SXK-D01

Straight Arm Barrier

24 V brushless DC drive | SXK-BAZ01 arm configuration



Arm configuration	Operating reference	Configuration detail
2 to 6 m arm	1.5 to 6 s nominal travel	100 x 45 mm profile

The SXK-D01 straight arm barrier controls vehicle entry and exit at parking lots, residential developments and commercial sites. Its rigid aluminum boom provides a clear lane closure, while the 24 V brushless DC drive allows the opening and closing motion to be adjusted to the installed arm.

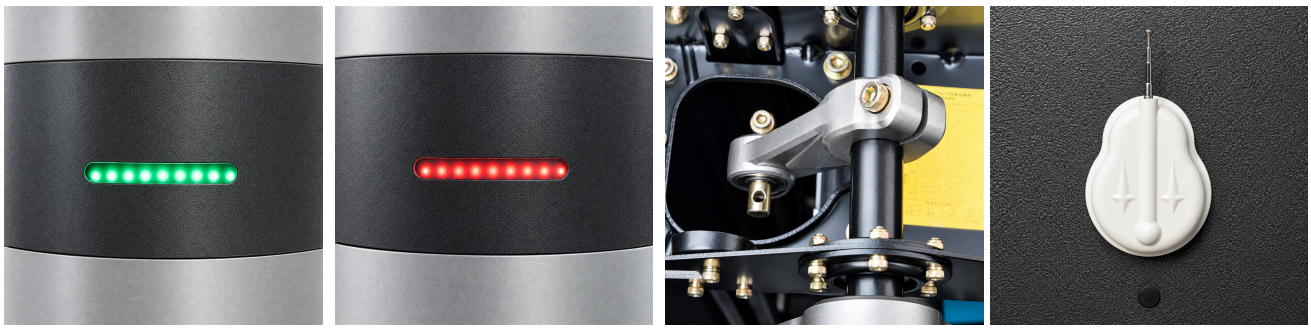




D01 cabinet detail and raised straight arm configuration. Application image is an illustrative configuration.

Drive and vehicle protection

A spring-balanced brushless drive combines configurable movement, external vehicle detection and clear lane signaling. The complete installed boom, detection devices and controller settings work together.



Integrated status indication | Mechanical drive detail | Keyed service access

Brushless motion with controlled stopping. The 24 V DC brushless drive provides independently adjustable opening and closing motion. Set deceleration points, low-speed zones and final approach speeds to suit the boom for smooth travel and stable end positions.

Mechanical strength and thermal management. A die-cast aluminum alloy drive body combines mechanical strength with heat dissipation. The worm-gear reduction and linkage transmit motor output to a spring-balanced boom.

Reversal on contact. During closing, the controller can reverse the boom when an obstruction is detected. Obstruction sensitivity and motor force are adjustable and must be commissioned for the installed assembly.

External detection before contact. Dedicated inputs accept compatible loop detectors or radar and infrared photocells. These devices can reopen a closing boom and control closure after vehicle passage; detectors are selected separately.

Red and green status indication. Integrated cabinet LEDs make the barrier state visible to approaching drivers. Programmable relay modes also support external traffic-light control and open/closed feedback to the access system.

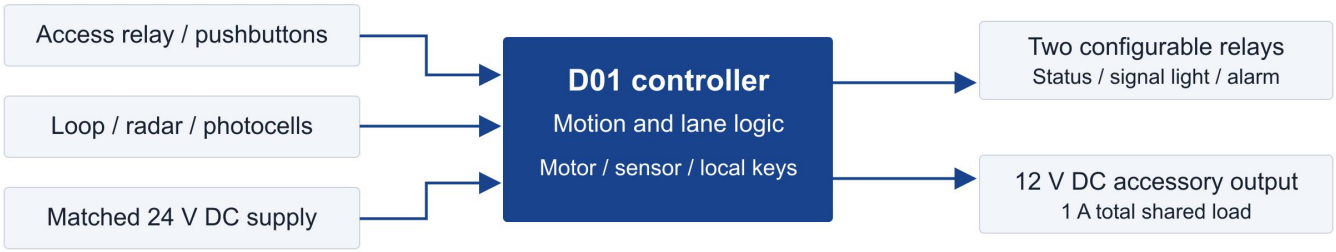
Operation during a power outage. A motor handwheel permits manual movement after power is isolated. Add a matched 24 V backup module when automatic opening on mains failure is required; backup power is an option.

