

## Injection Valve EV 12



### Features

- ▶ Single beam or twin beam
- ▶ Flow rate at 3 bar: up to 1,023 cm<sup>3</sup>/min
- ▶ Spray angle 5 to 60°
- ▶ With extension

EV 12 injection valves are designed to inject the fuel as efficiently as possible into the intake manifold runner to achieve a homogeneous distribution of fuel in air flow. There is only one injector body size for the EV 12. Various delivery rates and spray-angles are available. The injection valves EV 6, EV 12 and EV 14 are compatible.

### Technical Specifications

#### Mechanical Data

System pressure	Max. 8 bar
Weight	40 g
Installation length	48 mm (total 81 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	Standard with extension
Spray type	C (Conical Spray) or E (2-Spray)
Flow rate at 3 bar (n-heptane)	146 to 1,023 cm <sup>3</sup> /min 59 to 670 g/min
Spray angle α	5 to 60°
Bent angle γ	0 to 17°
Coil resistance	11 to 16 Ω
Fuel compatibility	E85 / M100 (after Methanol-operating, the valves must be flushed with normal gasoline-fuel)

#### Electrical Data

Power supply	6 to 16.5 V
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#### Connectors and Wires

Connectors	Jetronic, Sumitomo, Motorsport connectors
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#### Installation Notes

Please ask for more information before ordering.

#### Ordering Information

##### EV 12, 120 g/min n-heptane

Order number **0 280 157 002**

##### EV 12, 193 g/min n-heptane

Order number **0 280 157 012**

##### EV 12, 217 g/min n-heptane

Order number **0 280 155 897**

##### EV 12, 269 g/min n-heptane

Order number **0 280 155 892**

##### EV 12, 310 g/min n-heptane

Order number **0 280 157 000**

#### Accessories

##### Clip for locking bush of plastic

Order number **2 431 314 004**

##### Clip for locking bush of steel

Order number **2 431 314 011**

Dimensions

2



EV 12 E 0 280 155 892



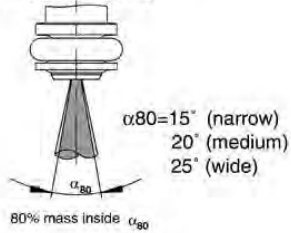
EV 12 E 0 280 155 897



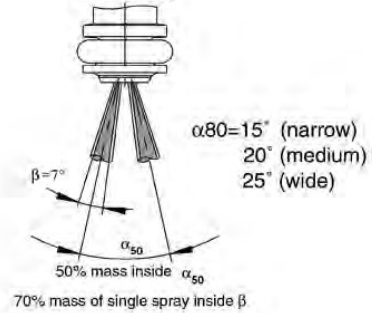
EV 12 E 0 280 157 000

Housing Variations

C: Conical Spray

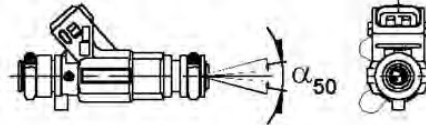
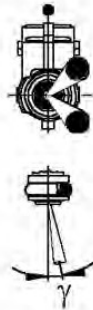
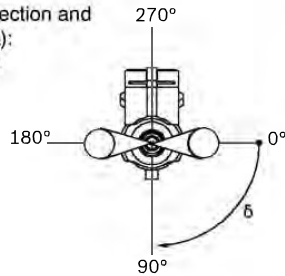


E: 2-Spray



Angle between connection and spray level ( $\delta = \text{delta}$ ): (only 2-spray preparation)

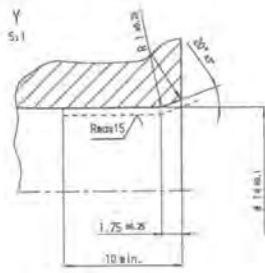
$\delta = 0^\circ - 360^\circ$  possible



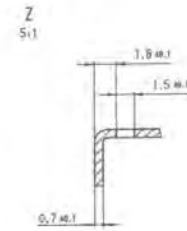
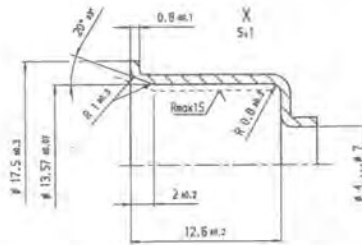
$\gamma = 0^\circ, 5^\circ, 10^\circ$

