

Brushless pumps

The smart Bosch coolant pumps are designed with decades of experience in thermal, liquid and energy circuits. They offer a reliable and efficient support of different thermal circuits. Due to their robustness and design optimized for volume flow, they have proven millions of times worldwide in 24V and 12V applications. This includes heating and cooling applications of electronics or battery cells in electric vehicles.



Product features

- integrated electronics with failure diagnosis signal: For an increased efficiency of the brushless pumps and a control of the volume flow via PWM signal
- extremely robust design: For a high power density, long service life and a motor attachment possible depending on the model
- proven construction in line with the original automotive quality guidelines: For a low noise development and a high temperature range of up to 130°C
- operating mode S1: Suitable for continuous operation

Application examples

- heater circuit
- auxiliary heater
- charge-air cooling
- generator cooling
- turbocharger cooling
- fuel cooling
- after-run cooling of combustion engines
- thermal management of electric vehicles
- battery and electronic cooling
- cabin heating and cooling
- domestic and Caravaning warm water heating

PAD

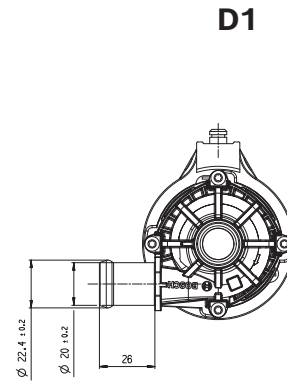
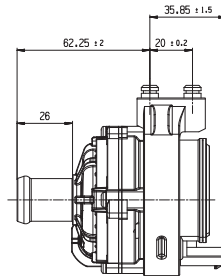
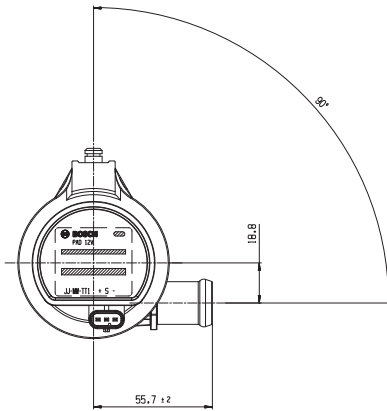


Family features:

- silent operation
- PWM control available
- extended temperature range available
- extended power range available
- degree of protection: IPX7

Voltage	Part number	Nominal pump pressure bar	Flow rate L/hr	Direction of rotation CW or CCW	Control	Medium	Dimensional drawing (D)	Connector (C)	Performance curve (P)
12 V	0 392 023 43G*	0.2	500	CW	PWM	Water Glycol	D1	C1	P1

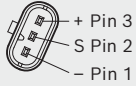
*Successor of 0 392 023 232



PAD

Mating connector (C)

C1



Housing:

- TE Connectivity MCON 1.2 1488991-6 (with CPA),...-2 w/o CPA
- KOSTAL MLK order no. 3 21 24 73413 0. Hirschmann SealStar for 0.75mm² wires, 1.2mm, keyway B (with CPA) p/n 805-121-522
- Molex MXP120 34900-3102 (or 0349003102)

Terminals:

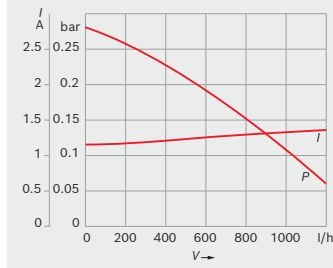
- Bosch 1 928 498 811
- Tyco / Molex MCON 1.2 1670146-3 – Ag plated (20awg)
- KOSTAL MLK 1.2 [32124734130]

Seal:

- Bosch 1 928 300 936
- TE Connectivity 967067-1 (20 awg)
- KOSTAL 10800507250

Performance curve (P)

