



OPTimizer+[®]

INCON's OPTimizer+ uses patented technology to continuously monitor circuit breaker wear and general condition. The OPTimizer+ provides business critical information, allowing you to plan cost-effective maintenance and to reduce random failure.

APPLICATIONS

- Transmission, distribution and generator breakers
- Determining scheduling of main contact replacement
- Wherever critical timing information is needed

BENEFITS

- Supplies complete and accurate information with easy access for quick analysis
- Monitors line currents during trip operations to record line and transformer through-fault information, including date, time, magnitude and duration, on a per-phase basis
- Stores data on board and reports "by exception" when conditions exceed limits
- Requires no maintenance and is easy to use

CAPABILITIES

- Contact wear calculated via I²T or IT algorithms, using precise measurements
- Provides online timing for trip coil circuit and latch, arc duration, clearing time, and mechanical travel
- Monitors "52a" and "52b" circuit integrity
- Counts total operations and the time between operations
- Works with all single- and three-phase breakers, including oil, gas and vacuum types
- Functions with all voltages

FEATURES

- Visual, digital, and analog outputs available at the breaker or inside the control house
- RS-232 port for remote HMI
- Can be connected to data concentrator, modem, wireless or other communication systems
- Convertible to RS-485
- Easy, non-intrusive installation and simple programming
- Rugged, robust utility-style construction for long life and carefree operation
- Low capital cost, low installed cost, rapid ROI
- No calibration required
- 2 Form-C dry contact relays (alarms grouped warning or danger)

Circuit Breaker Wear and Condition Monitor OPTimizer+

Specifications

POWER SUPPLY

Nominal Input Voltage:	115 or 230 VAC \pm 20%
Power Dissipation:	10 W maximum

CURRENT INPUTS

VA Burden @ 20% Full Scale:	0.1 VA
Continuous Input Current:	CT Full Scale Rating
Full Scale Peak Current:	CT Full Scale Rating
Max. Peak Input Current:	200% Full Scale for 1s

Isolation to Enclosure:	1500 Vrms
Isolation to Phases:	1500 Vrms

CURRENT TRANSFORMERS

Ranges:	0-20, -30, -50, -100, -160 Amps
Auxiliary Control Signal:	48 to 250 Volts DC
Input Resistance:	34 kOhms
Isolation to Enclosure:	1500 Vrms
Isolation to Phases:	2500 Vrms
Auxiliary to Main Contact Timing Adjustment:	-50 to +100 mS AD Delay*

CURRENT DATA ACQUISITION

Measurable Arc Duration:	7 to 16 Cycles (* controlled by AD Delay)
Line Frequency:	50 or 60 Hz, programmable
Sampling Rate Per Phase:	32 Times Line Frequency

RELAY OUTPUT

2 each, Form C:	3A at 250 VAC or 30VDC
Isolation:	1500 Vrms

ANALOG OUTPUT

I ² T percent of limit:	0-1 mA, 10 kOhm max burden
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SURGE WITHSTAND

Exceeds:	IEEE 472-1974 & ANSI C37.90a
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USER INTERFACE

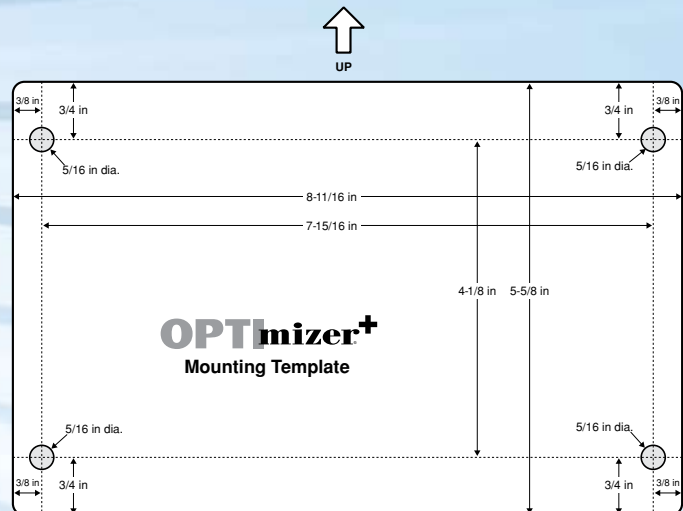
Panel Lamps:	Power, Breaker Position, Danger, Warning, Alarms, and Percent Wear
Computer Port:	RS-232, ASCII format

OPERATING ENVIRONMENT

Temperature:	-20 to +150 °F (-28 to 65 °C)
Humidity:	85% non-condensing, maximum

WEIGHT AND DIMENSIONS

Shipping Weight:	2.63 kg (5.80 lbs)
Dimensions:	18.4L x 14.6W x 7.62H cm (7.25L x 5.75W x 3.00H in.)
Mounting Weight:	2.00 kg (4.39 lbs)



Ordering Information

OPTimizer+

Model OM + 8-115	115 VAC Power
Model OM + 8-230	230 VAC Power

ACCESSORIES

Model CT-20	CT Pickup Coil 20 Amp
Model CT-30	CT Pickup Coil 30 Amp
Model CT-50	CT Pickup Coil 50 Amp
Model CT-100	CT Pickup Coil 100 Amp
Model CT-160	CT Pickup Coil 160 Amp
Model SC-01	Addressable Converter
Model OMX-3-115 or OMX-3-230	Input Expansion Module for use with redundant trip circuits or individual pole operation breakers