



MicroEner

MULTIFUNCTION ZERO SEQUENCE OVERCURRENT EARTH FAULT / SENSITIVE EARTH FAULT RELAY

MC0A

MC02-R2

LINE MC

50N/51N, 51BF, 68, 74

- Four Earth-fault elements
- Time current curves selectable according to IEC/IEEE standards
- Blocking Output and Blocking Input for pilot wire selectivity coordination
- Breaker Failure protection
- Time tagged multiple event recording
- Oscillographic wave form capture
- Modbus RTU / IEC870-5-103 Communication Protocols
- Display LCD 16 (2x8) characters



Earth fault relay with programmable time-current curves suitable for protection of power distribution systems with insulated, resistance earthed or compensated neutral.

Rated input current selectable 1A or 5A, 50/60 Hz.

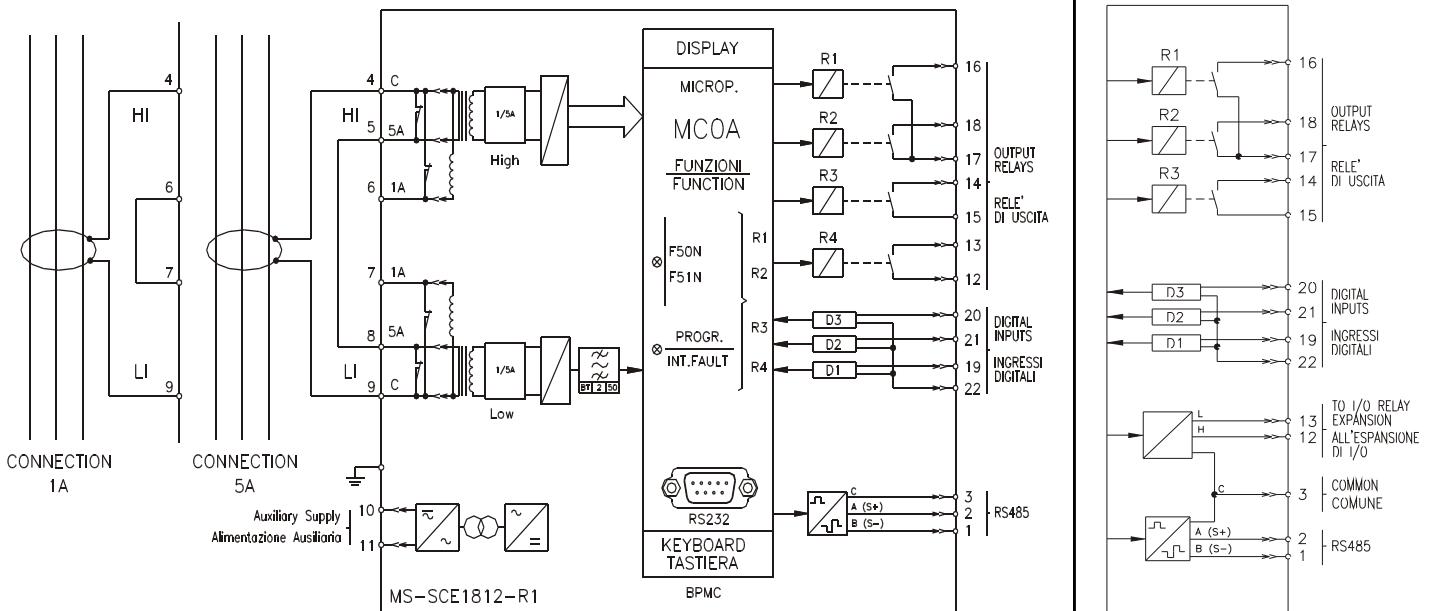
3rd harmonic filter on the neutral input current.

Real Time Measurements = HI - LI
Maximum Demand and Inrush Recording = HI - LI

Programmable Input Quantities

Fn	= System frequency	: (50 - 60) Hz
HI	= Rated primary current of the CTs	: (1 - 9999)A, step 1A
LI	= Rated primary current of the CTs	: (1 - 9999)A, step 1A

Connection Diagram

MS-SCE1812-R1
Standard OutputMS-SCE1840-R1
I/O Output

**1F - F50N/51N (1I): First Low-set Earth Fault Element**

- Function enabling : Enable/Disable
- Current setting range : $I_1 = (0.01 \text{ } \text{à} \text{ } 2.00)LI$, step 0.01LI
- Instantaneous output : $\leq 0.04\text{s}$
- Time current curves : Indep.Definite Time (D), IEC (A / B / C), IEEE (MI / VI / I / EI / SI)
- Definite trip time delay ($10 \times [I_1]$ in inverse time operation modes) : $t_{1I} = (0.05 \text{ } \text{à} \text{ } 60.00)\text{s}$, step 0.01s

2F - F50N/51N (2I): Second Low-set Overcurrent Element

- Function enabling : Enable/Disable
- Current setting range : $I_2 = (0.02 \text{ } \text{à} \text{ } 4.00)LI$, step 0.01LI
- Definite trip time delay : $t_{2I} = (0.05 \text{ } \text{à} \text{ } 60.00)\text{s}$, step 0.01s
- Instantaneous output : $\leq 0.04\text{s}$

1F - F50N/51N (3I): First High-set Earth Fault Element

- Function enabling : Enable/Disable
- Current setting range : $I_3 = (0.1 \text{ } \text{à} \text{ } 10.00)HI$, step 0.01HI
- Definite trip time delay : $t_{3I} = (0.01 \text{ } \text{à} \text{ } 60.00)\text{s}$, step 0.01s
- Instantaneous output : $\leq 0.03\text{s}$

2F - F50N/51N (4I): Second High-set Overcurrent Element

- Function enabling : Enable/Disable
- Current setting range : $I_4 = (0.1 \text{ } \text{à} \text{ } 10.00)HI$, step 0.01HI
- Definite trip time delay : $t_{4I} = (0.01 \text{ } \text{à} \text{ } 60.00)\text{s}$, step 0.01s
- Instantaneous output : $\leq 0.03\text{s}$

Breaker Failure Element

- Trip time delay : $t_{BF} = (0.05 \text{ } \text{à} \text{ } 0.75)\text{s}$, step 0.01s

OVERALL DIMENSIONS**PROTECTION DEGREE IP44
(IP54 on request)**