

**Forget about  
high tension....**

**SCOT measures CB timings  
in live switchyards**



# CIRCUIT BREAKER TIME INTERVAL METERS

Millennium versions of SCOT Series of Time Interval Meters from SCOPE are compact and reliable instruments to measure operation times of all types of HV and EHV circuit breakers under charged swichyard conditions.

The two models, SCOT M3K and SCOT MXP have unique features to enhance the utility of the instruments:

- Inbuilt clock to tag date and time of test to the readings.
- 4 line 20 character backlit LCD display for menu and results.
- Inbuilt memory to hold results of last fifty tests.
- Easy to use menu driven user interface for operation.
- Diagnostics for instrument condition and calibration watch.
- Inbuilt printer for printing results (SCOT MXP).

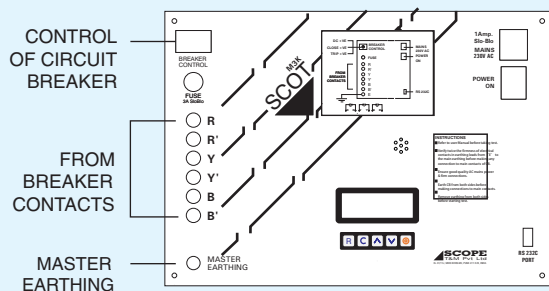
## SCOT M3K

Time Interval Meter measures and displays CLOSE, OPEN and C-O times of main contacts of 3 poles connected end to end, simultaneously.

## Testing with SCOT M3K & SCOT MXP

- Isolate breaker to be tested from both sides and earth it
- Connect 'SCOT' to breaker as shown in the diagram
- Remove earthing from breaker poles
- Select the operation and mode to be performed e.g. Close, Open or CO
- Give command to operate the circuit breaker.
- Operation times of all three poles are measured and displayed simultaneously on the display (also printed out, on SCOT MXP)
- Test results can be stored and downloaded to a PC, saved, viewed and organised using SCOPE's CDATE software

## Connections for SCOT M3K



## SPECIFICATIONS

Channels	: Three
Control of Breaker	: Through 300V / 30A SSRs to Trip and Close the connected circuit breaker
Output	: 4 line 20 character backlit LCD RS 232 C port for downloading data to PC
Range	: 999 milliseconds maximum
Resolution	: 0.1millisecond
Measuring Accuracy	: Value $\pm 0.05\% \pm 1$ digit
Test Leads	: Set of 15m, wear resistant Test Cables
Environment	: 0 to 50°C, 95% RH (Non-condensing) Electrical noise normally found in live switchyards of upto 420kV
Power	: 230V AC $\pm 15\%$ , 50Hz $\pm 10\%$ , 25 VA
Dimensions	: 430 x 345 x 160 mm
Weight	: 6 kg, instrument

Note: Calibration Certificate having traceability to NPL is supplied

[www.scopetnm.com](http://www.scopetnm.com)

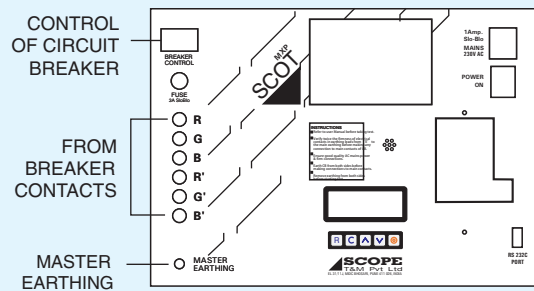
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## SCOT MXP

SCOT MXP measures, displays and prints CLOSE, OPEN and C-O times in various configurations. The MXP has a special mode to measure PIR closing time.

## Connections for SCOT MXP



Modes 1, 2 and 3 for Close, Open and C-O time of 3 poles simultaneously, end to end connections

Modes 4, 5 and 6 for Close, Open and C-O times of 4 Main contacts.

Mode 7 for Closing time of 4 Main and 4 PIR contacts.

## SPECIFICATIONS

Channels	: Maximum eight in PIR mode
Control of breaker	: Through 300V / 30A SSRs to Trip and Close the connected circuit breaker
Output	: 4 line 20 character backlit LCD RS 232 C port for downloading data to PC
Printer	: Inbuilt, thermal printer
Paper	: Thermal, 55 mm wide roll
Test Leads	: Set of 15m, wear resistant Test Cables
Range	: 999 milliseconds maximum
Resolution	: 0.1millisecond
Measuring accuracy	: Value $\pm 0.05\% \pm 1$ digit
Environment	: 0 to 50°C, 95% RH (Non-condensing) Electrical noise normally found in live switchyards of upto 420kV
Power	: 230V AC $\pm 15\%$ , 50Hz $\pm 10\%$ , 25 VA
Dimensions	: 430 x 345 x 160 mm
Weight	: 6 kg, instrument

Note: Calibration Certificate having traceability to NPL is supplied

## ORDERING INFORMATION

2100.45.00	SCOT M3K Circuit Breaker Time Interval Meter complete with Test Leads	1 set
2101.45.00	SCOT MXP Circuit Breaker Time Interval Meter complete with Test Leads	1 set

## OPTIONAL ACCESSORIES

4100.02.00	CDATA 1.0 Numerical Analysis software with communication cable	1 set
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Simple solutions for difficult measurements<sup>®</sup>

**SCOPE**  
T&M Pvt Ltd