35th

35 YEARS
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lika®

Smart encoders & actuators

Rotary actuators

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ROTAPULS • ROTACOD

Rotary encoders

ROTAMAG

Bearingless encoders & Kit-encoders

LINEPULS • LINECOD

Linear encoders

DRAW-WIRE

Draw-wire encoders

COUPLINGS

Flexible & transmission couplings

TILTCOD

Inclinometers

DRIVECOD

Rotary actuators

POSICONTROL

Signal converters, Encoder Interfaces

POSICONTROL

Displays

An international family company, corporate profile

Lika Electronic stands for **innovative rotary and linear encoders** for motion control and positioning systems.
Since its inception in 1982, Lika develops and manufactures incremental and absolute encoders based on optical and magnetic sensing technologies.
The product portfolio is completed by **rotary actuators, inclinometers, position displays, encoder interfaces, and signal converters.**

Close cooperation with customers and long-lasting relationships are a key element of the company's culture and often lead to the design of important special projects in which Lika's expertise and flexibility can excel.
To better support the more and more frequent client and market requirements for customization Lika has built up **Lika Lab**, **a business unit expressly focused on developing and manufacturing special products.**

Lika operates globally with branches and an efficient distribution network and provides qualified customer service and technical support.
A wide range of industries rely on Lika's solutions such as packaging machines, robotics, medical technology, motors, aerospace, and many other sectors.

lika

lika lab
your customization

DRIVECOD
Rotary actuators

Rotary actuators for format adjustment

- Integration of motor, drive, position controller and real absolute encoder
- Decentralised automation of positioning axes
- Network connectivity through the Ethernet and fieldbus interfaces
- Available with integral hold brake

	RD1A • RD12A	RD5 • RD53	RD4	RD6 new
Description	• RD12A version with integral motor brake • Jog buttons • Service interface • Preset button	• Compact actuator • RD53 version with integral motor brake	• Reinforced mechanism • High torque rotary actuator up to 15Nm • Oil bath reduction gears	• Rotary brushless actuator • 157 and 250W versions
Rated speed	240 rpm 120 rpm 60 rpm 32 rpm	60 rpm	94 rpm (T32) 63 rpm (T47)	3000 rpm
Nominal torque	1,2 Nm 2,5 Nm 5 Nm 9 Nm	5 Nm	10 Nm 15 Nm	157 = 0,5 Nm 250 = 0,8 Nm
Interface	Profibus-DP, CANopen, Modbus RTU, EtherCAT, EtherNet/IP, Powerlink, Profinet	Profibus-DP CANopen Modbus RTU	Profibus-DP CANopen Modbus RTU	Profibus-DP, CANopen, Modbus RTU, EtherCAT, EtherNet/IP, Powerlink, Profinet
Shaft diameter	hollow shaft Ø 14 mm	hollow shaft Ø 14 mm	hollow shaft Ø 20 mm	solid shaft Ø 14 mm
Integral motor brake	RD12A series	RD53 series	-	-
Service interface	RS232	-	-	RS232
Power supply	+24Vdc ± 10%	+24Vdc ± 10%	+24Vdc ± 10%	+24Vdc ± 10%
Protection max.	IP54	IP54	IP54	IP54
Operating temperature	0°C +60°C	0°C +60°C	0°C +60°C	0°C +60°C

POSICONTROL

Touchscreen controller for format adjustment

HMI touchscreen controller for ROTADRIVE rotary actuators

LDT10 touchscreen for RD rotary actuators allows to create a complete system for quick changeovers.

The operator interface is simple, intuitive and suitable to:

- connect up to 8 RD rotary actuators
- set the parameters of each actuator
- edit and save the recipes
- simultaneously start the changeover process in all actuators

Display	LCD 7", 16:9 format
Screen	resistive touch screen
Dimensions	205 x 151 x 33 mm
Power supply	+24Vdc
Protection	IP65 / NEMA4

Intelligent rotary actuators
Designed to solve your positioning needs

More and more increasingly modern industries demand automated production processes with little downtimes to ensure optimum efficiency, provide precise control and repeatability, raise productivity and attain improvements in product quality. Meanwhile, the "large batch, long run" philosophy is becoming obsolete.
Today volatile demands call for quick responses. Small-batches, one-off items, just-in-time production and acceleration of cycle times often drive businesses.

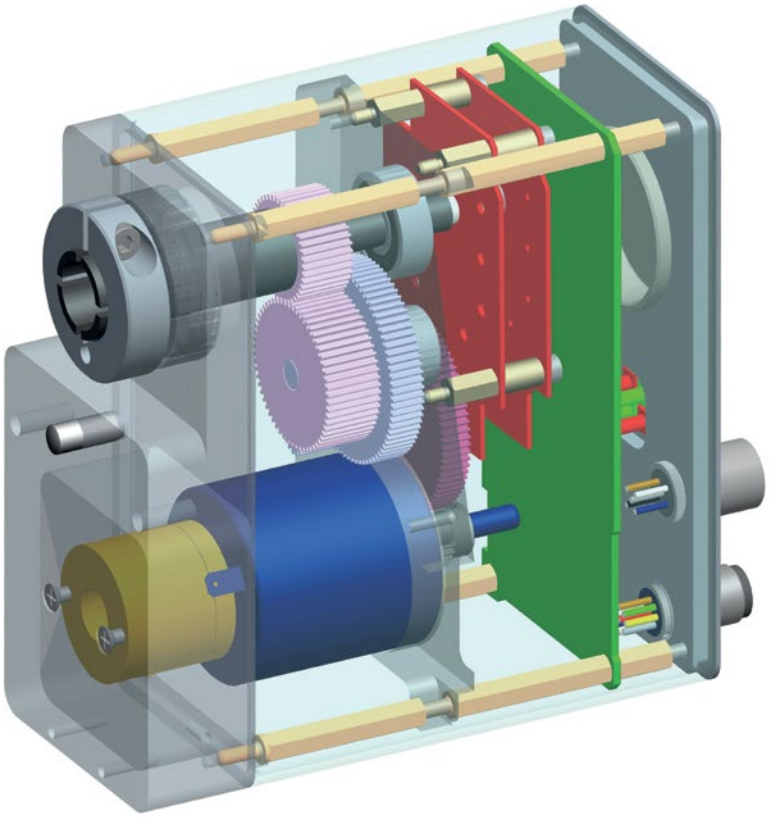
DRIVECOD series rotary actuators developed by Lika Electronic are the complete and cost-effective solution to help you solve these tasks. They are suitable **to drive positioning and auxiliary axes** and allow production processes to greatly reduce set-up and change-over times, in particular in multi-axis systems.
Furthermore they prevent operator errors that not seldom afflict the manual positioning operations.
Thus DRIVECOD positioning units afford increased flexibility and responsiveness and **make it possible to dramatically reduce the production costs ensuring maximum efficiency, speed in positioning along with the highest precision, extremely low downtimes, remarkably less waste material.**

DRIVECOD series intelligent actuators are designed to *fully integrate in a single package all of the components needed* to deliver performance and safety in any motion control tasks: BLDC brushless motor, absolute multiturn encoder, smart position controller and Ethernet / fieldbus interface.
No additional tools are required such as external controllers, brakes, proximity switches, limit switches, transducers, etc. as the unit already encompasses the absolute encoder and, on request, the brake as well as the software limit and reference switch functions, among others. The "all-in-one" configuration further provides the user with considerable simplification in design and ease of integration in motorized axes.
RD series positioning units are offered with the most popular industrial Ethernet and fieldbus interfaces: Profinet, Ethernet/IP, EtherCAT, Powerlink, Profibus-DP, CANopen and Modbus RTU RS485. They come in both industrial and heavy-duty constructions to meet the specific requirements of any application and environment.