P1



PCE

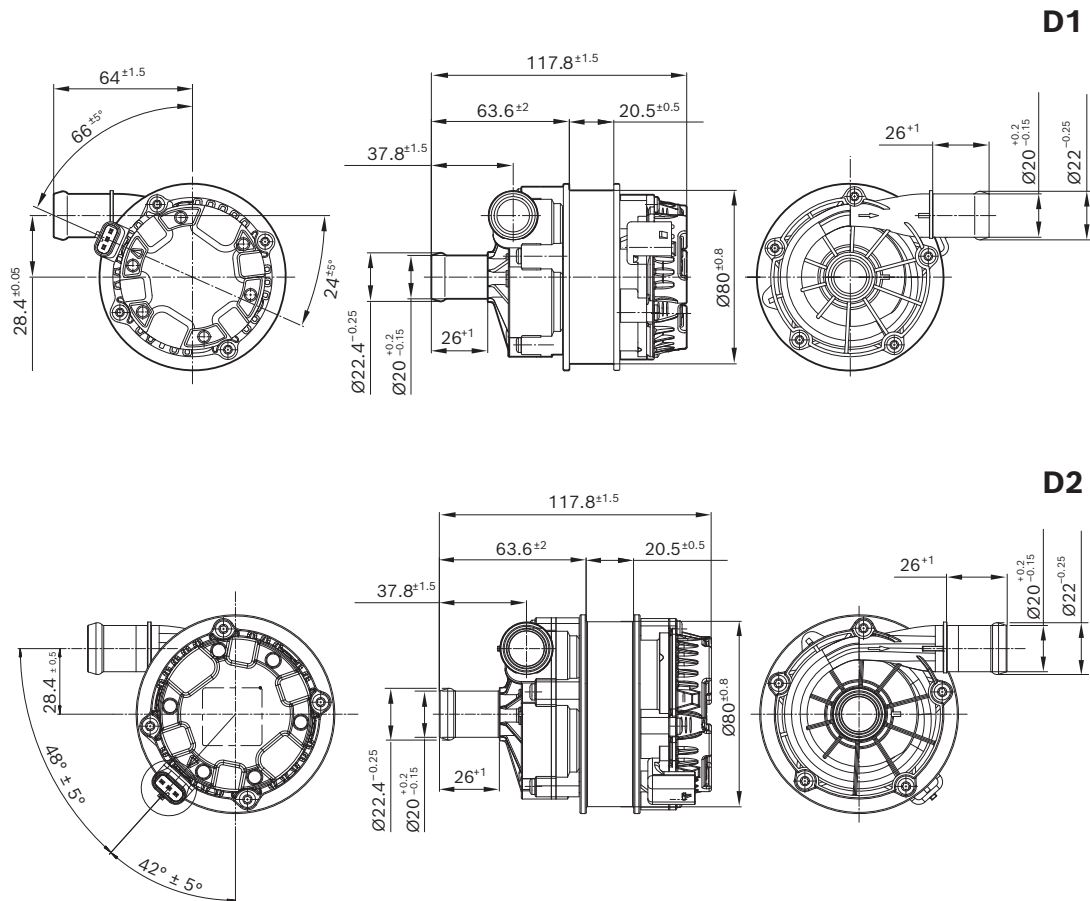


Family features:

- silent operation
- PWM control available
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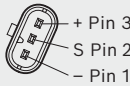
Voltage	Part number	Nominal pump pressure bar	Flow rate L/h	Direction of rotation CW or CCW	Control	Medium	Dimensional drawing (D)	Connector (C)	Performance curve (P)
12 V	0 392 024 058	0.6	1200	CW	PWM	Water Glycol	D1	C1	P1
12 V	0 392 024 078	0.85	1000	CW	PWM	Water Glycol	D1	C1	P2
12 V	0 392 024 900	0.5	950	CW	PWM	Tap Water*	D2	C2	P4
24 V	0 392 024 041	0.6	1200	CW	PWM	Water Glycol	D1	C1	P3

*No drinking water



PCE

Mating connector (C)

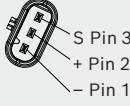


+ Pin 3
S Pin 2
- Pin 1

C1

Housing:

- TE Connectivity MCON 1.2 1488991-6 (with CPA),...-2 w/o CPA
- KOSTAL MLK order no. 3 21 24 73413
- 0.Hirschmann SealStar for 0.75mm² wires, 1.2mm, keyway B (with CPA) p/n 805-121-522
- Molex MXP120 34900-3102 (or 0349003102)



