to alter by more than 20% from the set time. The TY370/GRP01 is operated from a 12 V D.C. or full-wave rectified AC supply and generates a 12 V, 24 V or 50 V supply to operate the slave relay.

Terminal Arrangements.

REAR VIEW OF RELAY

A		D	
1	Timing	Slave Volts	1
2	Timing	Slave Volts	2
3	Timing	Control Contact	3
4			4
5		Reset Contacts	5
6			6
7	Timing	Slave Volts	7
8		Slave Volts	8
R1	Supply +ve	Supply -ve	R2
R3	Slave Relay +ve	Slave Relay -ve	R4

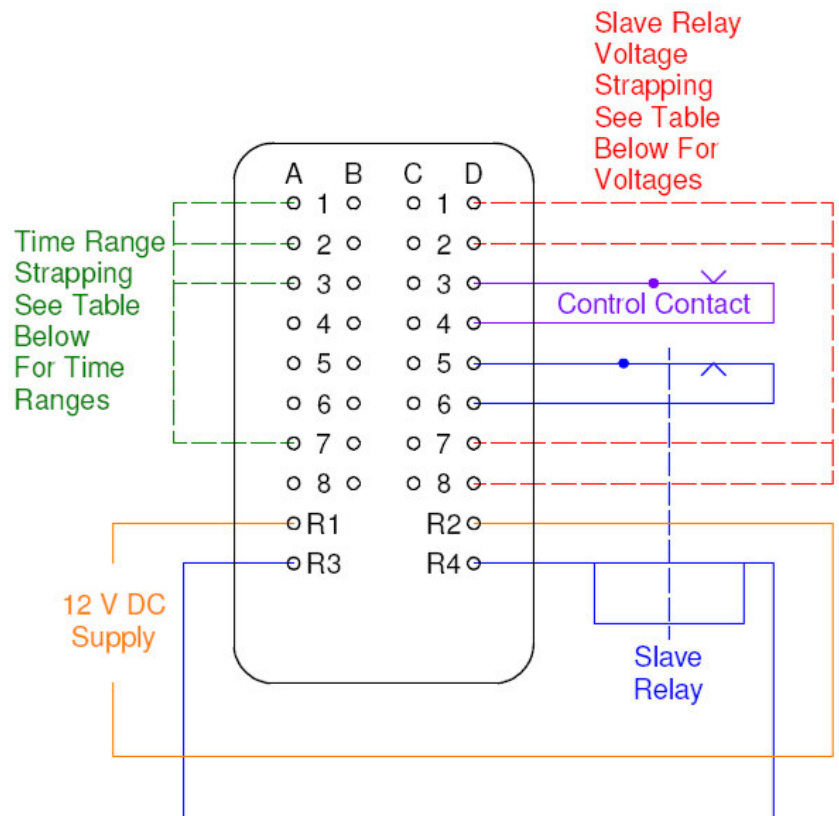
TY370/GRP01

Time Range	Strapping
3-10 Seconds	None
11-30 Seconds	A1-A7
31-100 Seconds	A1-A2-A7
101-300 Seconds	A1-A2-A3-A7

Adjustment within each range is achieved by a potentiometer accessed through a hole in the cover which once adjusted is sealed by a tamper proof label.

Always check and if necessary re-adjust the timing when the relay is replaced.

Electrical leakage to terminal A1, A2, A3 & A7 could inhibit or lengthen the time delay. Electrical leakage between terminals D3 and D4 or terminals D5 and D6 could inhibit or lengthen the time delay.



Slave Relay Voltage	Strapping
12 V D.C.	D1-D2
24 V D.C.	D2-D7
50 V D.C.	D2-D8

Strapping should be as short as practical and made using appropriate signalling cable. The slave relay must be an approved appropriate BRB930 series signalling relay.

Wiring the delay unit and slave relay

Referring to the wiring diagram on page 2 wire a 12V supply to terminals R1 and R2.

