

## Genset Digital Control System

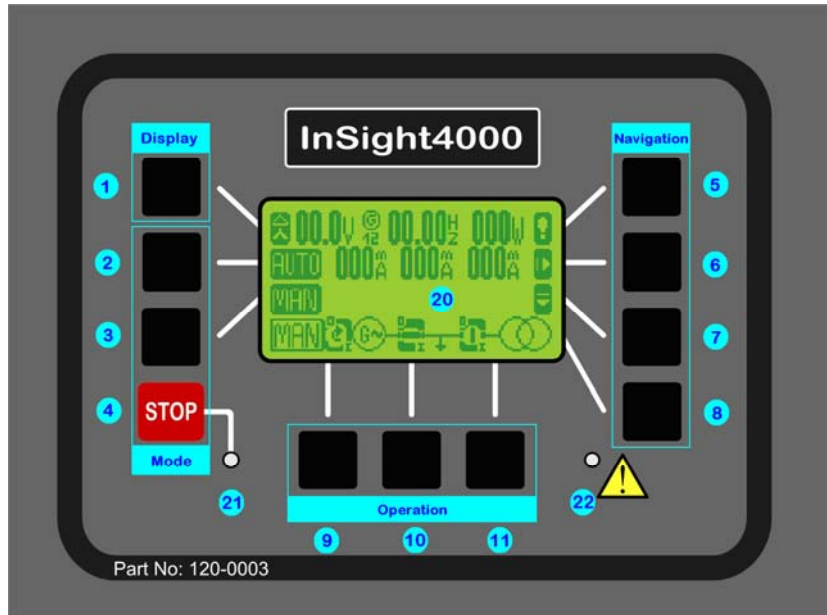
InSight is our exciting new range of generating set controls. The units have been meticulously designed using state-of-the-art technologies such as are employed in the mobile phone industry. In a similar manner, the units are compact in size and intuitive to use.

In addition to the features and functionality of conventional generating set control systems, InSight offers the possibility of adding useful optional features such as event recording and remote monitoring.

The following table sets out the main features of the InSight range in a straight-forward, easy-to-compare format.

<i>Note: Voltage and current designations are for a 3-phase, 4-wire star configuration</i>	InSight1000	InSight3000	InSight4000	InSight5000
<b>Application</b>				
Single unit	✓	✓	✓	✓
Standby	✓	✓	✓	✓
Remote start	--	✓	✓	✓
Automatic Mains Failure	--	--	--	✓
<b>Display media</b>				
LED indication of parameter status	✓	✓	--	--
Digital display of measured parameters	--	✓	--	--
LCD graphical display (multilingual)	--	--	✓	✓
<b>Genset parameter display</b>				
AC voltage x 6 (V12, V23, V31, V1N, V2N, V3N)	--	✓	✓	✓
AC current x 3 (I1, I2, I3)	--	✓	✓	✓
Frequency	--	✓	✓	✓
Power factor	--	--	✓	✓
Power (kW)	--	✓	✓	✓
Power (kVA, kVAr) and Energy (kWh)	--	--	✓	✓
Engine coolant temperature	--	✓	✓	✓
Engine lube oil pressure	--	✓	✓	✓
Battery voltage	--	✓	✓	✓
Start attempts	--	--	✓	✓
Hours run	✓	✓	✓	✓
Tachometer	--	--	✓	✓
<b>Mains parameter display</b>				
AC voltage x 6 (V12, V23, V31, V1N, V2N, V3N)	--	--	--	✓
AC current x 1 (I1)	--	--	--	✓
Frequency	--	--	--	✓
Power (kVA, kW, kVAr)	--	--	--	✓
<b>Operator controls</b>				
Configuration via front panel	--	✓	✓	✓
Configuration via PC (using DPC cable from RS232 service interface socket to PC)	--	--	✓	✓
Soft keys (with functions that vary depending on application and operation)	--	--	✓	✓
Multi level access via passwords	--	✓	✓	✓
Emergency stop lock down pushbutton	✓	✓	✓	✓
<b>System control functions</b>				
Manual genset starting	✓	✓	✓	✓
Remote genset starting	--	✓	✓	✓
Automatic genset starting from determination of Mains Failure condition	--	--	--	✓
Start logic for engine (crank, rest and no. of cycles)	✓	✓	✓	✓
Stop logic for engine (run on /cool down sequence)	✓	✓	✓	✓
Automatic on /off control of heaters, if fitted	--	✓	✓	✓
<b>Communications</b>				
CAN interface	--	--	✓	✓
<b>Protection</b>				
Low oil pressure (S)	✓	✓	✓	✓
High coolant temperature (S)	✓	✓	✓	✓
Engine overspeed (S)	✓	✓	✓	✓
Fail to start (S)	✓	✓	✓	✓
Emergency stop (S)	✓	✓	✓	✓
Low battery voltage (A)	--	✓	✓	✓
Battery charger system failure (A)	✓	--	✓	✓





**View of InSight4000 /InSight5000 panel:** (1) (2) (3) Display / mode selection keys; (4) Stop button; (5) (6) (7) Navigation / display keys; (8) Fault acknowledgement /return key; (9) Manual crank pushbutton; (10) (11) Generator and mains CB close / open pushbuttons (if applicable); (20) Liquid crystal graphical display, indicating overview / start-up screen; (21) Stop LED; (22) General alarm LED

Additional options	Option codes: □ additional option -- not available	Fault codes: (A) for Alarm (S) for Shutdown	Reference	InSight1000	InSight3000	InSight4000	InSight5000
<b>Protection</b>							
Maintenance call (A)		MC1	--	□	□	□	□
Approaching high coolant temp (A)		PWC1	--	--	□	□	□
Approaching low lube oil pressure (A)		PLA1	--	--	□	□	□
Over /under voltage (S)		UV1	--	□	□	□	□
Over /under frequency (S)		UF1	--	□	□	□	□
Overload (A)		OL1	--	□	□	□	□
Reverse /reduced power (A)		RP1	--	--	□	□	□
Load imbalance (A)		LI1	--	--	□	□	□
Definite time overcurrent (A)		DT1	--	--	□	□	□
Inverse time overcurrent (A)		IT1	--	--	□	□	□
<b>Parameter display</b>							
Record of alarms (10 X FIFO)		ER1	--	□	--	--	--
Record of events (250 X FIFO)		ER1	--	--	□	□	□
<b>System control function</b>							
Automatic genset starting from 'time of day and day of week'		AGE1	--	--	□	□	□
Automatic genset starting from closure of two contacts		RS2	--	□	□	□	□
<b>Accessories</b>							
Automatic Transfer Panel (Digital)		ATP7	--	--	--	□	□
Automatic Transfer Panel (2-wire)		ATP2	--	□	--	□	□

**Note:** Refer to the InSight Plus brochure for the features of closed-transition, synchronising control systems

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Document reference: insight\_series\_080108-2