



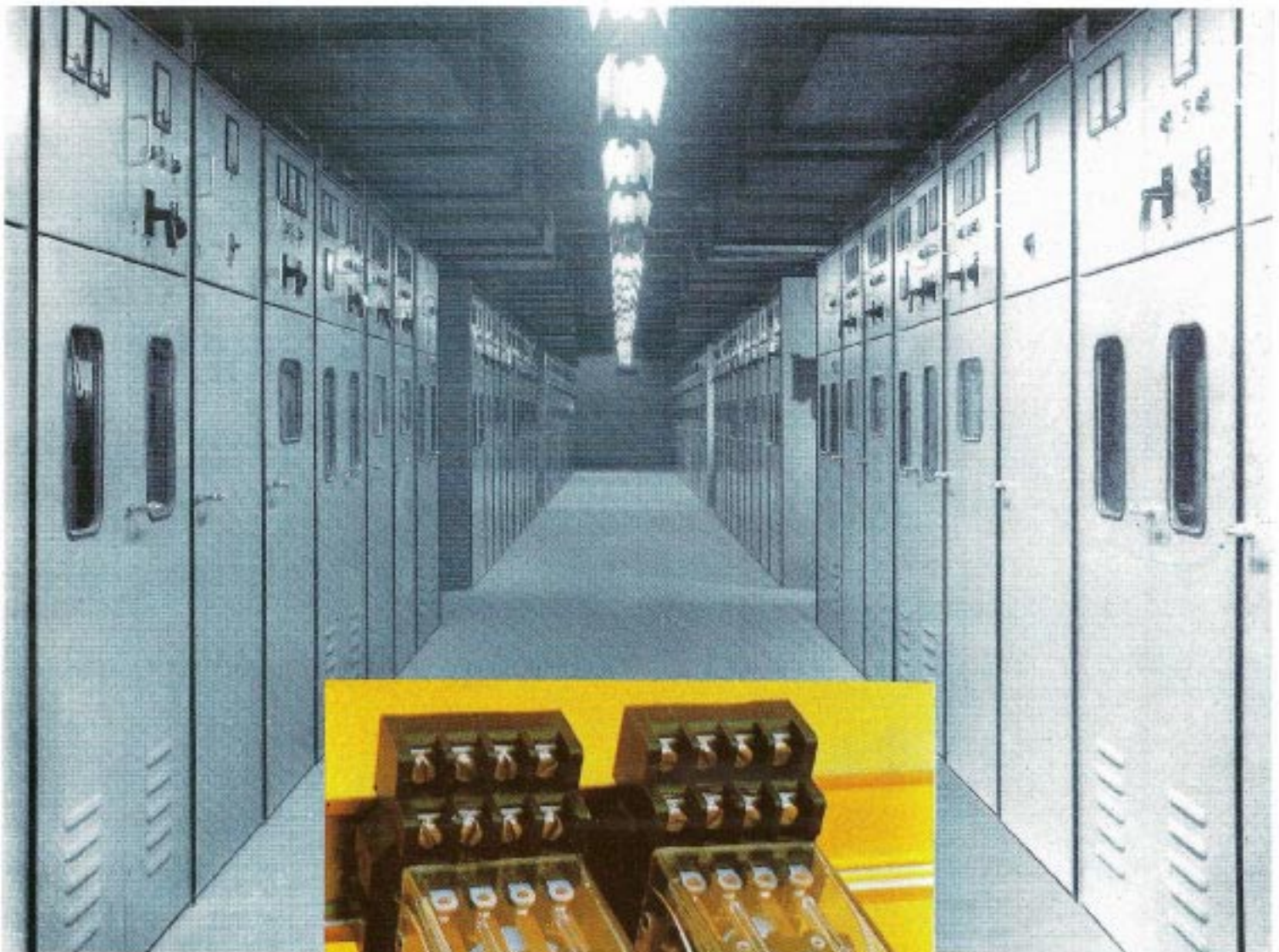
RWTUV

 **Jyoti Ltd.**



'Jyoti'
RE - 400
Mini Auxiliary Relay
(Voltage Operated
Plug - in type)

Preferred by Control
Panel & Switchgear
Manufacturers as
economic option for
Control Contactors



'Jyoti' RE - 400 Mini Auxiliary Relay (Voltage Operated Plug - in type)

