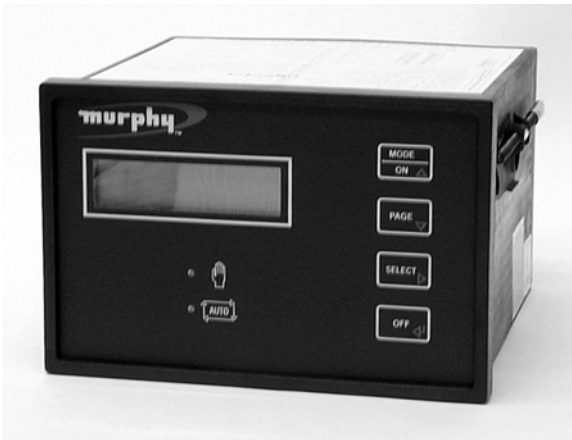


Autostart AS730S

Automatic Generator Controller

ms5261
revision C, 29th July 2005
catalogue section 75



- **Automatic or manual generator control**
- **LCD display of engine and generator parameters**
- **Fully programmable**
- **Remote communications, monitoring and control**

Description

The AS730 provides fully automatic control, fault monitoring and shutdown of a standby diesel generator.

Features included:-

- Automatic or manual control
- 32 character, back-lit LCD, for the display of engine and generator parameters
- Full programmability of inputs, outputs, timers, trip levels and control options (details overleaf).
- Monitoring, display and programmable trip limits for 3 phase generator voltage, current and frequency.
- Monitoring, display and programmable warning/shutdown levels for engine oil pressure and temperature.
- Automatic, timed control of generator contactor
- Wide range power supply, 5 to 40 VDC
- Electrical connection by two-part, screw terminal blocks
- Remote communication, monitoring and control using serial/modem link and PC software

Application

The AS730 is a full function generator controller, intended for use in an unmanned, standby power application.

The comprehensive control, measurement and display features allow this unit to be used in place of multiple control devices, trip relays and indicating gauges, and at a fraction of the cost.

In addition, communication hardware and free of charge software provide remote monitoring, control and automatic fault notification, wherever the generator location.

For further details, please contact your Murphy representative, or visit www.fwmurphy.co.uk/as7xx

Warranty

A two year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and at www.fwmurphy.co.uk/warranty.

Specification

Power supply	
operating voltage: steady state range	5 – 40 V DC continuous
crank brown-out	to 0 V for $\geq 100\text{ms}$
current consumption	typically 200 mA
Inputs	
DC inputs:-	switch (open or closed) or analogue (Murphy, Datcon, VDO 5 or 7 bar), wired to negative DC switch (open/closed, +ve/-ve)
input 1 (oil pressure) and input 2 (engine temperature)	
inputs 3 - 5	
generator AC inputs:-	
operating voltage range	90 – 300 V AC rms L-N
gen. frequency measurement range	0 – 99 Hz.
gen. frequency display accuracy	$\leq 2\%$ of full scale
gen. frequency display resolution	1 Hz.
magnetic pickup:	
operating voltage range	7 – 80 V AC rms
frequency measurement range	0 – 10 kHz.
generator RPM display accuracy	$\leq 2\%$ of full scale
generator RPM display resolution	10 RPM
AC current sensing inputs:	
operating range	for use with 5 Amp CT's primary ratings 10 to 5000 Amps
Outputs: <i>(all ratings for resistive load)</i>	
start and fuel relays	positive DC (switched relay) rated 16 A max. @ 24 V DC
programmable outputs 1 – 3	negative DC (semiconductor) 250 mA max. @ 33 V DC
programmable output 4	negative DC (switched relay) 5 A max. @ 24 V DC
programmable output 5 (default setting: Common Alarm)	positive DC (switched relay) 5 A max. @ 24 V DC
programmable output 6 (default setting: Gen. Contactor)	volt free SPNO relay 5 A max. @ 240 V AC
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. 720 g
operating ambient temperature	-10 to +55 °C

