UTILITY SYSTEMS INC.

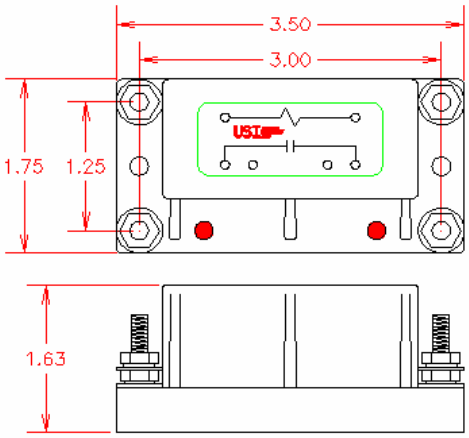
A Magnetic Instrumentation, Inc. Company

New Product Release

Trip Indicating Relays

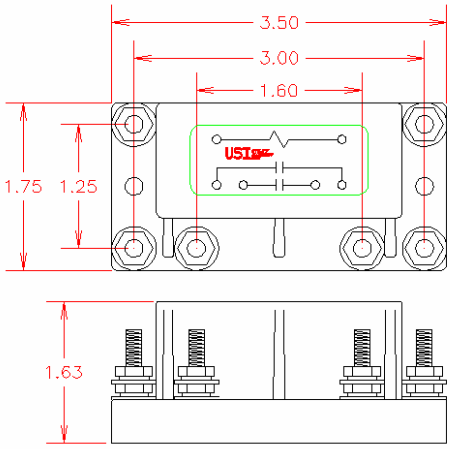
- Multiple Applications
- Simple Installation
- High Current
- Low Resistance
- High Switching Capacity
- Low Cost

TIR-1 Form A



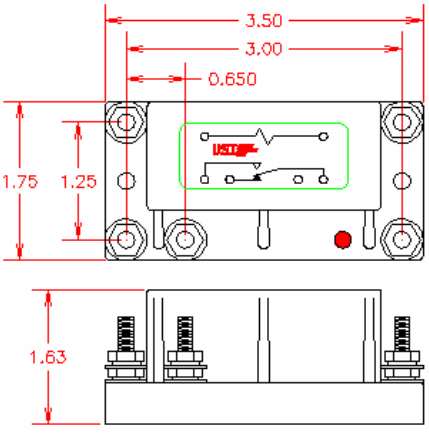
- 60 Watt Switching Capacity
- 1000Vdc Dielectric Strength
- 400 Volt AC or DC Max. Switching
- 16A Continuous

TIR-2 Form 2A



- 70 Watt Switching Capacity
- 780Vdc Dielectric Strength
- 200Vdc or 250Vac Max. Switching
- 16A Continuous

TIR-3 Form C

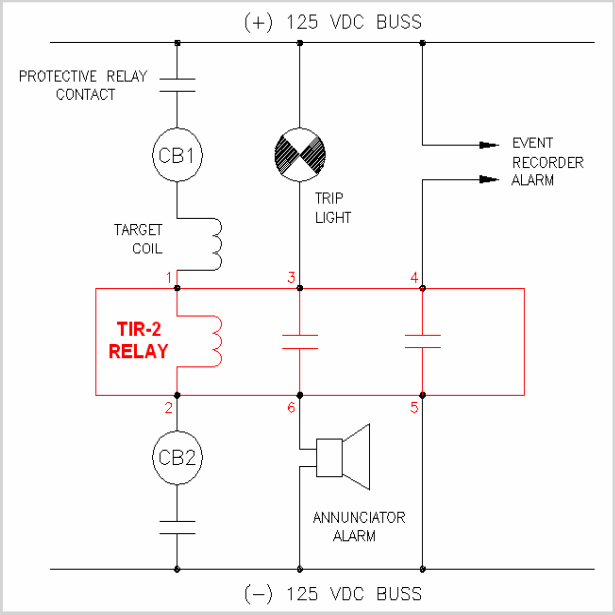


- 20 Watt Switching Capacity
- 200Vdc Dielectric Strength
- 150 Volt AC or DC Max. Switching
- 16A Continuous

Other TIR Arrangements are Available Upon Request

The TIR Relays are activated by sensing the presence of current in a trip coil. The special design is ideal for use with protective relays and circuits associated with DFRs. The TIR coil can handle extreme current overloads and features a high-speed contact closure time. The TIR Relay is constructed inside a rugged high dielectric strength case. Ridged terminal studs provide a good quality connection.

TIR-2 RELAY - TYPICAL APPLICATION



TIR Relay Comparison Chart

Parameter			TIR-1	TIR-2	TIR-3
Switch Contact Form			Form **A**	Form **2A**	Form **C**
Operate Current		max	1.5 A	1.5 A	1.5 A
		min	>1.0 A	>1.0 A	>1.0 A
Release Current		max	0.65 A	0.65 A	0.65 A
		min	0.25	0.25 A	025 A
Max. Coil Current:					
Continuous Amp.		max	16 A	16 A	16 A
Peak Current 1 Sec		max	50 A	50 A	50 A
Coil Resistance @ 25dgr		max	>30 mOhm	>30 mOhm	>30 mOhm
Breakdown Voltage		min	1000 Vdc	1000 Vdc	1000 Vdc
Coil-Contacts (any)					
Turn ON Time		typ	1.0 mS	0.8 mS	0.8 mS
including bouns		max	<3.0 mS	1.0 mS	<2.6 mS
Turn OFF Time		typ	0.2 mS	0.3 mS	0.4 mS
including bounce		max	0.5 mS	0.5 mS	0.5 mS
Contact Rating:					
Switching Capacity VA/W		max	60 W	70 W	20 W
Switching Voltage max	Vdc	max	400 Vdc	200 Vdc	150 Vdc
	Vac	max	400 Vac	250 Vac	150 Vac
Switching Current	ac/dc	max	3.0 A	1.0 A	1.0 A
Carrying Current		max	4.0 A	2.25 A	2.0 A
Contact Resistance		max	80 mOhm	96 mOhm	150 mOhm
Dialectric Strength		min	1000 Vdc	780 Vdc	200 Vdc
Operating Frequency		max	200 Hz	>125 Hz	250 Hz
Capacitance		typ	0.5 pF	0.2 pF	0.8 pF
Insulation Resistance		min	10E11	10E6	10E9

Applications

Alarms Indications

Annunciators

Event Recording

Breaker Functions

Relay Functions

Communications

Features

Millisecond Actuation

Simple Installation

High Current

Low Resistance

High Switching Capacity

Low Cost

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