EU

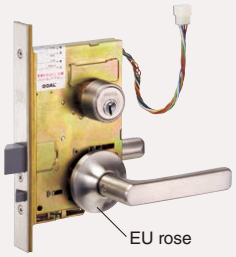
Function-switching electric locks EU series
EUT, EUTP (Fail secure, fail secure with anti-panic function)
EUR, EURP (Fail safe, fail safe with anti-panic function)

Applications **Controlled building entrances, emergency exits, etc.**

• **V-EUT-5NU11S(NK)** (backset: 76 mm)
(Photo shows a V18 cylinder, NU lever handle, dull stainless steel finish.)

(A knob can also be used.)

* An EU rose is also available.



• **A front with guard plate**
(L type front) is also available.

(* The front with guard plate is a special order product.)

• **V-EUT-5Q**

(Cup handles can also be used.)

When installing, it is possible to select fail secure type or fail safe type. The anti-panic function can be added to either side.

Features

■ The electric lock function (T type EUT or R type EUR) can be easily changed. (It is changed by means of a switch inside the front.)

● **EUT** (Fail secure type): The lock is unlocked while it is energized and locks when the supply of power stops. (When the lock is not energized, the door locks automatically when it is closed.)

● **EUR** (Fail safe type): The lock is locked while it is energized and unlocks when the supply of power stops. (When the lock is energized, the door locks automatically when it is closed.)

■ The side where the anti-panic function is added can also be switched. It can be added to either the left or right side of the lock case, allowing the same type to be used for any lock handing.

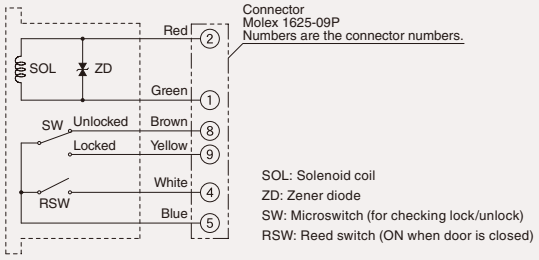
* The anti-panic function can be added to the desired side by operating the switch.

■ Can be unlocked using the key or thumbturn.

● **EUT, EUR**: When unlocked using the key or thumbturn, the lock remains unlocked until the lever handle (knob) is operated. Once the lever handle (knob) has been operated, the lock returns to the locked state.

■ Circuit diagram

• Internal circuit diagram
(Diagram shows the conditions when the door is opened and unlocked.)



EU function switching method (Can be switched as needed either during or after installation.)

● Switching procedure

⚠ Operate the switch when the electric lock is not energized.

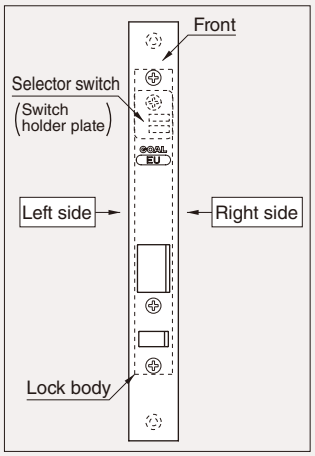
① Remove the lock front.

② Loosen the switch holder plate screw and move the holder plate.

③ Use a tool to operate the switch.

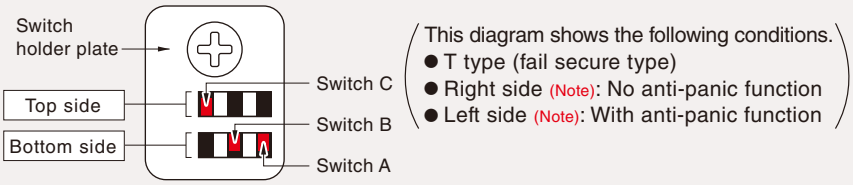
④ After operating the switch, put the holder plate back in its original position and securely tighten the screw.

(The function selector switch is set at the time of shipping according to the ordered model and model No. Switch the function as needed.)



● Relationship of switch position and function

Switch / Switch position	Switch C	Switch B	Switch A
Top side	There is an anti-panic function on the left side. (Note)	R type (Fail safe type: EUR)	There is an anti-panic function on the right side. (Note)
Bottom side	No anti-panic function on the left side. (Note)	T type (Fail secure type: EUT)	No anti-panic function on the right side. (Note)



Note: The left side and right side refer to the left and right sides of the lock when viewed from the lock front as shown in the figure at left.

