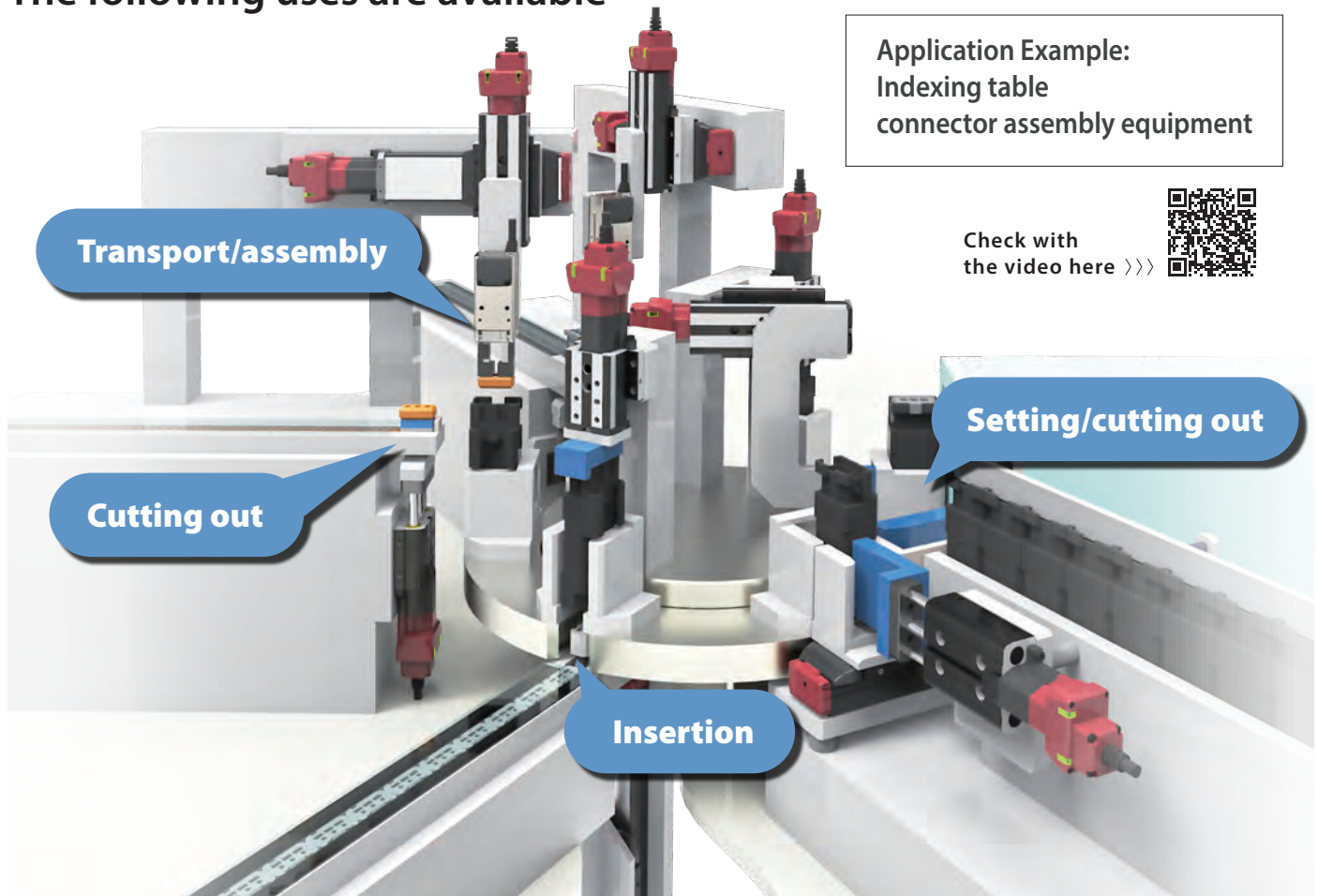# EC
ELECYLINDER

Ultra-Mini ELECYLINDER® EC-T3

The following uses are available

Application Example:
Indexing table
connector assembly equipment

Check with
the video here ›››

Transport/assembly

Cutting out

Setting/cutting out

Insertion

Select from three types according to the application

Type	Slider	Rod	Table
Products	EC-SL3	EC-GDS3/GDB3	EC-T3
	26 / 32	24.5 / 42	32 / 25
Max. speed	200 mm/s	200 mm/s	200 mm/s
Max. push force	16N	17N	17N
Max. payload [Horizontal/vertical]	2 kg/0.7 kg	2 kg/0.8 kg	2 kg/0.8 kg

*Vertical only for GDS3

The **Ultra-Mini ELECYLINDER**
resolves all kinds of small air cylinder problems!