DRIVECOD positioning units are suitable for use in a wide range of applications in any industrial sector such as in *packaging and bottling lines, adjustment operations in multiaxis systems, filling machines, mould changers, mobile stops, replacement of handwheels and position indicators, material handling equipment, bending machines, tool changers, spindle positioning devices, wood working industry, plastic and paper industry, stone and metal processing industry.*

DRIVECOD rotary actuators bring many valuable benefits, including:
- cut machine set-up time;
- reduce downtimes;
- allow tailor-made individual production;
- ensure precise repeatability;
- prevent operator errors and waste of material;
- enable the modernization of existing plants;
- ease installation and wiring;
- offer "all-in-one" advantage.

This means: **DRIVECODs produce effective machine utilization, maximize productivity, reduce costs.**



Compact and easily integrateable

Frame

The rugged anticorodal or die-cast aluminium housing is designed to improve protection and dependability.
It features small-footprint and space-saving design, thus it can be comfortably fitted into equipment with constrained and tight mounting space. The shaft can be either solid (diameter 14 mm / 0.55") or hollow (diameters 14 mm and 20 mm / 0.55" and 0.79"), according to models.
In hollow shaft models the adjustable collar and antirotation pin fitted with an elastomeric screw insulation provide both stability and mobility needed to absorb the mechanical loads being exerted on the bearings and the shaft during operation.
The mounting assembly grants unparalleled quickness and ease of installation and does not require any expensive couplings or mounting flanges. Even better it is exactly the same used for digital position indicators and handwheels widely installed in manual adjustable shafts, thus RD become the very profitable choice for modernizing existing systems.
The degree of protection is IP54.

Rugged and high-performance

Motor

DRIVECOD rotary actuators are driven by sturdy 24VDC BLDC brushless motors capable of providing a nominal torque of up to 15 Nm and a starting torque of up to 30 Nm depending on models and gear ratios. Motors are compact, reliable and extremely durable and have up to 250 W. Power, accurate motion and safety are all under control thanks to the smart built-in position controller that enhances performance and flexibility at the highest levels.

Gear

All actuators with the exception of RD6 are equipped with a gearbox. The robust, compact size gearbox encompasses nitrided steel cogwheels built to last and is available in many ratios to suit a variety of torque requirements in specific applications.
RD4 model further offers a superior benefit: cogwheels are oil bath lubricated for enduring smooth, quiet and even continuous operation in heavy-duty environments and the toughest installations.

Intelligent and accurate

Encoder

The real multiturn absolute encoder is installed on the output axis and therefore is not affected by any backlash errors of the gears. It provides accurate measuring information to the position controller.
It is offered with a resolution of 4096 singleturn x 65536 multiturn (28 bit), 1024 singleturn x 1024 multiturn (20 bit), or 1024 singleturn x 256 multiturn (18 bit) according to series with a position accuracy of ±0,9°.
This allows for motion detection as well as position and directional indication within hundredths of a millimetre accuracy even on 5-mm pitch spindles!
Furthermore it is able to output the absolute position information even when the shaft is moved after the power is turned off for installations that require the safest positioning routines. It needs no battery.

Position controller

The controller, fully developed by Lika Electronic, integrates many state-of-the-art features for command and control operational functions.
Control operation is achieved through two cascade control loop cycles, the position loop cycle performed at every 1 ms and the current loop cycle performed at every 200 µs. The internal trajectory generator (boasting a 64-bit double precision) allows the operator to set a new target position even on-the-fly.
Controls on overtemperature, overcurrent, undervoltage and bus communication failure (because of a broken or disconnected cable or a faulty wiring) are further implemented to increase operational safety.

Versatile and open

Fieldbus interfaces

RD positioning units can be easily integrated into *Ethernet and fieldbus networks* in any kind of industrial automation system thanks to the wide range of protocols implemented: **Profinet, Ethernet/IP, EtherCAT, Powerlink, Profibus-DP, CANopen and Modbus RTU (RS485).**

Ethernet industrial technology enables improved performances and allows to meet efficiency and productivity requirements in any complex industrial system. Real time communication, deterministic synchronization, high speed up to 100 Mbit/s full duplex over long distances, flexible network topology, complete diagnostics, and IT integration are among the key features.

Service interface

RD1A, RD12A and RD6 models are further equipped with an additional service serial port for simplified configuration and management of the unit through Lika's programming software. Moreover the use of standardized bus cables provides an easier and safer connectivity thus saving time and money whilst reducing the risk of errors.

Programming software

To enhance interfaceability and ease programmability the sophisticated technology at the core of DRIVECODs is also accessible in specific models through an intuitively operated interface.
A programming software is expressly developed and released by Lika Electronic and can be used as an alternative to your own controller to offer simple and comfortable operation, whenever you need to set the working parameters of the actuator; control manually some movements and functions; and monitor its work cycles.
The program is supplied for free and can be installed in any PC fitted with a Windows operating system (Windows XP or later). Communication is achieved via USB serial interface. In this way the user can easily and quickly programme, set up and start the positioning unit even before mounting at his convenience.
Connection cables (USB to RD) are available for every model.

Up-to-date and upgradable

Boot-loader feature

Today almost all models of Lika's RD positioning units offer a new noteworthy benefit.
The intelligent controller implements now the boot-loader feature which allows the operator to upgrade the DRIVECOD unit firmware by downloading upgrading data to the flash memory.
RD units are designed so that the firmware can be easily updated by the user himself.
This allows Lika Electronic to make new improved firmware programs available during the lifetime of the product.
Typical reasons for releasing a new firmware program include improving and even adding new functionalities to the device.
RD5x model implements the boot-loader feature via CAN.

Complete and reliable

Key features

RD positioning units further boast a large number of added-value benefits offered at no charge.
Just to give a mere cross section:

Centralized control
Actuators are centrally controlled through bus interfaces: a single command provides multiple precise adjustments in just one cycle and very short time.

Separated power supply
Control unit power supply is galvanically separated from motor power supply to enhance insulation and lines stability.
The interface can be operated when no power is provided to the motor.

General purpose I/Os
Up to three general purpose digital inputs and outputs are provided in specific models: they are useful to developers to have a handful of additional I/O resources available for the Master.

Preset & Jog buttons
Preset and Jog buttons are fitted in RD1xA model to manually move and calibrate the unit: no need for getting connection or engaging communication, just a push to take control.

Available commands
All models support both continuous jog command and incremental jog command (relative positioning).

Diagnostic LEDs
Diagnostic LEDs are meant to show visually the operating or fault status of both the device and the interface.

DIL and rotary switches
DIL or rotary switches are designed to hardware set the node ID, the baud rate and the termination resistance (when requested).

Integrated brake
RD12A and RD53 models are also equipped with an integrated brake. It is designed to activate as soon as the motor comes to a stop and safely protects the equipment from uncontrolled movements, especially in mobile stops and vertical axes.

