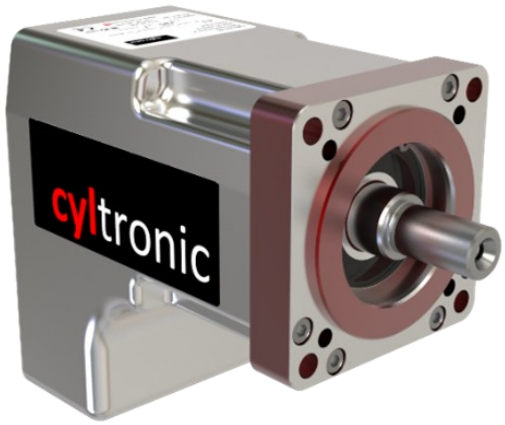
CTR-060

IO-Link Servo-Actuator

Servo Motor CTR-060 - IO-Link Servo-Actuator

27.04.2026 Datasheet



General Description

The CTR-060 servo motor is a compact and powerful solution for implementing precise rotary movements in your machine with the utmost ease.
Thanks to its innovative all-in-one technology, the IO-Link servo motor combines a servo motor and servo controller in a single compact unit. Real-time setpoint and actual values are transmitted via the IO-Link communication interface, paving the way for Industry 4.0. Cyltronic's ready-to-use PLC software modules enable rapid integration into existing and new machines. The IO-Link servo motor allows for the installation of standard servo gearboxes from various manufacturers. Simple digital control options for forward and reverse movements are also available directly on the device.

Control

Control over IO-Link

- Multiturn Encoder (true power-on)
- Enhanced positioning accuracy
- Target position setting in real time
- Adjustable speed, force and acceleration in real time
- Real-time feedback of position, speed and force (cycle time of 1.5 ms)
- Pre-programmable travel sets
- Press-in mode
- Extensive diagnostic options
- Many more features

Ratings

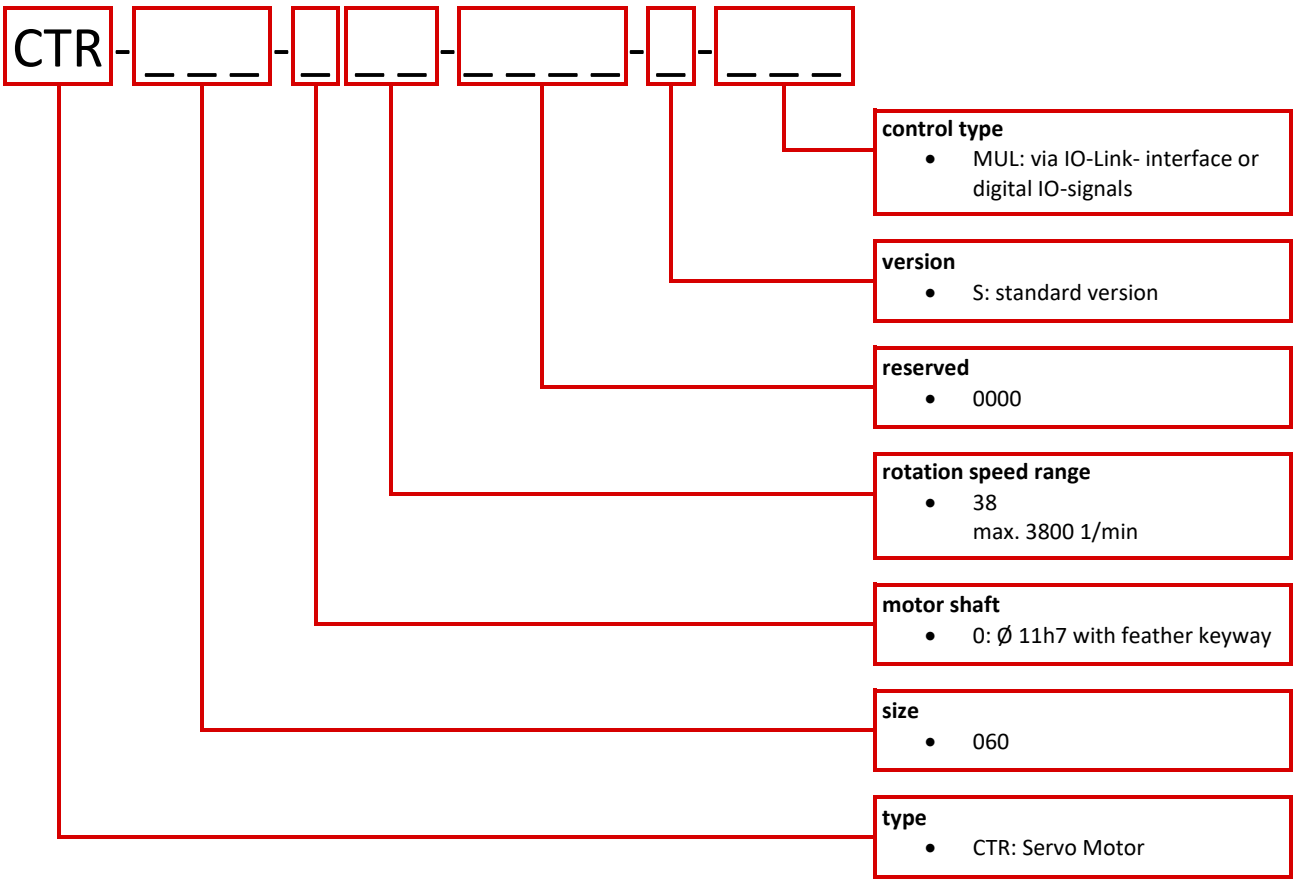
Speed range		-038
Max. Torque (Peak)	[Nm]	1.2
No load current @max. speed	A	0.35
Max. Speed **In 24V operation** **In 48V operation**	[r/min]	 1700 3800
Nominal torque (continuous operation)	[Nm]	0.4
Nominal speed @ nom. torque **In 24V operation** **In 48V operation**	[r/min]	 1250 3200
Max. Acceleration	[r/s^2]	2000
Positioning accuracy	[°]	+/-0.3
Positioning precision (repeatability)	[°]	+/-0.1
Mounting position		any
Ambient temperature	[°C]	0…+40 (-20…+60 on inquiry)
Storage temperature	[°C]	-20…+60
Protection class		IP40 (shaft) IP65 / IP67 (housing)
Relative humidity	[%]	0…90 (non-condensing)
Motor type		Synchronous-Servomotor
Rotor position encoder		Absolute, Multiturn 22bit
CE mark (see Declaration of Conformity)		According to **EU-RoHS-RL**
		According to **EU-EMC-Directive**

