

Wiper Direct Actuator WDD2



- ▶ Analog, CAN, and LIN control available
- ▶ Optimized hardware for motorsport applications
- ▶ Customer specific calibration of wiping angles and speed

The WDD2 is a wiper motor designed to execute reversing movements instead of rotating 360° like a conventional wiper.

Its function and many operating modes are managed by integrated control electronics. The user is able to control the desired operating mode simply by modifying CAN or LIN messages or by Direct switch mode with analog inputs after flashing the device through LIN. The gear, the motor and the electronics are all installed in the same housing.

The main benefit of this wiper motor is its direct rotation movement which replaces external gears and the possibility of programming the operating speed and end positions of all its function modes.

Application

Operating temperature range	-40 to 85°C
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Technical Specifications

WDD2 Direct Switch Operating modes	<ul style="list-style-type: none"> • Extended Park • Interval • Low Speed Continuous • High Speed Continuous
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WDD2 CAN/LIN Operating modes	<ul style="list-style-type: none"> • Extended Park • Alternate Park • Service Position • Go to URP • Go to LRP • Interval • Continuous • Immediate Stop
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Mechanical Data

Size	116.3/136.3 x 160 x 111 mm
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Max. wipe cycles/min	63 cpm
Max. wipe angle	350°
Max. torque	34 Nm
Weight	1,000 g
Max. vibration	Application specific

Electrical Data

Power supply	12 V / 24 V typical (9 V to 32 V range)
Supply current at 60 cycles/min.	Typ. 8.3 A

LIN Protocol

LIN Version	2.2
LIN Speed	19.2 kb/s
Message IDs	0x00, 0xB-0x12, 0x15-0x1C

CAN Protocol

CAN Version	2.2
CAN Speed	125 kb/s, 250 kb/s, 500 kb/s, or 1000 kb/s
Message IDs	0x6000-0x6010

Connectors and Wires

Mating connector	3L3T-14A464-BA-004
Mating connector components included	

Pinout

Pin 1	Not connected
Pin 2	GND
Pin 3	IN3
Pin 4	UBATT

Pin 5	IN2
Pin 6	Not connected
Pin 7	Not connected
Pin 8	LIN
Pin 9	IN2
Pin 10	CAN_H
Pin 11	CAN_L
Pin 12	Not connected

Motor Communication Protocol

Analog IN*				CAN IDs		LIN IDs	
IN3	IN2	IN1	Motor Nbr	PAR_Mx	STAT_Mx	PAR_Mx	STAT_Mx
0	0	0	1	0x6006	0x6001	0x0B	0x15
0	0	1	2	0x6007	0x6002	0x0C	0x16
0	1	0	3	0x6008	0x6003	0x0D	0x17
0	1	1	4	0x6009	0x6004	0x0E	0x18
1	0	0	5	0x600A	0x6005	0x0F	0x19
1	0	1	6	0x600B	0x600E	0x10	0x1A
1	1	0	7	0x600C	0x600F	0x11	0x1B
1	1	1	8	0x600D	0x6010	0x12	0x1C

* A value of 1 denotes 12 V applied to this input pin when motor is powered on.

Installation Notes

Typical lifetime: max. 220 h / 1 year

For application with severe conditions and/or high volume, please contact your Bosch Motorsport counterpart in order to define the most appropriate validation program

Up to 8 WDD2 motors can be run on 1 CAN/LIN bus based on IN1, 2, or 3 inputs

The WDD2 can be operated by LIN, CAN, or direct switching. LIN and CAN values are sent at each startup. Direct switch mode set by LIN programming.

Make sure that the wiper is in its workspace when restarting after a power failure (upper and lower limit).

The acceleration values can be exceeded by using silentblocks (F02U 003 027-01).

Please ensure that the environmental conditions do not exceed the specifications.

Please find further application hints in the offer drawing at our homepage.

Delivery Status

The motor will be delivered with three mounting screws. The screws are pre-assembled with a few thread turns.

- Self-tapping screw referred to DIN 7500
- PE M6x19
- Maximum tightening torque: 8 Nm

Legal Restrictions

The sale of this product in Mexico is prohibited. Due to embargo restrictions, sale of this product in Russia, Belarus, Iran, Syria, and North Korea is prohibited.