S Pin 3
+ Pin 2
- Pin 1

C2

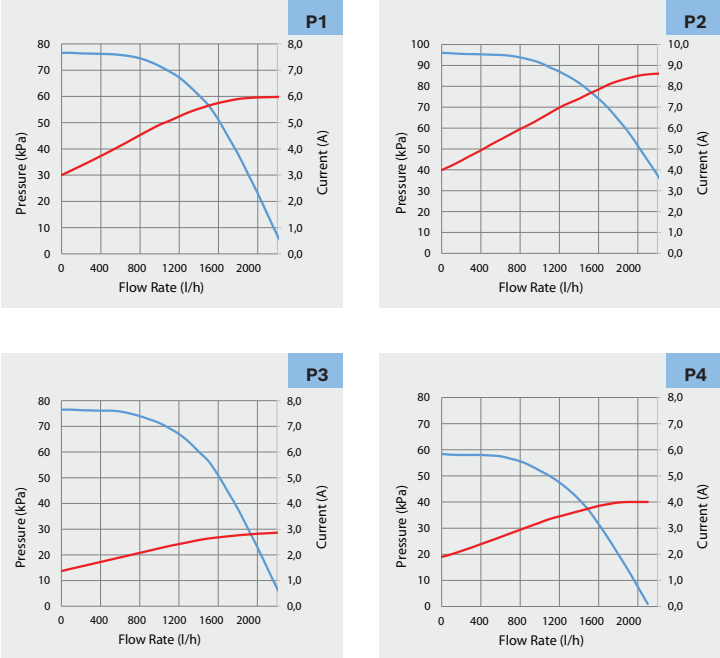
Terminals:

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- KOSTAL MLK 1.2 [32124734130]

Seal:

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- TE Connectivity 967067-1 (20 awg)
- KOSTAL 10800507250

Performance curve (P)



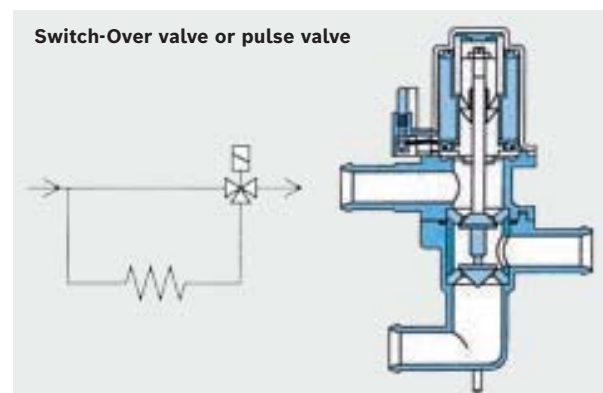
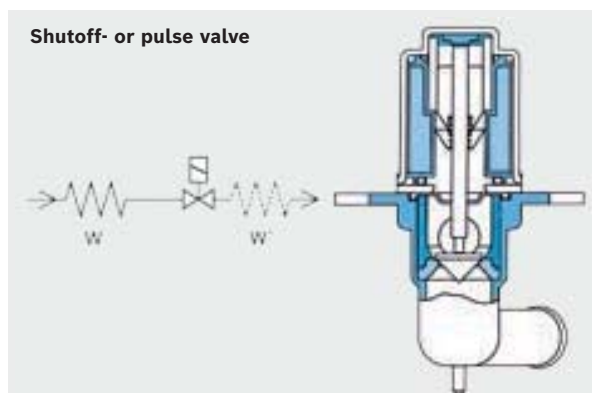
Solenoid valves

Bosch solenoid valves are designed with decades of experience in thermal, fluid and energy circuits and they stand for reliable control of the coolant flow. Due to their robustness and design optimized for volume flow, they have proven themselves millions of times worldwide in 24V and 12V applications. This includes applications in heating and cooling of electronics or battery cells in electric vehicles.



Product features

- in case of no current opened Fail-safe function: For a long service life with more than 3 million switching cycles
- robust and compact design: For high dirt resistance and leak resistance throughout the entire service life
- production in line with the original automotive quality guidelines: For proven quality and high reliability
- comprehensive range for 12/24-volt applications for switch-over or shut-off circuits: Meeting different requirements



