Telephone Line Current Sensing Reed Relays Type 55

- On/Off hook detection with minimum return losses.
- Balanced circuit current sensing.
- Pulse counting applications.
- Full batch traceability.
- If you have a volume requirement for a product variant not shown on this sheet please contact us.

BT55 Relays have highly sensitive single or twin balanced coils that are operated in series addition and are closely matched to maintain telephone line balance in line sensing applications. BT55C/4 is specifically designed for low impedance and minimum insertion loss with 4KV isolation between coil and contact circuits.

All relays with the exception of style 73, are cased (C) and not potted.

Contact Ratings

Switching voltage	50Vdc
Switching current	100mA
Switching power	3W
Contact resistance	200mΩ

Switching Times (typical)**

First closure	100µS
Bounce	250µS
Release	25µS

Insulation Resistance

Across open contacts	10^2MΩ min @ 200Vdc
Between contact/coils	10^3MΩ min @ 500Vdc
Between coils	10^3MΩ min @ 500Vdc
@ 10mV, 10mAdc	

Dielectric Strength

Across open contacts	200Vdc
Between contact coils on:	
BT55C/1, 2	1.5KVdc
BT55/73	4KVrms
Between twin coils	1.0KVdc

**BT55/1 20mA drive, 10pps

Alternative relay specifications for line current sensing requirements are available. Contact us with your application details.

Specifications at 20˚C and 75% RH

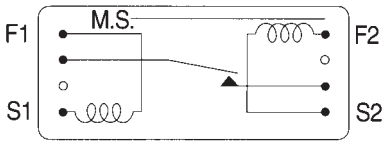
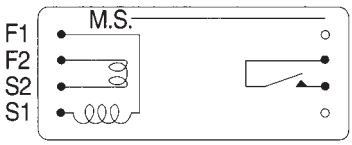
Coil Details		BT55C/1*	BT55C/2	BT55/73
Resistance	Ω(±10%)	5+5	9+9	9+9
Current (nom)	(mA)	20	20	20
Must operate	(mA)	15	15	15
Must release	(mA)	2.0	2.0	2.0
Max. current	(mA)	200	150	150

*BT55C/1: Coil balance about earth better than -70dBm at 200Hz-5KHz
Coil inductance 6mH typical @ 1.5KHz

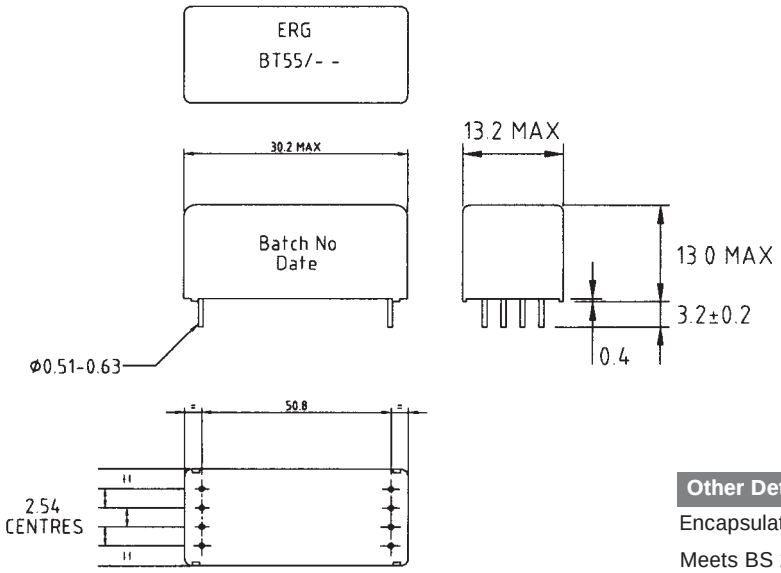
Telephone Line Current Sensing Reed Relays

ITW Erg Components

Schematic Details

Style	Details	Schematic arrangement viewed from underside
BT55C/1 BT55C/2	Balanced twin coil relays	
BT55/73	Balanced twin coil relays with 4KV isolation between coil and contact circuits.	

Mechanical Details (mm ±0.1)



Other Details

Encapsulated in UL94 VO rated materials.

Meets BS 2011 Pt. Test Ca (21 days l.t.d.h.)
Test T 2 secs. (solder bath)

Flow solderable, solvent/wash immersible.

Temperature range -10˚C to +85˚C

Internal magnetic screening is standard. Similar relays can be mounted on 13mm side pitch with <5% (aiding/opposing) influence on adjacent relays. The effect of extraneous magnetic field e.g. other relays, transformers etc. may affect the performance of these sensitive relays and should be evaluated.

Please note: BS 2011 is now superseded by BS EN 60068.

ITW Erg Components

Luton Road, Dunstable, Bedfordshire LU5 4LJ England
Telephone: 01582 662241 Fax: 01582 600767

E-mail: info@erg.co.uk http://www.erg.co.uk