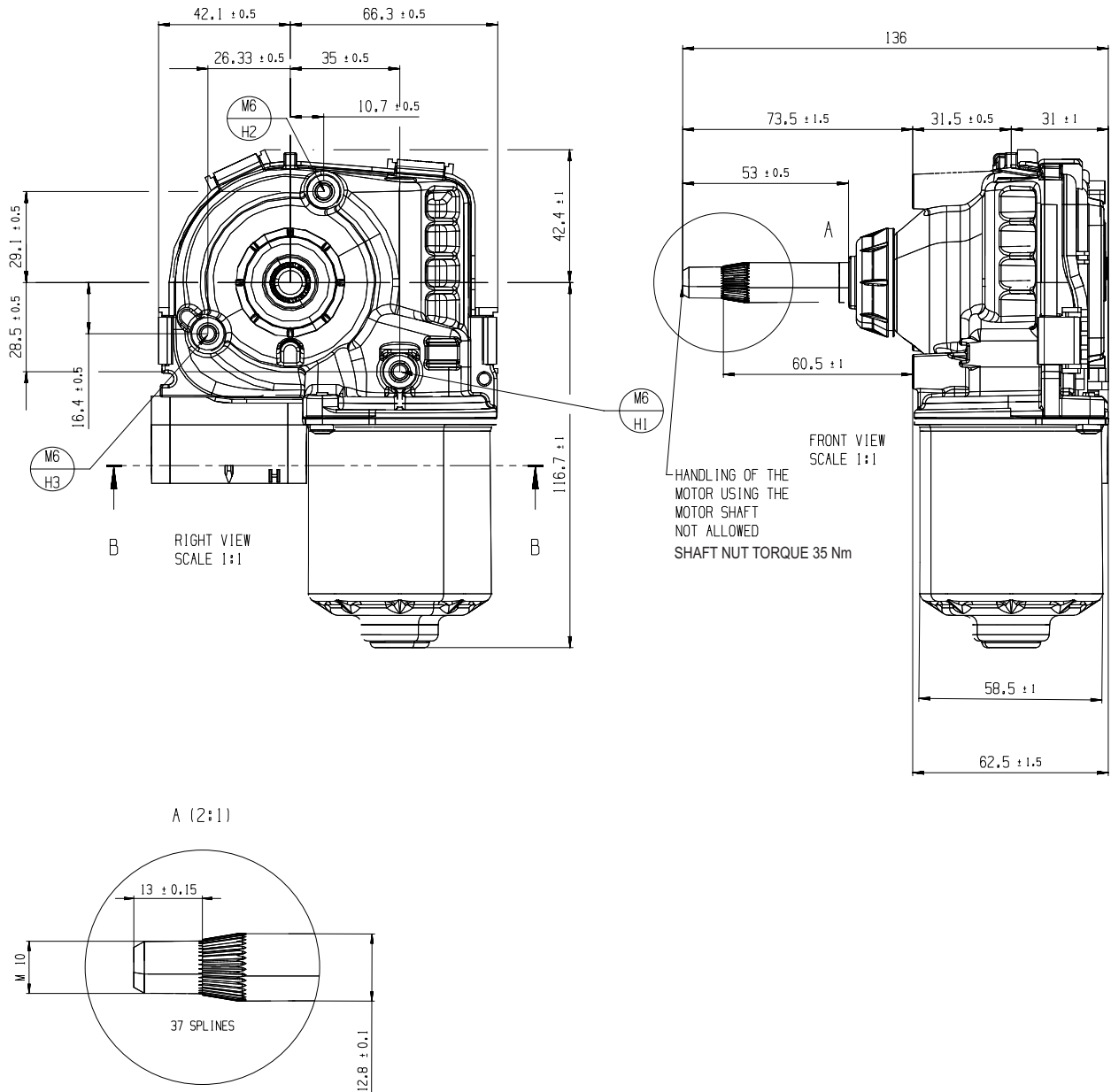
Ordering Information

Wiper Direct Actuator WDD2
Order number **F02U.V0U.466-01**

Accessories

Silentblock
Order number **F02U.003.027-01**

Dimensions



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