

# ABS M5 Kit



 Suitable for front-wheel, rear-wheel and fourwheel drive vehicles

We developed ABS M5 for the operation in front-, rear- or 4-wheel drive vehicles. A vehicle specific wiring harness is included in the Kit.

The ABS M5 is specifically adapted for motorsport use. Individual car parameters like e.g. vehicle weight, vehicle track, wheel weights, wheel circumferences, wheel base or number of increments can be calibrated with software free of charge. Please contact your Bosch Motorsport dealer for further information.

# **Technical Specifications**

# Variations

| Option   | Kit 1 | Kit 2 | Club-<br>Sport                                     |
|--|-------|-------|--|
| F02U.V05.2   | 89-01 | 90-01 | 91-01<br>92-01<br>93-01<br>94-01<br>95-01<br>96-01 |
| Customized wiring loom   | +     | +     | -  |
| ABS-Off position optional on po-<br>sition 1   | +     | +     | -  |
| Selection of ABS maps via<br>Bosch 12-position switch or via<br>specified CAN signal | +     | +     | +*   |
| Motorsport connectors for<br>wheel speed sensors                                     | -     | +     | -  |
| Flexible CAN terminals   | +     | +     | +**  |
| Downforce depending slip regu-<br>lation   | +***  | +***  | -  |
|  |       |       |  |

| Option   | Kit 1 | Kit 2 | Club-<br>Sport |
|--|-------|-------|----------------|
| Lateral acceleration slip regula-<br>tion          | +     | +     | -              |
| Corner inside wheel slip reduc-<br>tion regulation | +     | +     | -              |
| Tire circumferences via CAN (on request)           | +**** | +**** | -              |
|  |       |       |                |

+\*: fixed Kit Content

+\*\*: Adjustable via Coding Plug

+\*\*\*: Enabled with customer specific calibration +\*\*\*\*: Selection of tire circumferences via CAN, for example when changing from slicks to rain tires. Input will come from external control unit. **Mechanical Data** 

| Hydraulic unit                          |   |
|---|---|
| Serial housing, dust- and<br>damp-proof |   |
| Vibration damped circuit board          |   |
| 38 pin connector                        |   |
| 2 hydraulic valves per wheel            |   |
| 2 brake circuits (front and rear)       |   |
| 2 hydraulic high pressures pumps        | 3   |
| 2 hydraulic accumulators                | 5 cm <sup>3</sup> /each                                     |
| Standard fittings                       | 2 x master cylinders M12 x 1<br>4 x brake cylinders M10 x 1 |
| Size                                    | 122 x 110 x 122 mm  |
| Operating temperature                   | -30 to 130°C  |
| Max. shock                              | 50 g less than 6 ms   |
| Max. working speed                      | 360 km/h = 100 m/s =<br>224 mph                             |
|   |   |

# **Pressure Medium**

DOT 4 brake fluid

DOT 5.1 brake fluid

# **Electrical Data**

| Supply voltage                     | 10 to 16 V, max. 24 V for 5<br>min |
|------------------------------------|------------------------------------|
| Max. peak voltage                  | 35 V for 200 ms                    |
| Power consumption Pump             | 230 W                              |
| Power consumption Relay            | 170 W                              |
| Power consumption Electron-<br>ics | 8 W                                |

## Inputs

4 active wheel speed DF11i, DF11S or DF11V

Brake pressure (front brake circuit / rear brake circuit)

Longitudinal acceleration, lateral acceleration, yaw rate (MM5.10 sensor)

11 adjustment settings (applicable for OEMs)

ABS function can be deactivated (Pos. 1 or Pos. 12)

# Outputs

ABS warning light (MIL) EBD warning light (MIL) if needed

TTL wheel speed signal FL / FR / RL / RR

# **Content of Kit and Weights**

| Hydraulic unit   | 1,910 g            |
|--|--------------------|
| 2 pressure sensors   | 40 g/each          |
| Yaw/acceleration sensor                                    | 60 g               |
| 12 position function switch                                | 50 g               |
| 4 wheel speed sensors DF11 standard                        | 50 g/each          |
| ABS warning light (MIL)                                    | 50 g               |
| Vehicle specific wiring harness with motorsport connectors | Depends on version |
| Clubsport wiring harness                                   | 1,540 g            |
| Mounting and vibration-damp-<br>ing boards                 | 80 g               |
| Mounting board for hydraulic<br>unit                       | 212 g              |
|  |                    |

# Communication

| ABS and Yaw rate sensor | CAN1       |
|-------------------------|------------|
| Diagnostics             | MSA Box II |
|                         |            |

## **Installation Notes**

Maintenance Interval (brake fluid change, bleeding): 220 h or a maximum of two years. The load on the hydraulic unit in racing is much higher than in pure road operation, therefore we recommend a replacement of the unit after two years.