HMI touch panel

LDT10 is the HMI touch panel specifically designed to easily interface, configure, and operate the whole series of RD rotary actuators with RS-485 MODBUS interface. It is engineered to connect one single actuator (point-to-point connection), several actuators in the network (up to 8 actuators) and even different actuator models in the same network (RD1xA, RD4, RD5x and RD6 actuators can be installed and operate together). LDT10 is intuitive to use and does not require any specific know-how. It allows the operator to further cut set-up time and reduce downtimes while preventing errors at the same time, in just one touch: a great advantage when small-batches, one-off items and just-in-time productions call for frequent format adjustments, especially in multi-axes systems.

Few pages with basic menus and commands enable a user-friendly approach.

- The **HOME** page allows to create and manage the recipes. It is always available at the operator's fingertips to activate the automatic change-over operation and start the new production: the recipes are listed and ready to be selected, just one touch to start the production for the greatest simplicity and operational agility.

- The **NETWORK** page displays the actuators that are currently available in the network; the **NETWORK SETUP** page allows to match the networked actuators with the interface.

- The **NODE CONTROL, NODE SETUP, and ADVANCED NODE SETUP** pages are intended to configure the work parameters (velocity, acceleration, deceleration, ...) of each actuator in the network.

- The **STATUS** page displays the full list of the available alarms and statuses.

LDT10 comes in a 7-inch 16:9 format LCD display with resistive touch screen panel. Its rugged construction complies with NEMA4 and IP65 protection ratings and allows for use in typically industrial environments.

PANEL OUTER DIMENSIONS (W x H x D)		
204.4 mm / 8.04"	151 mm / 5.94"	33 mm / 1.3"

PANEL CUT-OUT DIMENSIONS (W x H)	
191.5 mm / 7.54"	138 mm / 5.43"

DRIVECOD
Rotary actuator with fieldbus interface

Series RD1A

- Integrated positioning unit
- High performance brushless motor
- RS232 service interface for easy setup
- Real absolute multi turn encoder
- Additional jog +/- and Preset buttons for easy calibration

RD1A

ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range:	0°C +60°C (32°F +140°F)
Storage temperature range:	-20°C +80°C (-4°F +176°F) (98% R.H. without condensation)
Protection:	IP54

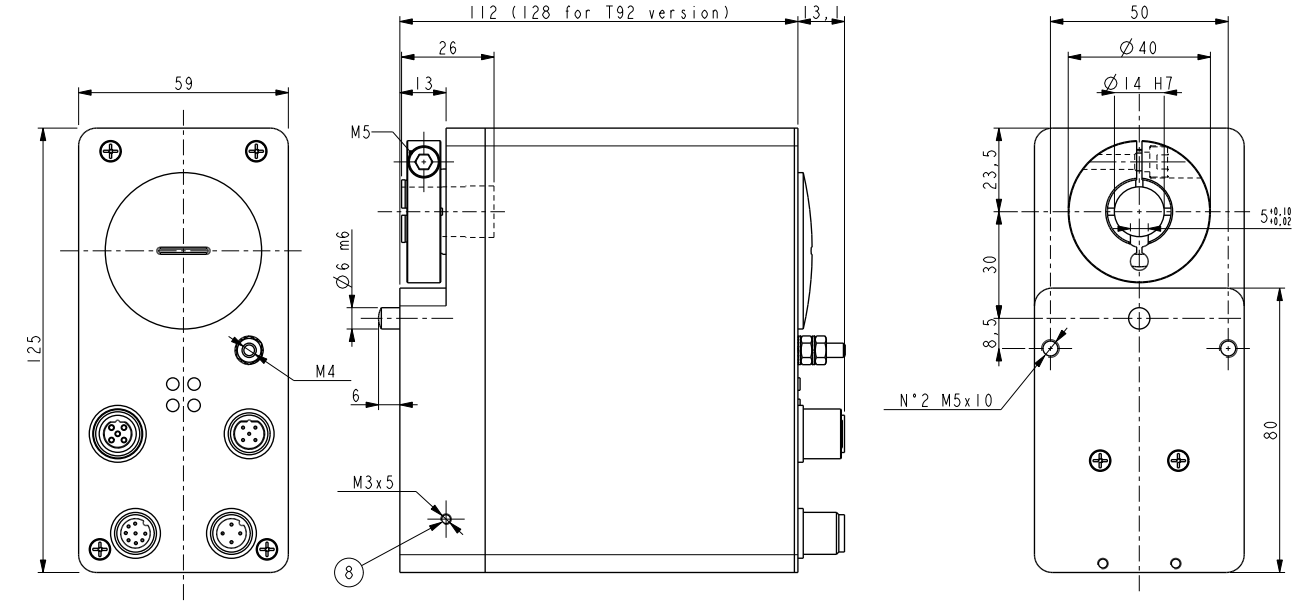
MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Shaft diameter:	hollow Ø14 mm
Shaft loading (axial and radial):	100 N, 200 N
Positioning accuracy:	± 0,9°
Electrical connections:	4 x M12 connectors
Duty cycle:	20% ED, 300 s
Torque and shaft rotational speed:	9 Nm @ 32 rpm (T92), 5 Nm @ 60 rpm (T48) 2,5 Nm @ 120 rpm (T24),1,2 Nm @ 240 rpm (T12)
Starting torque:	T92: 22 Nm, T48: 12 Nm, T24: 6 Nm, T12: 3 Nm
Weight:	~ 1,8 kg (63,5 oz)

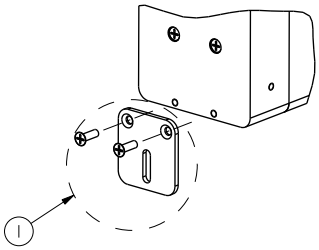
ELECTRICAL SPECIFICATIONS	
Resolution:	1024 inf./rev. x 1024 rev.
Power supply:	+24Vdc ± 10%
Power (motor):	31 W
Input current:	motor: ~2-2,5 A control unit: 140 mA max.
Service interface:	RS232 (except Modbus RTU RS485)
Bus Interface:	Modbus RTU (RS485), Profibus-DP, CANopen Modbus TCP/IP, EtherCAT, Profinet, Powerlink, EtherNet/IP
Inputs:	3 x 24V
Output:	1 x o.c @ 100 mA

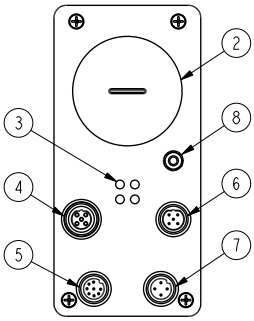
MATERIALS	
Flange:	non corroding, UNI EN AW-6082
Housing:	non corroding, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel non-magnetic, UNI EN 1.4305
Motor:	high performance brushless motor

ACCESSORIES

see complete list on pages 26-27







1	Fixing plate
2	Dip switch Jog +/- Preset button access
3	Diagnostic leds
4	M12 5 pin connector BUS OUT
5	M12 8 pin plug, Service interface, I/Os
6	M12 5 pin plug BUS IN
7	M12 4 pin plug power supply
8	GND connection

Order code

RD1A	-	X ⓐ	-	XXX ⓑ	-	XX ⓒ	-	XX ⓓ	-	X ⓔ

ⓐ **POWER SUPPLY**
P8 = 24Vdc ± 10%

ⓑ **TORQUE/SHAFT ROTATIONAL SPEED**
T92 = 9 Nm @ 32 rpm
T48 = 5 Nm @ 60 rpm
T24 = 2,5 Nm @ 120 rpm
T12 = 1,2 Nm @ 240 rpm

ⓒ **INTERFACE**
CB = CANopen (DS301)
MB = Modbus RTU (RS485)
PB = Profibus-DP
MT = Modbus TCP/IP
EC = EtherCAT
EP = EtherNet/IP
PL = Powerlink
PT = Profinet

ⓓ **ENCODER**
E2 = Absolute, 1024 inf./rev. x 1024 rev.