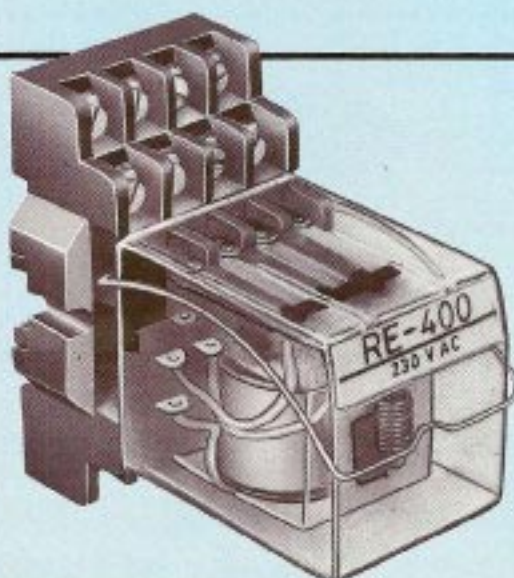


Fig.1 RE 400 Relay with Plug-in-base

JYOTI's New Mini-Auxiliary Relays type RE-400 offer economy of contactors and at the same time advantages like low coil burden, adequate contact ratings and dust-proof enclosed construction. RE-400 relays are ideal for use in control panels for critical applications in thermal power plants, and in industries like chemical, cement etc.

APPLICATIONS

- Auxiliary Relay Panels
- Contact Multiplication
- Voltage Selection
- Anti-pumping
- Output Stage for PLC Systems

DESCRIPTION

'Jyoti' relays type RE-400 are voltage operated mini-auxiliary relays. The relays have simple attracted armature construction which offers high reliability. The armature carries moving contact arms and the fixed contact reeds of the four change-over contacts held in the moulded base-plate of the relay. The moving contacts are made of silver and specially shaped to give low resistance contact. The fixed contacts are of copper-silver. The moving contact fingers are made of specially heat-treated material which preserve the required elasticity during the long service life of the relay.

The relays generally conform to IS:3231 (Part 2/Sec. 1) : 1987

PLUG-IN BASE

Front connection base type FRC-400 (Fig. 2)

The plug-in base is provided with screw-in type terminals which are specially partitioned to prevent short circuit between adjacent terminals. The plug-in base is suitable for projection-mounting by two screws. Arrangement for DIN Rail mounting is also provided to facilitate fast assembly. The terminals are suitable for accepting 1.5 Sq. mm. wire.

STANDARD COIL RATINGS

DC	: 6, 12, 18, 24, 30, 48, 50, 75, 110 (115 & 220V with economy resistor)
AC, 50 Hz	: 6, 12, 18, 24, 30, 48, 50, 63.5, 110, 115, 127, 220, 230, 240V

Non-standard coil voltages within the range of 6V to 220 VDC or upto 240 VAC, 50 Hz can be supplied against specific requirements.

TECHNICAL SPECIFICATIONS

Limits of Operating Range	: 80% to 110% of the rated voltage (as per Clause 1 of IS: 3231)
Drop-out Voltage	: \geq 15% of rated voltage for AC \geq 5% of rated voltage for DC
Coil Consumption	: AC : 3.5 VA DC : 2.3 Watts For coil voltage above 110 VDC, a resistor is connected in series with coil. This increases the burden by 2.3 W in case of 220 VDC relays.
Ambient Temperature	: -5° to $+45^{\circ}$ C
Contact Arrangement	: Four Nos. Change-over contacts (self-re set)
Contact Ratings	: AC, 50 Hz DC
— General	: 5A-250VAC 5A-110VDC
Make & Carry Continuously	: 1250VA with a maxima of 5A-250VAC 250W with a maxima of 5A-110VDC
Break Duty : — Resistive	: 1000VA with a maxima of 5A-250VAC 75W with a maxima of 5A-110VDC