Finish and environmental range. High-temperature powder coating protects the Agate Black and Silver Gray cabinet finish. The published operator range is -40 to +75 °C; select external accessories for the same site conditions.

Local access for setup and service. Four controller keys provide local operation and menu setup. The digital display, run/limit indicators and fault codes help technicians identify operating conditions without a separate programming tool.

MCBF is an operator reliability figure. It does not replace inspection, spring service or other scheduled wear-part maintenance. Select and commission the protection devices for the actual vehicle lane.

Controller and system integration



Optional backup module connects through the matched power arrangement.

Conceptual interfaces. Field devices, access controller and backup module are selected separately.

Interface	Function	Integration detail
Wired command inputs	Open / close / stop	Contact closure to GND; suitable for a compatible parking controller, access relay or local pushbuttons.
Vehicle detector input	Loop detector or radar	V.D. input and GND; coordinates vehicle-passage closing and reopening during descent. External detector required.
Photocell input	Infrared protection	I.R. input and GND; an active input while closing causes the boom to rise. External photocells required.
Two configurable relays	Status or accessory control	Select the H-16 output mode. Relay functions depend on the selected mode and are not all available simultaneously.
12 V DC auxiliary output	Up to 1 A	For compatible radar or small accessories within the shared load budget. A full LED arm uses its separate specified supply.
Radio receiver connection	Remote operation and pairing	Supports compatible open / close / stop transmitters. Confirm receiver, radio frequency and supply scope for the destination market.
Local display and keys	Setup and diagnostics	Four-digit display, four function keys, run indicator and upper/lower limit indicators.

Operating logic and output modes

Timed closing and vehicle counting. Set a 0–255 s automatic-close delay; 0 disables timer-based closing. Counting mode can retain up to 10 opening commands and match them to vehicle-passage pulses.

Supervised convoy passage. A selectable transmitter mode holds the lane open for a convoy. Loop-triggered closing is suspended in this mode until an explicit close command exits it.

Configurable relay functions. Choose end-position feedback, traffic-light switching, detector-state signaling, a 1 s closed-position pulse or forced-lift alarm output. An external controller can use the pulse to coordinate a second barrier.

Forced-lift event signaling. In the selected alarm mode, manually lifting a closed boom beyond the threshold produces a timed relay output for an external alarm. This requires the appropriate H-16 setting and alarm equipment.

Counting coordinates received commands and passage pulses; it is not an independent tailgating detector. Relay modes share the same two relays. Use compatible external controls where more outputs or coordinated lane logic are required.

Technical specifications

D01 operator

Parameter	Specification
Operator model	D01 family / SXK-D01B
Drive type	24 V brushless DC motor; gear reduction, linkage and balancing spring
Control-panel supply	24 V DC, 7.5 A
AC input version	AC 110–120 V or AC 200–240 V; specify the factory supply version
Motor output power	180 W
Motor speed	780 r/min no-load; 600 r/min rated
Motor insulation	Class F
MCBF	5 million cycles; published operator figure
Opening and closing motion	Independent speed adjustment; deceleration and end-position adjustment
Obstruction response	Automatic reversal during closing; sensitivity and motor force adjustable
Auxiliary power output	12 V DC, 1 A maximum shared accessory load
Command and detection inputs	Open / close / stop; loop or radar; infrared photocell
Relay outputs	Two configurable relays; mode selected through H-16
Cabinet dimensions	340 × 345 × 1030 mm (W × D × H)
Surface and colors	High-temperature powder coating; Agate Black and Silver Gray
Operating environment	-40 to +75 °C; up to 90% RH, non-condensing
Manual movement	Motor handwheel; isolate power before use
Automatic opening on mains failure	With optional matched 24 V backup power module