# 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

#### ABS M5 Kit 1

Order number F02U.V05.289-01

ABS M5 Kit 2 Order number F02U.V05.290-01

ABS M5 Kit Clubsport DF11i, 500 kbaud Order number F02U.V05.291-01

ABS M5 Kit Clubsport DF11i, 1 Mbaud Order number F02U.V05.292-01

ABS M5 Kit Clubsport DF11S, 500 kbaud Order number F02U.V05.293-01

ABS M5 Kit Clubsport DF11S, 1 Mbaud Order number F02U.V05.294-01

ABS M5 Kit Clubsport DF11V, 500 kbaud Order number F02U.V05.295-01

ABS M5 Kit Clubsport DF11V, 1 Mbaud Order number F02U.V05.296-01

**Com Interface MSA-Box II** Not mandatory if available Order number **F02U.V00.327-03** 

#### Dimensions

## **ABS M5 Kit Variations**

|                             | ABS M5 Kit 1                       | ABS M5 Kit 2                         | ABS M5 Kit Clubsport | ABS M5 Kit Clubsport | ABS M5 Kit Clubsport               |
|-----------------------------|------------------------------------|--------------------------------------|----------------------|----------------------|------------------------------------|
| Труе                        | Kit 1                              | Kit 2                                | 1 Mbaud, DF11i       | 500 kbaud, DF11i     | 1 Mbaud, DF11S                     |
| Wiring harness              | Specific                           | Specific                             | Generic              | Generic              | Generic                            |
| 4 wheelspeed sensors DF11S  | Included, with standard connectors | Included, with motorsport connectors | Not included         | Not included         | Included, with standard connectors |
| Wheel speed signal splitter | included*                          | Included*                            | included*            | included*            | included*                          |
| Fuses                       | Not included                       | Not included                         | Not included         | Not included         | Not included                       |
| Brake pipe fittings         | Not included                       | Not included                         | Not included         | Not included         | Not included                       |

|                             | ABS M5 Kit Clubsport    | ABS M5 Kit Clubsport | ABS M5 Kit Clubsport | ABS M5 Kit Porsche 991<br>Cup Gen 1 | ABS M5 Kit Porsche 991<br>Cup Gen 2 |  |
|-----------------------------|-------------------------|----------------------|----------------------|-------------------------------------|-------------------------------------|--|
| Труе                        | 500 kbaud, DF11S        | 500 kbaud, DF11V     | 1 Mbaud, DF11V       | Model year 2015                     | Model year 2017                     |  |
| Wiring harness              | Generic                 | Generic              | Generic              | Specific                            | Specific                            |  |
| 4 wheelspeed sensors        | Included, with standard | Not included         | Not included         | Included, Porsche specific          | Included, Porsche specific          |  |
| DF11S                       | connectors              |                      |                      | DF11S                               | DF11S                               |  |
| Wheel speed signal splitter | included*               | included*            | included*            | Included, DF11                      | Included, DF11                      |  |
| TTL                         |                         |                      |                      |                                     |                                     |  |
| Fuses                       | Not included            | Not included         | Not included         | Included                            | Included                            |  |
| <b>Brake pipe fittings</b>  | Not included            | Not included         | Not included         | Included                            | Included                            |  |
|                             |                         |                      |                      |                                     |                                     |  |

\*TTL splitter incl. in ABS Hardware, DF11 splitter optional

Represented by:

Europe: Bosch Engineering GmbH Motorsport Robert-Bosch-Allee 1 74232 Abstatt Germany Tel.: +49 7062 911 9101 Fax: +49 7062 911 79104 motorsport@bosch.com www.bosch-motorsport.de

North America: Bosch Engineering North America Motorsport 38000 Hills Tech Drive Farmington Hills, MI 48331-3417 United States of America TeL: +1 248 876 2977 Fax: +1 248 876 7373 motorsport@hosch com motorsport@bosch.com www.bosch-motorsport.com

Asia-Pacific: Bosch Engineering Japan K.K. Motorsports Department 1-9-32 Nakagawachuo, Tsuzuki-ku Yokohama-shi Kanagawa, 224-8601 Japan Tel.:+81 45 605 3032 Fax:+81 45 605 3039 www.bosch-motorsport.jp

Australia, New Zealand and South Africa: Robert Bosch Pty. Ltd Motorsport 1555 Centre Road Clayton, Victoria, 3168 Australia Tel.: +61 (3) 9541 3901 motor.sport@au.bosch.com

© Bosch Engineering GmbH 2025 | Data subject to change without notice 54592523 | en, 1, 25. Mar 2025