


## Datasheet IO-Link Servo CTR-060

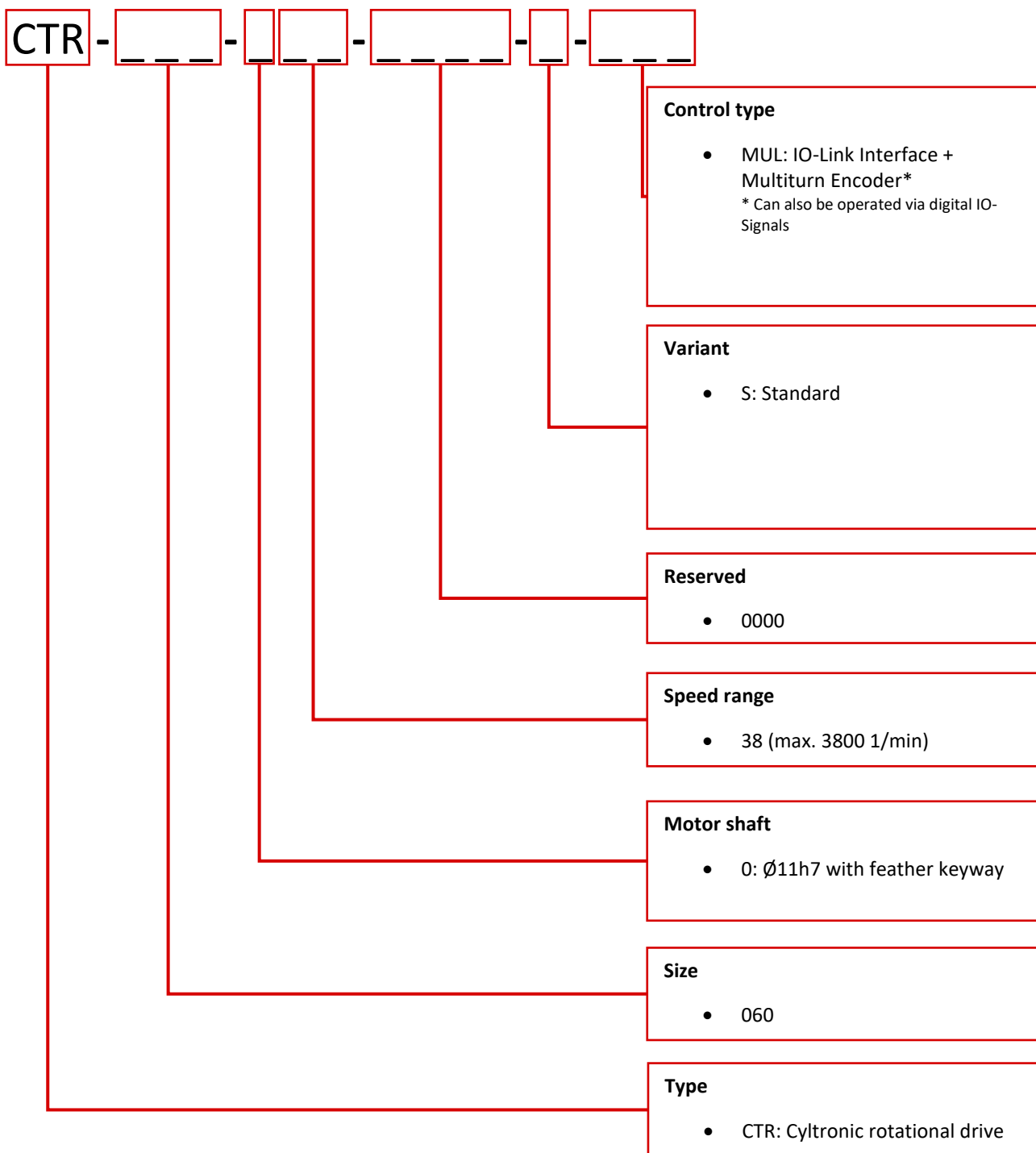
Control type		-MUL
<b>Control / Parameterization</b> <b>Setting force &amp; speed</b> <b>Control functions</b>		 <b>IO-Link</b> <ul style="list-style-type: none"> <li>• Multiturn-Encoder (keeps track of movements when powered off)</li> <li>• Higher positioning accuracy</li> <li>• Target position setting in real time</li> <li>• Adjustable speed, force and acceleration settings in real time</li> <li>• Real-time feedback of position, speed and force</li> <li>• Pre-programmable travel sets</li> <li>• Press-fit mode</li> <li>• Extensive diagnostic options</li> <li>• Many more features</li> </ul>
Speed range		-038
Max. Torque (Peak)	[Nm]	1.2
No load current @max. speed	A	0.35
Max. Speed	[r/min]	
In 24V operation		1700
In 48V operation		3800
Nominal torque (continuous operation)	[Nm]	0.4
Nominal speed @ nom. torque	[r/min]	
In 24V operation		1250
In 48V operation		3200
Max. Acceleration	[r/s <sup>2</sup> ]	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 <b>EU-RoHS-RL</b>
		According to <b>EU-EMC-Directive</b>