Straight Arm configuration

Parameter	Specification
Arm model	SXK-BAZ01
D01 arm length	2 to 6 m
Construction	Reinforced octagonal aluminum extrusion
Nominal section and wall	100 x 45 mm; 1.1 mm wall
Finish	White with red warning and reflective markings
Root mounting	130 mm reference pitch; matched D01 holder

Operating time

Arm length	Up to 3 m	Up to 4 m	Up to 4.5 m	Up to 5 m	Up to 6 m
Nominal time	1.5 s	3 s	4 s	5 s	6 s

Nominal travel times apply to the straight arm lengths shown. Set the operating speed for the actual arm mass, spring balance and fitted accessories.

Motor output power is not total mains power consumption. Nominal boom length is not clear lane width. Published operator environmental ratings do not automatically apply to every accessory.

Configuration and diagnostics

The onboard display and four keys provide local setup, without a separate handheld programmer. Regular and advanced menus cover motion, access logic and commissioning functions.

Adjustment	Menu	Capability
Opening and closing speed	F-00 / F-01	Independently adjustable for the fitted boom.
Deceleration start	F-02 / F-03	Separate opening and closing deceleration positions.
Low-speed zone	F-04 / F-05	Separate final low-speed travel zones.
End approach speed	F-06 / F-07	Fine control as the boom reaches either end position.
Horizontal and vertical alignment	F-08 / F-09	Electronic end-position trim in the applicable learning mode.
Automatic-close delay	F-10	0–255 s; 0 disables timer-based closing.
End-position holding	F-11 / F-12	Selectable hold time at either end; installer settings depend on motor load.
Power-on limit search	F-13 / H-33	Set search speed; choose both ends, upper end only or lower end only.
Transmitter learning	F-14 / H-09	Pair compatible transmitters; clear stored transmitters or reset settings.
Obstruction response sensitivity	F-15	Adjustable response setting; verify with the actual boom and detection system.
Vehicle counting	H-07	Disabled or a memory of up to 10 opening commands.
Automatic cycle test	H-08	0–5 s interval; 0 returns to normal operation.
Output assignment	H-16	Select relay feedback, lighting, pulse or alarm mode.
Remote convoy mode	H-31	Enter supervised convoy passage from the remote open command.
Manual limit learning	H-34 / H-35 / H-36	Learn both end positions, upper position only or lower position only.

Service feedback

Display	Service information
E-00	Remote-learning or factory-reset confirmation is invalid.
E-03 / E-04	Opening / closing movement blocked; inspect mechanics, spring balance and motion settings.
E-05 / E-06	Opening / closing timeout; check the installed boom and configured movement.
E-07 / IDLE	Inspect motor phase wiring, motor-sensor connection and sensor condition.
E-08	Unexpected motor reversal during opening; inspect spring condition and mechanism.

The display also indicates opening, closing, upper/lower end position and hold/lock states. It dims after 60 s without key input and turns off after 30 minutes; these are display-saving functions.

Commissioning sequence

Fit and balance the approved arm → learn the end positions → tune travel and stopping → test detectors and output logic → record the settings and disable automatic cycle testing.

End-position holding uses motor power. Set holding time and motor force together for the installation. Advanced settings and fault investigation are intended for trained installers.

