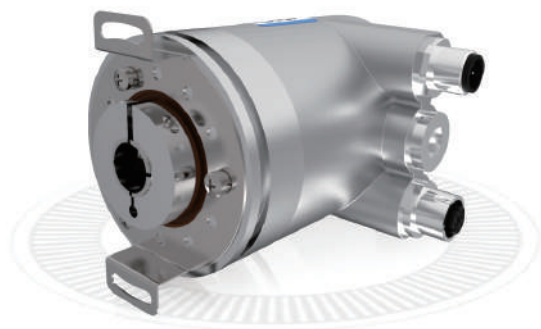




MTDCA5801B Series
Sensing method magnetic
Functional principle Multiturn
Multiturn technology Mechanical gears without batteries
Housing size $\Phi 60\text{mm}$
Shaft diameter Half hollow shaft $\Phi 10$ 、 $\Phi 12$ 、 $\Phi 14$ 、 $\Phi 15\text{mm}$
Max. resolution 30Bit
Steps per turn 65536/16Bit
Number of turn 16384/14Bit
Interface Modbus TCP
Supply voltage 10-30VDC
Protection IP67
Connection Ethernet: Socket, M12, 4-pin, D-code
Power: Plug, M12, 5-pin, A-code

Mechanical characteristics

Shaft diameter	Half hollow shaft $\Phi 10$ 、 $\Phi 12$ 、 $\Phi 14$ 、 $\Phi 15\text{mm}$
Material	Aluminum alloy
Shell material	Aluminum alloy
Axial loading	$\leq 40\text{N}$
Radial load	$\leq 80\text{N}$
Bearing life	10^9 turn
Rotary speed	Max.6000RPM
Shock resistance	100g, 6ms
Vibration resistance	10g, 10...2000Hz
Protection grade	IP67
Working temperature	-40°C...+85°C
Storage temperature	-40°C...+85°C
Connection	Ethernet: Socket, M12, 4-pin, D-code Power: Plug, M12, 5-pin, A-code

Electrical characteristics

Interface	Modbus TCP
Transmission rate	10/100Mbit
Code	Binary
Absolute accuracy	$\pm 0.2^\circ$
Supply voltage	10-30VDC
Current consumption	$< 200\text{mA}$
Single turn resolution	16bit/ 65536
Multiturn resolution	14bit/ 16384
Output driver	Ethernet
Startup time	$< 1\text{ms}$
Interface cycle time	$> 10\text{ms}$
Power consumption	$< 2\text{W}$
Programming function	Resolution, Default setting, Precast counting direction, IP address
Anti-interference	EN61000-6-2
Launch interference	EN61000-6-4
Circuit protection	Surge protection, Reverse polarity protection, ESD protection

Terminal assignment

Modbus TCP

Function	M12 x1 Connector							
Bus port 1	Signal	Transmit data+	Receive data+	Transmit data-	Receive data-			D-coded
	Code	Tx+	Rx+	Tx-	Rx-			
	Pin	1	2	3	4			
Power Bus port	Signal	Power+	Power+	Power-	Power-	Shielding		A-coded
	Code	+Ub	+Ub	GND	GND	PE		
	Pin	1	2	3	4	5		

Ordering information

MTDCA58 **01** **B** **12** **12** **13** **PRM**

① ② ③ ④ ⑤ ⑥

①Extended No. XX
 ②Shaft type B: Half hollow shaft
 ③Shaft diameter 10: Φ 10mm
12: Φ 12mm
 14: Φ 14mm
 15: Φ 15mm
 ④Resolution MT 14: 16384
12: 4096
 ⑤Resolution ST 16: 65536
13: 8192
 12: 4096
 ⑥Connection type PRM: Radial Modbus TCP protocol, Integrated bus coupler terminal box
 Ethernet: Signal socket, M12, 4 pin, D-code
 Power: Power plug, M12, 5 pin, A-code
 PAM: Axial Modbus TCP protocol, Integrated bus coupler terminal box
 Ethernet: Signal socket, M12, 4 pin, D-code
 Power: Power plug, M12, 5 pin, A-code

Note: Marked in bold=standard items

Notes: 1, Multiturn resolution and Singleturn resolution are common digits, Resolution MT $\leq$ 12bit, Resolution ST $\leq$ 16bit, other requirements on request.
 2, Please chose the ordering information: Extended No., Shaft diameter, Multiturn resolution, Singleturn resolution, Connection type.
 3, lease contact us for further electrical parameter Settings and requirements.
 Ordering example: MTDCA5801B121213PRM, Counting direction of the factory is set to clockwise increasing.
 Explanation: MTDCA5801B Series, Half hollow shaft 12mm, Output Binary, Multiturn resolution 4096, Singleturn resolution 8192, Modbus TCP protocol, Integrated bus coupler terminal box, 2 pcs socket(D-coded), 1 pcs plug (A-coded) , M12 $\times$ 1.

