

Autostart AS710S

Automatic Engine/Generator Controller



Description

The AS710S provides fully automatic control, fault monitoring and shutdown of a standby generator, pump or engine driven application. Features include:-

- Automatic or manual control, keyswitch selectable
- 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).
- Wide range power supply, 5 to 40 VDC.
- Optional measurement and display of engine oil pressure and coolant temperature, with programmable warning and shutdown levels.
- Automatic, timed control of generator contactor.
- Electrical connection by two-part, screw terminal blocks.
- Remote communication, monitoring and control via PC software and serial link or modem.

Application

The Autostart series is intended for use in unmanned applications where automatic engine starting and stopping is required. The AS710's control, measurement and display features allow it to be used in place of multiple control units, trip relays and indicating gauges, and at a fraction of the cost.

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

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

Product specification

Power supply:

operating voltage: steady state range	5 – 40 V DC continuous,
crank brown-out	to 0 V for ≤ 100 mSec
current consumption	typically 150 mA

Inputs:

DC inputs (inputs 1 - 5, rem. start):	
input 1 (oil pressure) and input 2 (engine temperature)	switch option (open/closed/+ve/-ve) or analogue sender option (Murphy, Datcon, VDO, BMI wired to -ve DC)
inputs 3 - 5	switch (open/closed, +ve/-ve)
generator AC input:	
operating voltage range	90 – 300 V AC rms single phase
frequency measurement range	0 – 99 Hz.
gen. frequency display accuracy	≤ 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
engine RPM display accuracy	≤ 2% of full scale
engine RPM display resolution	10 RPM

Outputs:

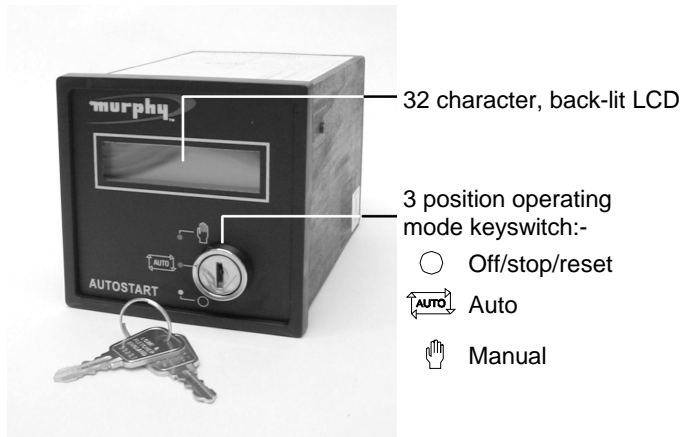
(all ratings for resistive load)

start and fuel relays	positive DC (switched relay) 16A max. @ 24 V DC
programmable outputs 1 – 3	negative DC (semiconductor) 250mA max. @ 33 V DC
programmable output 4	negative DC (switched relay) 5A max. @ 24 V DC
programmable output 5 (default setting: common alarm)	positive DC (switched relay) 5A max. @ 24 V DC
programmable output 6 (default setting: gen. contactor)	volt free SPNO relay 5A max. @ 240 V AC
auto & manual outputs	positive DC (switch), 250 mA max.
off/reset output	negative DC, 250 mA max.

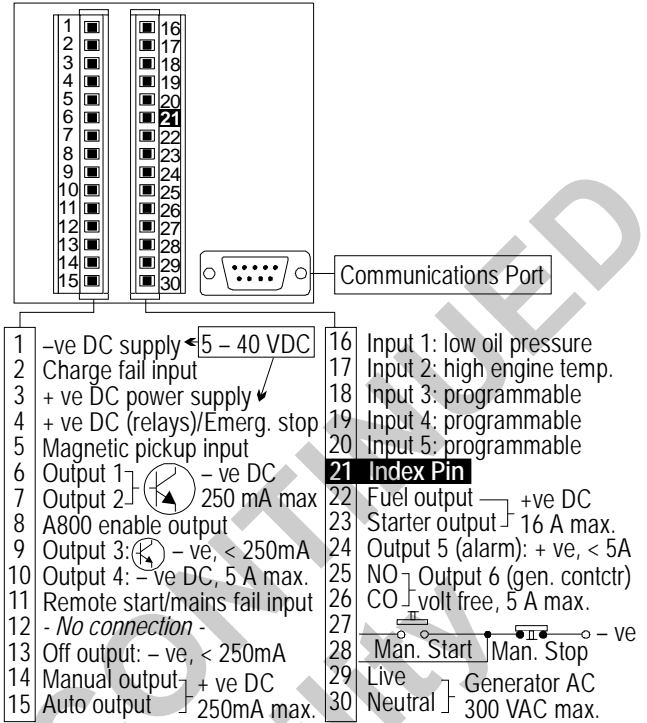
General:

overall dimensions (W x H x D)	96 x 96 x 162 mm
panel cut-out size	DIN standard 92 x 92 mm
weight	approx. 650 g
operating ambient temperature	-10 to +55 °C

Front facia



Rear facia and electrical connection



How to order

Stock code	Model / Description
76.70.0287	AS710SKDA, 230V/50Hz., for use with pressure/temp resistive senders
76.70.0288	AS710SKDB, 230V/50Hz., for use with pressure/temp fault switches

Optional accessories:-

76.70.0015	AS7PROG, program key-pad
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 series.

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

Program options

The AS710 may be programmed by use of a separate, removable key-pad unit (model AS7PROG), 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 configuration: ('switch' versions - open or closed to positive or negative; resistive 'sender' versions - Murphy, VDO or Datcon). Switch inputs 3 - 5 may be set to operate with a range fault contacts (open/closed/+ve/-ve) and control options.

Outputs: 6 outputs, each set for one of 40 signalling and control options, e.g. preheat, energised to stop fuel, engine running, mutable alarm, individual faults, etc

Generator: trip Hz/RPM levels and response for crank release, underspeed, overspeed, speed overshoot on start.

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 and display of engine parameters - see document mi5266 for full details.

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