Specifications (Door thickness: ## mm or more~less than ## mm)

Electrical specifications	Operation type (series)	Fail safe type (R type: EUR)	Fail secure type (T type: EUT)
	When equipped with anti-panic function	EURP	EUTP
	Rated voltage	24 V DC (Working voltage range 19 V~27 V DC)	
	Rated current	0.2 A (continuous energizing)	
	Switch capacity	Microswitch (for checking lock/unlock): 24 V DC, 0.1 A Reed switch (for checking door open/closed): 24 V DC, 0.1 A (resistance load) Pay particular attention because the reed switch is ON when the door is closed.	
	Working temperature range	-10~50°C (Must be no freezing or condensation.)	
	Lead wire (with connector)	Length 200 mm (Molex 1625-09P)	
	Electrical conductors	RCL-27 (Refer to P.72.)	
	Control box	RCB-730, RCB-500 (Refer to P.73.)	
Lock specifications	Backset	76 mm	
	Door thicknesses (Contact GOAL for more information.)	Lever (NK rose): 29~33 / 33~38 / 38~43 / 43~48 /48~53 mm (For 29~33 mm, a spacer is required.) Lever (EU rose): 29~33 / 33~38 / 38~43 / 43~48 /48~53 mm Knob: 29~33 / 33~43 / 43~53 mm (However for a P or S type, the minimum is 33 mm.)	
	Gap (door and jamb)	6 mm or less	
	Lever handles	NU, KU, TU, and various other types are available. (Refer to P.25~28.) (NK rose and EU rose are available.)	
	Knobs	Q, K, Y, B, S, P types, etc. (Refer to P.36.)	
	Cylinder [symbol] (Note)	GP [GP], V18 [V], GV [GV], 6 pins [P], 7 pins [Z]	
	Key systems	Various key systems available (MK, GMK, GGMK, CNK, etc.) (V18, GV cylinders: Optional key change systems are also available.) (GV: Optional Universal Key System (UKS2) available)	
	Thumbturn	Standard type only	

Note: Production of new master key plans for 6-pin and 7-pin cylinders discontinued as of March 2017.

List of EU series models

When ordering, add the cylinder symbol to the model, for example V-EUT-5NU11S.

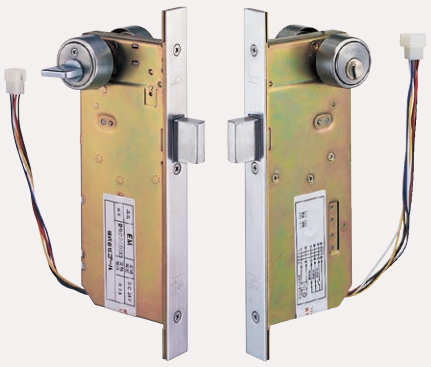
Compatible cylinders and cylinder symbols	Model (Note 1) (□ is the cylinder symbol.)	(Inside)	Illustration (Note 2)	(Outside)
——	EUR EUT -3**	Thumbturn		——
		Lever or knob		Lever or knob
GP (GP) V (V18) GV (GV) P (6-pin) Z (7-pin)	□- EUR EUT -5**	Thumbturn		Cylinder
		Lever or knob		Lever or knob
GP (GP) V (V18) GV (GV) P (6-pin) Z (7-pin)	□- EUR EUT -6**	Cylinder		Cylinder
		Lever or knob		Lever or knob
GP (GP) V (V18) GV (GV) P (6-pin) Z (7-pin)	□- EUR EUT -7**	——		Cylinder
		Lever or knob		Lever or knob
GP (GP) V (V18) GV (GV) P (6-pin) Z (7-pin)	□- EURP EUTP -7**	——		Cylinder
		Lever or knob		Lever or knob

Note 1: * indicates the lever or knob design and finish symbol.
2: The illustration shows a dimple key for a V18 cylinder.

EMV Electric dead lock (motor lock) EMV series

Applications **Apartment building common entrances, office entrances, home entrances, emergency exits, etc.**

• **V-EMV-5**
(Photo shows a V18 cylinder with backset 64 mm.)



Precautions: Use with a side pressure on the deadbolt of 49 N or less.

These electric locks use a motor to operate the deadbolt and lock/unlock the door.

Features

- The lock is locked and unlocked by the action of an electric motor contained within the lock.
- Can also be locked and unlocked using the key or thumbturn.
- Because the lock body is compact, it can be installed even on narrow vertical frames.