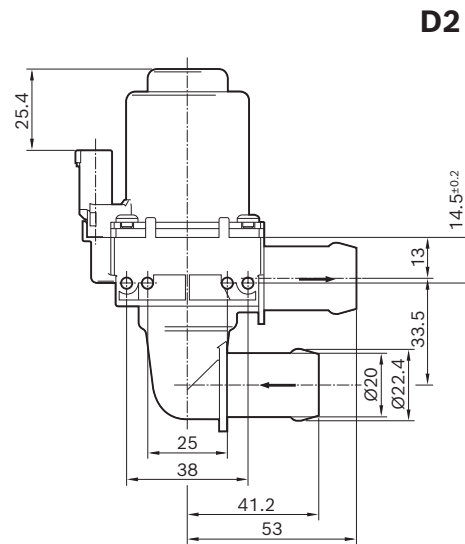
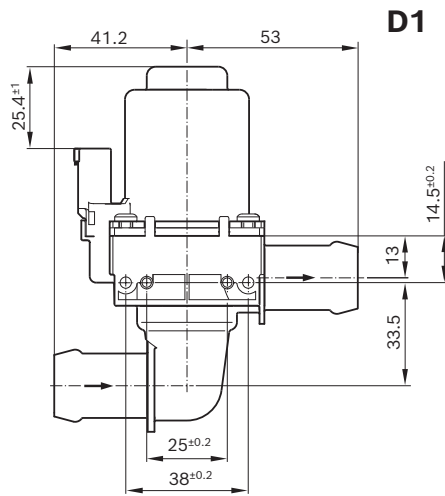
Switch-off valves



Family features:

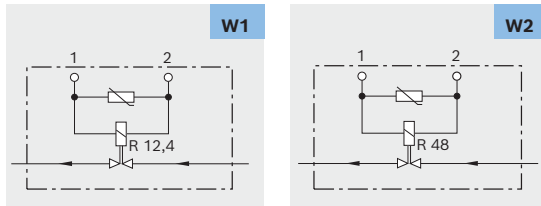
- proportional valve function possible
- degree of protection: IP5K4
- open when de-energized

Voltage	Part number	Maximum Pressure Drop kPa	Flow rate L/hr	Switchable pressure difference kPa	Resistance Ω	Dimensional drawing (D)	Wiring diagram (W)	Connector (C)	Performance curve (P)
12 V	1 147 412 208	30	1500	150	12.4	D1	W1	C1	P1
24 V	1 147 412 205	30	1500	150	48	D1	W2	C1	P1
24 V	1 147 412 218	30	1500	150	48	D2	W2	C1	P1

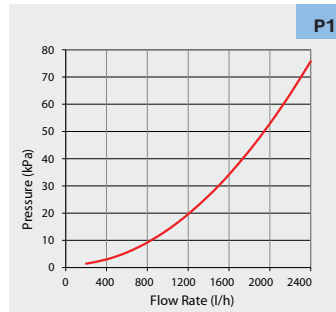


Switch-off valves

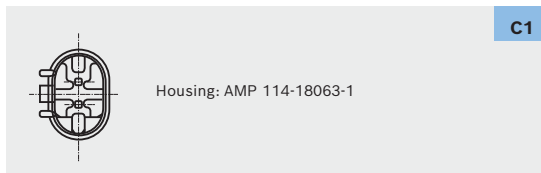
Wiring diagram (W)



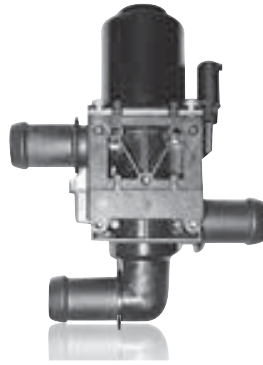
Performance curve (P)



Mating connector (C)



