

9907-186

GS3/LQ Valve Driver

WOODWARD 9907-186 is a GS3/LQ valve driver for an integrated liquid-fuel metering system. It converts a 4-20 mA command into controlled valve positioning with feedback, shutdown/reset and fault indication.

BRAND	WOODWARD	FAMILY	Woodward GS3/LQ liquid-fuel valve control
PART	9907-186	SYSTEM ROLE	Converts the control command into valve position

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MANUFACTURER SOURCE RECORD

GS3/LQ Valve Driver Installation and Operation Manual
Woodward manual 40175_C

Product Overview

SYSTEM FUNCTION

WOODWARD 9907-186 is a GS3/LQ valve driver for an integrated liquid-fuel metering system. It converts a 4-20 mA command into controlled valve positioning with feedback, shutdown/reset and fault indication.

FUNCTION 1

Converts the control command into valve position

FUNCTION 2

Returns documented position feedback

FUNCTION 3

Provides shutdown/reset and fault interfaces

FUNCTION 4

Supports integrated liquid-fuel metering

System Components

COMPONENT	DOCUMENTED ROLE
Host / carrier	Woodward GS3/LQ liquid-fuel valve control
Primary interface	Converts the control command into valve position
Engineering context	The driver interfaces the 4-20 mA command with the electrically actuated valve and returns position and fault information. Commissioning verifies polarity, valve cable, feedback calibration, shutdown behavior and controlled stroking.
Commissioning duty	Complete a controlled valve stroke and fail-safe shutdown test before fuel release.

TECHNICAL NOTE

Record the 4-20 mA command, position-feedback loop, 18-32 V DC supply, shutdown/reset contact, driver-fault contact and valve cable before removing 9907-186. Restore the approved GS3/LQ configuration and complete a controlled stroke and shutdown test before enabling fuel flow.

Technical Data

PARAMETER	VALUE	PARAMETER	VALUE
Command input	4-20 mA	Discrete input	Shutdown/reset contact
Power supply	18-32 V DC	Discrete output	Driver fault contact
Position feedback	4-20 mA	Maximum valve cable	60 m

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
WOODWARD DYN2-94025-004	Related Apter Power product	View WOODWARD DYN2-94025-004 page
WOODWARD 9907-252	Related Apter Power product	View WOODWARD 9907-252 page
WOODWARD 9907-031	Related Apter Power product	View WOODWARD 9907-031 page
WOODWARD 8406-113	Related Apter Power product	View WOODWARD 8406-113 page
WOODWARD 8440-1934	Related Apter Power product	View WOODWARD 8440-1934 page
WOODWARD 5501-470	Related Apter Power product	View WOODWARD 5501-470 page
WOODWARD 9905-021	Related Apter Power product	View WOODWARD 9905-021 page
WOODWARD 8440-2050	Related Apter Power product	View WOODWARD 8440-2050 page

ENGINEERING BOUNDARY

Confirm WOODWARD 9907-186, GS3/LQ driver and valve, 18-32 V DC supply, 4-20 mA command and feedback, shutdown/reset and fault contacts, valve cable, grounding, calibration and controlled stroke results before commissioning.

Applications and Precautions

Common Applications

Gas-turbine liquid-fuel control

Positions the metering valve from the turbine control command.

Valve-driver replacement

Restores an exact driver position with recorded loop and cable evidence.

Fuel-bypass regulation

Supports the approved bypass or metering arrangement in the fuel system.

Fuel-system recommissioning

Provides controlled stroke, feedback and shutdown verification before fuel enablement.

Product Precautions

- 1

Confirm WOODWARD 9907-186 and the assigned GS3/LQ valve-driver position.
- 2

Place the turbine and fuel system in the approved maintenance state.
- 3

Isolate the 18-32 V DC supply and secure the fuel system.
- 4

Record command, feedback, shutdown/reset, fault and valve-cable connections.
- 5

Confirm the approved valve, cable length and mechanical fuel arrangement.
- 6

Restore wiring, calibration and turbine-control configuration.
- 7

Review driver supply, feedback, fault and shutdown diagnostics.
- 8

Complete a controlled valve stroke and fail-safe shutdown test before fuel release.

IMPORTANT NOTICE

Confirm WOODWARD 9907-186, GS3/LQ driver and valve, 18-32 V DC supply, 4-20 mA command and feedback, shutdown/reset and fault contacts, valve cable, grounding, calibration and controlled stroke results before commissioning.

ACCEPTANCE CHECK	REQUIRED EVIDENCE
Identity	9907-186
Configuration	Review driver supply, feedback, fault and shutdown diagnostics.
Functional release	Complete a controlled valve stroke and fail-safe shutdown test before fuel release.

Engineer FAQ

Q1 How should 4-20 mA command be verified for WOODWARD 9907-186?

Confirm WOODWARD 9907-186, GS3/LQ driver and valve, 18-32 V DC supply, 4-20 mA command and feedback, shutdown/reset and fault contacts, valve cable, grounding, calibration and controlled stroke results before commissioning.

Q3 What must be preserved for valve cable when servicing WOODWARD 9907-186?

Record command, feedback, shutdown/reset, fault and valve-cable connections.

Q5 What official check applies to shutdown/reset for WOODWARD 9907-186?

Confirm the approved valve, cable length and mechanical fuel arrangement.

Q7 Which diagnostic confirms controlled stroking for WOODWARD 9907-186?

Review driver supply, feedback, fault and shutdown diagnostics.

Q2 Which record controls 18-32 V DC power on WOODWARD 9907-186?

Record the 4-20 mA command, position-feedback loop, 18-32 V DC supply, shutdown/reset contact, driver-fault contact and valve cable before removing 9907-186. Restore the approved GS3/LQ configuration and complete a controlled stroke and shutdown test before enabling fuel flow.

Q4 How is fault contact isolated before work on WOODWARD 9907-186?

Place the turbine and fuel system in the approved maintenance state. Isolate the 18-32 V DC supply and secure the fuel system.

Q6 How is position feedback restored after fitting WOODWARD 9907-186?

Restore wiring, calibration and turbine-control configuration.

Q8 What proves service evidence is accepted for WOODWARD 9907-186?

Complete a controlled valve stroke and fail-safe shutdown test before fuel release.

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