ⓔ **CONNECTIONS**
M = M12 connectors

DRIVECOD
Rotary actuator with halt brake

Series RD12A

- Integrated positioning unit
- High performance brushless motor
- RS232 service interface for easy setup
- Real absolute multi turn encoder
- Integrated motor brake for enhanced halt functions
- Additional jog +/- and Preset buttons for easy calibration

RD12A

ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range:	0°C +60°C (32°F +140°F)
Storage temperature range:	-20°C +80°C (-4°F +176°F) (98% R.H. without condensation)
Protection:	IP54

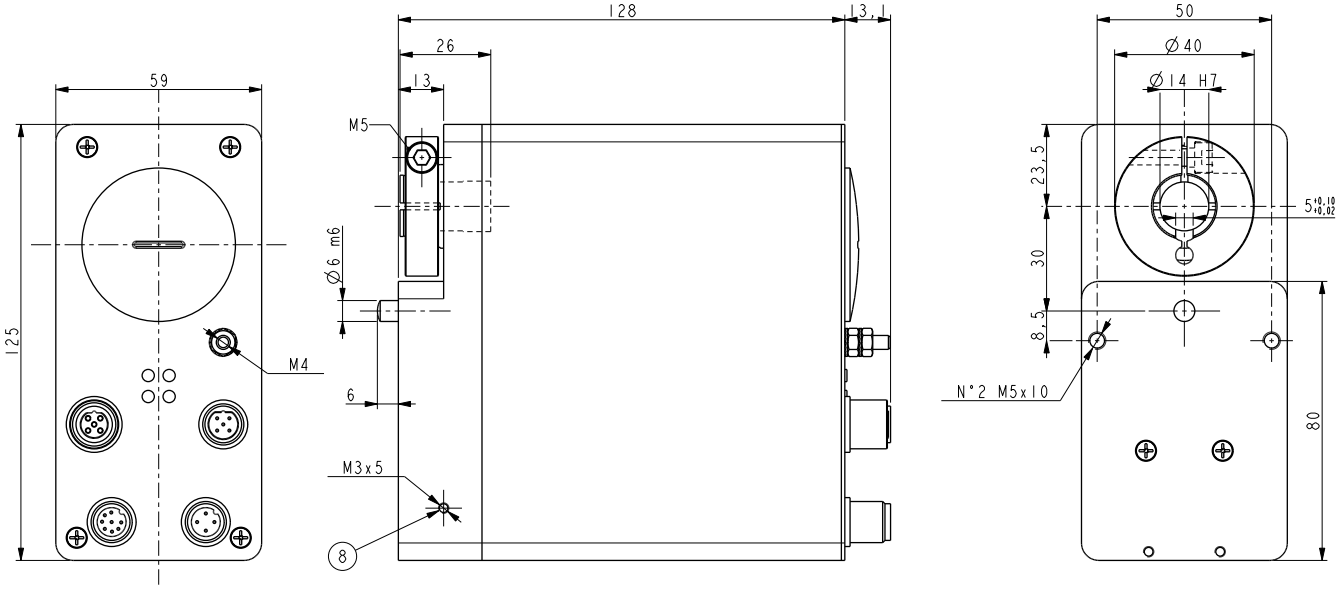
MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Shaft diameter:	hollow Ø14 mm
Shaft loading (axial and radial):	100 N, 200 N
Positioning accuracy:	± 0,9°
Electrical connections:	4 x M12 connectors
Duty cycle:	20% ED, 300 s
Torque and shaft rotational speed:	9 Nm @ 32 rpm (T92), 5 Nm @ 60 rpm (T48) 2,5 Nm @ 120 rpm (T24), 1,2 Nm @ 240 rpm (T12)
Starting torque:	T92: 22 Nm, T48: 12 Nm, T24: 6 Nm, T12: 3 Nm
Hold force with activated brake:	T92: 32 Nm, T48: 17 Nm, T24: 8,5 Nm, T12: 4,2 Nm
Weight:	~ 2,1 kg (74,1 oz)

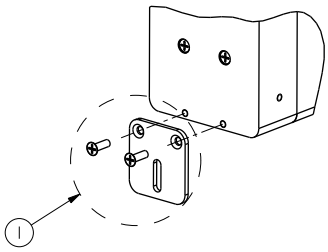
ELECTRICAL SPECIFICATIONS	
Resolution:	1024 inf./rev. x 1024 rev.
Power supply:	+24Vdc ± 10%
Power (motor):	31 W
Input current:	motor: ~2-2,5 A control unit: 140 mA max. brake: 480 mA when active
Service interface:	RS232 (except Modbus RTU RS485)
Bus Interface:	Modbus RTU (RS485), Profibus-DP, CANopen Modbus TCP/IP, EtherCAT, Profinet, Powerlink, EtherNet/IP
Inputs:	3 x 24V
Output:	1 x o.c @ 100 mA

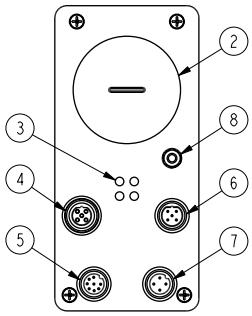
MATERIALS	
Flange:	non corroding, UNI EN AW-6082
Housing:	non corroding, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel non-magnetic, UNI EN 1.4305
Motor:	high performance brushless motor
Brake:	electromagnetic brake

ACCESSORIES

see complete list on pages 26-27







1	Fixing plate
2	Dip switch Jog +/- and Preset button access
3	Diagnostic leds
4	M12 5 pin connector BUS OUT
5	M12 8 pin plug, Service interface, I/Os
6	M12 5 pin plug BUS IN
7	M12 4 pin plug power supply
8	GND connection

RD12A

Order code

RD12A	-	X ⓐ	-	XXX ⓑ	-	XX ⓒ	-	XX ⓓ	-	X ⓔ

ⓐ **POWER SUPPLY**
P8 = 24Vdc ± 10%

ⓑ **TORQUE/SHAFT ROTATIONAL SPEED**
T92 = 9 Nm @ 32 rpm
T48 = 5 Nm @ 60 rpm
T24 = 2,5 Nm @ 120 rpm
T12 = 1,2 Nm @ 240 rpm

ⓒ **INTERFACE**
CB = CANopen (DS301)
MB = Modbus RTU (RS485)
PB = Profibus-DP
MT = Modbus TCP/IP
EC = EtherCAT
EP = EtherNet/IP
PL = Powerlink
PT = Profinet

ⓓ **ENCODER**
E2 = Absolute, 1024 inf./rev. x 1024 rev.

