

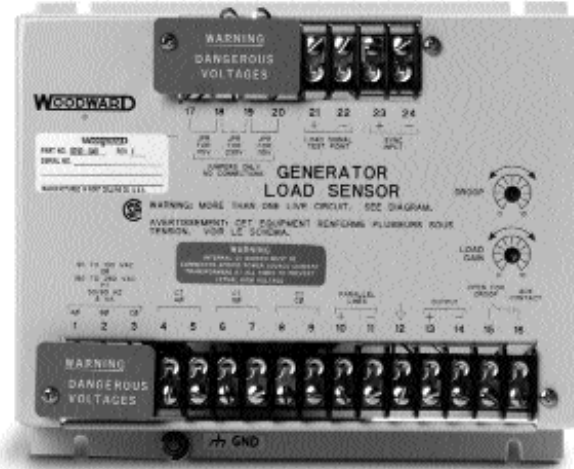
Generator Load Sensor

Applications

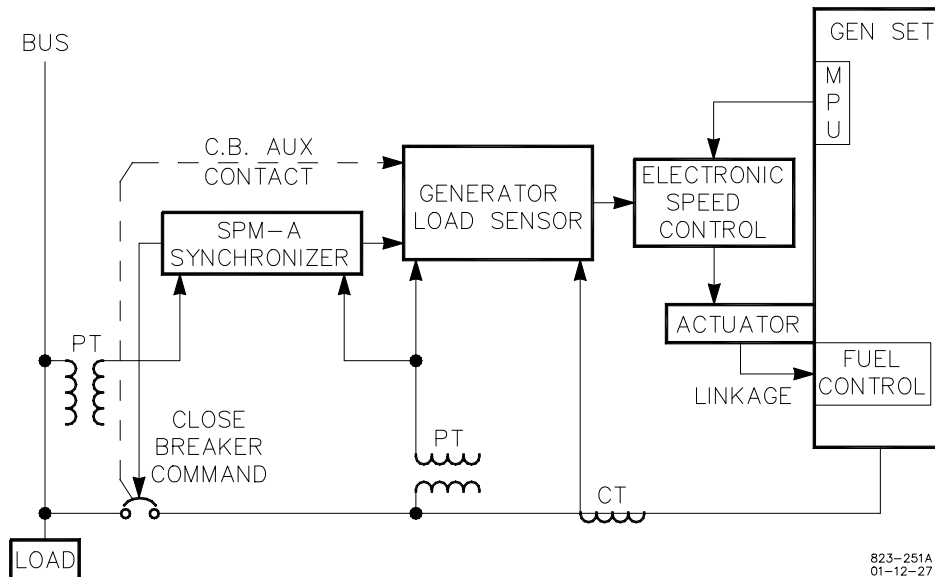
The Generator Load Sensor is used to provide droop and isochronous load sharing for generator applications which use Woodward 701, EPG, and 2301A speed controls. It has an SPM-A synchronizer input and shares load with all Woodward load sensors and load sharing and speed controls.

Description

The Generator Load Sensor receives input from current transformers (CTs) and potential transformers (PTs), to calculate power from the generator, assuming constant voltage. It generates an output which biases the speed reference of the speed control. The Generator Load Sensor uses paralleling lines to ensure proportional load sharing when generators are isochronously paralleled.



- Adds gen set load sharing capability to Woodward speed controls
- CSA Certified
- Allows automatic speed/phase matching
- Allows automatic generator loading with speed controls



System Block Diagram Showing Optional SPM-A Synchronizer

Specifications

Inputs

Load Sensing Voltage	3-phase PT input, jumper terminal 17 to 18 and 19 to 20 for 95 to 130 Vrms (power consumption 2.5 VA). Jumper terminal 18 to 19 for 190 to 260 Vrms (power consumption 5 VA).
Load Sensing Current	3-phase CT input, 5 A at full load. Internal instrument CTs produce essentially 0 burden.
Optional Inputs	SPM-A Synchronizer, Process/Import Export Control, Precise Frequency Control, Automatic Generator Load Control.
Droop	Selected by opening terminals 15 to 16.

Performance

Load Sharing Accuracy	±5% of rated load with speed settings matched
-----------------------	---

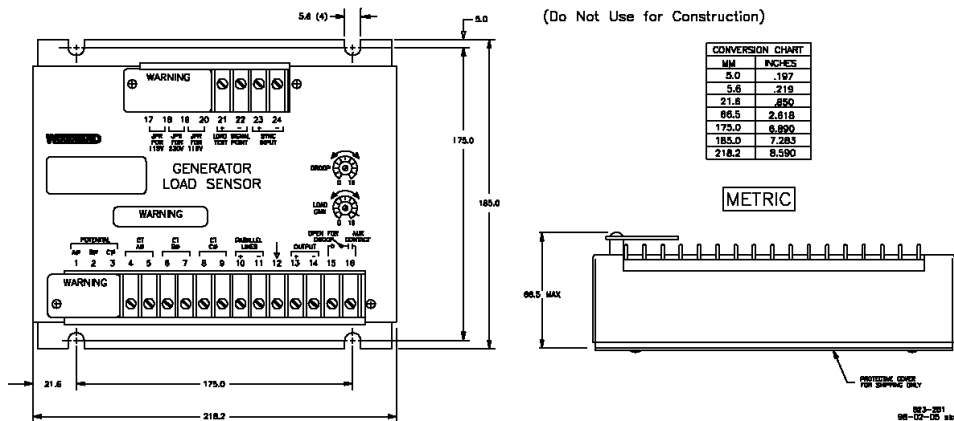
Physical Characteristics

Weight	0.9 kg (2.0 lb)
Mounting	Any convenient location except on engine, any attitude
Ambient Temperature Range	-40 to +75 °C (-40 to +167 °F)

Adjustments

Load Gain	Calibrates Generator Load Sensor to CT ratio
Droop	Adjustable from 0 to 10% with CT currents of 5 A

Technical Manual 82313



Generator Load Sensor Outline Drawing
(Do not use for construction)



PO Box 1519, Fort Collins CO, USA 80522-1519
1000 East Drake Road, Fort Collins CO 80525
Tel.: +1 (970) 482-5811 ♦ Fax: +1 (970) 498-3058
www.woodward.com

Distributors & Service

Woodward has an international network of distributors and service facilities. For your nearest representative, call the Fort Collins plant or see the Worldwide Directory on our website.

This document is distributed for informational purposes only. It is not to be construed as creating or becoming part of any Woodward contractual or warranty obligation unless expressly stated in a written sales contract.

Copyright © Woodward 1983–2001, All Rights Reserved

For more information contact:

