



BERU NEWSLETTER #7 PRESSURE SENSOR GLOW PLUGS



New BERU Pressure Sensor Glow Plug 007 for the VW AG group

BERU, the first and only manufacturer to supply PSG in series production.

Discover also **18** new Ignition Coils for more than **420** applications

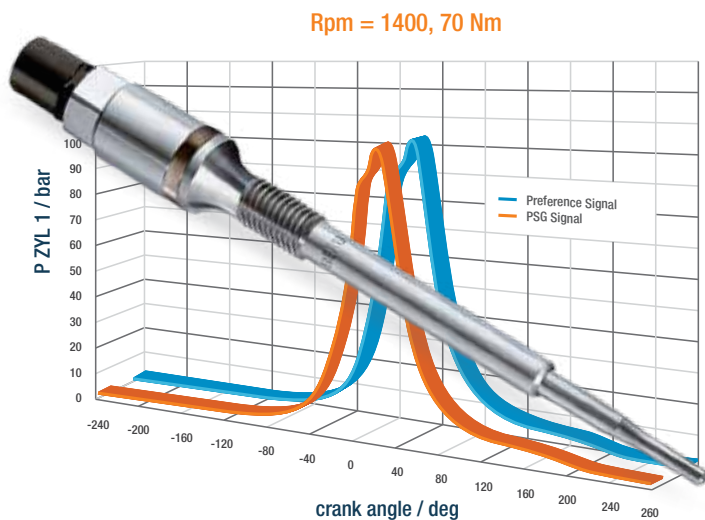
BERU is a trusted development partner to all leading automobile manufacturers. Wherever the cars of the future are being created, BERU is in demand as an expert in ignition technology.

Innovative pressure sensor glow plug

With the world's first glow plug to enable the regulation of the combustion processes inside a closed loop system on the market, BERU once again highlights its technological lead. By installing pressure sensor glow plugs higher peak pressures can be implemented in today's smaller engines, standard and future combustion processes can be pushed even further to their limits, and constantly stable emissions control can be obtained throughout the engine's entire service life.

Future of cold start technology

The BERU PSG is an intelligent glow plug with integrated combustion chamber pressure sensor which reports data to the engine control electronics. Injection is adjusted to the actual combustion in real time.



Benefits at a glance

- 1 Cylinder pressure can be recorded up to 200 bar, accurate to +/- 2% and with a resolution up to 700 steps per combustion cycle.
- 2 The ECU is able to constantly adapt the fuel injection, the charge pressure and the exhaust gas recycling rate.
- 3 Ignition can be optimised to each cylinder
- 4 Improves cold starts and cold running quality.
- 5 Enables optimum torque control
- 6 Higher engine performance with limited emission of pollutants, soot particles and nitrogen oxides
- 7 "Closed loop" method introduced into the Diesel Engines

Technical features

Sensor principle: piezo-resistive

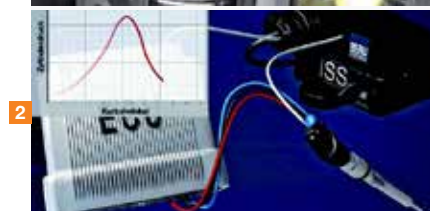
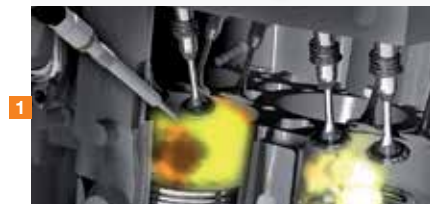
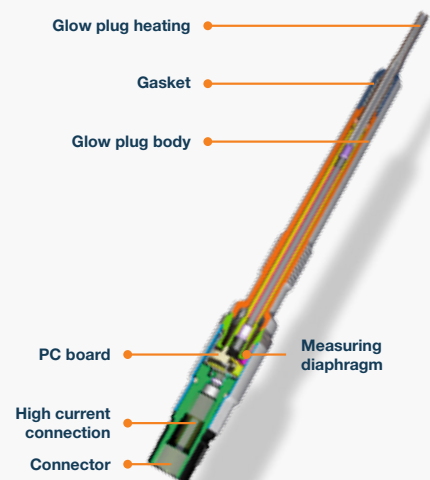
Moving heating rod to transfer the pressure