Spray Illustrations

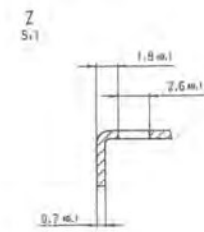
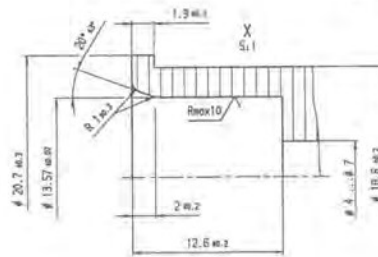
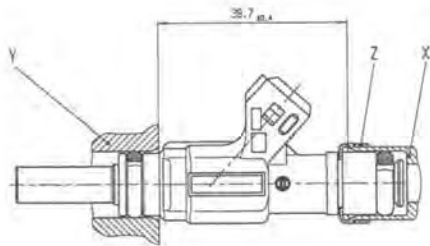




Version mit Stahl-Tasse  
VERSION WITH STEEL-CUP



Version mit Kunststoff-Tasse  
VERSION WITH PLASTIC-CUP



Mounting Instructions

## EV 12 Variations

## Variations of production type valves

Part Nr.	0 280 157 002	0 280 157 012	0 280 155 897	0 280 155 892	0 280 157 000
Flow rate/min	120 g/175 cm <sup>3</sup>	193 g/282 cm <sup>3</sup>	217 g/317 cm <sup>3</sup>	269 g/393 cm <sup>3</sup>	310 g/453 cm <sup>3</sup>
Type	E	E	E	E	E
Housing	S	S	S	S	S
$\alpha$	15°	15°	15°	15°	15°
$\gamma$	10°	10°	10°	10°	10°
$\delta$	270°	270°	270°	270°	270°
Resistance	12 $\Omega$	12 $\Omega$	12 $\Omega$	12 $\Omega$	12 $\Omega$

Further variations are available on request.

## Injection Valve EV 14

2



### Features

- ▶ Conical spray or 2-spray
- ▶ Flow rate at 3 bar: up to 1,023 cm<sup>3</sup>/min
- ▶ Spray angle 15 to 85°
- ▶ With or without extension

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. 8 bar
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 (C), Standard (S), Long (L)
Spray type	C (Conical Spray) or E (2-Spray)
Flow rate at 3 bar (n-heptane)	146 to 1,023 cm <sup>3</sup> /min 100 to 700 g/min
Spray angle α	15 to 85°
Bent angle γ	0 to 15°
Coil resistance	12 Ω
Fuel compatibility	E85 / M100 (after Methanol-operating, the valves must be flushed with normal gasoline-fuel)

#### Electrical Data

Power supply	6 to 16.5 V
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#### Connectors and Wires

Connectors	Jetronic, Sumitomo, Motorsport connectors
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#### Installation Notes

Please ask for more information before ordering.