Connectors, signals, control		
Status display		3x LED
Rated voltage power circuit	[V DC]	24 - 48
Max. current consumption	[A]	3.5 (continuous load operation)
	[A]	11 (consumption peak load operation)
Operating range signal input	[V DC]	24
Permissible voltage variations	%	+/- 15
Max. current consumption logic	[mA]	50
Max. current digital signal outputs	[mA]	100 / output
Number of digital signal inputs	3	extend, retract, teach
Number of digital signal outputs	3	extended, retracted, ready
Features signal input		galvanically isolated from power circuit not galvanically isolated between signals
Max. cable length	[m]	20
Switching logic outputs		push-pull
Switching logic inputs		positive switching
Referencing		Type -MUL: Not necessary, true power-on multiturn

Weight (+/- 10%)		
Motor	[g]	1080
Rotor moment of inertia	[kgcm^2]	0.125

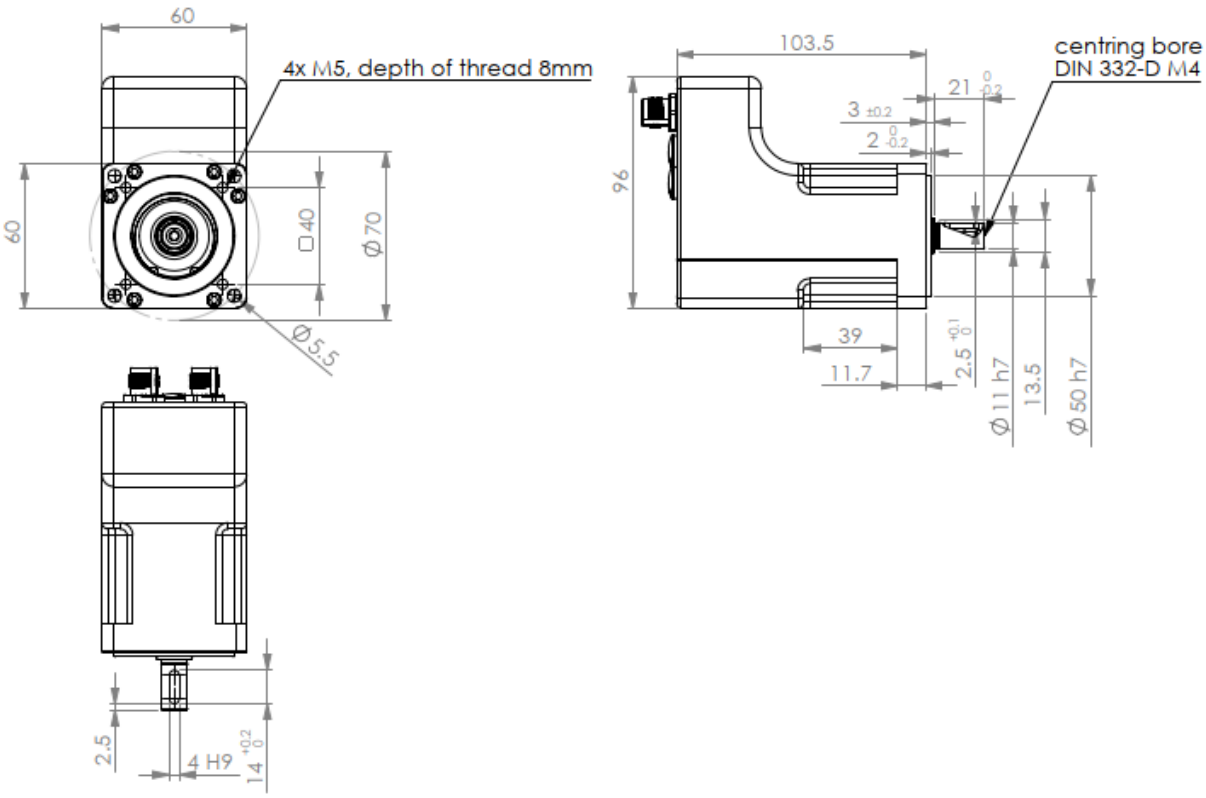
Materials	
Housing, cover	Aluminum anodized
Motor shaft	Steel C45+C
Seals	NBR / EPDM
Screws	Steel galvanized
Covers knobs	Stainless steel
Connector fittings	Zinc nickel plated
RoHS Information	Conform according to declaration
REACH Information	contains > 0,1% of 7439-92-1 contains > 0,1% of: D4 556-67-2