Robust sealing element between body and heating rod

Miniaturised electronics integrated into top part of the glow plug

Calibrated and programmed to customer specifications

Integral concentric automotive connector



Ready to order: 19 NPI's from BERU

Glow Plugs Pressure Sensor Glow Plugs



Ignition coils

Distributor Ignition Coils



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Plug Top Coils



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Block Ignition Coils



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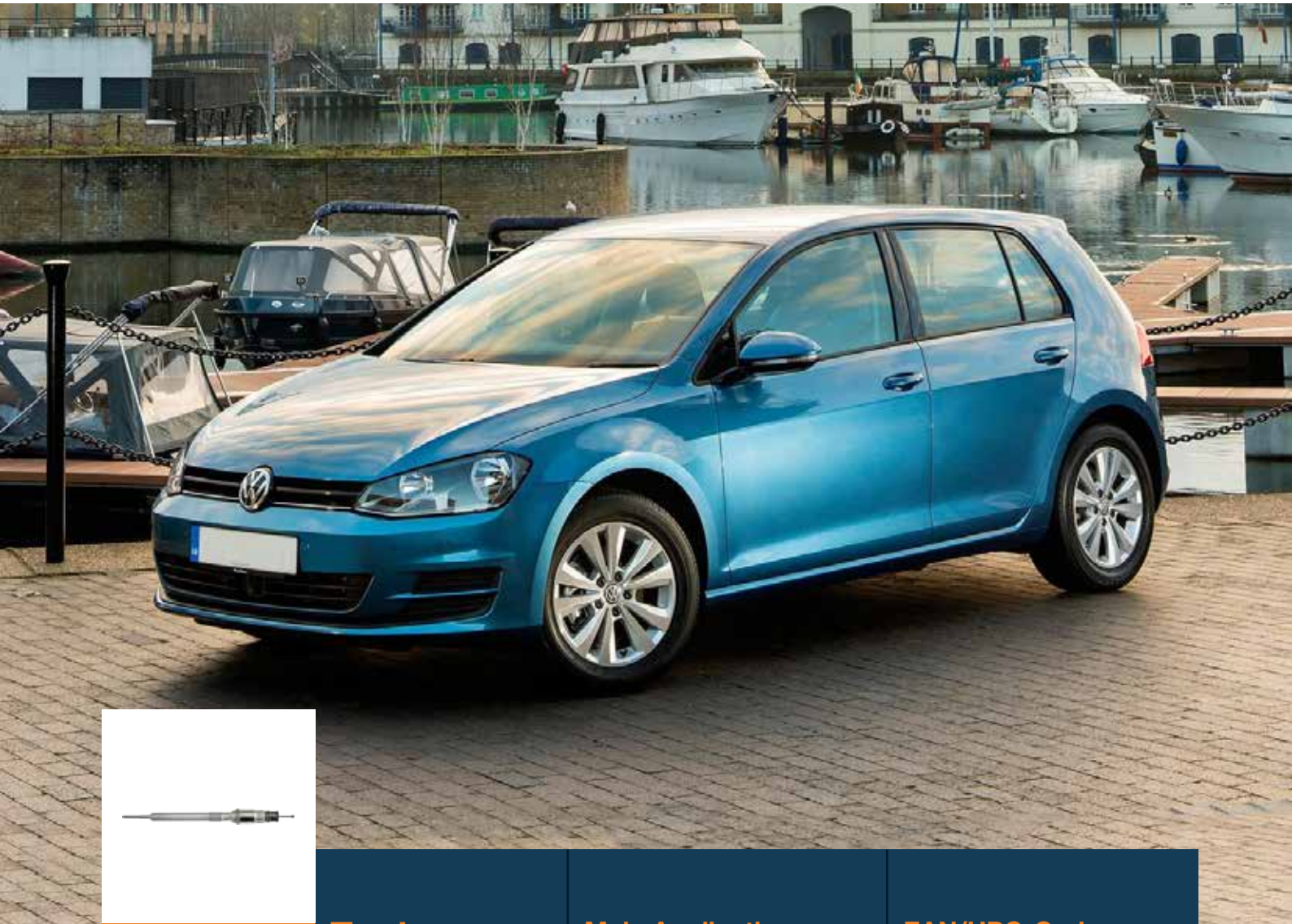
Ignition Coil Rails



