



KONGSBERG
AUTOMOTIVE

HANDS ON CONTROL

VS 1000



AT A GLANCE

- Kongsberg Power Products introduces its newest Forward-Neutral-Reverse (F-N-R) shifter, designed to meet the demanding requirements of Off-Highway markets
- Aesthetic modern lever design and function, promotes ergonomic operator interaction
- Robust design tested for rugged environments and vehicles
- Internal friction mechanism will hold position and is resistant to vibration
- Designed to accommodate Kongsberg vSense sensor in lieu of mechanical cable output
- Compatible with 12VDC and 24 VDC systems

Product Description

The VS-1000 Shifter is the latest Kongsberg Automotive shifter platform. Designed for the rigors of construction, specifically the vibratory roller segment, agricultural and industrial vehicle control; the VS-1000 is intended for use in mechanical or electronic shifting systems where a Forward-Neutral-Reverse (F-N-R) shifter control unit with high friction capability is required.

Along with ease of installation, the VS-1000 provides flexible switch options, shift patterns, logos, and cable mounting

options. The compact, fully validated unit offers extended service life in the harshest environments. With multiple sensor output options, the vSense non-contact sensor may be calibrated to meet the customer's exact requirements.

This device can be used as a stand alone product or it can be used in conjunction with other Kongsberg Automotive products to create a complete shifter system for virtually any type of heavy duty vehicle.

Contact:

Europe: Hlavná 48, 952 01 Vrábľe, Slovakia
North America: 300 South Cochran PO Box 588 Willis, TX 77378, USA

Tel: + 421 377 911 542
Tel: + 1 936 856 2971

www.kongsbergautomotive.com, info.pps@ka-group.com

Mechanical Specifications & Technical Data

| | |
|--------------------------------|---|
| Cable Travel Capability: | 42 to 60mm (1.65 in. to 2.36 in.) |
| Cable Entry Angles: | 0°, *45°, or 90° |
| | *45° maximum cable output travel of 50mm (1.97 in.) |
| Lever Travel Range: | 60° to 90° |
| Lateral Lever Load Capability: | 500 N (112 lbs.) |
| Switch Max Output: | 3A (inductive load at 28 VDC) |
| Cycle Life: | 500,000 |
| Water Resistance: | IP67 (Switch) |
| Low energy: | 10 to 55 Hz |
| Random Energy Frequency: | 5 to 500 Hz |
| Operating temperatures: | -40°C to +60°C |
| Storage Temperature: | -40°C to +60°C |
| Salt Spray: | 96 Hours |

Electrical Specifications & Technical Data

| | | |
|-------------------------------------|---|--------------------------------|
| Operating Voltage (supply): | Analog 5V +/- 0.5V | PWM 7.5V - 32V |
| Output Range (programmable) within: | Minimum >10% of supply voltage | Maximum <90% of supply voltage |
| Lever Travel Range: | 60° to 90° | |
| Lateral Lever Load Capability: | 500N (112 lbs.) | |
| Switch Max Output: | 3A (inductive load at 28 VDC) | |
| Cycle Life: | 500,000 | |
| Water Resistance: | IP67 (Switch and Sensor) | |
| Low Energy: | 10 to 55 Hz | |
| Random Energy Vibration Frequency: | 5 to 500 Hz | |
| Operating Temperatures: | -40°C to +60°C | |
| Storage Temperature: | -40°C to +60°C | |
| Salt Spray: | 96 hours | |
| Specification Compliances: | ASTMB117-97, SAEJ1814, SAEJ1455, ISO10986 | |

Features

- Designed to accommodate Kongsberg vSense sensor in lieu of mechanical cable output
- Robust, durable design utilizes an industry common mounting pattern
- Aesthetic modern lever design and function can accommodate up to three switches
- Friction set friction mechanism holds position resistant to vibration for life of product
- Various travel angles available
- Industry leading and patented vSense™ non-contact sensor provides accuracy and reliability
- Analog and PWM sensor outputs available
- Industry leading cycle life

Benefits

- Tier 4 compatible - The VS1000 is the ideal control to help you bridge the transition from mechanical to electronic
- Reliability in the most extreme environmental conditions
- Cycle life provides minimal maintenance costs

Options

- Hard detentes available at F-N-R positions
- Customizable top hat/logo
- Two finger switches and/or top toggle switch
- CANBus capable (requires KA SKIM 1/0)

Space Envelope & Mounting