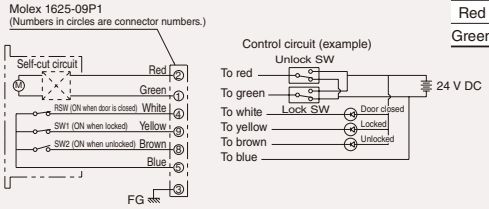
Specifications (Door thickness: ## mm or more~less than ## mm)

Electrical specifications	Model	**EMV**(9P connector)
	Rated voltage	24 V DC (Working voltage range 19 V~27 V DC)
	Rated current	0.2 A (with self-cut function) (The power capacity must be 0.5 A or more.)
	Switch capacity	Microswitch (for checking lock/unlock): 24 V DC, 0.1 A Reed switch (for checking door open/closed): 24 V DC, 0.1 A (resistance load) Pay particular attention because the reed switch is ON when the door is closed.
	Working temperature range	–10~50°C (Must be no freezing or condensation.)
	Lead wire (with connector)	Length 230 mm (Molex 1625-09P)
	Electrical conductors	RCL–27
	Control box	RCB-730, RCB-500 (Refer to P.73.)
Lock specifications	Backset	38 mm, 51 mm, 64 mm, 76 mm
	Door thicknesses (Contact GOAL for more information.)	29~43 / 43~53 mm
	Gap (door and jamb)	6 mm or less
	Cylinder [symbol] (Note)	GP [GP], V18 [V], GV [GV], 6 pins [P], 7 pins [Z]
	Key systems	Various key systems available (MK, GMK, GGMK, CNK, etc.) (V18, GV: Optional key change system available) (GV: Optional Universal Key System (UKS2) available)

Note: Production of new master key plans for 6-pin and 7-pin cylinders discontinued as of March 2017.

EMV, EMVSX circuit diagram

• Internal circuit diagram
(This diagram shows the conditions with the door closed and locked.)



Motor lock/unlock operation

	Locked	Unlocked
Red	-	+
Green	+	-

Note: Set the motor energizing time within the range of three to five seconds. The power capacity must be 0.5 A or more.

EMVSX Splash-proof electric dead lock (motor lock) EMVSX series

Applications **Apartment building common entrances, emergency exits, home entrances, gates, etc.**

• **V-EMVSX-5** (backset: 51 mm)
(Photo shows a V18 cylinder with backset 51 mm.)

Precautions: Use with a side pressure on the deadbolt of 49 N or less and only in the vertical orientation that is shown in the photo.

These splash-proof specification electric locks use a motor to operate the deadbolt and lock/unlock the door.

Features

- This is an EMV motor lock with splash-proof specifications. It can be used at entrances, gates, and other locations that are exposed to wind and rain.
  Because the lock case is completely sealed with silicon, it can withstand use in locations that are exposed to wind and rain.
- The backset is 51 mm only.
- Because the cylinders and thumbturns that are used are different from those used in the EMV, the door thicknesses and door notch dimensions are different from the EMV.

Note: Because the cylinder and thumbturn mounting positions are reversed from those in the EMV (cylinder or thumbturn is on bottom and deadbolt is on top), install the strike plate so that the actuator (magnet) is facing down.

Specifications (Door thickness: ## mm or more~less than ## mm)

* Electrical specifications are the same as EMV.

Lock specifications	Model	**EMVSX**(9P connector)	
	Backset	51 mm	
	Door thicknesses (Contact GOAL for more information.)	GP,V18,GV Cylinder	GP, V, GV–EMVSX–5, 7...30~43 / 43~53 mm GP, V, GV–EMVSX–6 .....30~40 / 40~50 mm
		6-pin, 7-pin Cylinder	P, Z–EMVSX–5.... 30~45 / 45~55 mm P, Z–EMVSX–6.... 37~47 / 47~57 mm P, Z–EMVSX–7.... 30~55 mm
	Gap (door and jamb)	6 mm or less	
	Cylinder [symbol] (Note)	GP [GP], V18 [V], GV [GV], 6 pins [P], 7 pins [Z]	
	Key systems	Various key systems available (MK, GMK, GGMK, CNK, etc.) (V18, GV: Optional key change system available) (GV: Universal Key System not supported)	

Note: Production of new master key plans for 6-pin and 7-pin cylinders discontinued as of March 2017.

List of EMV, EMVSX series models

When ordering, add the cylinder symbol to the model, for example V-EMV-5.

Compatible cylinders and cylinder symbols	Model	(Inside)	Illustration (Illustration shows EMV.)	(Outside)
——	**EMV -3**	Thumbturn		——
GP (GP) **V** (V18) **GV** (GV) **P** (6-pin) **Z** (7-pin)	**EMV EMVSX -5**	Thumbturn		Cylinder
GP (GP) **V** (V18) **GV** (GV) **P** (6-pin) **Z** (7-pin)	**EMV EMVSX -6**	Cylinder		Cylinder
GP (GP) **V** (V18) **GV** (GV) **P** (6-pin) **Z** (7-pin)	**EMV EMVSX -7**	—— (In the case of EMVSX, this is a dummy plate.)		Cylinder

SXEV SXESV Electric locks for sliding doors (motor locks) SXEV, SXESV series

Applications **Apartment building common entrances, office entrances, home entrances, gates, emergency exits, etc.**

• **V-SXEV-5** (backset: 51 mm)
(Photo shows V-SXEV-5 with V18 cylinder.)