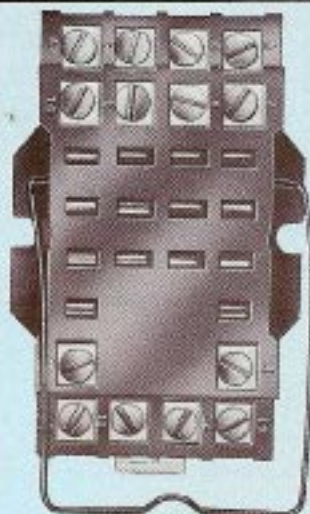


Fig. 2 Plug-in-base type FRC-400

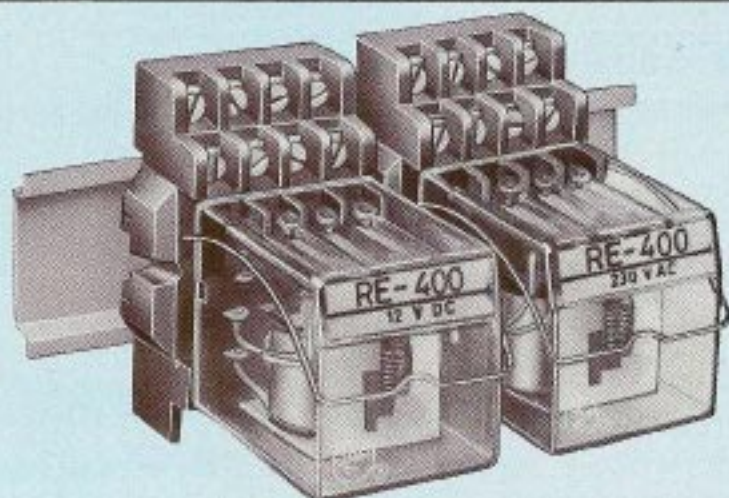


Fig. 3 Relays mounted on DIN channel

Break Duty : : 500VA 25W with a
 — Inductive : with a maxima of
 5A-110VDC
 5A-250VAC and maxi-
 with mini- mum time
 mum p.f. L/R = 20m
 of 0.4 Sec.

Operating Time : 20 mSecs during Energisation
 (Typical) 10 mSecs during De-energisation

Mechanical : 20 million operations with a maxi-
 Endurance : mum switching frequency of
 3600 operations/hour

Electrical : The relays are capable of with-
 Endurance : standing 1 million operations with
 a maximum switching frequency
 of 300 operations/hour at rated
 contact capacity

Insulation : The relay shall withstand 2 kV,
 AC (RMS), 50Hz for one minute
 between all terminals connected
 together and earth. The N/O
 contacts of the relay in open
 position shall withstand 1 kV AC
 (RMS), 50 Hz for one minute as
 per IS:3231.

CASE & MOUNTING

The relay is fitted with a snap-type transparent cover and is suitable for projection mounting with front connection plug-in base. A holding clamp is provided for holding the relay firmly with the base.

The relay shall be mounted on a vertical plate and the inclination shall be preferably within $\pm 15^\circ$.

INSTRUCTIONS FOR HANDLING AND STORAGE

The relays are supplied in boxes which can sustain reasonable shocks during transportation. Upon receipt of the relays, it is advisable to examine them. Damages, if any, should be reported quoting order number. If the relays are not to be installed immediately, they should be stored in boxes in which they have been sent. The storage place should be free from acid fumes, corrosive chemicals, excessive moisture and dust.

DIMENSIONS (mm)

Relay	Base
36 (W) x 39 (H) x 50 (D)	44 (W) x 70 (H) x 28 (D)

WEIGHT (gms.)

Relay : 85	Base : 75
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MAINTENANCE

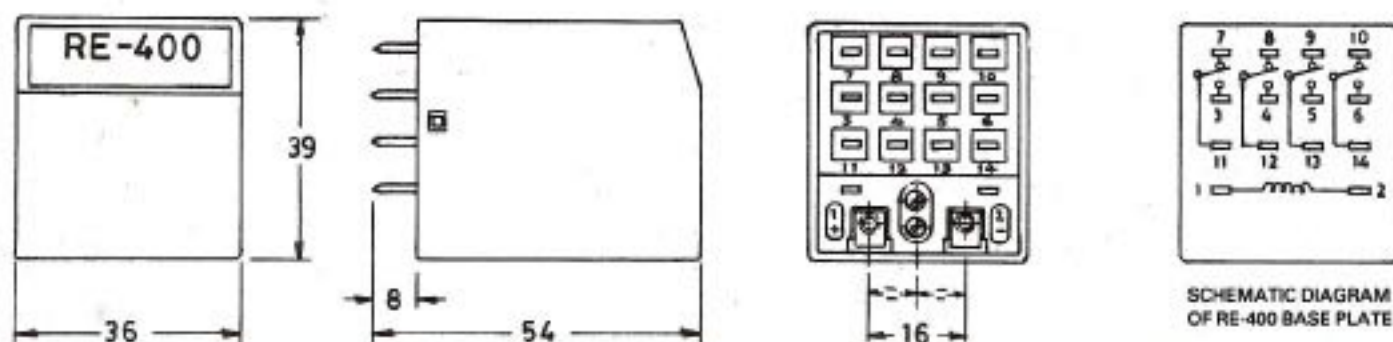
- The contacts should be periodically examined for cleanliness.
- The contacts can be cleaned with the help of painters' brush and Carbon Tetra-Chloride.
- Do not use emery paper on the contacts.
- Distance between the contacts should not be altered.