ZS452
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Perfection
built in





Trade Number

PSG007

replaces PSG002

Product group

Pressure Sensor
Glow Plugs

OE Reference

03L905061G
03L905061F
03L905061E
03L905061D

Main Application

Audi: A1, A3
(Audi A1 2015→)
(Audi A3 2013→)

Seat: Ibiza
(2016→)

Skoda: Octavia
(2013→)

Volkswagen: Golf, Sharan,
Tiguan
(Golf 2014→)
(Sharan 2016→)
(Tiguan 2012→)

EAN/UPC-Code

4044197858545

Dimension (mm)

260 × 34 × 37

Gross Weight (kg)

0,079

Net Weight (kg)

0,055



**Trade
Number**
ZSE177

Product group
Distributor Ignition Coils

OE Reference
12 558 693

Main Application

Chevrolet:
Silverado 2500 6,0 AWD,
TAHOE 4,8 V8-6,0 V8
(1999→2006)

Hummer: H2 SUT
(1999→2006)

EAN/UPC-Code
4044197844128

Dimension (mm)
82 × 75 × 80

Gross Weight (kg)
0,275

Net Weight (kg)
0,250

Perfection
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**Trade
Number**
ZS445

Product group
Distributor Ignition Coils

OE Reference
9091902197

Main Application

Lexus: GS, LS
(1993→2000)

Toyota: 4 Runner, MR2 II
(1989→1995)

Volkswagen: Taro 2,4i 4x4
(1989→1997)

EAN/UPC-Code

4014427139805

Dimension (mm)