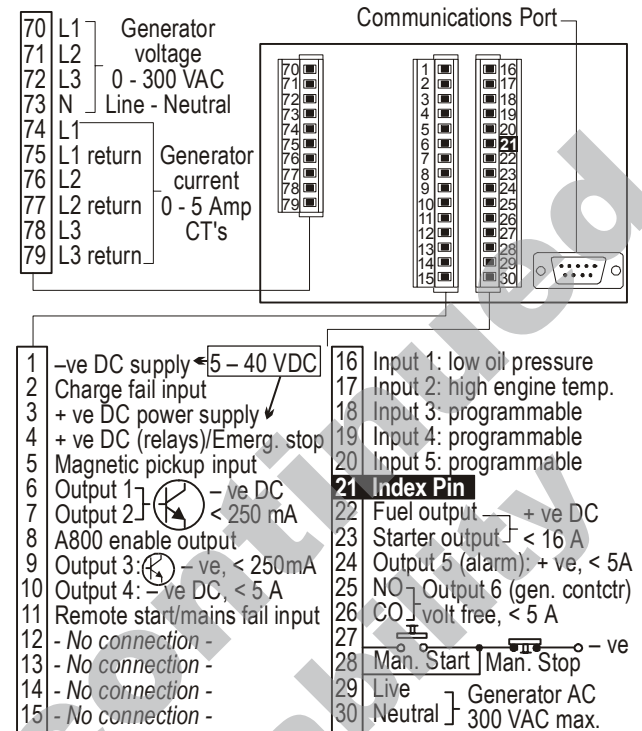
MURPHY

Front facia



- 32 character, back-lit LCD
- LED indicators: Auto (green), Manual (amber)
- Operator control keys:-
 - On/mode: turns on unit and allows selection of auto or manual modes
 - Page: used for scrolling of display information
 - Select: used during program mode
 - Off: powers down the unit, stops the engine and resets a fault condition.

Rear facia and electrical connection



How to order

Stock code	Model / Description
76.70.0014	AS730S, 110/230V

Optional communication accessories:-

76.70.0018	AS7CA, 9 to 9 way local comms lead
76.70.0019	AS7CB, 9 to 25 way local comms lead
76.70.0020	AS7CC, local comms interface
76.70.0021	AS7CD, modem comms interface
76.70.0203	AS7CK, PC comms software for AS7XX range

Also available free of charge from:
www.fwmurphy.co.uk/download

Program options:

The AS730 may be programmed via its front facia keys, or by PC software and serial/modem 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 to negative) or resistive senders (Murphy, VDO or Datcon). Inputs 3 - 5 configurable to a range of fault or control options. Remote start input (open from/close to positive DC).

Outputs: 6 outputs, each set for one of 50 signalling and control options, e.g. preheat, energised to stop fuel, engine running, muteable alarm, individual faults, etc

Generator: settings for crank release, underspeed and overspeed RPM/Hz, 3 phase AC voltage and 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 mi5265 for a full list of program options.

Software AS7CK also features real time monitoring of engine parameters - see document mi5266 for full details.



FW Murphy
 PO Box 470248
 Tulsa, Oklahoma 74147, USA
 tel: +1 918 317 4100
 fax: +1 918 317 4266
 email: sales@fwmurphy.com
 web: www.fwmurphy.com

CONTROL SYSTEMS & SERVICES DIVISION
 PO Box 1819, Rosenberg, Texas 77471, USA
 tel: +1 281 633 4500
 fax: +1 281 633 4588
 email: sales@fwmurphy.com

MURPHY DE MEXICO S.A. DE C.V.
 Blvd. Antonio Rocha Cordero 300, Fracción del
 Aguaje San Luis Potosí, S.L.P. México 78384
 tel: +52 444 8206264
 fax: +52 444 8206336
Villahermosa office tel: +52 993 3162117
 email: ventasmex@murphymex.com.mx
 web: www.murphymex.com.mx

INDUSTRIAL PANEL DIVISION
 PO Box 470248
 Tulsa, Oklahoma 74147, USA
 tel: +1 918 317 4100
 fax: +1 918 317 4266
 email: sales@fwmurphy.com
 web: www.fwmurphy.com

FRANK W. MURPHY LTD.
 Church Rd, Laverstock, Salisbury, SP1 1QZ, UK
 tel: +44 1722 410055
 fax: +44 1722 410088
 email: sales@fwmurphy.co.uk
 web: www.fwmurphy.co.uk



USA - ISO9001:2000 FM 28221
 UK - ISO9001:2000 FM 29422