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		Not necessary Optional: manually by IO-Link (-MUL)

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

Materials	
Housing, cover	Aluminium 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

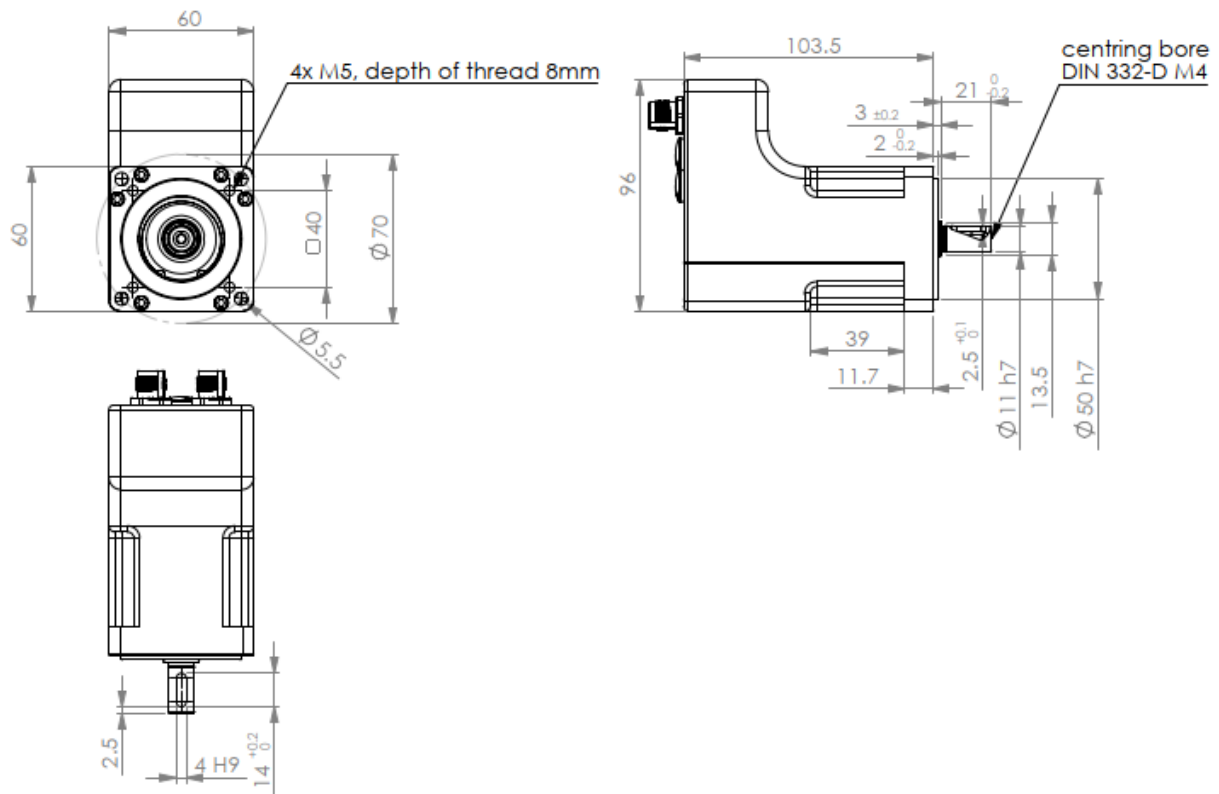
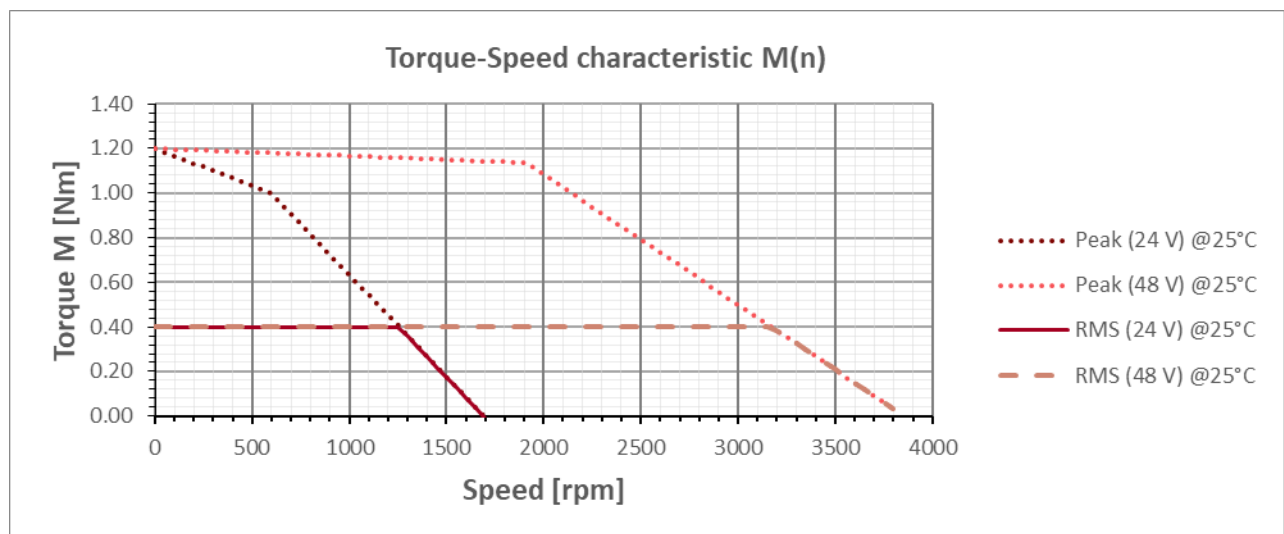