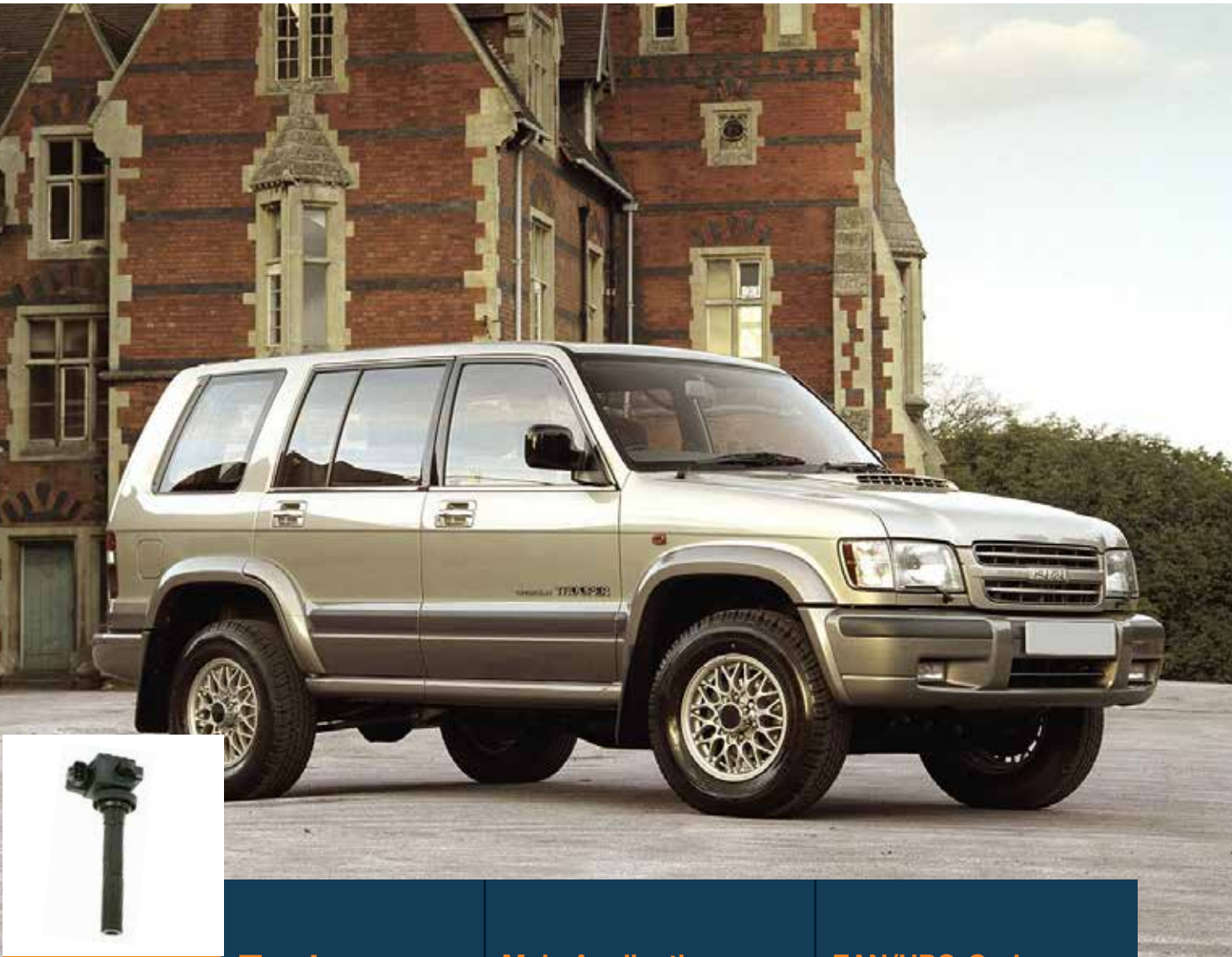
83 × 72 × 127

Gross Weight (kg)

0,494

Net Weight (kg)

0,448



**Trade
Number**
ZSE160

Product group
Plug Top Coils

OE Reference
8971363250

Main Application

Honda: Acura SLX V6,
Passport V6
(1998→1999)

Isuzu: Amigo, Rodeo, Trooper V6
(1998→2001)
ONLY FOR EXPORT USA

EAN/UPC-Code
4014427141549

Dimension (mm)
222 × 80 × 73

Gross Weight (kg)
0,280

Net Weight (kg)
0,240

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**Trade
Number**
ZSE163

Product group
Plug Top Coils

OE Reference
946 602 104 00

Main Application

Porsche:
Macan 3,0S;
Macan 3,6 Turbo
(2014→)

EAN/UPC-Code

4044197771752

Dimension (mm)

53 × 34 × 23

Gross Weight (kg)

0,320

Net Weight (kg)

0,260



**Trade
Number**
ZS446

Product group
Plug Top Coils

OE Reference
1275971

Main Application

Volvo: 940 (944) 2,0 Turbo,
960 II, C70I Convertible,
S40 I+II, S90, V90 Estate
(1990→)

EAN/UPC-Code
4014427139829

Dimension (mm)
98 × 200 × 90

Gross Weight (kg)
0,258

Net Weight (kg)
0,196

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**Trade
Number**
ZS453

Product group
Plug Top Coils

OE Reference
04606869AB
04606869AC

Main Application

Chrysler: 300 C
(2003→2012)

Dodge: Avenger, Journey
(2007→)

Fiat: Freemont
(2011→)

Volkswagen: Routan
(2008→2010)

EAN/UPC-Code
4014427141143

Dimension (mm)
84 × 64 × 196

Gross Weight (kg)
0,281

Net Weight (kg)
0,182



**Trade
Number**
ZS473

Product group
Plug Top Coils

OE Reference
90919-02212

Main Application

Toyota: Land Cruiser 90,
4 Runner 3,4i
(1995→)

EAN/UPC-Code

4014427142140

Dimension (mm)

188 x 110 x 92

Gross Weight (kg)

0,384

Net Weight (kg)

0,295

Perfection
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**Trade
Number**
ZSE093