ⓔ **CONNECTIONS**
M = M12 connectors

DRIVECOD
Compact rotary actuators with halt brake

Series **RD5 • RD53**

- Compact rotary actuator
- Quick change-over & positioning on secondary axes
- All-in-one gearmotor-drive-position controller & encoder
- Closed loop position control
- Absolute multiturn encoder
- RD53 with integrated halt-brake
- Boot loader via CANopen

RD5 • RD53

ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range:	0°C +60°C (32°F +140°F)
Storage temperature range:	-20°C +80°C (-4°F +176°F) (98% R.H. without condensation)
Protection:	IP54

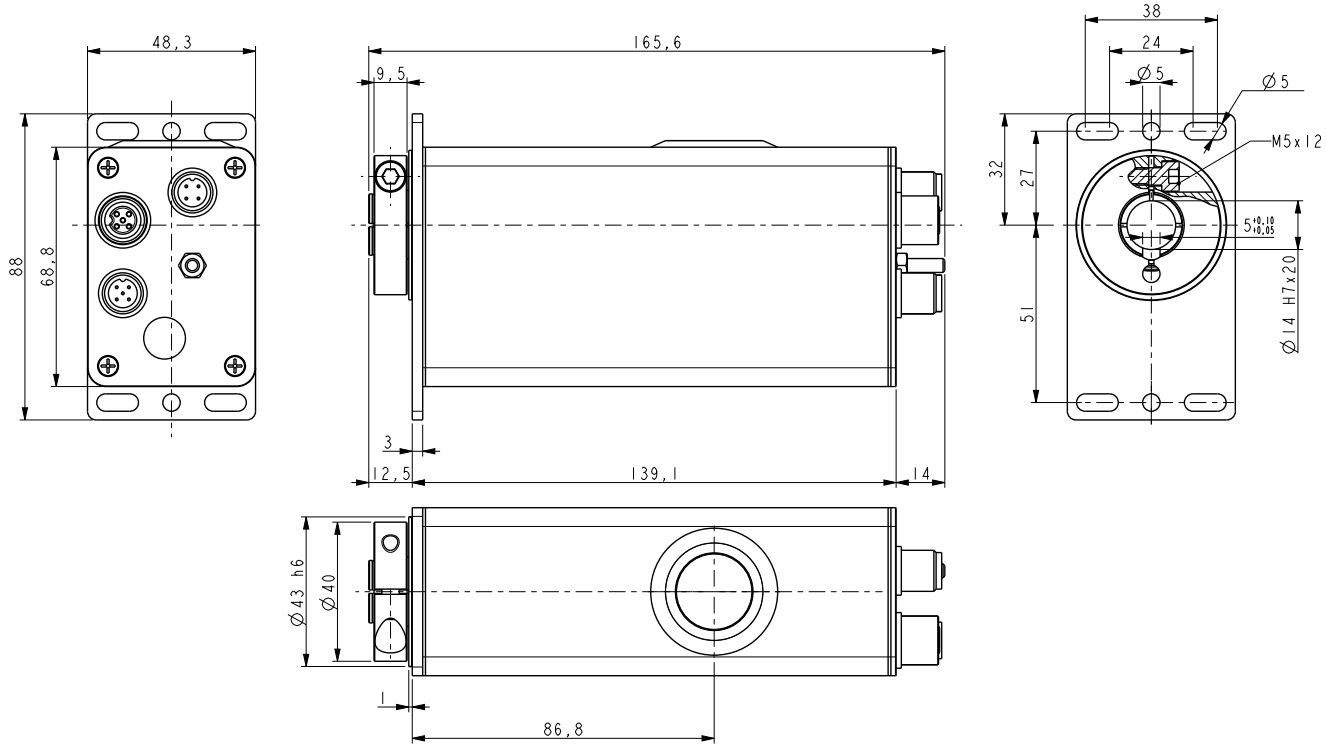
MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Shaft diameter:	hollow Ø14 mm
Shaft loading (axial and radial):	50 N max.
Positioning accuracy:	± 0,9°
Electrical connections:	3 x M12 connectors
Duty cycle:	70% ED, 300 s
Torque and shaft rotational speed:	5 Nm @ 60 rpm
Starting torque:	12 Nm
Hold force with activated brake:	17 Nm
Weight:	~ 1 kg (35.2 oz)

ELECTRICAL SPECIFICATIONS	
Resolution:	1024 inf./rev. x 256 rev.
Power supply:	+24Vdc ± 10%
Power (motor):	31 W
Input current:	motor: ~2 ÷ 2,5 A control unit: 80 mA max. brake: 480 mA max., when active (RD53)
Bus Interface:	Profibus-DP, CANopen, Modbus RTU (RS485)
Protection:	against overcurrent and overtemperature

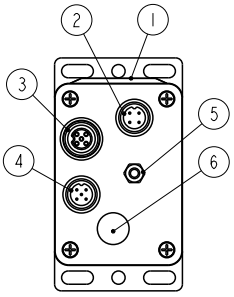
MATERIALS	
Flanges:	die cast alluminium, UNI EN AC-46100
Housing:	die cast alluminium, UNI EN AC-46100
Bearings:	ABEC 5
Shaft/Fixing clamp:	stainless steel non-magnetic, UNI EN 4305
Motor:	high performance brushless motor
Brake:	electromagnetic brake

ACCESSORIES

see complete list on pages 26-27



RD5 • RD53



1 = Dip switch access, diagnostic LEDs
2 = Power supply connector
3 = Bus OUT connector
4 = Bus IN connector
5 = GND connection screw
6 = Magnet position for manual brake release

Order code

RD5 RD53	-	X ⓐ	-	XXX ⓑ	-	XX ⓒ	-	XX ⓓ	-	X ⓔ

ⓐ **POWER SUPPLY**
P8 = 24Vdc ± 10%

ⓑ **TORQUE/SHAFT ROTATIONAL SPEED**
T50 = 5 Nm @ 60 rpm

ⓒ **INTERFACE**
CB = CANopen (DS301)
MB = Modbus RTU (RS485)
PB = Profibus-DP

ⓓ **ENCODER**
E3 = Absolute, 1024 inf./rev. x 256 rev.

ⓔ **CONNECTIONS**
M = M12 connectors

DRIVECOD
Heavy-duty rotary actuator

Series **RD4**

- Heavy-duty rotary actuator for secondary axes
- Integrated drive, position controller & encoder
- Closed loop position control
- Starting torque from 24 to 30 Nm, rated torque from 10 to 15 Nm
- 20 bit real absolute encoder
- Oil bath gearbox for continuous operation

RD4

ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range:	0°C +60°C (32°F +140°F)
Storage temperature range:	-20°C +80°C (-4°F +176°F) (98% R.H. without condensation)
Protection:	IP54