Installation and ordering

Applications and arm selection

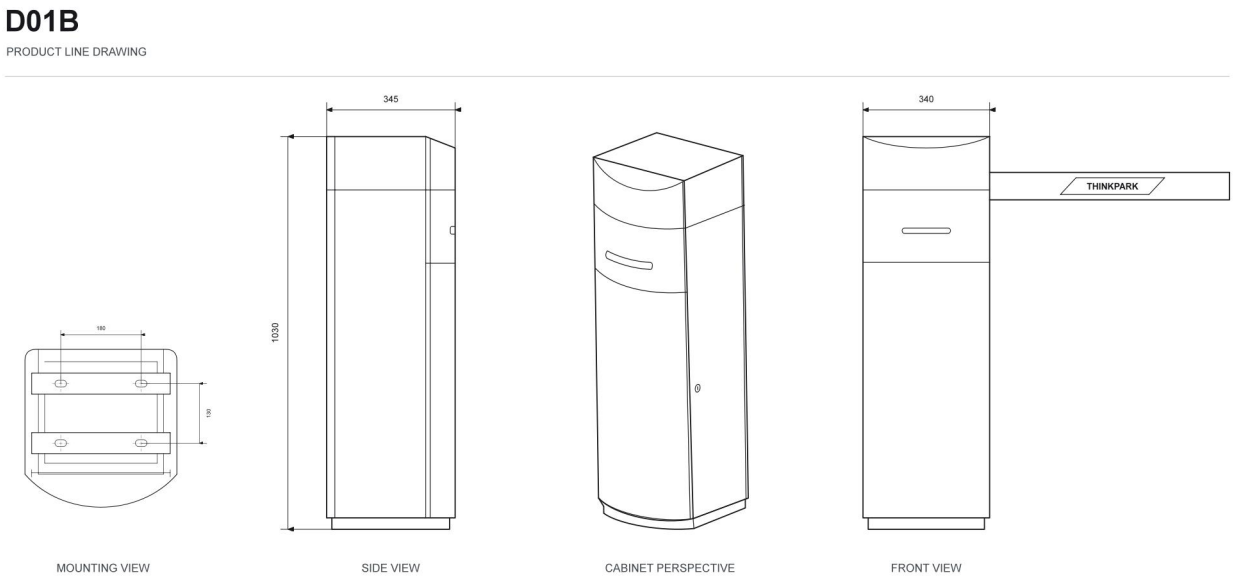
Corporate and staff parking, residential entrances, visitor parking and commercial access lanes with unrestricted overhead clearance.

Arm length matched to the lane. Specify a finished boom length from 2 to 6 m for the D01 configuration. The clear passage width depends on cabinet position, holder engagement and tip clearance.

Adjustable movement. Set opening and closing speed, end position and stopping behavior for the complete boom assembly.

Selection item	Project requirement
Lane coverage	Measure clear passage width and cabinet setback before specifying the finished arm length.
Overhead space	Allow for the complete vertical sweep, nearby signs, trees and building projections.
Arm support and balance	Confirm spring selection and any required tip support for the finished arm and local exposure.
Vehicle protection	Select and commission loop, radar or photocell devices to suit the lane layout.

Cabinet envelope



Cabinet envelope in mm. Use the supplied installation drawing for foundation and anchor positions.

System and installation options

Selection	Available configuration / purpose
Vehicle detection	Compatible radar, inductive loop detector and infrared photocells; selected separately.
Access-system trigger	ANPR, RFID, ticketing, toll or other access equipment through a compatible relay output.
Local and radio control	Open / close / stop pushbuttons; compatible receiver and paired transmitters.
Traffic indication	Built-in cabinet LEDs; external signal lights or illuminated arm with matched wiring and power.
Backup opening	Matched 24 V backup power module; confirm module and supply scope for the ordered assembly.
Boom rest and holder	Matched holder, balancing spring and optional underside rest; the boom remains free to rise.

Ordering information

State D01 with SXK-BAZ01 straight arm, finished arm length, installation side, required travel time and any detection, lighting or backup power options. Confirm AC supply version, external control contacts, detection devices and backup-power scope.

Service planning: inspect joints monthly; review spring balance at 300,000 cycles and plan spring replacement at 500,000 cycles or 12 months under the maintenance schedule. Rebalance after an approved arm or accessory change.

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Specifications and supply scope are subject to the confirmed order. Dimensions are nominal. Rev 2.0