Accessories (sold separately) Note: Please refer to the selection table for the selection of other accessories.



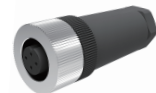
Bracket, double-winged
Model : 8133



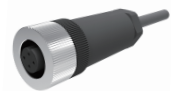
Signal Plug
Model : 9204-1B



Connector and Cable
Model : 9204-1B/X-20.001
Plug A: Signal Plug, M12, 4-pin, Straight, D-coding, Plastic Housing
Plug B: Bare Wire End, X-meter Cable, Green, 4-core Ethernet Cable, Ø6.5



Power Socket
Model : 9204B



Connector and Cable
Model : 9212B/X-22.002
Plug A: Power Socket, M12, 5-pin, Straight, A-coding, Plastic Housing
Plug B: Bare Wire End, X-meter Cable, Gray, 4-core Twisted Pair Shielded Cable 2*2*0.25mm², Ø6.8



Signal Plug
Model : 9204-1MB



Connector and Cable
Model : 9204-1MB/X-20.001
Plug A: Signal Plug, M12, 4-pin, Straight, D-coding, Metal Housing
Plug B: Bare Wire End, X-meter Cable, Green, 4-core Ethernet Cable, Ø6.5



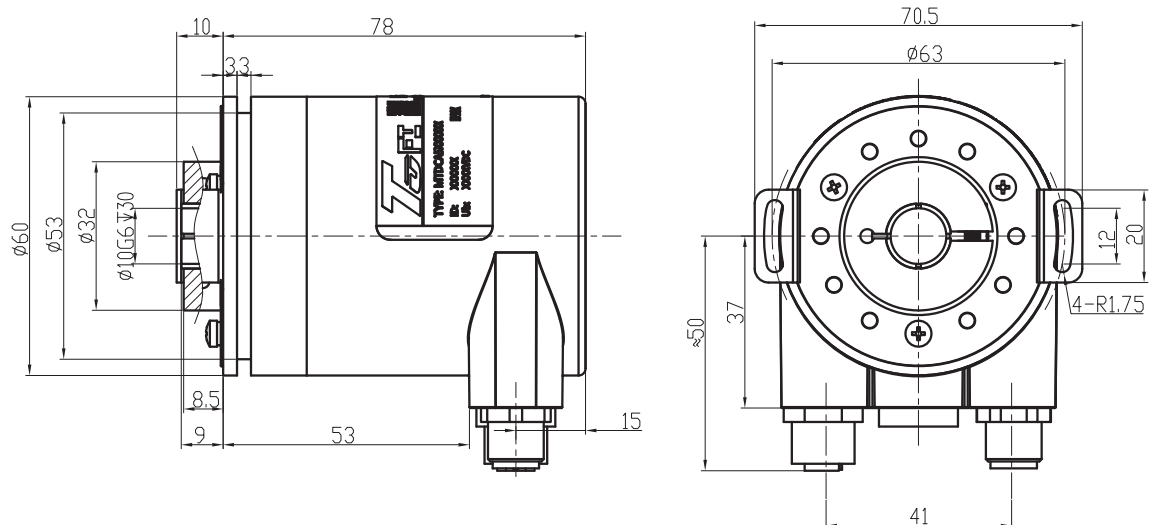
Power Socket
Model : 9204MB



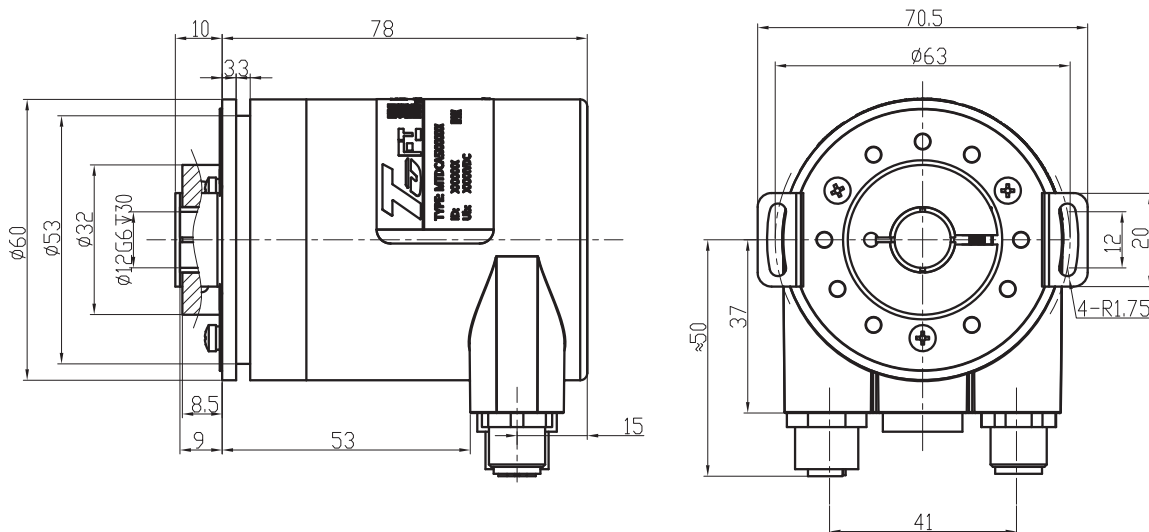
Connector and Cable
Model : 9212MB/X-22.002
Plug A: Power Socket, M12, 5-pin, Straight, A-coding, Metal Housing
Plug B: Bare Wire End, X-meter Cable, Gray, 4-core Twisted Pair Shielded Cable 2*2*0.25mm², Ø6.8

Dimensions

MTDCA5801B10

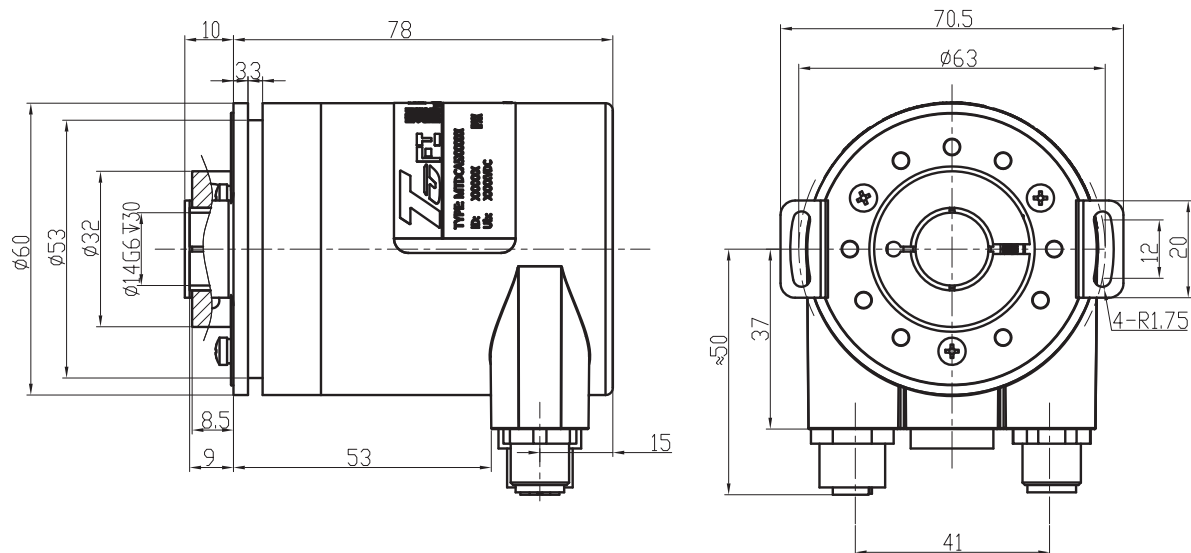


MTDCA5801B12



Dimensions

MTDCA5801B14



MTDCA5801B15