• **Splash-proof V-SXESV-5** (backset: 51 mm)
(Photo shows V-SXESV-5 with V18 cylinder.)

Precautions: 1. Use with a side pressure on the deadbolt (hooked deadbolt) of 19.6 N or less.
2. The splash-proof type SXESV can be used only in the vertical orientation shown in the photo.

These electric locks use a motor to operate the deadbolt (hooked deadbolt) and lock/unlock the sliding door.

Features

- The lock is locked and unlocked by the action of an electric motor contained within the lock.
- Splash-proof SXESV is also available. (The thumbturn is the standard type only.)

Specifications (Door thickness: ## mm or more~less than ## mm)

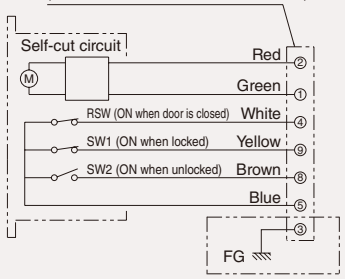
Electrical specifications	Model		**SXEV, SXESV** (Splash-proof) (9P connector)
	Rated voltage		24 V DC (Working voltage range 19 V~27 V DC)
	Rated current		0.2 A (with self-cut function) (The power capacity must be 0.5 A or more.)
	Switch capacity		Microswitch (for checking lock/unlock): 24 V DC, 0.1 A Microswitch (for checking door open/closed): 24 V DC, 0.1 A (Pay particular attention because the microswitch is ON when the door is closed.)
	Working temperature range		–10~50°C (Must be no freezing or condensation.)
	Lead wire (with connector)		Length 230 mm (Molex 1625-09P)
	Control box		RCB–730, 500 series (Refer to P.73.)
Lock specifications	Backset		51 mm
	Door thicknesses (Contact GOAL for more information.)	SXEV	GP,V,GV,P,Z–3,5,6,7..... 29~43 / 43~53 mm
		SXESV	GP,V,GV–5,7..... 30~43 / 43~53 mm GP,V,GV–6..... 30~40 / 40~50 mm P, Z–5 ..... 30~45 / 45~55 mm P, Z–7.....30~55 mm P,Z–6 ..... 37~47 / 47~57 mm
	Gap (door and jamb)		5 mm or less
	Cylinder [symbol] (Note)		GP [GP], V18 [V], GV [GV], 6 pins [P], 7 pins [Z]
	Key systems		Various key systems available (MK, GMK, GGMK, CNK, etc.) (V18, GV cylinders: Optional key change system available) (GV: Optional Universal Key System (UKS2) available) (Note: Universal Key System for splash-proof type SXESV is not supported.)
	Thumbturn		SXEV.....Standard type, TM, TME, other types SXESV.....Standard type only
	Model No.		SXEV–3, 5, 6, 7 SXESV (splash-proof type)–5, 6, 7

Note: Production of new master key plans for 6-pin and 7-pin cylinders discontinued as of March 2017.

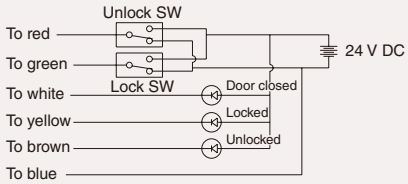
SXEV, SXESV circuit diagram (Note)

• **SXEV,SXESV** (9P connector)

9P connector
Molex 1625-09P1
(Numbers in circles are connector numbers.)



<Control circuit>



Motor lock/unlock operation

	Locked	Unlocked
Red	-	+
Green	+	-

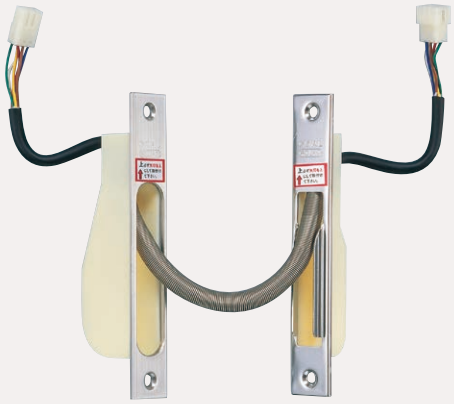
Note: Set the motor energizing time within the range of three to five seconds.
The power capacity must be 0.5 A or more.

