

Injection Valve EV 14



EV 14 injection valves are the latest revision of the EV 6 injection valve technology. EV 14 xT are the latest revision of the EV 12.

EV 14 is designed for a wide range of flow rates and spray patterns. Compact size and three standard versions simplify mounting in a variety of applications.

Technical Specifications

Mechanical Data

System pressure	Max. 5 bar (8 bar for motorsport use)
Weight	≤ 30 g
Installation lengths	33.6, 48.65 or 60.65 mm
Fuel input	Top-feed injector
Operating temperature	-40 to 110°C
Permissible fuel temperatures	≤ 70°C
Climate-proof corresponding to saline fog test DIN 50 021	
Housing design	Compact (K), Standard (S), Long (L)
Spray type	C (Conical Spray) or E (2-Spray)
Flow rate at 3 bar (n-heptane)	151 to 1,462 cm ³ /min 103.5 to 1,000 g/min
Spray angle α	15 to 85°
Bent angle γ	0 to 15°
Coil resistance	See variations
Fuel compatibility	E85 Use with different media is not permitted.

- ▶ Flow rate at 3 bar: up to 1,000 g/min (n-heptane)
- ▶ Max. 8 bar
- ▶ Conical spray or 2-spray
- ▶ With or without extension
- ▶ Spray angle 15 to 85°

Electrical Data

Power supply	6 to 16.5 V
--------------	-------------

Connectors and Wires

Connectors	Jetronic, Sumitomo, Motorsport connectors
------------	---

Installation Notes

Please ask for more information before ordering.

Legal Restrictions

Generally blocked are direct and indirect business involving high risk destinations, including Russia, Belarus, Cuba, Iran, North Korea, Syria, Libya, Afghanistan, and certain non-governmental controlled Ukrainian regions. This list may change as geopolitics evolve.

Ordering Information

EV 14 ES, 116 g/min n-heptane
Order number **0280.158.200**

EV 14 CL, 150 g/min n-heptane
Order number **0280.158.107**

EV 14 ES, 150 g/min n-heptane
Order number **0280.158.013**

EV 14 CKxT, 237 g/min n-heptane
Order number **0280.158.038**

EV 14 EL, 237 g/min n-heptane
Order number **0280.158.116**

EV 14 CS, 387 g/min n-heptane
Order number **B280.436.038-09**

EV 14 CS, 387 g/min n-heptane

Order number **B280.436.038-10**

EV 14 ESxT, 429 g/min n-heptane

Order number **0280.158.123**

EV 14 CS, 503 g/min n-heptane

Order number **B280.436.038-08**

EV 14 CS, 503 g/min n-heptane

Order number **B280.436.038-07**

EV 14 CKxT, 670 g/min n-heptane

Order number **0280.158.040**

EV 14 CS, 670 g/min n-heptane

Order number **B280.436.487-01**

EV 14 ES, 697 g/min n-heptane

Order number **B280.436.469-01**

Accessories

Clip for locking bush of plastic

Order number **2431.314.021**

Clip for locking bush of steel

Order number **2431.314.018**

Dimensions

Variations of Production Type Valves

Part No.	0280.158.200	0280.158.107	0280.158.013	0280.158.038	0280.158.116
Flow rate/min	116 g/170 cm ³	150 g/219 cm ³	150 g/219 cm ³	237 g/347 cm ³	237 g/347 cm ³
Type	E	C	E	C	E
Housing	S	L	S	KxT	L
α	15°	20°	19°	20°	22°
γ	90°	0°	0°	0°	5°
δ	0°	0°	90°	0°	90°
Resistance	12 Ohm	12 Ohm	12 Ohm	12 Ohm	12 Ohm

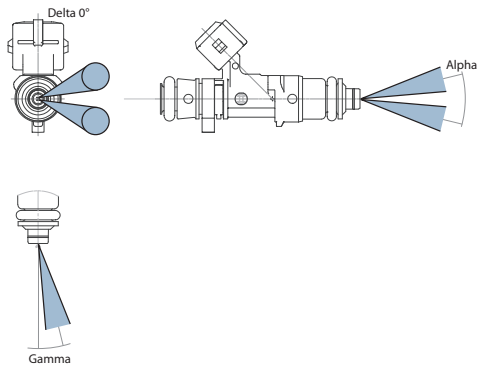
Part No.	0280.158.123	0280.158.040
Flow rate/min	429 g/627 cm ³	670 g/980 cm ³
Type	E	C
Housing	SxT	KxT
α	25°	30°
γ	0°	0°
δ	90°	0°
Resistance	12 Ohm	12 Ohm

Variations of Motorsport Type Valves

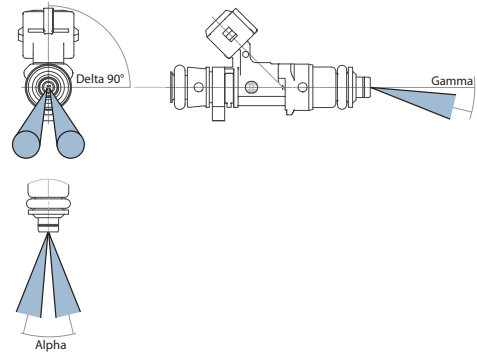
Part No.	B280.436.038-07	B280.436.038-08	B280.436.038-09	B280.436.038-10	B280.436.487-01
Flow rate/min	503 g/736 cm ³	503 g/736 cm ³	387 g/566 cm ³	387 g/566 cm ³	670 g/980 cm ³
Type	C	C	C	C	C
Housing	S	S	S	S	S
α	70°	25°	70°	25°	30°
γ	0°	0°	0°	0°	0°
δ	-	-	-	-	0°
Resistance	12 Ohm	12 Ohm	12 Ohm	12 Ohm	12 Ohm

Further variations are available on request.

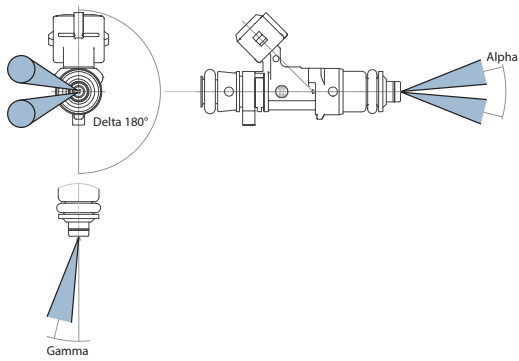
Spray bent to the „right“, Delta=0°



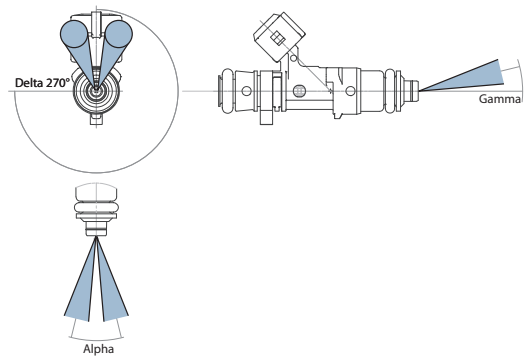
Spray bent „down“ (away from electr. connector), Delta=90°



Spray bent to the „left“, Delta=180°

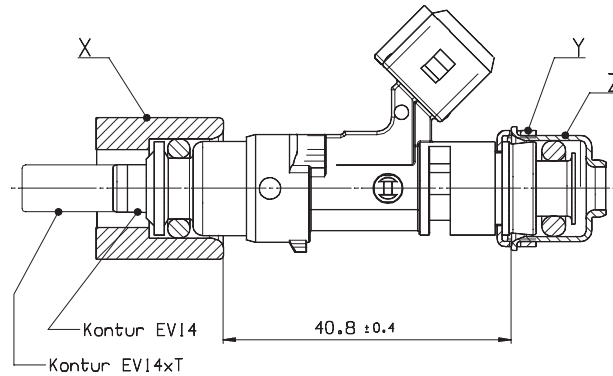


Spray bent „up“ (towards electr. connector), Delta=270°

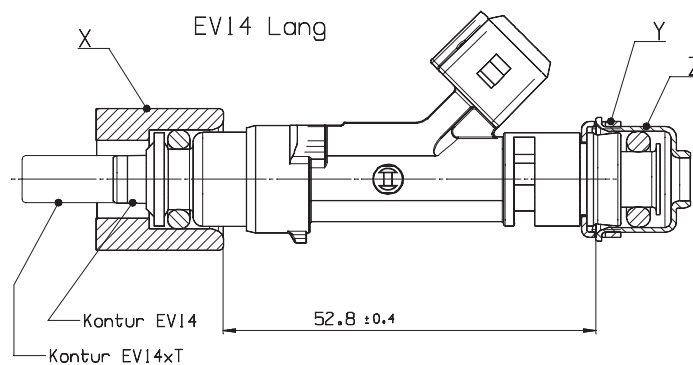


Delta Angles

EV14 Standard



EV14 Lang



Max. 2° Winkelabweichung zwischen Ventil-Achse und Aufnahmebohrung an Fuel Rail bzw. Saugrohr zulaessig.

MAX. 2° ANGLE DEVIATION IS PERMISSIBLE BETWEEN THE INJECTOR AXIS AND THE FUEL RAIL CUP, RESPECTIVELY TO THE INTAKE MANIFOLD.

X= Ø 14:

FOR STANDARD APPLICATIONS
(AVERAGE O-RING SQUEEZE AT NOMINAL VALUE AND AXIAL ASSEMBLY: APP. 7%)
MAX. 2° ANGLE DEVIATION IS PERMISSIBLE BETWEEN THE INJECTOR AXIS AND THE FUEL RAIL CUP, RESPECTIVELY TO THE INTAKE MANIFOLD.

