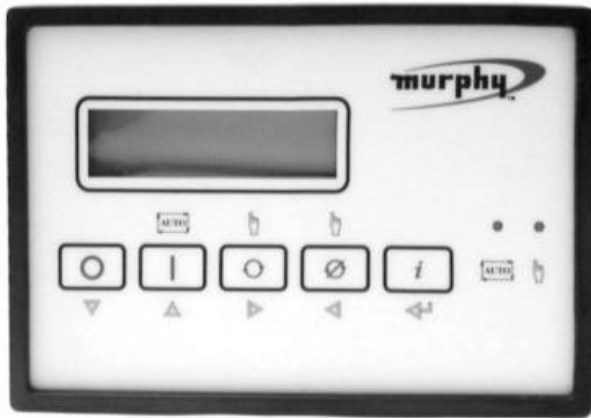


Autostart AS731

Automatic Generator Controller



- **Automatic or manual generator control**
- **Fully programmable timers, inputs and outputs**
- **Remote monitoring and control software, Windows® compatible**

Description

The AS731 provides fully automatic control, fault monitoring and shutdown of a standby diesel generator.

Features include:-

- Automatic or manual control
- 32 character, back-lit LCD displays engine and generator parameters
- Full programmability of inputs, outputs, timers, trip levels and control options (details overleaf).
- Monitoring, display and programmable fault limits for 3 phase generator voltage, frequency and current.
- Monitoring, display and programmable warning/shutdown levels for engine oil pressure and temperature.
- Timed generator contactor control
- Remote communications, with software for PC/Windows®

Application

The AS731 is a 'full function' controller, designed for use in unmanned, standby diesel generator applications. The comprehensive control, measurement and display features allow this unit to be used in place of multiple control units, trip units and indicating gauges, and at a fraction of the cost.

The RS232 communication port and free of charge Windows® compatible software provide remote monitoring, control and automatic fault notification, wherever the generator location.

For further details, visit www.fwmurphy.co.uk/as731

Warranty

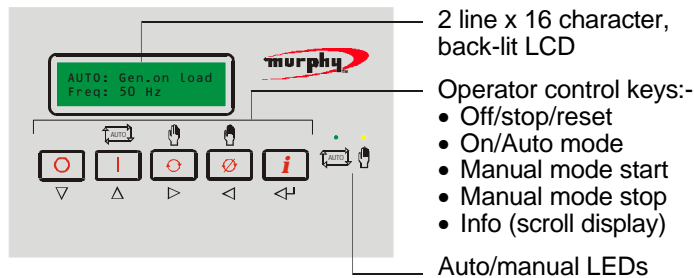
A two year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.

Windows® is a registered trademark of Microsoft Corporation

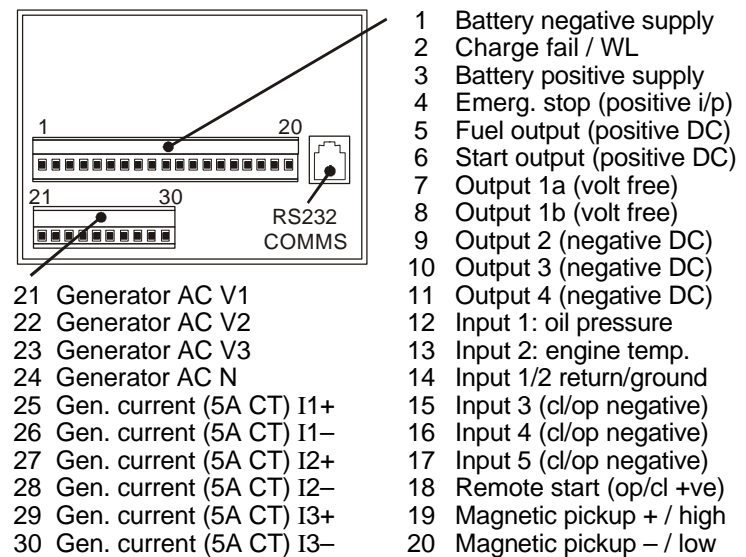
Product Specification

Power supply:	
Operating voltage: steady state range crank brown-out	5 – 40 V DC continuous to 0 V for $\geq 100\text{mS}$
Current consumption: standby (typ) cranking (typ)	95mA @ 12V, 55mA @ 24V 280mA @ 12V, 170mA @ 24V
Inputs:	
DC inputs:- Inputs 1 and 2 (oil pressure and engine temperature)	switch (open or closed) or analogue (Murphy, Datcon, VDO 5 or 7 bar), wired to negative DC open or closed to negative DC
Inputs 3 – 5 Generator AC:- operating voltage range gen. volts display resolution gen. frequency measurement range gen. frequency display accuracy gen. frequency display resolution	3 phase, 90 – 300 V AC rms L-N 1 VAC 0 – 99 Hz. $\leq 2\%$ of full scale 1 Hz.
Magnetic pickup: operating voltage range frequency measurement range engine RPM display accuracy engine RPM display resolution	2.5 – 25 V AC rms 0 – 10 kHz. $\leq 2\%$ of full scale 10 RPM
AC current sensing inputs: operating range	designed for use with 5 Amp CT's primary ratings 10 to 5000 Amps <i>(all ratings for resistive load)</i>
Outputs:	
Start and fuel relays	positive DC (switched relay) combined rating 16 A max @ 24VDC
Programmable output 1 (default setting: Gen. Contactor)	volt free SPNO relay 5 A max. @ 240 V AC
Programmable outputs 2 – 4	negative DC (semiconductor) 500 mA max. @ 33 V DC
Physical:	
Overall dimensions (W x H x D)	144 x 96 x 162 mm
Panel cut-out size (W x H)	DIN standard 140 x 92 mm
Weight	approx. 770 g
Operating ambient temperature	-10 to +55 °C

Front Facia and Controls



Rear Facia and Connection



How to order

Stock no.	Model/description
76.70.0271	AS731 generator controller

Optional accessories:-

76.70.0310	AS7CP local communication (null modem) lead, for use with 9 way PC COM ports
76.70.0312	AS7CQ adapter for above, for use with 25 way PC COM ports
76.70.0311	AS7CR modem (remote) communication lead (RJ11 to 25 way D type)

Software model AS7CN is available for free of charge download from our web site:
www.fwmurphy.co.uk/download

Program options:

The AS731 may be programmed via its front facia keys, or by PC software and serial/modem communications link. Programming is restricted by a 4 figure key entry.

Over 50 programmable functions allow custom set-up for your application:-

Timers: start delay, preheat, crank, crank rest, no. of start attempts, alarm override, engine warmup, speed signal, (mains AC) restoration, cooldown, (fuel) energised to stop.

Inputs: oil pressure and coolant temperature configurable for fault switch (open or closed on fault) or resistive senders (Murphy, VDO or Datcon). Inputs 3 – 5 may be set for a range of fault contacts or control options (e.g. warning fault, shutdown fault, load release, manual restore, lamp test, alarm mute, test). Remote start input configuration (open from positive or closed to positive).

Outputs: 4 outputs, each set to give one of 50 signalling and control options.

Generator: trip levels/response for crank release, underspeed, overspeed, 3 phase AC under/over voltage and over current.

DC: high and low battery voltage warning, charge fail settings (charge alternator WL or battery charger), WL crank release.

General: security settings (PINs), dial out conditions, site name, custom power up message.

See document mi6129 for a full list of program options. Software AS7CN also features real time monitoring of engine and gen-set parameters – see document mi6131 for full details.