DETAILS REQUIRED WITH ORDER

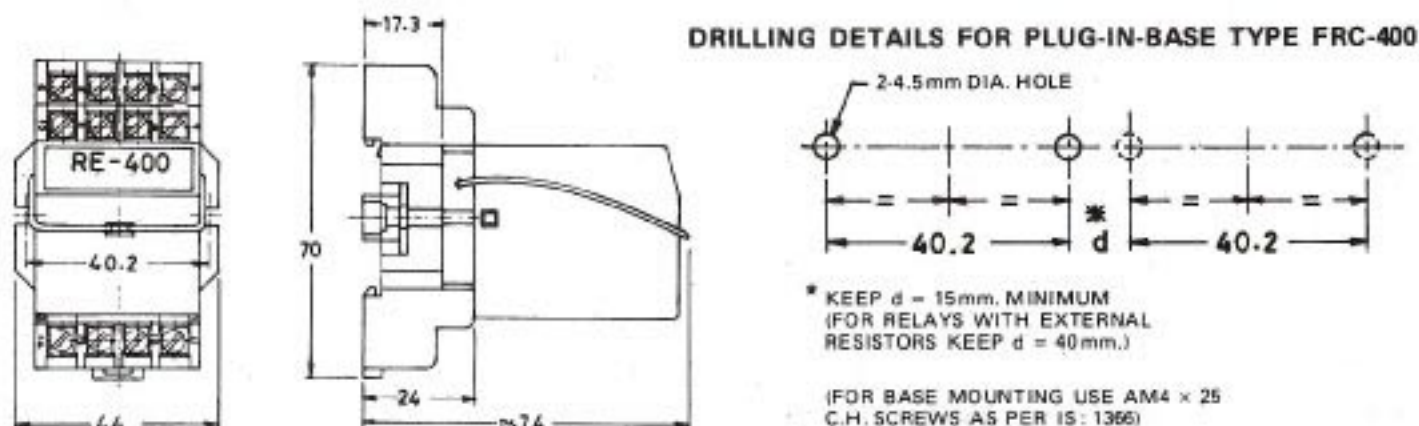
- ★ Coil Voltage
- ★ DC or AC, 50 Hz.

- NOTE :**
1. Contact ratings (make/break) are assigned to N/O contacts only. However, both N/O & N/C contacts will withstand thermal rating.
 2. Plug-in base is suitable for Din Rail mounting type TH 35-15 as per IS: 11039-1983.

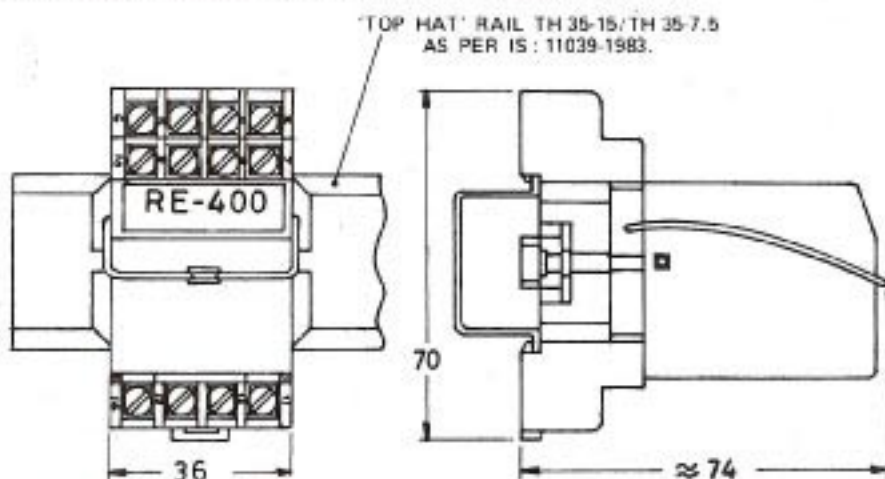
DIMENSIONAL DETAILS OF RE-400 RELAY WITHOUT PLUG-IN-BASE



DIMENSIONAL DETAILS OF RE-400 RELAY WITH PLUG-IN-BASE



DIN RAIL (CHANNEL) MOUNTING ARRANGEMENT



 **Jyoti Ltd.** VADODARA (INDIA)
50 Years of Engineering Excellence

FOR FURTHER ENQUIRIES
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