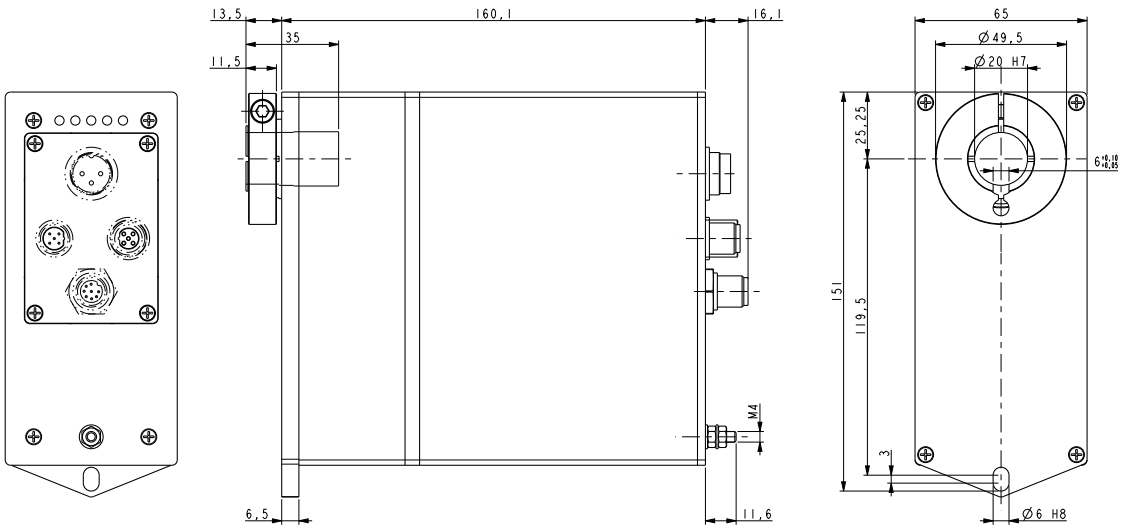
MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Shaft diameter:	hollow Ø20 mm
Shaft loading (axial and radial):	100 N, 200 N
Positioning accuracy:	± 0,9°
Electrical connections:	3 x M12 and 1 x M16 connectors
Duty cycle:	50% ED, 600 s
Torque and shaft rotational speed:	T47: 15 Nm @ 63 rpm / 8 Nm with continuous duty T32: 10 Nm @ 94 rpm / 6 Nm with continuous duty
Starting torque:	T32: 24 Nm T47: 30 Nm
Weight:	~ 2,8 kg (98,7 oz)

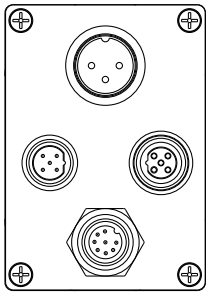
ELECTRICAL SPECIFICATIONS	
Resolution:	1024 inf./rev. x 1024 rev.
Power supply:	+24Vdc ± 10%
Power (motor):	100 W
Input current:	motor: 6,5 A max. control unit: 75 mA max.
Bus Interface:	Profibus-DP, CANopen (DS301), Modbus RTU (RS485)
Inputs:	3 x 24V
Output:	3 x o.c @ 100 mA

MATERIALS	
Flange:	non corroding, UNI EN AW-6082
Housing:	non corroding, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel non-magnetic, UNI EN 1.4305
Motor:	high performance brushless motor

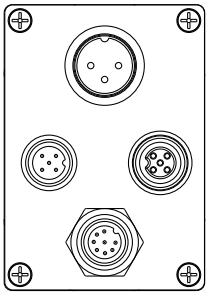
ACCESSORIES

see complete list on pages 26-27





Profibus



Canbus - Modbus

RD4

Order code

RD4	-	X ⓐ	-	XXX ⓑ	-	XX ⓒ	-	XX ⓓ	-	X ⓔ

ⓐ **POWER SUPPLY**
P8 = 24Vdc ± 10%

ⓑ **TORQUE/SHAFT ROTATIONAL SPEED**
T47 = 15 Nm @ 63 rpm
T32 = 10 Nm @ 94 rpm

ⓒ **INTERFACE**
CB = CANopen (DS301)
MB = Modbus RTU (RS485)
PB = Profibus-DP

ⓓ **ENCODER**
E2 = Absolute, 1024 inf./rev. x 1024 rev.

ⓔ **CONNECTIONS**
M = M12 connectors

DRIVECOD
Intelligent all-in-one rotary actuator

Series **RD6**

- All-in-one rotary actuator
- Integrated drive and position controller absolute multiturn
- Closed loop position control
- 157 and 250W bldc motors, 70 mm square flange
- Real absolute multiturn encoder (4096 x 65536)

RD6

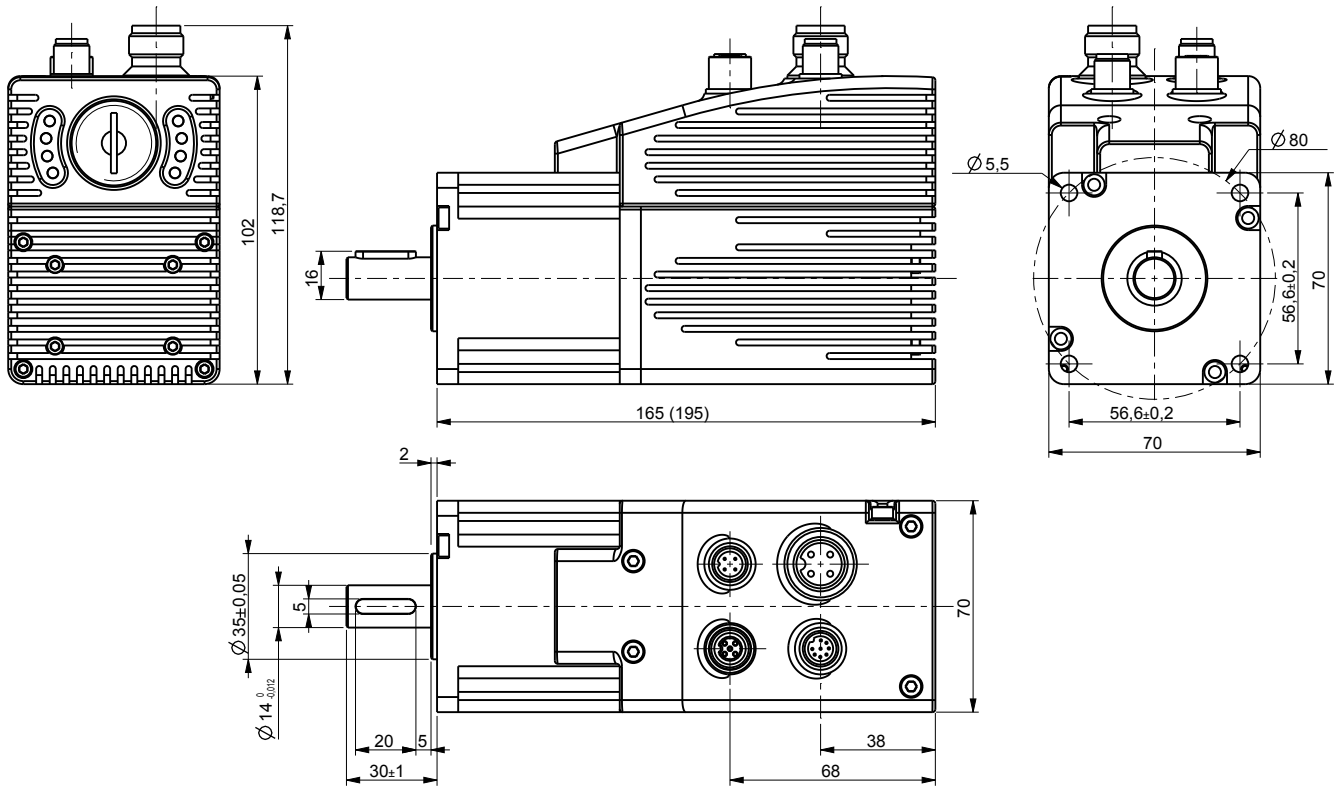
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range:	0°C +60°C (32°F +140°F)
Storage temperature range:	-20°C +80°C (-4°F +176°F) (98% R.H. without condensation)
Protection:	IP54