Product group
Plug Top Coils

OE Reference
(A)2769060260
(A)2721500280
(A)2761500080
(A)2769060160

Main Application

Mercedes: C-Class (W204),
E-Class (W212), G-Class (W463)
M-Class (W166), S-Class (W222)
(2011 →)

EAN/UPC-Code
4044197749348

Dimension (mm)
210 × 100 × 90

Gross Weight (kg)
0,326

Net Weight (kg)
0,250



**Trade
Number**
ZSE094

Product group
Plug Top Coils

OE Reference
(A)2769065100
(A)2769064500

Main Application

Mercedes:
GL-Class (X166) GL 400 4-matic,
M-Class (W166) ML400 4-matic
(2011→)
ONLY FOR ETHANOL-FUEL (E85)

EAN/UPC-Code
4044197749355

Dimension (mm)
210 × 100 × 90

Gross Weight (kg)
0,328

Net Weight (kg)
0,252

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Trade Number ZSE025

Product group
Block Ignition Coils

OE Reference

96350585
10450424
10490192
1104038
8-01104-038-0
1208051

Main Application

Opel: Frontera 2,2i
(1998→)
Daewoo: Lanos, Lengaza,
Nubira 1,4i-2,0i
(1997→)

EAN/UPC-Code
4014427077404

Dimension (mm)
210 × 120 × 90

Gross Weight (kg)
1,060

Net Weight (kg)
0,979



**Trade
Number**
ZSE162

Product group
Block Ignition Coils

OE Reference
058905101A

Main Application

Audi: A4, A6, A6 Avant
(1995→2001)

Volkswagen: Passat,
Passat Variant
(1996→2005)

EAN/UPC-Code
4014427141914

Dimension (mm)
228 × 160 × 113

Gross Weight (kg)
1,290

Net Weight (kg)
1,170

Perfection
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Trade Number ZS447A

Product group
Block Ignition Coils

OE Reference

96253555
25182496
96253555

Main Application

Chevrolet:

Aveo Hatchback, Captiva, Kalos,
Lacetti, Matiz, Nubira Estate
(2005→)

Daewoo: Evanda, Kalos, Lacetti,
Lanos Saloon, Matiz, Nubira,
Rezzo
(1997→)

Opel: Antara 4x4
(2006→)

EAN/UPC-Code

4014427139836

Dimension (mm)

