

TYPE 1100 4G

Hydraulic Servo Governor

The Regulateurs Europa 1100 series governor has been established as one of the leaders in the field of prime mover speed control for the past 30 years, with many thousands in service throughout the world.

The 4G or fourth generation model is specifically designed to meet the ever increasing demands of modern prime mover controls and incorporates a number of design improvements over earlier models.

Retaining the original modular design, the 4G now has an improved stability margin to cope with the more difficult speed governing requirements of today.



TYPE 1100 4G Hydraulic Servo Governor

FEATURES

- Proven design
- One module with 5 different work outputs all within the same frame size
- Numerous speed setting options
- Numerous options i.e. fuel limitation, load control, torque control etc.
- Shut down options
- Self contained oil supply
- Droop adjustment
- Constant or variable speed applications
- Common base mounting
- Output shaft either side
- Output shaft can rotate clockwise or counter clockwise
- Standard adaptors available to replace other manufacturers governors.

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SPECIFICATION

Work within the same outline dimension

8, 15, 25, 34 or 40 ft lbf.
(11, 20, 34, 46 or 55 Nm.)

Variable Speed Applications

Normal operating speed range -
300 to 1600 r/min. Recommended nominal
speed 1500 r/min.

Constant Speed Applications

Governor drive speed range at rated
engine speed - 1200 to 1600 r/min.
Recommended nominal speed
1500 r/min.

Output Shaft Movement

50 degrees (maximum) with 30 degrees to
be used from no load to full load at
nominal speed.

Rotation

Either clockwise or counter clockwise

Speed Droop

Adjustable by external dial type control
for 0-160 r/min. for 60% of the output
shaft travel.

Speed Setting Motor

24 Volt dc 3 wire. Universal motors:
110/120 Volts dc/ac 3 wire 220/230 Volts
dc/ac 3 wire. Synchronous Motor 110 Volts
a/c., 220 Volts a/c. Stepping motors for
automatic frequency control and
accurate load share. A 24 V dc. Supply
is required for the stepping motor
drive board.

Pneumatic Speed Setting

Adjustable pressure range 0,5 - 5,5 bar.
Hysteresis and repeatability within +/-
0,2% of the maximum speed. The air

pressure/speed relationship is linear
within 2,5% between 500 and 1500 r/min.
governor speed. Other pressure ranges
are available.

Output Shaft Dimensions

5/8 in. nominal diameter, 36 SAE
serrated, either side of the governor,
as may be required.

Drive Shaft Dimensions

Standard 3/4 -in nominal diameter, 48SAE
serrated or 25mm nom. Diameter keyed.
Other drive shafts are available to suit
application.

Governor Adaptors

Various adaptors, studs and drive shafts
are available to convert drives, to replace
other manufactures governors.

Shutdown Solenoids

24, 48, 110 and 200 volt DC (energised to
stop or to run).

Manual Shutdown

A manual shutdown can be fitted as
a simple shutdown mechanism but this
option can also be combined with the
solenoid "energise to stop" or the
pneumatic shutdown feature to suit
individual requirements.

Pneumatic Shutdown

A pressure of 6 bar is normally
supplied to the pneumatically operated
shutdown feature to suit individual
requirements.

Oil Supply

Self contained 1.5 litres.

Weight

Basic governor i.e. lever speed
setting model 1101V-4G is 24 kg.

Power Requirements

At 1500 rev/min. governor drive speed
is 0.37 hp (0.28 kW).

4-20 mA Speed Setting

An electric speed setting for
propulsion packages. A 24 Volt D.C. supply
is required for the stepping motor drive
board.

Boost Fuel Limit

To limit the fuelling rate depending on
engine boost pressure. Adjustable fuel limit
range between: 0,2-1 bar 0,3-3 bar 0,5-4
bar 0,5-6 bar

Torque Control

To protect the engine from excessive
overloads, two models are available: a)
fuel limit depending upon set speed
(1104B-4G) b) to reduce set speed
automatically until it arrives at a point
of the rated hp curve where the power
demand equals the engine's capacity to
supply the demanded power. If demanded
power decreases, set speed is
automatically restored (1104G-4G)

Load Control

The load control mechanism gives a
hydraulic signal (to f.i. pressure switch)
when the engine deviates from a pre-set
power/speed curve. (Normally used in con-
junction with a C.P.P.)
LVDT option available.

Start Fuel Limit

A start fuel limit is available using boost
air or an electrical signal 24V.

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