MECHANICAL SPECIFICATIONS	
Dimensions:	see drawing
Shaft diameter:	solid Ø14 mm
Positioning accuracy:	± 0,9°
Electrical connections:	3 x M12 and 1 x M18 connectors
Duty cycle:	100% ED
Rated torque:	version 157: 0,5 Nm @ 3000 rpm version 250: 0,8 Nm @ 3000 rpm
Peak torque:	version 157: 1,5 Nm version 250: 2,4 Nm
Weight:	~ 2,2 kg (77,6 oz), version 157 ~ 3 kg (105,8 oz), version 250

ELECTRICAL SPECIFICATIONS	
Resolution:	4096 inf./rev. x 65536 rev.
Power supply:	+24Vdc ± 10%
Power (motor):	157, 250 W
Input current:	motor 157W: 9 A nom. motor 250W: 15 A nom. control unit: 130 mA max.
Bus Interface:	Profibus-DP, CANopen (DS301), Modbus RTU (RS485) Modbus TCP/IP, EtherCAT, Profinet, Powerlink, EtherNet/IP
Service interface:	RS232 (excl. MB)

ACCESSORIES

see complete list on pages 26-27



RD6

Order code

RD6	-	X ⓐ	-	XXX ⓑ	-	XX ⓒ	-	XX ⓓ	-	X ⓔ

ⓐ **POWER SUPPLY**
P8 = 24Vdc ± 10%

ⓑ **MOTOR VERSION**
157 = 157W
250 = 250W

ⓒ **INTERFACE**
CB = CANopen (DS301)
MB = Modbus RTU (RS485)
PB = Profibus-DP
MT = Modbus TCP/IP
EC = EtherCAT
EP = EtherNet/IP
PL = Powerlink
PT = Profinet

ⓓ **ENCODER**
E4 = Absolute, 4096 inf./rev. x 65536 rev.

ⓔ **CONNECTIONS**
M = Connector output

POSICONTROL

HMI touchscreen controller for rotary actuators

Series **LDT10**

- Connect up to 8 RD rotary actuators
- Set the parameters of each actuator
- Edit and save the recipes
- Simultaneously start the changeover process in all actuators

Order code: LDT10

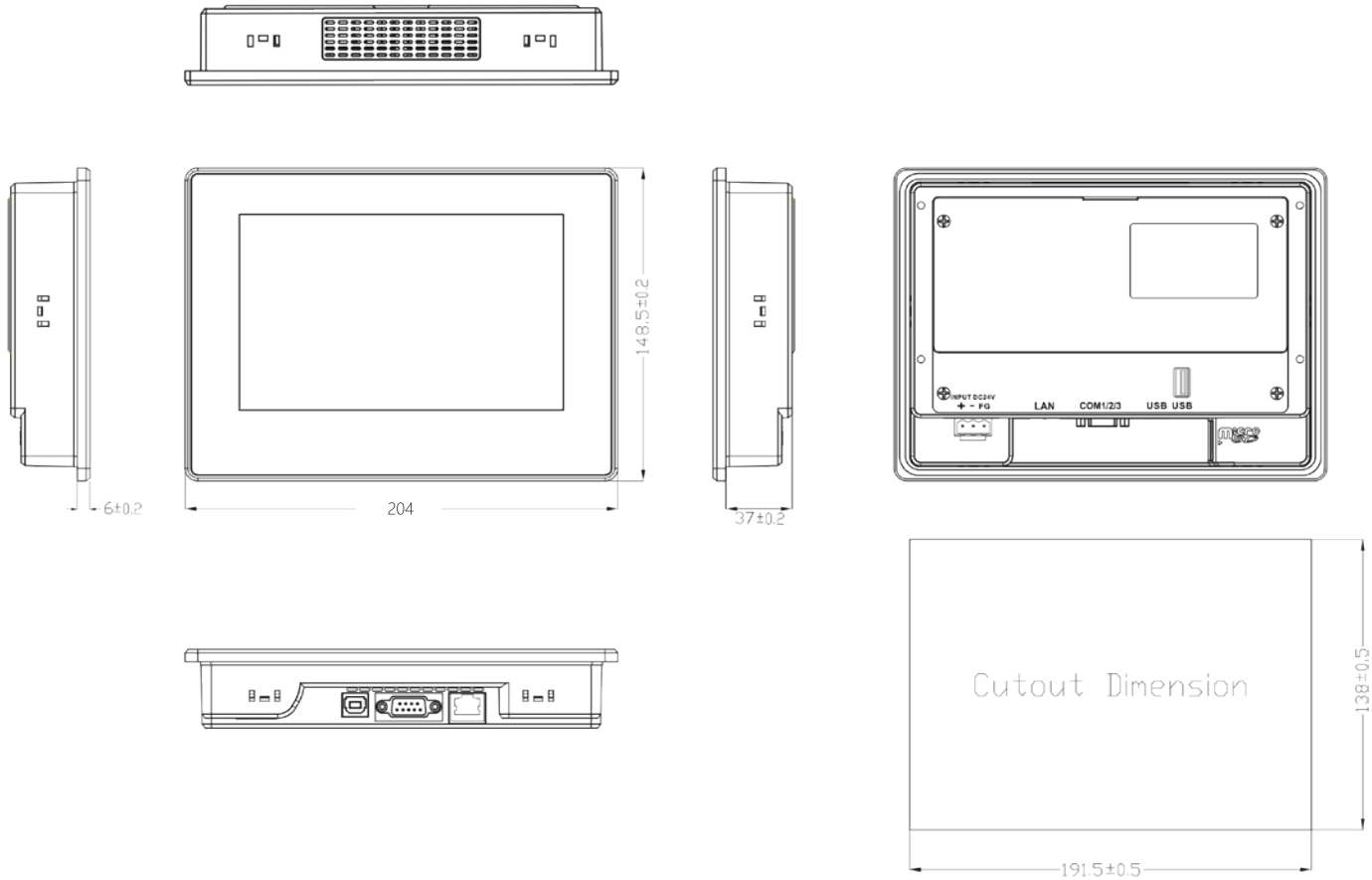
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range:	-10°C +60°C (14°F +140°F)
Storage temperature range:	-10°C +60°C (14°F +140°F)
Protection:	IP65 front, IP20 back

MECHANICAL SPECIFICATIONS	
Dimensions:	204 x 148.5 x 43 mm
Cut out:	191.5 x 138 mm
Display:	TFT LCD backlight, touchscreen 800 x 480 max. colors 16 bit

ELECTRICAL SPECIFICATIONS	
Power supply:	+24Vdc ± 10%
Consumption:	20 W (without RD)
Service interface:	RS485, Modbus
USB:	1 slot for update and software transfer

ACCESSORIES

see complete list on pages 26-27


148.5±0.2
6±0.2
204
37±0.2
INPUT DC24V
+ - FG
LAN
COM1/2/3
USB USB
Cutout Dimension
138±0.5
191.5±0.5