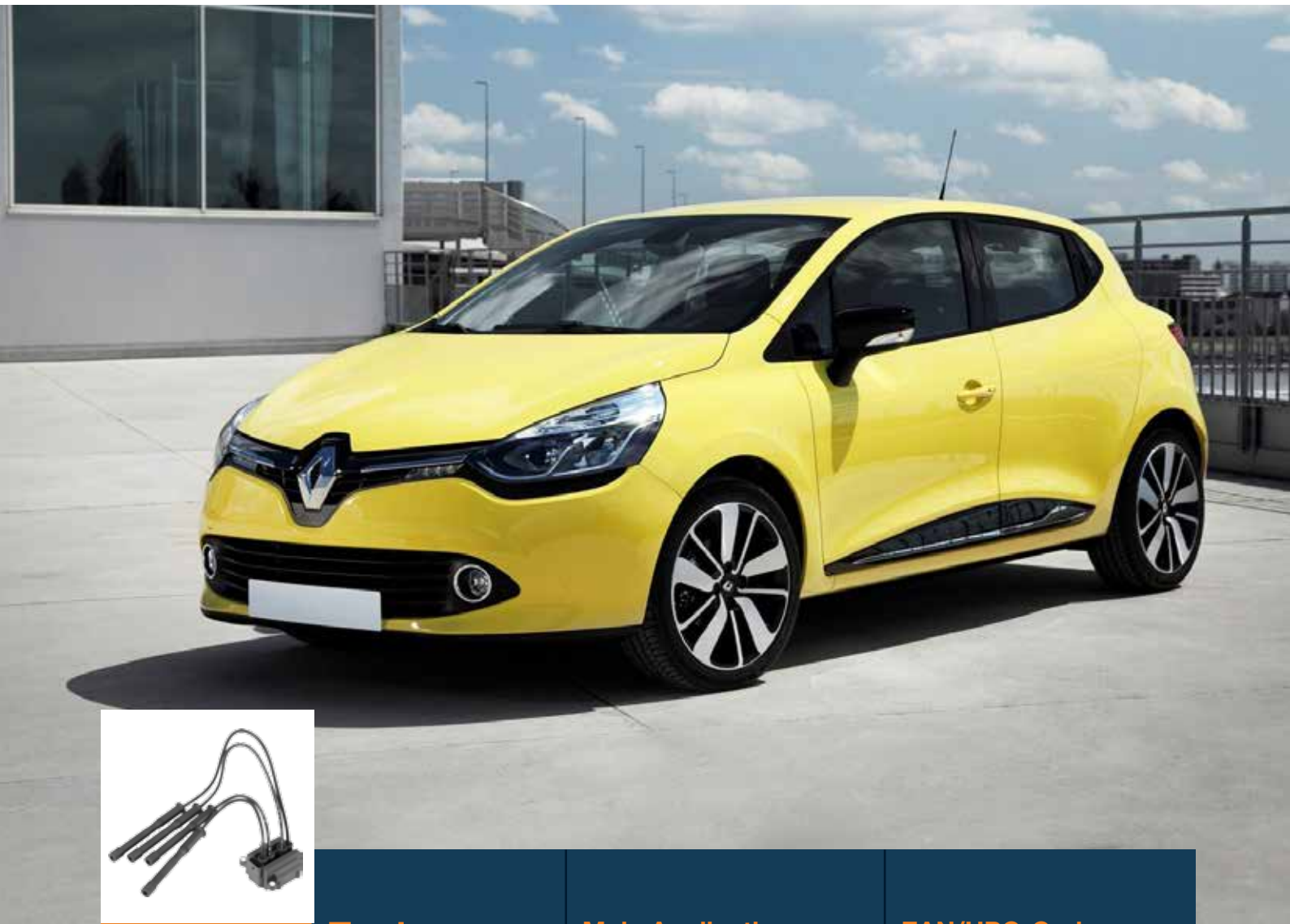
130 × 98 × 100

Gross Weight (kg)

0,841

Net Weight (kg)

0,783



**Trade
Number**
ZS454

Product group
Block Ignition Coils

OE Reference
8200084401
8200051128

Main Application

Proton: Savvy
(2005→)

Renault: Clio, Kangoo, Thalia,
Twingo
(2001→)

EAN/UPC-Code

4044197743285

Dimension (mm)

320 × 170 × 140

Gross Weight (kg)

1,025

Net Weight (kg)

0,942

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Trade Number ZS455

Product group
Block Ignition Coils

OE Reference

56032520AB
56032520AC
56032520AE
56032520AF

Main Application

Chrysler: Grand Voyager,
Town & Country, Voyager III/IV
(2000→2008)

Dodge: Caravan
(2000→2007)

Jeep: Wrangler II/III
(2006→2007)

Volkswagen: Routan
(2008→2010)

EAN/UPC-Code

4014427141150

Dimension (mm)

154 × 137 × 72

Gross Weight (kg)

1,542

Net Weight (kg)

1,404



**Trade
Number**
ZS456

Product group
Block Ignition Coils

OE Reference
56029098AA
56029098AB

Main Application

Chrysler: Voyager IV
(2000→2008)

Dodge: Caravan
(2000→2007)

Jeep: Wrangler II/III
(2006→)

EAN/UPC-Code

4014427141167

Dimension (mm)

154 × 137 × 72

Gross Weight (kg)

1,500

Net Weight (kg)

1,368

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**Trade
Number**
ZS469

Product group
Block Ignition Coils

OE Reference
NEC 100630

Main Application

Land Rover: Freelander 4x4
(1998→2006)

Rover: 100/Metro, 200, 25, 400,
Cabriolet, Coupe
(1990→2005)

EAN/UPC-Code
4014427140955

Dimension (mm)
157 × 115 × 105

Gross Weight (kg)
0,921

Net Weight (kg)
0,822



**Trade
Number**
ZS470

Product group
Block Ignition Coils

OE Reference
4609140AB
4609140

Main Application

Chrysler: Voyager III/IV
(1999→2008)