RCL-21,27 Concealed type electrical conductors RCL-21, 27 series

Applications Used for wiring that is connected to electric locks and other products installed on doors.

• RCL-21,27

• RCL-21U



Precautions: Be aware that a concealed type electrical conductor cannot be used with a center-hanging type door.

Concealed type electrical conductors that the leads are not exposed when door is closed.

Specifications

RCL series concealed type electrical conductor specifications and types of electric locks used

Note: Because the door side cable length is 100 mm, use an extension cord when necessary.

Model	Number of lead wires	Cable length (mm)		Front	Connector	Lead wire (heat-resistant wire)	Electric lock used
		Door side	Frame side	Lock case			
RCL-21	6	2,000	150	Stainless steel Steel plate	Molex 1625-06P,R	UL-2586 AWG24 (11/0.16)	● ELSF, ELM lever handle-type electric locks ● ESSF, ESM mortise lock-type electric locks
RCL-21U	6	(Note) 100	150	Stainless steel ABS plastic			
RCL-27	7	2,000	150	Stainless steel Steel plate	Molex 1625-09P,R	UL-2586 AWG24 (11/0.16)	● EMV, EMVSX electric dead motor lock (Refer to P.70.) ● EU series function-switching electric locks (Refer to P.67,68.)

RCB-500 Electric lock control boxes RCB-500 series

Applications Control of electric locks

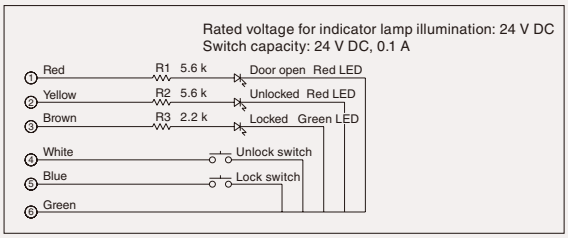
• **RCB-505** (for 5 lines)

• **Operation panel**

RSP-410U

RSP-410UH
(With unlock hold function)

■ **Circuit diagram**



Precautions:
1. This product uses indoor specifications. Do not use it in locations that are exposed to contact with rainwater.
2. When used with an interlock door system, there is no operation button or indicator lamp. The size is the RCB-505 size.

Specifications

Model	**RCB-501~RCB-515** (The last 2 digits of the model number are the number of lines.)
Number of lines that can be used	1~15 lines (Each line can control a different electric lock.)
Compatible electric locks	• ELSF, ELM series lever handle-type electric locks (Refer to P.69.) • EMV, SXEV series motor locks (Refer to P.70.) • EU series function-switching electric locks (Refer to P.67,68.) • ESSF, ESM series mortise lock-type electric locks (Refer to P.69.)
Input voltage, rated output voltage	100 V AC (50/60 Hz), 24 V DC
Power consumption	Varies depending on the type of electric locks used and the number of lines.
Standard external dimensions (mm)	RCB-501~RCB-505: Width 400 × Height 300 × Thickness 120 RCB-506~RCB-510: Width 400 × Height 550 × Thickness 120 RCB-511~RCB-515: Width 400 × Height 800 × Thickness 120
Standard finish	Baked coating (Munsell 2.5Y-9/1 semi-gloss)
External input	Operation panel RSP-410U, etc. (Maximum 3 can be connected per line.)
Special function (symbol) (options)	• 24-hour timer (A) • Weekly timer (B) • Interlock control function (H) • Spare power supply function (F) • Forced unlock of one electric lock one time only in the event of a power outage (L) (Motor locks, instantaneous flow of current types) • Various other functions are available.

RCB-730 Electric lock controllers RCB-730

Applications Control of electric locks

• **RCB-730**

• **Operation panel**

RSP-410U

RSP-410UH
(With unlock hold function)

Precautions: This product uses indoor specifications. Do not use it in locations that are exposed to contact with rainwater.

Specifications

Model	**RCB-730**
Input voltage	100 V AC (50/60 Hz)
Power consumption	10 VA (maximum)
Rated output voltage	24 V DC
Working temperature range	–10~+40°C (Must be no freezing or condensation.)
Compatible electric locks	• ELSF, ELM series lever handle-type electric locks (Refer to P.69.) • EMV, SXEV series motor locks (Refer to P.70,71.) • EU series function-switching electric locks (Refer to P.67,68.) • ESSF, ESM series mortise lock-type electric locks (Refer to P.69.)
External input	• Can connect to RSP-410U, 410UH operation panels (maximum 4). • Unlock can be held by non-voltage a contact input.