



1. Product Name
SlideDriver™

2. Manufacturer
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3. Product Description
HySecurity® gate operators meet the most stringent governmental, industrial, corporate and residential security and reliability requirements. They are installed at Baghdad International Airport, Fort Knox and The United Nations; numerous federal, state and municipal sites; correctional facilities, corporate campuses and power generation facilities; and at mini storages, gated communities and VIP residences.

HySecurity gate operators are fabricated for security, reliability, low maintenance, flexible speed and overall toughness. They are engineered to detect, report and trigger automated site-specified actions if critical security breaches occur. Abnormal operation or security breach reporting integrates easily to centralized security monitoring systems through HySecurity's Smart Touch Controller.

Each gate operator design is tested for at least 200,000 cycles before release to the market. Slide, swing, traffic barrier and vertical lift operators all receive the same kind of rigorous testing. All AC models are continuous duty.

BASIC USE

SlideDriver is a reliable, secure and low-maintenance hydraulic slide gate operator preferred by the U. S. Department of Defense and chosen for thousands of secure sites nationwide. SlideDriver uses 2 fully enclosed hydraulic motors to move a rigid drive rail compressed between 2 polyurethane drive wheels. HySecurity offers 7 SlideDriver standard models to meet various gate weight, length, speed and UL Class specifications. Most standard



SlideDriver 50VF2 moving 4000 lb (1814 kg) gate 26" (0.7 m) per second at a federal courthouse

models can also be built as Modular (M), Correctional Facility (C), Uninterruptible Power Supply (UPS) backup and/or Solar configurations. Custom designs for specific applications are also available.

SlideDriver achieves gate travel of 1' - 3' (0.3 - 0.9 m) per second and accommodates gates weighing up to 20,000 lb (9072 kg). Most SlideDriver models are equipped with a Soft Stop system that allows heavy or fast moving gates to stop smoothly and predictably. Independently adjustable brake valves are also available on most models. All electrical voltages and phases are accepted.

COMPOSITION & MATERIALS

Mechanical Components
The SlideDriver chassis consists of a 1/4" (6.4 mm) steel baseplate with 12 gauge steel sides, and prime painted, textured finish. The chassis cover is constructed of 16 gauge sheet metal with the same primer finish. All joints are welded, filled and ground smooth.

Channel support arms are made of cast aluminum and act on 3/4" (19.1 mm) diameter stainless steel arm pivot pins.

Metal hub drive wheels are 6" (152 mm) or 8" (203 mm) in diameter and have polyurethane tread to eliminate the high wear, metal-to-metal contact of conventional chain-

drive systems. The drive rail is constructed of 1/8" (3.2 mm) thick extruded 6061 T6 aluminum.

SlideDriver is powered by a totally enclosed fan cooled (TEFC), single- or 3-phase electric pump motor. This continuous duty 1, 2 or 5 Hp motor accepts standard voltages and has a service factor of 1.15 or greater.

Controls

The 128K LCD Smart Touch Controller is listed for use with all UL class I - IV applications and conforms to UL 991 standard. As a system with a UL 991-compliant controller, SlideDriver conforms to UL 325 standard. Smart Touch Controller features include:

- Inherent entrapment sensor (IES)
- "Warn before operate" system
- Touch control in the operator for installer use
- Built-in heavy duty power surge protection
- 1-wire input terminal connections and common wire bus
- Menu Mode that can be configured for installer options or end user options
- Anti-tailgate mode
- 17 user inputs
- 3 installer configurable outputs for many interface options
- 26 programmable output relay options
- EEPROM event logging capability for troubleshooting diagnostics