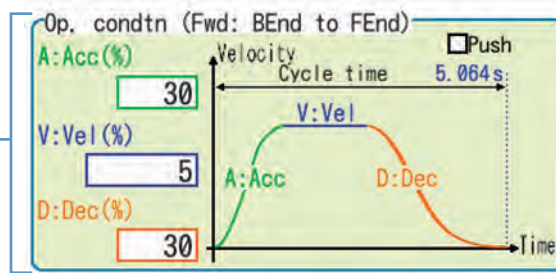**Problem** — Speed adjustment is difficult with small cylinders...

Problem solved!

ELECYLINDER speed can be set easily at any value needed, from low speed to high-speed operation

Teaching pendant
(TB-03)

Features

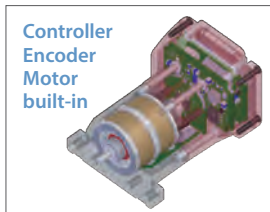Speed can be set with numbers from 1% (low speed) to 100% (high speed), enabling the same motion regardless of the operator.

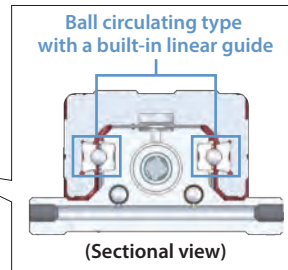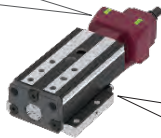**Problem** — Water builds up too fast in the drain...

Problem solved!

The ELECYLINDER is electric and thus airless
What's more, it is an all-in-one machine with controller and guide built-in

Controller
Encoder
Motor
built-in

Ball circulating type with a built-in linear guide

(Sectional view)

Features

Design is easy with all the necessary components already assembled.

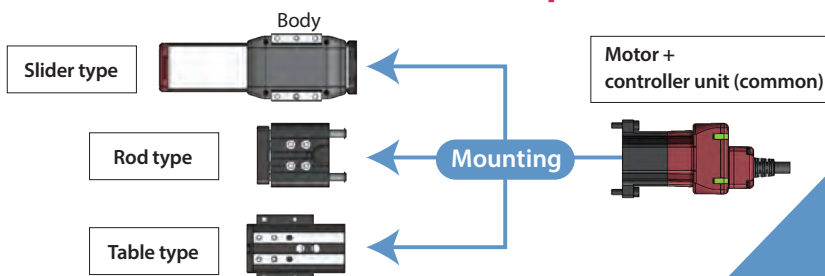**Problem** — The whole cylinder has to be replaced when the packing or stopper breaks...

Problem solved!

The Ultra-Mini ELECYLINDER has a life of five million cycles
(For vertical mounting)
What's more, maintenance is simple

Body

Slider type

Rod type

Table type

Mounting

Motor +
controller unit (common)

Features

Modular structure makes replacement easy.

Introducing the functions made possible by **ELECYLINDER**

◆ Status shown by body LEDs

LEDs on the body clarify the operation status.
With forward end/backward end display added, the status is clear at a glance.

LED left — Servo ON — LED right
Backward end
Alarm

LED left	LED right	Color	Operation status
●	●	Orange	Initializing at power ON
×	×	—	Power OFF
×	×	—	Servo OFF
★	×	Green	Wirelessly connected
×	●	Green	Servo ON
●	×	Orange	Backward end [LS0]*
×	●	Orange	Forward end [LS1]*
×	●	Red	Alarm
×	★	Red	Stopped for emergency

●: Lit ×: Off ★: Blinking   *Display is possible with parameter switching

◆ Simple operation with wireless connection

The teaching pendant (TB-03) can be connected wirelessly to an ELECYLINDER within a 5m radius.
This enables status confirmation, position/speed setting, test runs and so on.

