



Datasheet IO-Link Servo CTR-060

Control type	-MUL	
Control / Parameterization	 IO-Link	
Setting force & speed	<ul style="list-style-type: none"> • Multiturn-Encoder (keeps track of movements when powered off) • Higher positioning accuracy • Target position setting in real time • Adjustable speed, force and acceleration settings in real time • Real-time feedback of position, speed and force • Pre-programmable travel sets • Press-fit mode • Extensive diagnostic options • Many more features 	
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 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

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)

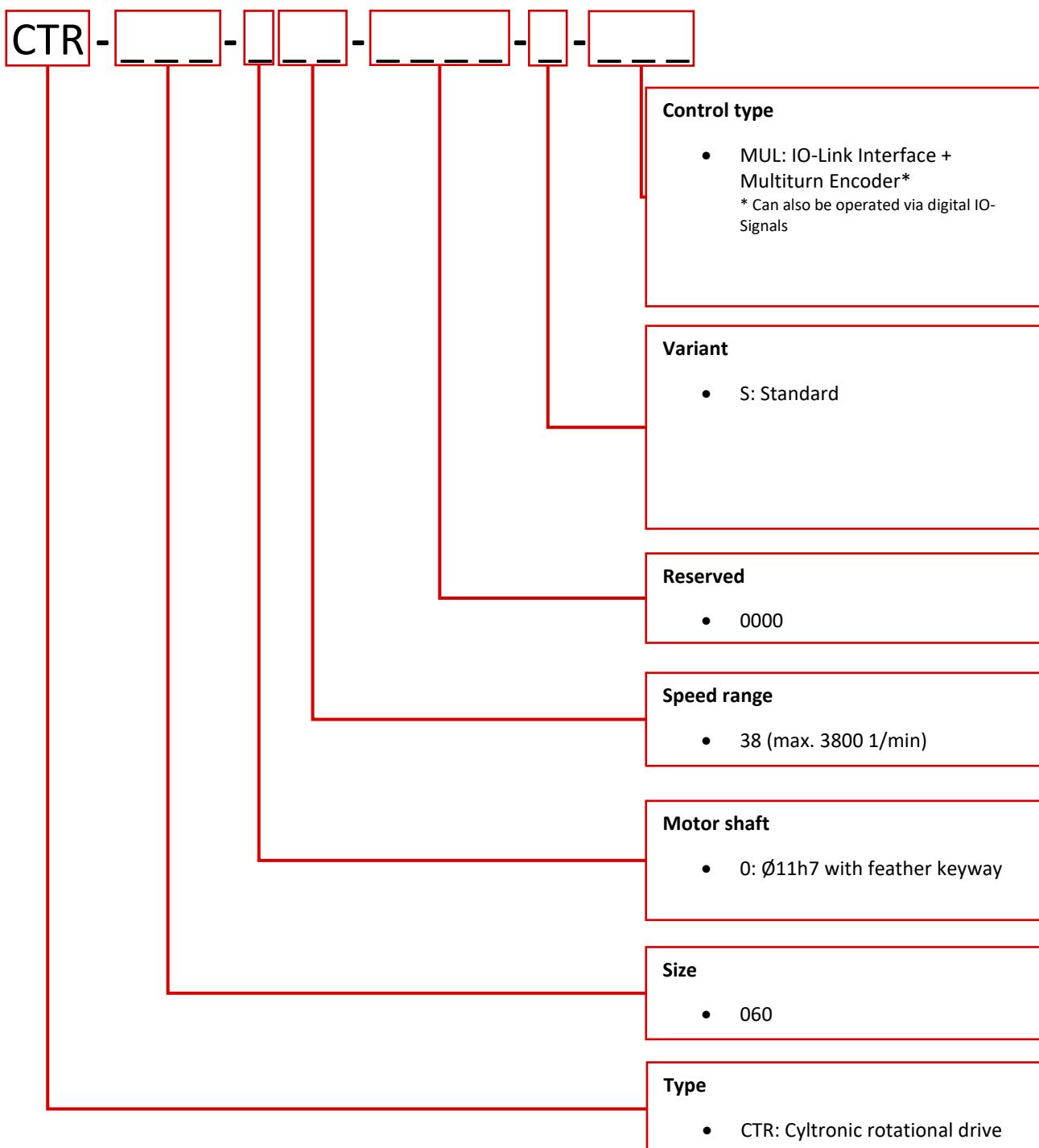
Weight (+/- 10%)

Motor	[g]	1080
Rotor moment of inertia	[kgcm ²]	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