Table 1 Sizes, Physical Properties							
Model	SlideDriver 10	SlideDriver 40	SlideDriver 30F	SlideDriver 50VF2	SlideDriver 50VF3	SlideDriver 80	SlideDriver 200
Part #	222 SS	222 E	222 EX 1.7	222 X2	222 X3	222 X1	444 XS
Application	Commercial, industrial, high security	Commercial, industrial, high security	Commercial, industrial, high security	Commercial, industrial, high security	Commercial, industrial, high security	Commercial, industrial, high security	Commercial, industrial, high security
Gate type	Lighter gates	Heavier gates	Heavier, faster gates	Heavier, faster gates	Heavier, faster gates	Very heavy gates	Heaviest gates
Max. Gate Weight	1000 lb (454 kg)	4000 lb (1814 kg)	3000 lb (1361 kg)	5000 lb (2268 kg)	5000 lb (2268 kg)	8000 lb (3629 kg)	20,000 lb (9072 kg)
Gate Length	Limited only by weight	Limited only by weight	Limited only by weight	Limited only by weight	Limited only by weight	Limited only by weight	Limited only by weight
Rate of Travel	12" (0.3 m) per sec.	12" (0.3 m) per sec.	20" (0.5 m) per sec.	26" (0.6 m) per sec.	36" (0.9 m) per sec.	12" (0.3 m) per sec.	12" (0.3 m) per sec.
Drawbar Pull	300 lb (136 kg)	300 lb (136 kg)	300 lb (136 kg)	300 lb (136 kg)	300 lb (136 kg)	600 lb (272 kg)	1200 lb (544 kg)
Duty Cycle	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Horsepower	1 hp	1 hp	2 hp	2 hp	2 hp	2 hp	5 hp
Drive	-	-	-	Variable frequency	Variable frequency	-	-
Drive Wheels	2, 6" (152 mm) wheels	2, 6" (152 mm) wheels	2, 6" (152 mm) wheels	2, 8" (203 mm) wheels	2, 8" (203 mm) wheels	2, 8" (203 mm) wheels	4, 8" (203 mm) wheels
Soft Stop	No	Yes	Yes	Yes	Yes	Yes	Yes
Brake valves	No	Yes	Yes	Yes	Yes	Yes	Yes
Soft Start	No	No	Yes	Ultra soft start and stop	Ultra soft start	Yes	Yes
1 Phase Power	115/208/230 60 Hz; 50 Hz available	115/208/230 60 Hz; 50 Hz available	208/230 60 Hz; 50 Hz available	200 - 240 VAC 50 & 60 Hz	200 - 240 VAC 50 & 60 Hz	208/230 60 Hz; 50 Hz available	230V 60 Hz only
3 Phase Power	208/230/460/575 60 Hz; 50 Hz available	208/230/460/575 60 Hz; 50 Hz available	208/230/460/575 60 Hz; 50 Hz available	200 - 240 VAC 50 & 60 Hz, 380 - 480 VAC 50 & 60 Hz	200 - 240 VAC 50 & 60 Hz, 380 - 480 VAC 50 & 60 Hz	208/230/460/575 60 Hz; 50 Hz available	208/230/460/575 60 Hz; 50 Hz available
UL Listing	I, II, III, IV	I, II, III, IV	III, IV	III, IV	III, IV	III, IV	III, IV
Configuration:							
Standard	10	40	30F	50VF2	50VF3	80	200
Corrections	10-C	40-C	30F-C	50VF2-C	50VF3-C	80-C	N/A
Modular	10-M	40-M	30F-M	50VF2-M	50VF3-M	80-M	200-M
Corrections, modular	10-CM	40-CM	30F-CM	50VF2-CM	50VF3-CM	80-CM	N/A
UPS backup	10 UPS	40 UPS	30F-UPS	N/A	N/A	80 UPS	200 UPS
Corrections, UPS	10-C UPS	40-C UPS	30F-C UPS	N/A	N/A	80-C UPS	N/A
Modular, UPS	10-M UPS	40-M UPS	30F-M UPS	N/A	N/A	80-M UPS	200-M UPS
Corrections, modular, UPS backup	10-CM UPS	40-CM UPS	30F-CM UPS	N/A	N/A	80-CM UPS	N/A
Note: Solar operation is available with most configurations. Consult HySecurity for details.							

- RS232 port for laptop or other computer peripheral connection and RS485 connection of Master/Slave systems
- Smart Touch Controller's RS485 2-way communication bus allows maximum security system integration. Its ability to communicate between the operator and any remote system enables users to define automated activation of security equipment (security cam-





Standard SlideDriver 10 at plastic manufacturing plant in Columbus, OH

eras, alarms, etc.) in response to specific reported incidents.

TYPES

Models

- SlideDriver 10 - Designed for light gates to 1000 lb (454 kg), SlideDriver 10 achieves gate travel to 12" (0.3 m) per second and drawbar pull of 300 lb (136 kg); designed for UL class I, II, III and IV applications, and available with modular, corrections, uninterruptible power supply and/or solar configurations; continuous duty rated
- SlideDriver 40 - Designed for heavy and/or high cycle gates weighing up to 4000 lb (1814 kg), SlideDriver 40 is equipped with a hydraulic manifold with 2 adjustable brake valves, creating a Soft Stop for heavy gates; designed for UL class I, II, III and IV applications, and available with modular, corrections, uninterruptible power supply and/or solar configurations; continuous duty rated
- SlideDriver 30F - Designed for UL class III and IV applications, SlideDriver 30F accommodates gates weighing up to 3000 lb (1361 kg). It is equipped with 2 hydraulic drives, brake valves (Soft Stop) and AWOOG Soft Starting systems for safe, smooth and predictable gate handling at 20" (0.5 m) per second; available with modular, corrections, uninterruptible power supply and/or solar configurations; continuous duty rated
- SlideDriver 50VF2 and SlideDriver 50VF3 - Equipped with variable frequency drives,