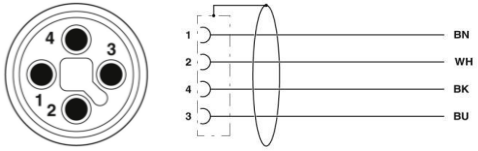

FIGURE 1: DIMENSIONS

## Characteristic

### Torque Speed characteristic



## Electrical Connection of the Drive

Power			Signal		
<b>Plug M12x1, 4-pole</b> T-coded according to EN 61076-2-11			<b>Plug M12x1, 8-pin</b> A-coded according to EN 61076-2-101 (Shielded cables are recommended)		
					
Pin	Color	Function	Pin	Color	Function
1	BN	Power voltage 24V-48V At 48V the use of a brake chopper is recommended.	1	WH	DO Ready / IO-Link CQ
2	WH	Functional earth (FE)	2	BN	Logic voltage 24V
3	BU	GND 0V	3	GN	DO is extended
4	BK	reserved, do not connect	4	YE	DO is retracted
			5	GY	DI Retract (Counterclockwise)
			6	PK	DI Extend (Clockwise)
			7	BU	GND 0V
			8	RD	DI Teach / Reset / Powerless

## IO-Link interface

Parameter		
Transfer rate		COM3
Cycle time	ms	1.5
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)
Process data output (Master->Slave):		Motion Mode Target Position (in r = rotations) Override 1-3 (in %)
Service data		Configuration, diagnosis, statistics, identification
IO-Link profile		Common Profile BLOB Transfer & Firmware Update