149 Main St. - Stanhope, New Jersey 07874 - Phone 800-523-9194 - Fax 973-448-1674

# DC TRANSDUCER TRIP



### **SELECTION GUIDE**

M200-TAU DC volts or mA under trip
M200-TAO DC volts or mA over trip
M200-TAC DC volts or mA combined trip

## TYPICAL APPLICATIONS

The M200 DC transducer trips have endless applications. As the name implies they are designed to accept inputs from transducers and transmitters, and provide a relay operation when the transducer signal deviates outside a pre-set limit.

Any of the M100 series transducers can be used with the transducer trip. A typical application is to control power using a M100-WA5 with a 4-20mA signal fed to a M200-TAO. For example the output goes above a pre-set limit of 80%, the TAO relay will close, setting off an alarm or shutting down a process.

Either DC voltage or DC current inputs can be used. As is common with all the M200 relays, on over units the relay energises when the input signal exceeds the trip point and on under units the relay de-energises when the input signal goes below the trip point.

A red LED indicates the state of the relay, whilst a green LED indicates the condition of the power supply.

## TECHNICAL SPECIFICATION

*INPUT* 

Rated value In 0<20mA or 4-20mA

Voltage drop 1 volt

Rated value Un 1<50 volt or 1-5 volt Impedance 10k Ohm / Volt

Overload 2xIn 1.5x Un continuous 10x In 2x Un for 3 seconds

**SETPOINT** 

Range Over Adjustable 40% to 120% for both

voltage and current input.

Range Under Adjustable 0% to 80% for both voltage

and current input.

Repeatability Better than 0.5% of full span
Time delay Adjustable 200 ms to 10 seconds

Differential Fixed 5%

**AUXILIARY** 

AC Voltage 115/230/400 V

 $\pm 25\% / 45-65Hz / 2VA$ 

DC voltage  $24 \text{ volt } (\pm 20\% / \text{ galvanically isolated})$ 

<*3 watt* 

**WEIGHT & CASE SIZE** 

Single units Approx. 0.4kg. 55mm case Combined unit Approx. 0.6 kg. 100mm case

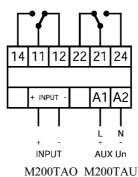
# **ORDERING INFORMATION**

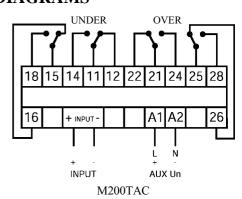
Product Code Input Vn or In Aux Freq M200-TAC 1mA 110v 50Hz

#### **OPTIONS**

- 1. Adjustable time delay max 30 seconds
- 2. AC auxiliary in the range 57.7 to 480 volts
- 3. Calibration at nominal Hz 35.....450Hz
- 4.Calibration at temperature other than 23° C

## **CONNECTION DIAGRAMS**





# **GENERAL SPECIFICATIONS**

#### **ENVIRONMENTAL**

## **RELAY OUTPUT**

Working temperature Functional temperature Storage temperature Temperature Coefficient Relative humidity Class of climate

**INSULATION** 

HF interference test

Protection class

Test voltage

Impulse test

0 to +60 deg C -25 to + 70 deg C-40 to +85 deg C

0.03% per deg C (3OOppm/ $^{0}$ C) 95% non condensing HSE complying with DIN 40040

-3 complying with VDE/VDJ

4kV RMS 50Hz 1min between

EMC 5kV transient complying

II complying with IEC 348

Input / Case /Auxiliary

with IEC 255-4

3540

Relay type dual pole change over Material Silver / Cadmium Contact resistance 200mOhm max Typically <50m Ohm

250V 5A non resistive 1200VA Rating AC Rating DC 125V 1A resistive 120 watts Electrical lije  $1 \times 10^6$  at above load

 $5 \times 10^6$ Mechanical life

Operating time approx. 7ms (20ms max)

Dielectric strength Between coil and contacts

> 5kV RMS 1min Between open contacts 1kV RMS Imin Between adjacent contacts

1kV RMS imin

with IEC 801 / EN55020 Insulation resistance EHF 2.5kv 1MHz complying Operating temperature Approval

1000M Ohm at 500V DC -30 to + 75 deg CUL and CSA recognised

# APPLIED STANDARDS

IEC 144/BS 5420/VDE/ General

VDI 0435/ IEC 947/

EN60947

Safety BS EN 61010

DIN 57411 / VDE 0411

ANSI C37

Surge withstand IEC 801 / EN 55020

ANSI C37-90a

RFI degree N complies with Radio screening

VDEO87S

EMCEmissions EN50081-2

Immunity EN50082-1

## **ENCLOSURE**

Snap on to DIN rail 35 x7.5 mm Fixing

complies with DIN-EN 50022

BS 5584

Mounting Any position

Enclosure Code Case IP 50/ terminals IP 30

Complies with IEC 529 BS 5490 DIN 40050

Complying with UL 94 VO Material

#### **APPROVALS**

U.L. Approval File No E157034

# CASE DIMENSIONS

All Dimensions in mm