SlideDriver 50VF2 and 50VF3 high speed operators control very heavy gates weighing up to 5000 lb (2268 kg), at speeds of 26" (660 mm) per second for the 50VF2 and 36" (914 mm) per second for the 50VF3; designed for UL class III and IV applications, and available with modular and correctional facility configurations; continuous duty rated

- SlideDriver 80 - This operator controls very heavy gates weighing up to 8000 lb (3629 kg) at speeds to 12" (305 mm) per second; achieves drawbar pull of 600 lb (272 kg); designed for UL class III and IV applications, and available with modular, corrections, uninterruptible power supply or solar configurations; continuous duty rated
- SlideDriver 200 - Intended for extremely heavy or very long gates weighing up to 20,000 lb (9072 kg), SlideDriver 200 has a much larger chassis than other operators; employs 4 drive wheels and hydraulic motors and a 5 hp electric motor to generate draw bar pull to 1200 lb (544 kg); designed for UL class III and IV applications, and available with modular, uninterruptible power supply and/or solar configurations; continuous duty rated

OPTIONAL CONFIGURATIONS

- SlideDriver, Modular (M) - The Modular SlideDriver is a 2-part version of the standard SlideDriver. The motor, hydraulic pump and electric controls are located in a separate enclosure, often at a distance from the drive unit to allow for more flexible operator placement. It is appropriate for applications requiring unique mounting, special security such as blast mitigation, or very quiet operation
- SlideDriver, Correctional Facilities (C) - Correctional Facilities SlideDriver configurations are equipped with an extra-heavy 10 gauge cover and 3 high security locking options: T-lock, hasp lock (for padlock) or 1010 preparation. Features include options and interlocks commonly used at correctional facilities, such as gate position outputs, interlock capability for sally ports and an interface relay to control an external solenoid lock
- SlideDriver, Uninterruptible Power Supply backup (UPS) - The UPS backup SlideDriver models are powered using two 24 V DC batteries as an uninterruptible power supply to ensure consistent operation if AC power fails. This system features at least 3000' (914 m) of backup gate travel and provides fully sealed, maintenance-free batteries in a separate, insulated and ventilated enclosure



Custom color SlideDriver 40 on 12" (305 mm) base riser at Scottsdale Municipal Airport

- SlideDriver, Solar - Most SlideDriver operators are available with a DC drive and solar power option. Visit www.hysecurity.com or contact HySecurity for more information

OPTIONS, ACCESSORIES

Safety

- Vehicle detector - Detects vehicles in the gate's path and will not allow the gate to close if activated; will cause the gate to reverse if the closing cycle is interrupted by vehicle
- Gate edge sensor - Attachment will reverse the gate if it contacts an object during closing
- Photoelectric eye - If beam is obstructed, will not allow gate to start closed; will reverse gate if beam is interrupted during closing cycle
- Internal entrapment sensor (IES) - Reverses the gate's direction of travel when an object is encountered by the closing gate; standard on all operators
- Lockable remote release device - Remotely releases the device that grips the slide gate rail

Cold Weather

- Heater with thermostat control for extremely cold climates - Operator rated for -40 degrees F (-40 degrees C) temperatures without heater
- Weatherstripping brushes and snow scraper

Convenience

- Timer to close - Signals the operator to close the gate after a prescribed interval; standard on all operators
- Free exit detector - Signals the operator to open the gate when the presence of a vehicle is detected





SlideDriver 10, 40, 30F, 50VF2, 50VF3 and 80 with 2 hydraulic motors and 2 drive wheels (left). SlideDriver 200 with 4 hydraulic motors and 4 drive wheels (right)

- Clock timer - 7-day timer that can be programmed to open or close the gate automatically
- Radio controls - Wireless transmitters, similar to those used to open and close garage doors, signal a receiver in the operator to operate the gate

Access

- Card reader - Reads a card that, when verified, signals the operator to cycle
- Keypad - When properly addressed, signals the operator to cycle
- Keyswitch - A simple switch that is closed by turning a key in a lock cylinder, which in turn signals the operator to cycle

Note - The card reader, keypad and keyswitch are not sold by HySecurity, but are available from most HySecurity distributors.

