

TYPE 2231

DATA SHEET

Description

**Work output 8, 12, 15, 25, 34 or 40 ft. lbf.
(11, 16, 20, 34, 46 or 55 Nm)**

The REGULATEURS EUROPA 2231 actuator is a truly proportional actuator in which the output shaft position is proportional to the electric input signal. Included within the same unit is a conventional ballhead hydraulic governor providing engine speed control in the case of an electronics failure.

The essential part of the 2231 actuator is the high response electric servo-mechanism, which overrides the ballhead pilot valve.

In the event of a power failure or controller fault, the governor system will fail to the ballhead mode.

Ballhead actuators have backup speed setting options of:

1. Lever hand operated
2. Lever morse cable operated
3. Synchronous motor 115/230 VAC or stepper motor
4. Hand wheel control
5. Stepper motor with programmable controller with the facility for the mechanical governor to track the electronic governor speed

A booster unit can be supplied for applications where minimal start air consumption is required.



Features

Truly proportional actuator

Self-contained oil supply

Based on the popular 1100 series governor

One module with six different work outputs all within the same frame size

Designed for use with the Viking range of digital electronic governors and engine management systems

Ballhead back-up with various options for speed setting

Start booster available to minimise start air consumption

Electric start fuel limit option

Standard adaptors available to replace other manufacturer's governors / actuators

Can be used with other manufacturers' electronic governors

Specification

Actuator input signal

0 - 1 A (normal operating range 250 mA - 750 mA).
Open loop positional accuracy approximately $\pm 1.25\%$

Actuator drive speed

Normal operating speed range 300 – 1500 rpm
(maximum 1200 rpm for 40 ft. lbf.).

Speed range

For ballhead governing the maximum governor speed should be between 900 - 1500 rpm (unless otherwise agreed).

Output shaft movement

10 division scale (0 - 50°), typically using divisions
2 - 8 (30°) for no load to full load condition
Output shaft can be presented either side, or both sides.

Mechanical speed droop

Fixed or variable 0 - 10 %

Oil supply

Self contained 0.3 imp galls (1.4 litres).

Power to drive actuator

0.37 hp (0.28kW) (1500 rpm actuator drive speed).

Output shaft dimensions

5/8" in nominal diameter, 36 SAE serrations.

Drive shaft

Options:

0.625" nom. dia. - 36 SAE serrations
0.750" nom. dia. - 48 SAE serrations
1.125" nom dia. - 48 SAE serrations
0.625" nom. dia. - keyed
25 mm nom. dia. - keyed
0.750" nom. dia. - 6 splines
(other drive shafts are available to suit application)

All drive shafts are fitted with mechanical face seals to prevent oil contamination.

Control Limits

Hysteresis:
< 2.5 % deviation.

Time Constant:
60ms \pm 10 for a 250 mA - 750 mA step change
with 150 PSI (10.35 Bar) oil pressure.

Temperature Drift:
A reduction of 0.1 output divisions over a 40 °C
temperature increase.

Linearity:
< 0.5 % deviation.

Rotation

Either clockwise or counter clockwise.

Weight

75 lb (34 kg).

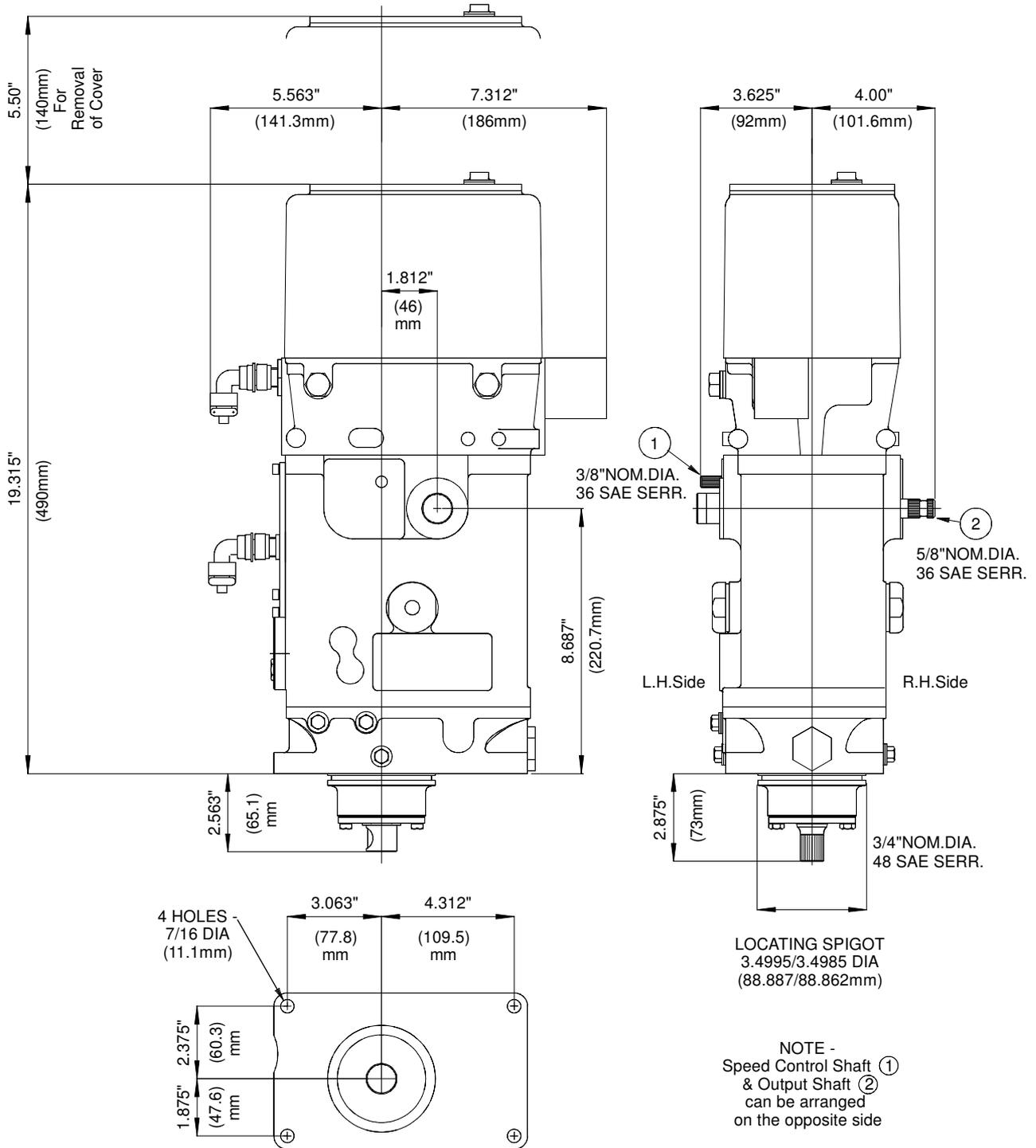
Notes:

1. Signal conversion units are available if actuator is to be driven by non Regulateurs Europa controllers.
2. Base plate adaptors are available to convert actuator to other manufacturers' base designs.
3. All % references refer to 'of output load range (30° as standard)'.

Dimensions

OUTLINE DRAWING (Do not use for construction)

2231/1GL ACTUATOR
with standard base mounting & keyed or serrated drive shaft



INVERTED PLAN of MOUNTING FACE

Subject to alterations. ©REGULATEURS EUROPA LTD., 2017

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