

- 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

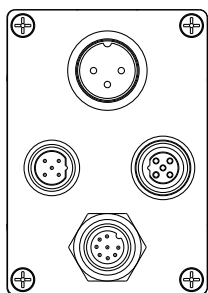
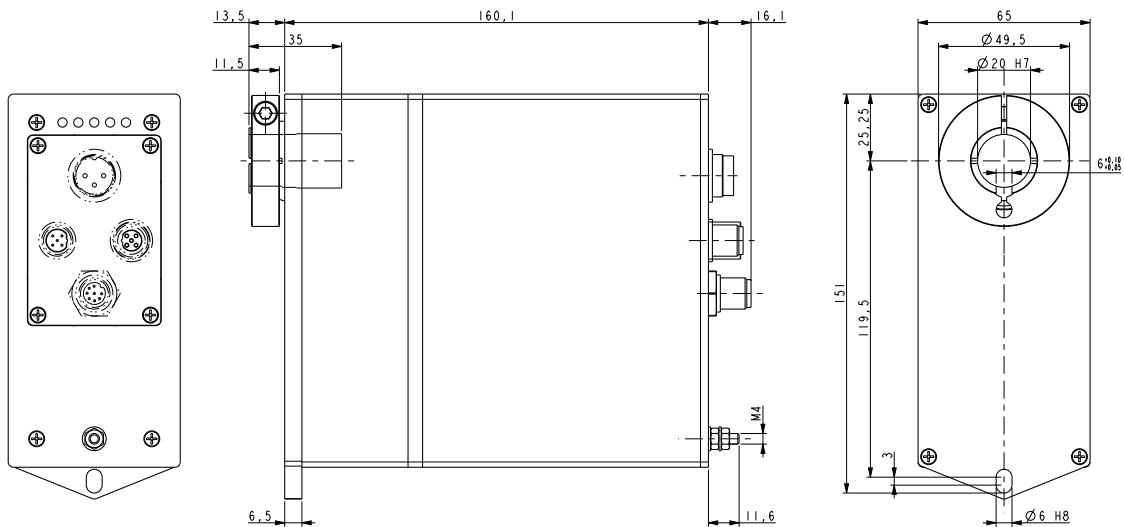
Resolution:	1024 inf./rev. x 1024 rev.
Power supply:	+24Vdc ± 10%
Power (motor):	100 W
Input current:	motor: 6,5 A max. control unit: 75 mA max.
Bus Interface:	Profibus-DP, CANopen (DS301), Modbus RTU (RS485)
Inputs:	3 x 24V
Output:	3 x o.c @ 100 mA

#### MATERIALS

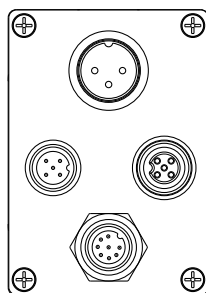
Flange:	non corroding, UNI EN AW-6082
Housing:	non corroding, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel non-magnetic, UNI EN 1.4305
Motor:	high performance brushless motor

#### ACCESSORIES

see complete list on pages 26-27



Profibus



Canbus - Modbus

RD4

Order code

RD4	-	X a	-	XXX b	-	XX c	-	XX d	-	X e
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a POWER SUPPLY

P8 = 24Vdc ± 10%

b TORQUE/SHAFT ROTATIONAL SPEED

T47 = 15 Nm @ 63 rpm

T32 = 10 Nm @ 94 rpm

c INTERFACE

CB = CANopen (DS301)

MB = Modbus RTU (RS485)

PB = Profibus-DP

d ENCODER

E2 = Absolute, 1024 inf./rev. x 1024 rev.

e CONNECTIONS

M = M12 connectors

## 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