Dodge: Caravan
(1995→2007)

EAN/UPC-Code

4014427140962

Dimension (mm)

157 × 115 × 105

Gross Weight (kg)

1,407

Net Weight (kg)

1,306

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**Trade
Number**
ZS452

Product group
Ignition Coil Rails

OE Reference
56041476AA
56041019
56041476AB

Main Application

Jeep: Cherokee 4,0 i,
Grand Cherokee I+II 4,0i,
Wrangler
(1991 → 2006)

EAN/UPC-Code

4014427141136

Dimension (mm)

692 × 182 × 102

Gross Weight (kg)

2,115

Net Weight (kg)

1,810

Diesel Cold Start Technology

Glow Plugs

- Post heating (GN)
- Post heating electrical (GE)
- Ceramic Glow Plugs



Pressure Sensor Glow Plugs (PSG)



Instant Start System (ISS)



Ignition Technology

Spark Plugs

- Ultra
- Ultra X Titan
- Platin



Ignition Coils

- Distributor Ignition Coils
- Pencil Coils/Plug Top Coils
- Block Ignition Coils
- Ignition Coil Rails



Ignition Leads & Components



Also available from BERU

Cooling

- Fan wheels
- Fan Clutches
- Electrical Fans



Sensors

- Oxygen
- High-temperature
- Speed, Oil and Temperature

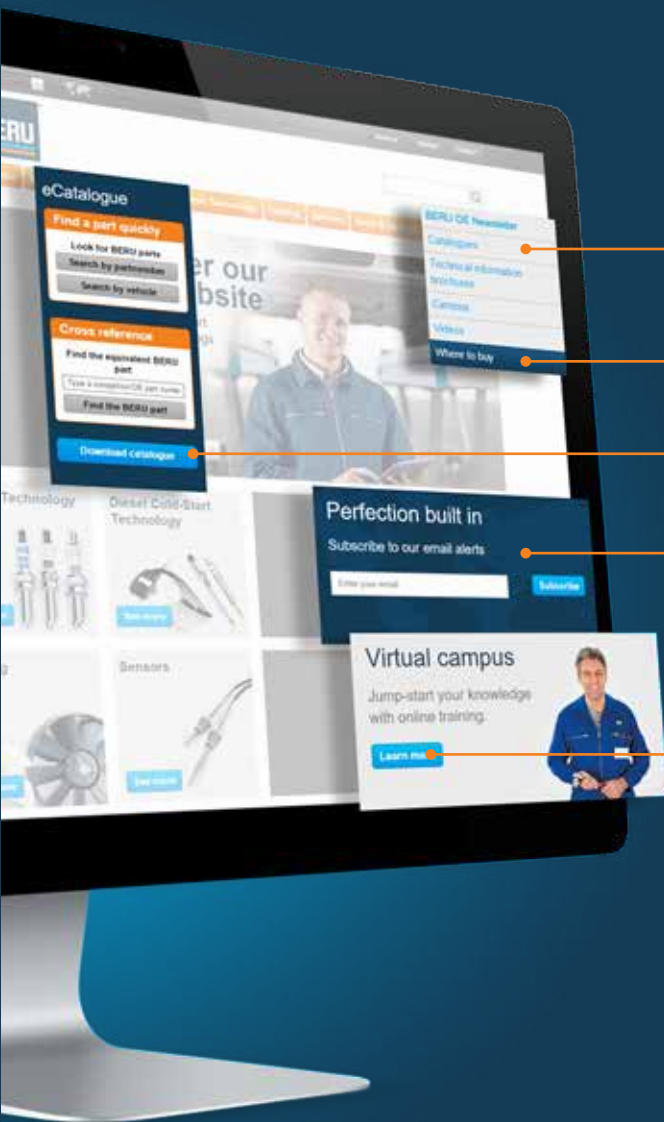


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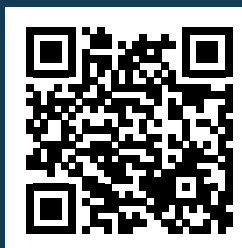
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