Teaching pendant
(TB-03)

◆ Multi-axis control and network connection with RCON-EC connection specification

Use of the ELECYLINDER dedicated drive unit REC enables connection with up to 16 axes, reducing wiring and saving control panel space.

Supported field networks

CC-Link   CC-Link IE Field
DeviceNet   EtherCAT   EtherNet/IP
PROFIBUS   PROFINET

Up to **16** connectable axes

For the RCON-EC connection specification, see the R-unit catalog

Catalog data is here

3

Model Specification Items

ELECYLINDER®

EC – [ ] – [ ] – [ ] – [ ] – [ ] – ([ ])

| Series | Type | Lead | Stroke | Actuator cable length | Power I/O cable connector length | Options |

Type

SL3	Slider type (base width 32mm)
GDS3	Rod type with rolling bushing (width 42mm)
GDB3	Rod type with ball bearing (width 42mm)
T3	Table type (table width 32mm)

Lead

| L | Lead 2mm |
| M | Lead 4mm |

(Note) Only lead 2 is available for GDS3.

\<SL3\>

50	50mm
≀	≀
200	200mm

(every 25mm)

\<GDS3\>

10	10mm
≀	≀
30	30mm

(every 10mm)

\<GDB3\>

10	10mm
≀	≀
50	50mm

(every 10mm)

\<T3\>

10	10mm
≀	≀
50	50mm

(every 10mm)

*Please refer to the reference page of each type for details.

Stroke

1	1m
≀	≀
10	10m

(Note) When using the interface box, 9m is the maximum available.

Actuator cable length

0	No cable Power / I/O connector included (Note 1)
(S)1	1m
≀	≀
(S)9	9m

(every 1m)

(S)   4-way connector cable
(Note)   Make sure that the total length along with the actuator cable is 10m or less.
(Note 1) When selecting RCON-EC connection specification (ACR), select "0." Power / I/O connector is not included.

Options

Left blank	NPN specification (interface box connection), no options
ACR	RCON-EC connection specification (Note 2) (Note 3)
B	Brake specification
CJB	Cable exit direction specification (bottom)
CJL	Cable exit direction specification (left)
CJR	Cable exit direction specification (right)
CJT	Cable exit direction specification (top)
NM	Non-motor end specification
PN	PNP specification (interface box connection) (Note 2)
TMD2	Split motor and controller power specification (interface box connection) (Note 2)
WL	Wireless communication specification (interface box connection) (Note 3)
WL2	Wireless communication axis operation specification (interface box connection) (Note 3)

(Note 2) "PN" and "TMD2" cannot be selected when "ACR" is selected.
(Note 3) "WL" and "WL2" cannot be selected when "ACR" is selected.
(When using wireless communication, an interface box and cable must be provided separately.)

Specification Tables

Slider

Product type	Type	Lead		Stroke (mm) and max speed (mm/s) *Length of band = Stroke; *Numbers in band = Maximum speed by stroke							Max. payload (kg)		Reference Page
		Model	mm	50	75	100	125	150	175	200	Horizontal	Vertical	
Slider	SL3	M-	4				200				1	0.3	P7
		L-	2			100					2	0.7	

Rod

Product type	Type	Lead		Stroke (mm) and max speed (mm/s) *Length of band = Stroke; *Numbers in band = Maximum speed by stroke					Max. push force (N)	Max. payload (kg)		Reference Page
		Model	mm	10	20	30	40	50		Horizontal	Vertical	
Rod	GDS3	L-	2		100				17	-	0.8	P11
	GDB3	M-	4			200			10	1	0.4	P15
		L-	2			100			17	2	0.8	

Table

Product type	Type	Lead		Stroke (mm) and max speed (mm/s) *Length of band = Stroke; *Numbers in band = Maximum speed by stroke					Max. push force (N)	Max. payload (kg)		Reference Page
		Model	mm	10	20	30	40	50		Horizontal	Vertical	
Table	T3	M-	4			200			10	1	0.4	P19
		L-	2			100			17	2	0.8	