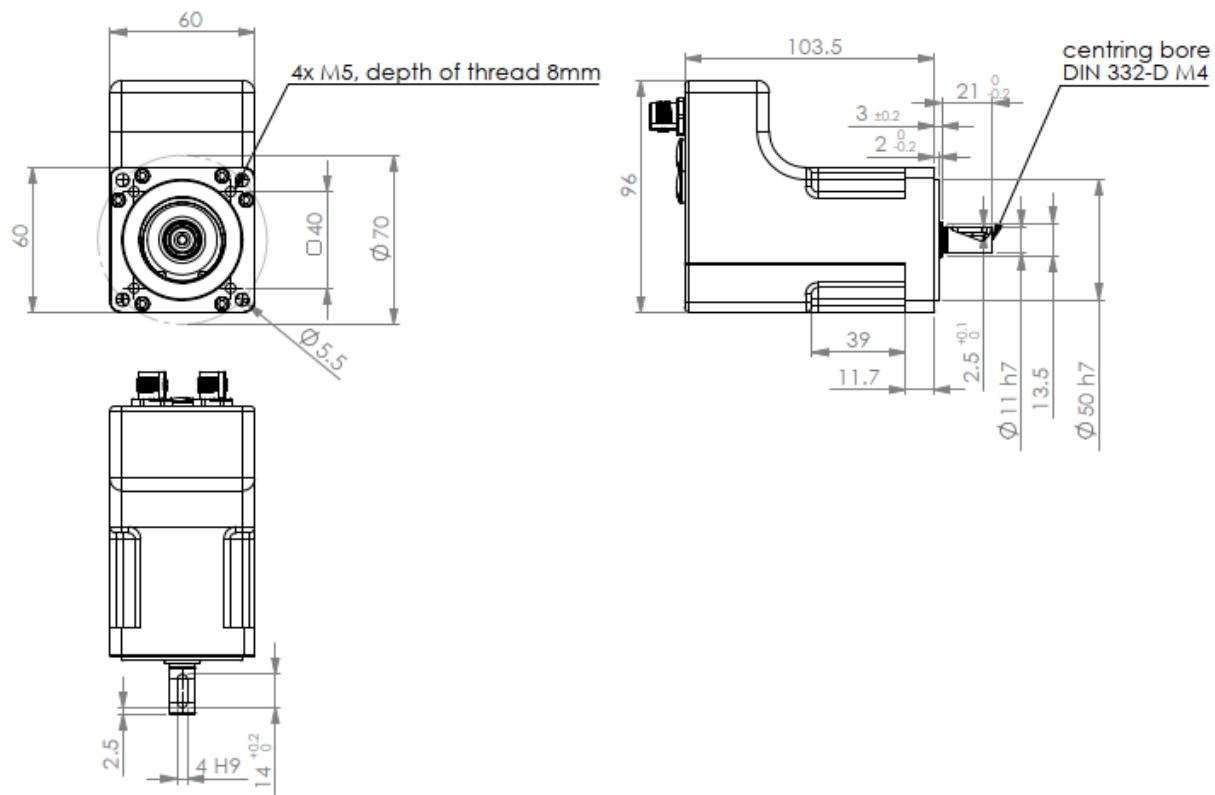
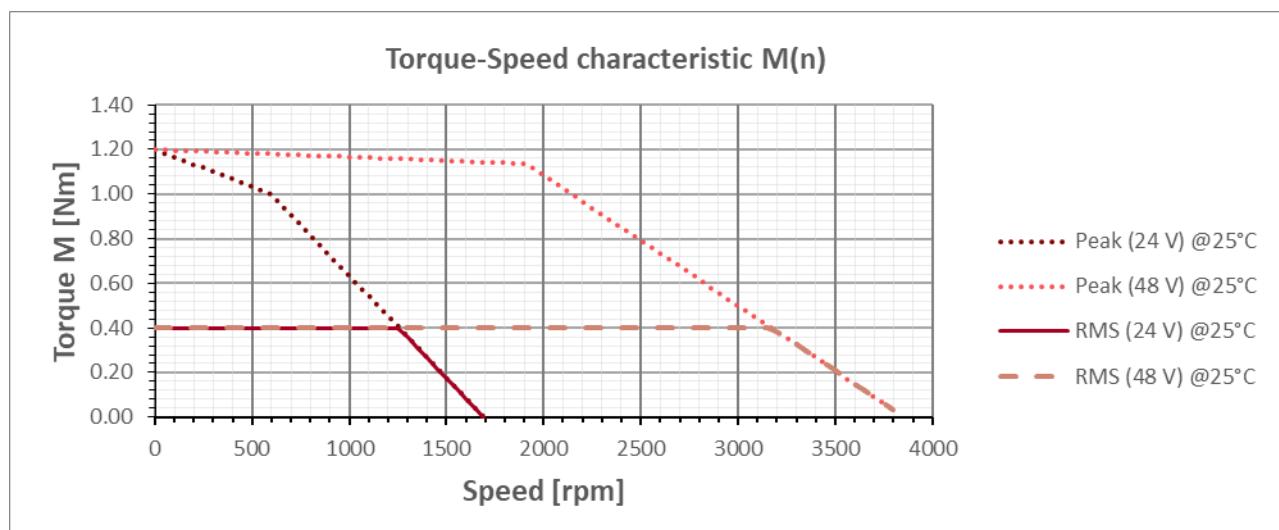


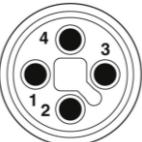
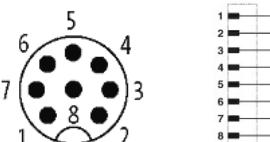
FIGURE 1: DIMENSIONS

Characteristic

Torque Speed characteristic



Electrical Connection of the Drive

Power			Signal		
Plug M12x1, 4-pole T-coded according to EN 61076-2-11			Plug M12x1, 8-pin 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	