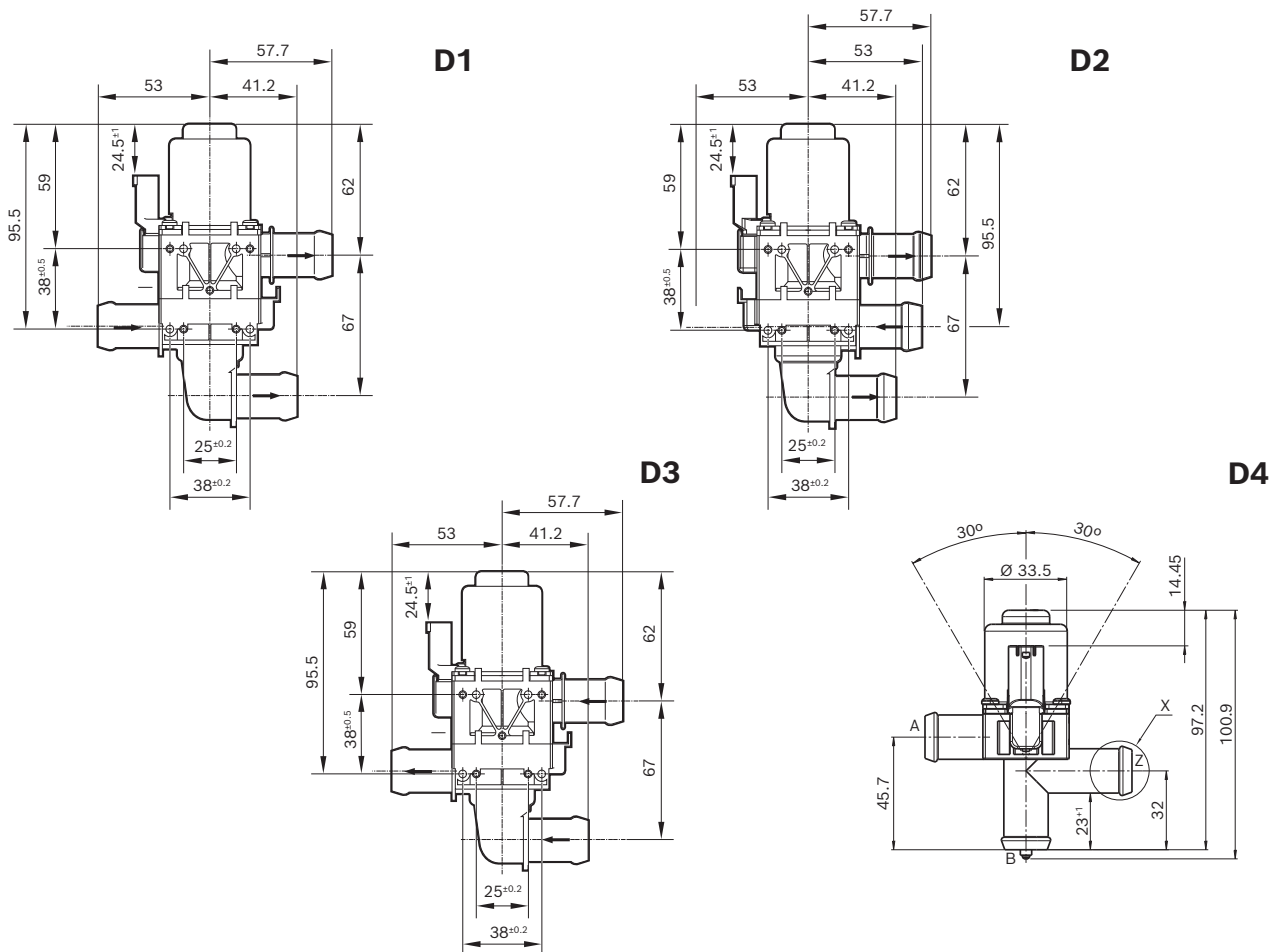
Switch-over valves



Family features:

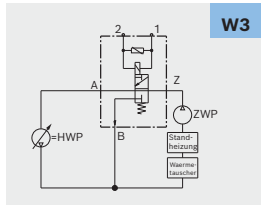
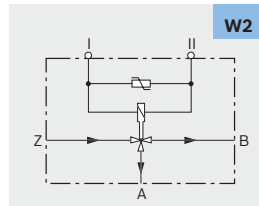
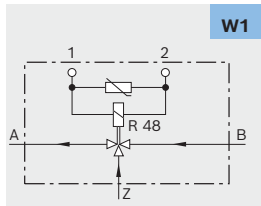
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Voltage	Part number	Maximum Pressure Drop kPa	Flow rate L/hr	Switchable pressure difference kPa	Resistance Ω	Dimensional drawing (D)	Wiring diagram (W)	Connector (C)	Performance curve (P)
12 V	1 147 412 207	30	1500	160	12.4	D3	W1	C1	P1
12 V	1 147 412 211	40	1500	160	12.4	D1	W2	C1	P2
12 V	1 147 412 213	40	1500	160	12.4	D2	W2	C1	P2
12 V	1 147 412 282	35	1500	100	15.3	D4	W3	C1	P3
24 V	1 147 412 202	40	1500	160	48	D1	W2	C1	P2
24 V	1 147 412 204	30	1500	160	48	D3	W1	C1	P1

