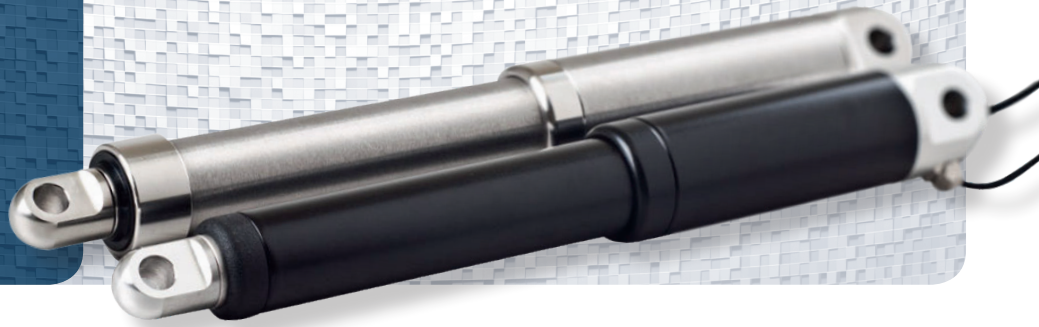# icon

Linear In-line Actuator

concens ⊙
- excellent electric actuators

Intelligent actuators with integrated controller (icon) enable the use of MODBUS RTU on an RS485 serial communication. One of the industry's most powerful standards.

The icon options provide everything from easy maintenance, control and installation, to a wide range of customizable settings and feedback that will help tailor the movement solution to your specific needs and application.

Standard Specifications

Temperature	■ Operation: - 20 ˚C to + 70 ˚C ■ Storage: - 40 ˚C to + 70 ˚C
Cable specification	Cores: 2 x AWG16 + 6 x AWG 28, Ø = 6,4 mm, black jacket, Molex Mini-Fit Jr. 8 pin or similar.
Bending Radius	6 x cable diameter

Actual weight may vary depending on model and options selected

For other mechanical data please refer to Concens standard con35/50/60 datasheet.

Configurations

Configuration	SDB	SDH	SDP	SPP	SBS (bus based)	MDO (synchronization)
P/N letter	A	B	C	D	E	F
Description	Single/Direction/ Basic	Single/Direction/ Hall	Single/Direction/ Position	Single/Position/ Position	Single/Bus/ Status	Multiple/Direction/ Override
1	+12/24VDC	+12/24VDC	+12/24VDC	+12/24VDC	+12/24VDC	+12/24VDC
2	PWR GND	PWR GND	PWR GND	PWR GND	PWR GND	PWR GND
3	RS485A	RS485A	RS485A	RS485A	RS485A	RS485A
4	RS485B	RS485B	RS485B	RS485B	RS485B	RS485B
5	Input: Direction IN	Input: Direction IN	Input: Direction IN	Output: Ref. 5/10VDC	Input: STOP	Input: Direction IN
6	Input: Direction OUT	Input: Direction OUT	Input: Direction OUT	Input: Position (analog)	Output: Error	Input: Direction OUT
7		Output: HallA	Output: Position (analog)	In/output: STOP/ Pos. OK		Input: Override
8		Output: HallB	Signal-GND	Signal-GND	Signal-GND	Signal-GND
			Single actuator setup			Multi actuator setup

Contact Concens for availability at this time

Features

- Adjustable start ramp
- Adjustable stop ramp
- Adjustable current limit
- Industrial interface MODBUS RTU on RS485
- Internal stroke limitation
- Internal heat protection
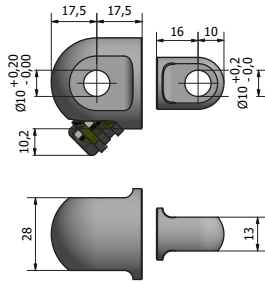- Plug & Play solution with conXion box

Dimensions

Same BID (Build in Dimension) as con35/50/60 with Hall. Please see original datasheet for con35/50/60
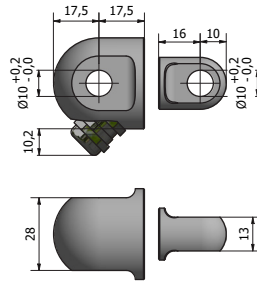
Contact Concens for any special requirements
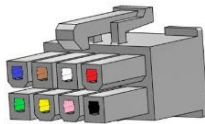
Standard Brackets icon35 only

Alu
Max. static load 5400 N

Stainless steel
Max. static load 5400 N

Standard brackets for icon50 and icon60, please see original datasheet for con50 and con60

Electrical Wiring

	SDB	SDH	SDP	SPP	SBS	MDO
	+ 24 Vdc. +12 Vdc.					
	GND					
	RS485A+					
	RS485B-					
	Direction in	Direction in	Direction in	Pos in	HW stop	Direction in
	Direction out	Direction out	Direction out	Pos ok out	Error out	Direction out
	Not used	Signal Hall B	Signal-GND	Signal-GND	Signal-GND	Signal-GND
	Not used	Signal Hall A	Position Voltage out	5 – 10 Vdc ref.	Not used	Override

Electrical Data

Max. Current load:	icon35: 2 Adc @ 24 Vdc, 4 Adc @ 12 Vdc icon50: 8 Adc @ 24 Vdc, 16 Adc @ 12 Vdc icon60: 16 Adc @ 24 Vdc
Idle current:	Approx 10 mAdc
Current trip delay:	20 ms
PWM frequency:	25 kHz
Digital inputs:	'High': Uin = 4 Vdc - Vsupply; 'Low': Uin = 0 Vdc - 1 Vdc
Supply voltage:	12 Vdc (min 10 Vdc at 1 meter cable, max 28 Vdc) or 24 Vdc (min 20 Vdc at 1 meter cable, max 14 Vdc) (max ripple < 10 % @ full load)
Serial data line:	RS485 asynchronous, point to point or multi-point, 2 wire half-duplex
Communications:	Modbus RTU
Bauds rate:	115000 bps
Com setup:	8 Bit, Parity -None, Stop bit -1

For more information on Modbus RTU please go to www.modbus.org

MODBUS over serial line specification and implementation guide V1.0

Disclaimer

- Concens products are continuously developed, built and tested for highest requirements and reliability but it is always the responsibility of the customer to validate and test the suitability of our products in a given application and environment.
- We do our utmost to provide accurate and up-to-date information at all times. In spite of that, Concens cannot be held responsible for any errors in the documentation. Specifications are subject to change without prior notice.

For more information, please visit our website at www.concens.com