LDT10

ACCESSORIES FOR RD1A, RD12A, RD5, RD53 SERIES	
Order code	**Description**
CC-RD-PB	(Profibus) Mating connectors for RD1xA/RD5 (Bus IN, Bus OUT, PWR)
CC-RD-PB-90	(Profibus) 90° mating connectors for RD1xA/RD5 (Bus IN, Bus OUT, PWR)
CC-RD-CB/MB	(CANopen/Modbus RTU) Mating connectors for RD1xA/RD5 (Bus IN/OUT)
CC-RD-CB/MB-90	(CANopen/Modbus RTU) Mating connectors 90° for RD1xA/RD5 (Bus IN/OUT)
CC-RD-EC	(Ethernet) Mating connector for RD1xA (Bus IN, Bus OUT, PWR)
CC-RD-EC-90	(Profibus) 90° mating connector for RD1xA/RD5 (Bus IN, Bus OUT, PWR)
E-M12FC	M12 5 pin power supply connector for RD1xA/RD5
E-M12FC-90	M12 5 pin power supply connector 90° for RD1xA/RD5
E-M12F8	M12 8 pin service interface+I/O's connector for RD1xA
E-M12F8-90	M12 8 pin service interface+I/O's connector 90° for RD1xA
EC-M12FC-S37-P3-5	Power supply connector with cable 5m
EC-M12FC-S37-P3-10	Power supply connector with cable 10m
EC-M12FC-S37-P3-20	Power supply connector with cable 20m
EC-M12F8-LK-M8-5	RD1xA Service port (RS232, I/O's) connector with cable 5m
EC-M12F8-LK-M8-10	RD1xA Service port (RS232, I/O's) connector with cable 10m
EC-M12F8-LK-M8-15	RD1xA Service port (RS232, I/O's) connector with cable 15m
EC-M12F8-LK-M8-20	RD1xA Service port (RS232, I/O's) connector with cable 20m
IF92	Actuator/PC interface box RS232 > USB conversion
EC-RD1A-M12F8	Cable for connection from RDxx > IF92 > USB/PC
EXC-USB4-S54-GN-2-M12MC-S54	Connection cable RDxx Modbus RTU RS485 to USB/PC

ACCESSORIES FOR RD4 SERIES	
Order code	**Description**
CC-RD4-PB	(Profibus) Mating connectors (Bus IN/OUT, PWR)
CC-RD4-PB-90	(Profibus) 90° mating connectors (Bus IN/OUT, PWR)
CC-RD4-CB/MB	(CANopen/Modbus RTU) Mating connectors (Bus IN/OUT, PWR)
CC-RD4-CB/MB-90	(CANopen/Modbus RTU) Mating connectors 90° (Bus IN/OUT, PWR)
E-M163F	M16 3 pin connector for power supply
E-M163F-90	M16 3 pin connector 90° for power supply
E-M12F8	M12 8 pin connector for I/O's (optional)
E-M12F8-90	M12 8 pin connector 90° for I/O's (optional)
EC-M163F-S37-P3-5	Power supply connector with cable 5m
EC-M163F-S37-P3-10	Power supply connector with cable 10m
EC-M163F-S37-P3-20	Power supply connector with cable 20m
EC-M12F8-LK-M8-5	Service port (I/O's) connector with cable 5m
EC-M12F8-LK-M8-10	Service port (I/O's) connector with cable 10m
EC-M12F8-LK-M8-15	Service port (I/O's) connector with cable 15m
EC-M12F8-LK-M8-20	Service port (I/O's) connector with cable 20m
IF91	Encoder/PC interface box Modbus RTU > USB conversion
EC-RD4-M12FC	Cable for connection from RD4 > IF91 > USB/PC

ACCESSORIES FOR RD6 SERIES	
Order code	**Description**
CC-RD6-CB/MB	(CANopen/Modbus RTU) Mating connectors (Bus IN/OUT, PWR)
CC-RD6-PB	(Profibus) Mating connectors (Bus IN/OUT, PWR)
CC-RD6-EC	(Ethernet) Mating connectors (Bus IN/OUT, PWR)
E-M18F4	Power supply mating connector
EC-M12F8-LK-M8-5	Service port (RS232) connector with cable 5m
EC-M12F8-LK-M8-10	Service port (RS232) connector with cable 10m
EC-M12F8-LK-M8-15	Service port (RS232) connector with cable 15m
EC-M12F8-LK-M8-20	Service port (RS232) connector with cable 20m
IF92	Actuator/PC interface box RS232 > USB conversion
EC-RD6-M12F8	Cable for connection from RD6 > IF92 > USB/PC
EXC-USB4-S54-GN-2-M12MC-S54	Connection cable RDxx Modbus RTU RS485 to USB/PC

RD1A, RD12A, RD5, RD53 RD4, RD6 PROFIBUS & CANOPEN CORDSETS FOR ROTARY ACTUATORS	
Order code	**Description**
EC-M12MP-LK-PB-5	Profibus, M12 male connector with cable 5 m
EC-M12MP-LK-PB-10	Profibus, M12 male connector with cable 10 m
EC-M12MP90-LK-PB-5	Profibus, M12 90° male connector with cable 5 m
EC-M12MP90-LK-PB-10	Profibus, M12 90° male connector with cable 10 m
EC-M12FP-LK-PB-5	Profibus, M12 female connector with cable 5 m
EC-M12FP-LK-PB-10	Profibus, M12 female connector with cable 10 m
EC-M12FP90-LK-PB-5	Profibus, M12 90° female connector with cable 5 m
EC-M12FP90-LK-PB-10	Profibus, M12 90° female connector with cable 10 m
EC-M12MC-LK-CB-5	CANopen & Modbus RTU, M12 male connector with cable 5 m
EC-M12MC-LK-CB-10	CANopen & Modbus RTU, M12 male connector with cable 10 m
EC-M12MC-LK-CB-15	CANopen & Modbus RTU, M12 male connector with cable 15 m
EC-M12MC90-LK-CB-5	CANopen & Modbus RTU, M12 90° male conn. with cable 5 m
EC-M12MC90-LK-CB-10	CANopen & Modbus RTU, M12 90° male conn. with cable 10 m
EC-M12MC90-LK-CB-15	CANopen & Modbus RTU, M12 90° male conn. with cable 15 m
EC-M12FC-LK-CB-5	CANopen & Modbus RTU, M12 female connector with cable 5 m
EC-M12FC-LK-CB-10	CANopen & Modbus RTU, M12 female connector with cable 10 m
EC-M12FC-LK-CB-15	CANopen & Modbus RTU, M12 female conn. with cable 15 m
EC-M12FC90-LK-CB-5	CANopen & Modbus RTU, M12 90° female conn. with cable 5 m
EC-M12FC90-LK-CB-10	CANopen & Modbus RTU, M12 90° female conn. with cable 10 m
EC-M12FC90-LK-CB-15	CANopen & Modbus RTU, M12 90° female conn. with cable 15 m

ETHERNET CORDSETS FOR ROTARY ACTUATORS (Profinet, Ethercat, Powerlink, Ethernet-IP, Modbus)	
Order code	**Description**
EC-M12ME-EC-GN-5	M12 ethernet plug with 5 m cable
EC-M12ME-EC-GN-10	M12 ethernet plug with 10 m cable
EC-M12ME-EC-GN-20	M12 ethernet plug with 20 m cable
EXC-M12ME-EC-GN-5-RJ-EC	M12 ethernet plug + 5 m cable + RJ conn.
EXC-M12ME-EC-GN-10-RJ-EC	M12 ethernet plug + 10 m cable + RJ conn.
EXC-M12ME-EC-GN-20-RJ-EC	M12 ethernet plug + 20 m cable + RJ conn.

LDT10 SERIES TOUCHSCREEN CONTROLLER	
Order code	**Description**
EXC-M12FC-LK-CB-5-D9M-S54A	LDT10 connection cable, RS232 port to M12 (female) with 5 m cable
EXC-M12MC-LK-CB-5-M12FC-LK	Cordset M12 male to M12 female with cable 5 m

lika®

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