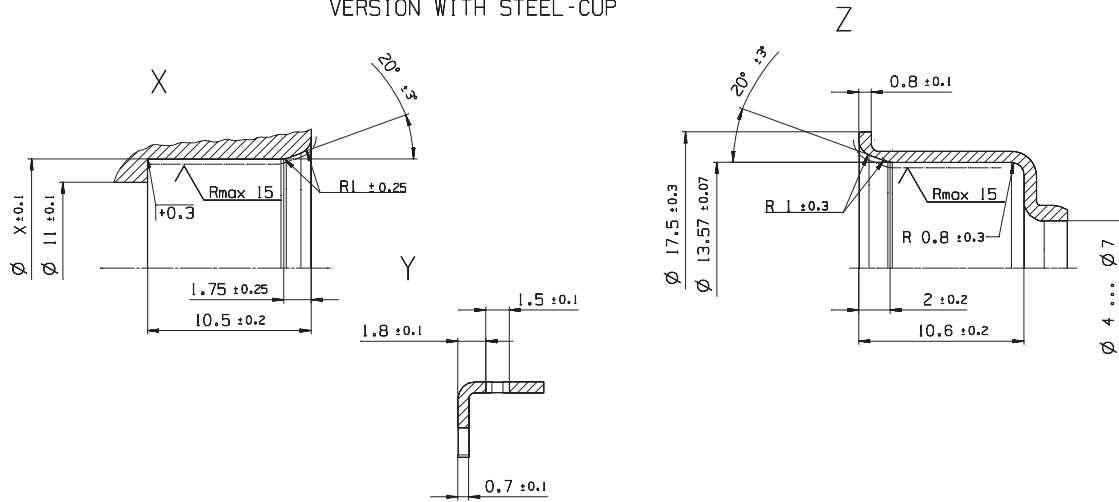
Fuer Standardanwendungen
(mittlere O-Ring Verpressung bei axialem Einbau und Nennmassen: ca. 7%)
Max. 2° Winkelabweichung zwischen Ventil-Achse und Aufnahmebohrung an Fuel Rail bzw. Saugrohr zulaessig.

X= Ø 13.6:

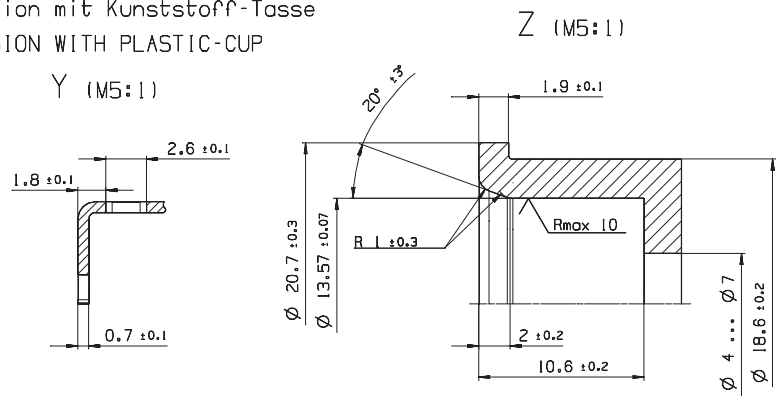
FOR APPLICATIONS WITH EXTENDED REQUIREMENTS
E. G. TURBO APPLICATION, EXPOSED INSTALLATION
(AVERAGE O-RING SQUEEZE AT NOMINAL VALUE AND AXIAL ASSEMBLY: APP. 14%, NOTE HIGHER ASSEMBLY FORCES)
MAX. 1° ANGLE DEVIATION IS PERMISSIBLE BETWEEN THE INJECTOR AXIS AND THE FUEL RAIL CUP, RESPECTIVELY TO THE INTAKE MANIFOLD.

Fuer Anwendungen mit erhoeheten Anforderungen, z. B. Turboapplikation, exponierter Einbau (mittlere O-Ring Verpressung bei axialem Einbau und Nennmassen: ca. 14%, hoehere Einbaukraefte beachten)
Max. 1° Winkelabweichung zwischen Ventil-Achse und Aufnahmebohrung an Fuel Rail bzw. Saugrohr zulaessig.

Version mit Stahl-Tasse
VERSION WITH STEEL-CUP



Version mit Kunststoff-Tasse
VERSION WITH PLASTIC-CUP



Mounting Instructions

Represented by:

Europe:
Bosch Engineering GmbH
Motorsport
Robert-Bosch-Allee 1
74232 Abstatt
Germany
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
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
motorsport@jp.bosch.com
www.bosch-motorsport.jp

Australia, New Zealand and South Africa:
Robert Bosch Pty. Ltd
Motorsport
1555 Centre Road
Clayton, Victoria, 3168
Australia
motor.sport@au.bosch.com
www.bosch-motorsport.com.au