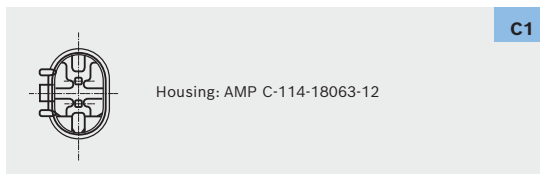


Switch-over valves

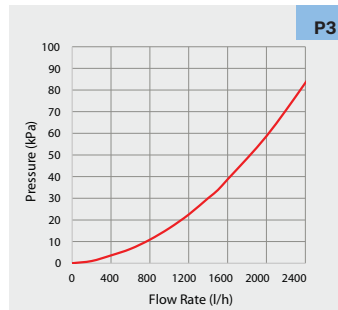
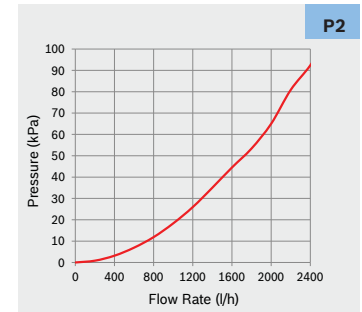
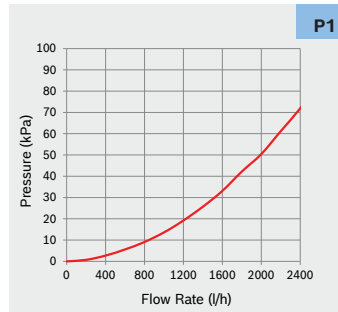
Wiring diagram (W)



Mating connector (C)



Performance curve (P)



Bosch contacts worldwide

for sales and advice

Australia

Robert Bosch (Australia) Pty
1555 Centre Road
AU-3169 Victoria

France

Bosch France SAS
126, Rue de Stalingrad
FR-93705 Drancy Cedex

Norway

Robert Bosch AS
Drakegatan 6, Goteborg
Goteborg and Bohus
SE, 412 50

Austria

Robert Bosch AG
Göllnergasse 15 - 17
AT - 1030 Wien

Germany

Robert Bosch GmbH
Auf der Breit 4
DE - 76227 Karlsruhe

Poland

Robert Bosch Sp. z.o.o.
Jutrzenki 105
PL-02231 Warszawa

Belgium

Robert Bosch SA/NV
Rue Henri Genessestraat 1
BE - 1070 Bruxelles

Great Britain

Robert Bosch Ltd
P.O.Box 98; Broadwater Park;
North Orbital Road
UK - UB9 5HJ Denham

Sweden

Robert Bosch AB
Drakegatan 6, Goteborg
Goteborg and Bohus
SE, 412 50

Brazil

Robert Bosch Ltda
Rod Anhanguera Km 98
13065-900
Campinas

Hungary

Robert Bosch Kft
Gyoemroei ut 120.
HU - 1103 Budapest

Switzerland

Robert Bosch AG
Postbox 264, Solothurn
CH, CH-4501

Czech Republic

Robert Bosch Odbytova s.r.o.
Radlicka 350/107d, Praha
CZ, 158 00

Israel

Ledico Technologies LTD.
31 Lazarov Str.
IL - 75654 Rishon Le Zion

Spain

Robert Bosch Espana S.A.
Avd. de la Institucion Libre de Ensenanza 19,
Madrid, ES, 28037

China

Bosch Trading (Shanghai) Co., Ltd
333 Fuquan (N.) Road
CN-200335 Shanghai

Italy

Robert Bosch SPA
Strada del Drosso 37/15
Torino, Piemonte
IT, 10135

Thailand

Robert Bosch Limited
2525 FYI Center, Tower 1
5th Floor Rama IV Road, Klongtoei, Bangkok
TH, 10110

Denmark

Robert Bosch
Telegrafvej 1
DK - 2750 Ballerup

Japan

Bosch Corporation
2-3-10 Nishihon-mach Nishi-ku
JP-550-00005 Osaka

Türkey

Bosch San. Ve Tic. A.S.
Aydivevler Mah. Inonu Cad. No:20
Ofis Park A, Istanbul, Kucukyali/Maltepe
TR, 34854

Finland

Robert Bosch Oy
Aeyritie 8 E
01510 Vantaa

Korea

Robert Bosch Korea
298 Bojeong-dong Giheung-gu
KR - 446-913 Yongin-si, Gyeonggi-do

USA

Robert Bosch LLC
2800 South 25th Avenue
US - 60155-4594 - Broadview, IL

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- Product images
- Technical data
- Basic technical information
- Characteristic curves
- Circuit and connection diagrams
- Dimensional drawings
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AA-TR/PAC – 11.2022 – En

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Automotive Aftermarket
P.O. Box 41 09 60
76225 Karlsruhe, Germany

Token fee: € 5,00

Editorial closing: 01.10.2022

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