Connect terminals R3 and R4 to the coil connections on the slave relay plugboard.

Connect terminals D5 and D6 to a normally open contact on the slave relay plugboard.

Connect terminals D3 and D4 to a control contact. The release delay will be started when the control contact is opened.

Procedure for setting up the time delay on the relay plugboard

The required RELEASE delay is obtained by a combination of hard wired links between appropriate terminals and an adjustable potentiometer.

Using the table on page 2 select the relevant slave relay voltage. For example for a 50 V slave relay fit links to the plugboard between connections D2 and D8. Replacing a failed delay unit will automatically set the new delay unit to drive the same slave relay.

Using the table on page 2 select the relevant time range. For example for a 52 seconds delay 31-100 seconds. On the plugboard fit links between connections A1, A2 and A7. Replacing a failed delay unit will automatically set the new relay to the same time range.

Time connections being removed or broken will increase the delay range (see table).

Procedure for setting up the timer delay on the installed relay

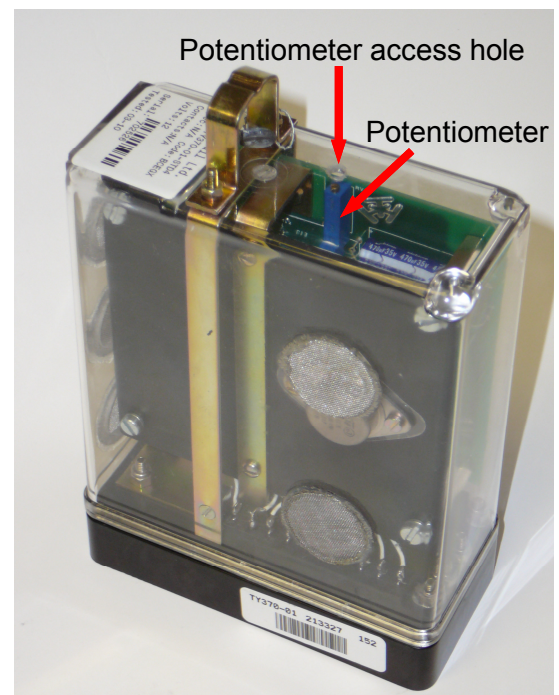
With both the delay unit and the slave relay correctly wired and installed and the control contact closed apply power to the delay unit and ensure that the relay operates.

Start timing when the control contact is opened and note the time when the slave relay releases.

Turn the potentiometer clockwise to increase the release time delay and anticlockwise to decrease it.

Re-measure the time delay after each adjustment until the specified time is achieved.

When timing and operation check is confirmed fix calibration seal label provided over the potentiometer access hole.





**MORS
SMITT™**



www.morssmitt.com



MS Relais SAS

Tour Rosny 2, Avenue du Général de Gaulle,
F - 93118 Rosny-sous-Bois Cedex, FRANCE
T +33 (0)1 4812 1440, F +33 (0)1 4855 9001
E sales@msrelais.com

Mors Smitt Asia Ltd.

807, Billion Trade Centre, 31 Hung To Road
Kwun Tong, Kowloon, HONG KONG SAR
T +852 2343 5555, F +852 2343 6555
E info@morssmitt.hk

Nieaf-Smitt B.V.

Vrieslantlaan 6, 3526 AA Utrecht,
NETHERLANDS
T +31 (0)30 288 1311, F +31 (0)30 289 8816
E sales@nieaf-smitt.nl

Mors Smitt Technologies Inc.

420 Sackett Point Road
North Haven, CT 06473, USA
T +1 (203) 287 8858, F +1 (888) 287 8852
E mstechnologies@msrelais.com

Mors Smitt UK Ltd.

Doulton Road, Cradley Heath
West Midlands, B64 5QB, UK
T +44 (0)1384 567 755, F +44 (0)1384 567 710
E info@morssmitt.co.uk