Configuration Key



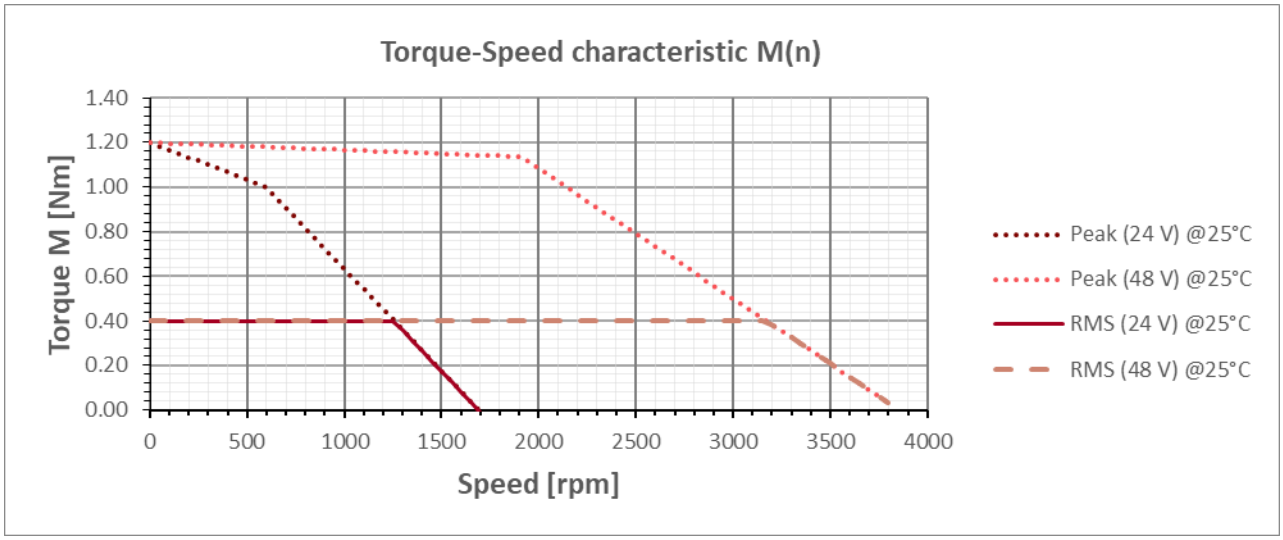
Example: CTR-060-038-0000-S-MUL

Dimensions



Characteristic

Torque Speed characteristic

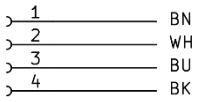


Electrical Connection of the Drive

Power

M12x1, 4-Pol
T-coded according to EN 61076-2-11

on the device

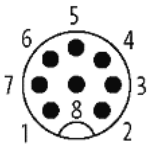


connecting cable

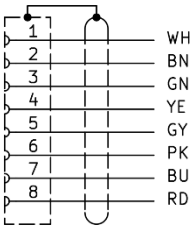
Pin	Color	Function
1	BN	power voltage 24 V-48 V ± 15% **
2	WH	functional earth (FE)
3	BU	GND (0 V)
4	BK	reserved, do not connect

Signal

M12x1, 8-Pol
A-coded according to EN 61076-2-101 *



on the device



connecting cable

Pin	Color	IO-Link	Digital
1	WH	IO-Link CQ	DO ready
2	BN	logic voltage 24 V ± 15% (max. 500 mA)	logic voltage 24 V ± 15% (max. 500 mA)
3	GN		DO is extended
4	YE		DO is retracted
5	GY		DI retract (turn CCW)
6	PK		DI extend (turn CW)
7	BU	GND (0 V)	GND (0 V)
8	RD		DI Teach / Reset / Powerless

* *shielded cables are recommended*
** *the use of a brake chopper is recommended for 48 V*

IO-Link interface

Parameter	
transfer-rate	COM3
cycle time	1.5 ms
IO-Link specification	V1.1.3
process data input (Slave->Master)	status actual position (in r = rotations) actual speed (in r/s) actual torque (in Nm) - total 14 bytes -
process data output (Master->Slave)	motion mode target position (in r = rotations) override 1-3 (in %) - total 8 bytes -
service data	configuration, diagnosis, statistics, identification
IO-Link profile	common profile BLOB transfer & firmware update