Security

- Independent mechanical lock - For maximum security, additional electric locks can be added as needed; one or more of these locks can be added at the trailing edge of the gate; contact HySecurity for a list of distributors
- Cabinet lock for cover - Provides a T-lock for the operator cover
- Tamper-proof heavy gauge cover - A heavy 10 gauge steel cover to help withstand a physical attack on the operator housing
- Internal drive rail solenoid lock - Mechanically secures bolt through drive rail and is protected inside the chassis
- Tamper protection switch - Signals when drive wheels have been released from rail

SIZES

See Table 1.

COLOR

Custom color matching available. High gloss green textured paint finish is standard.

BENEFITS

- Gate panel capacity of 1000 - 20,000 lb (454 - 9072 kg)
- Open and close rates of 1' - 3' (0.3 - 0.9 m) per second
- Site-specific operator control programming
- Tolerates temperature extremes from -40 degrees F - 167 degrees F (-40 degrees C - 75 degrees C)
- Low maintenance
- Fully compatible with all standard access control equipment

LIMITATIONS

Vehicle gates are not to be used for pedestrian access. Separate pedestrian gates must always be provided when foot traffic is present.

4. Technical Data

APPLICABLE STANDARDS

ASTM International (ASTM) - ASTM F2200 Standard Specification for Automated Vehicular Gate Construction

Underwriters Laboratories (UL)

- UL 325 Door, Drapery, Gate, Louver, and Window Operators and Systems
- UL 991 Tests for Safety-Related Controls Employing Solid-State Devices

National Fire Protection Association (NFPA) - NFPA 70 National Electrical Code

PHYSICAL/CHEMICAL PROPERTIES

See Table 1.

5. Installation

PREPARATORY WORK

Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact. Store products upright in the original shipping containers, covered, ventilated and protected from all weather conditions.

Locate concrete mounting pad in accordance with approved shop drawings. Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected.

Make sure the operator is located the proper distance from the gate, and that the gate and operator are parallel.

Make sure the gate rolls smoothly in both directions, without any binding of the gate hardware. If the gate is warped or hard to move, stop and fix the gate before attempting to automate.

METHODS

Install gate operator in accordance with manufacturer's printed instructions. Coordinate locations of operators with contract drawings, other trades and shop drawings. Ensure that the electric service to the operator is at least 20 amps and that wire size conforms to specific operator requirements.

Test the basic operator functions through 10 full cycles and adjust to ensure gate operates smoothly without binding, scraping or uneven motion. Test limit switches for proper "at rest" gate position.

Detailed installation instructions are available online at www.hysecurity.com.

PRECAUTIONS

All horizontal slide gate openings must be guarded or screened from the bottom of the gate to a minimum of 4' (1.2 m) height above the ground. This safety requirement is intended to prevent an object 2 1/4" (57 mm) in diameter (the same dimension as a diamond-shaped opening in a standard chainlink fence) from passing through an opening in the gate or through a gap between the gate and the adjacent fence.

All exposed pinch points, rollers and wheels must be guarded. To reduce the risk of entrapment, the gate must also be installed so that enough clearance is provided between the gate and adjacent structures, both when opening and closing. Minimize the parallel gap between the gate and the fence.

The gate must be constructed with physical stops to prevent overtravel in both directions

and must have guard posts to prevent the gate from falling in the event of a roller failure.

Covers for all exposed gate support wheels must be installed.

BUILDING CODES

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

6. Availability & Cost

AVAILABILITY

HySecurity operators, accessories and parts are stocked by distributors and installers worldwide. Contact the manufacturer for local distributor information.

COST

Contact HySecurity for pricing details and/or budget estimates.

7. Warranty

The HySecurity SlideDriver gate operator is supported by a 5 year or 500,000 cycle warranty when it is installed by a licensed contractor. A nationwide network of distributors and installers is available to service the warranty. Labor and other costs to replace defective components are excluded from this factory warranty; however, these costs may be covered through the local installing company. Complete warranty terms and conditions are available from the manufacturer. For details, consult HySecurity.

8. Maintenance

Detailed maintenance instructions are available online at www.hysecurity.com. Brief maintenance guidelines are described below.

Hydraulic System

Periodically inspect for leaks and check fluid levels. Replace oil at 5 year intervals.

Electrical Controls

No routine maintenance is needed for the electrical system or controls. If the environment is very sandy, dusty or has many insects, seal all holes in the electrical enclosure. Blow dust out of the electric panel with compressed air.

Gate

Gate should be inspected monthly to ensure smooth operation.

9. Technical Services

For project-specific technical assistance, contact HySecurity. For more detailed information, product literature, test results, project lists, assistance in preparing project specifications and arrange-

ments for application supervision, contact HySecurity or visit www.hysecurity.com.

Detailed technical information, installation instructions, schematics, troubleshooting information and technical bulletins, are available online at www.hysecurity.com.

10. Filing Systems

Additional product information is available from the manufacturer upon request.