

SA380-IT

MULTIPLE BUS-BAR INSULATION MONITOR DEVICE



Monitor Five Bus-Bars

Monitor resistance-to-earth of up to five independent bus-bar feeds on a single device. AC or DC, up to 160V RMS. Monitored Circuits remain galvanically isolated from one another at all times.

Digital & Serial Output

RS485 communications and a volt-free contact output allow connection of the SA380-IT to supplementary data-logging devices. An invaluable tool to aid tracking down intermittent earth faults.

Long-Term Trends, Short-Term Diagnosis

As an RCM device, the SA380-IT enables off-site long-term trending and supervision of your power supply assets, allowing you to plan, predict and prevent.

Earth-Loop Measurement

Need to know that your installation has a "good-earth"? The SA380-IT features an integral earth-loop tester that continuously checks earth continuity.

Integrated Communications

Integral GSM/GPRS modem and Ethernet port allows connection to Enterprise Condition Monitoring "back-office" systems and provides a means of direct access, either on, or off-site.

Connect on-site via laptop or iPhone and the SA380-IT becomes a powerful real-time tool to aid in fault finding and repair of damaged cables

Mounting

A BR930 / Q Style enclosure and the fact that all terminations fall within the envelope of the BR930/ Q Style crimp positions ensures trouble free fitment.

Ordering Information

Application	Product Code	NR Cat. No.
SA380-IT Device only, no kit	SA380-IT-NR	0086/xxxxxx
SA380-IT with Installation Kit	SA380-IT-SD	0086/xxxxxx
Plug Coupler & Cable Kit	SA380-IT-KT	0086/xxxxxx
Spare Plug Coupler Kit	SA380-IT-CN	0086/xxxxxx
Resistive Cable	SA380-IT-RC	0086/xxxxxx
Lightning to Ethernet Cable	SA380-IT-LE	0086/xxxxxx
Configuration Device	SA380-IT-CD	0086/xxxxxx
Hinged Wall Bracket	BRK-HINGE	0086/xxxxxx

Specifications

Insulation Coordination to EN50124-1 & EN61010-1

Over-voltage Category	CAT IV
Pollution Degree	3
Rated Insulation Voltage, U_{Nm}	AC 185V RMS Max.
Monitored Circuit Isolation (Galvanic / Breakdown)	+/- 400V pk / 140 k Ω

Power Supply

AC Power Option	50 V to 160 V RMS 50/60 Hz
DC Power Option	9 V to 36 V DC
Power Consumption	6 VA

Monitored Circuits

Number of Independent Circuits Monitored	5 AC or DC
Voltage Range	5 - 160 V AC RMS 50 / 60 Hz 5 - 160 V DC RMS / 260 V Peak
Equivalent Resistance to Earth	0 Ω to 5 M Ω (AC Circuits)
Pole to Earth Resistance	0 Ω to 5 M Ω (DC Circuits)
Accuracy	U_s : +/- 5% R_L : +/- 5%* ($R_L > 20$ k Ω)
Alarm Value	1k Ω to 1 M Ω , 5% Hysterisis
Response Time per Circuit (T_R)	1 second typical.
Actual Response Time per Circuit (T_R)	$(750,000 \times C_e) + 0.3$ seconds
Product Response Time	$T_R \times$ Number of circuits in operation
Maximum Sytem Capatcittance	5 μ F

Measurement Circuit

Measurement Voltage	+/- 46 V
Measurement Current	< 700 μ A
System Resistance & Impedance	> 70 k Ω

Earth Loop

Measurement Voltage	+/- 3.5 V Max.
Measurement Current	< 500 μ A
System Resistance & Impedance	> 25 k Ω
Stray Voltage Tolerance	+/- 500 mV Pk.
Measurement Range	0 Ω to 2 k Ω
Alarm Value	0 Ω to 1 k Ω , 5% Hysterisis

Output Ports

Auxiliary Power	5V, 1W
Volt-Free Contact (Alarm) Max Contact Voltage / Current Contact Resistance (On / Off)	N.O. SPST. +/- 100V Pk / 150 mA <8 Ω / >1 M Ω
Serial Data Port	EIA RS485
Wireless Module	2G GPRS (standard) 3G / LTE (on request)
Ethernet	10/100 Mbs Auto MDIX

Environmental

EMC	EN50121-4
Insulation Coordination	EN50124-1, EN61010-1
Climate	EN50125-3 T1 in Cubicle
Operating Temperature	-25 $^{\circ}$ C to +70 $^{\circ}$ C
Storage Temperature	-40 $^{\circ}$ C to +85 $^{\circ}$ C
Humidity	5% to 100% Condensing
Vibration	2.3 m/s ² (3-axis)
Impact	IK06
Ingress	IP52
Flammability	UL94 V0

Mechanical

Dimensions (BR930 / Q Style footprint)	56 mm (W), 128 mm (H), 155 mm (D)
Mounting	M5 Studs
Weight	350 g
Primary Connections	Wire Size 2.5 mm ² max.
Auxiliary Connectoins	Wire Size 1.5 mm ² max.

Contact

For further information or to find a local distributor, please contact MPEC at the address below:



6 Pinnacle Way
Pride Park
Derby
UK
DE24 8ZS
Tel: +44 (0) 1332 363 979
Email: sales@mpec.co.uk