#### Ordering Information

##### EV 14, 116 g/min n-heptane

Order number **0 280 158 110**

##### EV 14, 116 g/min n-heptane

Order number **0 280 158 200**

##### EV 14, 150 g/min n-heptane

Order number **0 280 158 107**

##### EV 14, 150 g/min n-heptane

Order number **0 280 158 013**

##### EV 14, 503 g/min n-heptane

Order number **B 280 436 038-07**

##### EV 14, 503 g/min n-heptane

Order number **B 280 436 038-08**

##### EV 14, 387 g/min n-heptane

Order number **B 280 436 038-09**

##### EV 14, 387 g/min n-heptane

Order number **B 280 436 038-10**

##### EV 14, 237 g/min n-heptane

Order number **0 280 158 038**

##### EV 14, 237 g/min n-heptane

Order number **0 280 158 116**

##### EV 14, 429 g/min n-heptane

Order number **0 280 158 123**

##### EV 14, 670 g/min n-heptane

Order number **0 280 158 040**

##### EV 14, 697 g/min n-heptane

Order number **B 280 436 469-01**

#### Accessories

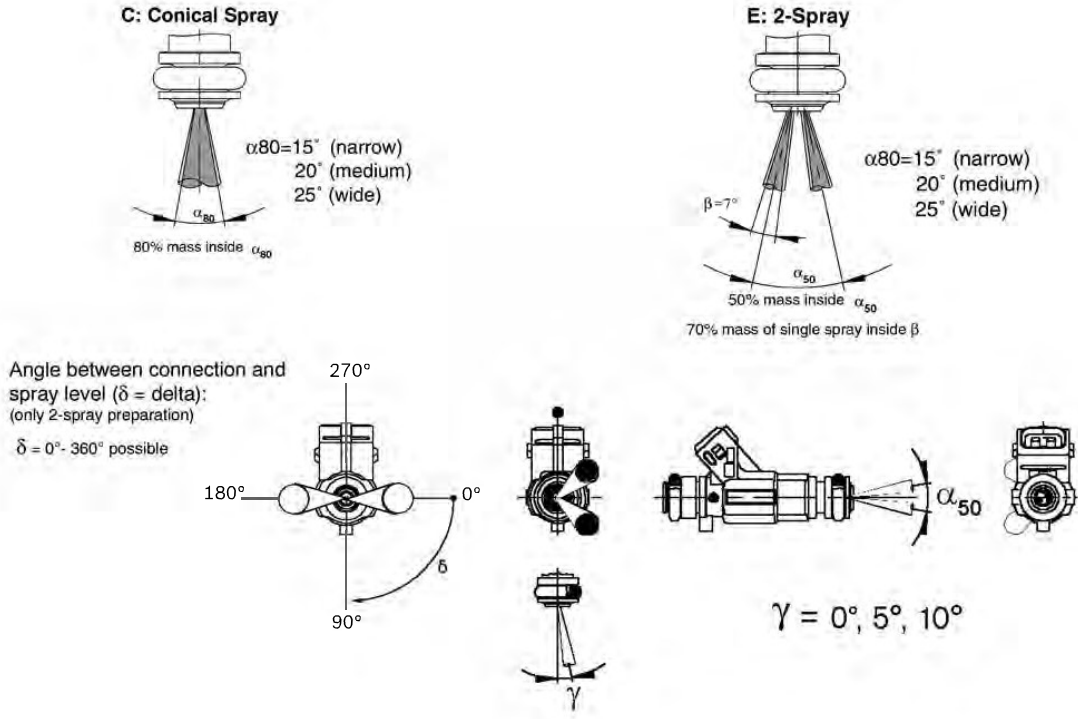
##### Clip for locking bush of plastic

Order number **2 431 314 021**

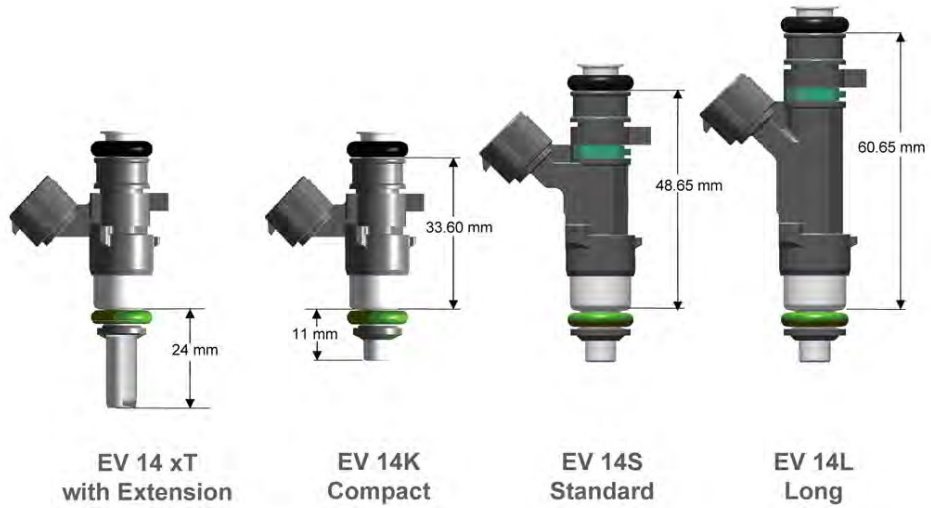
##### Clip for locking bush of steel

Order number **2 431 314 018**

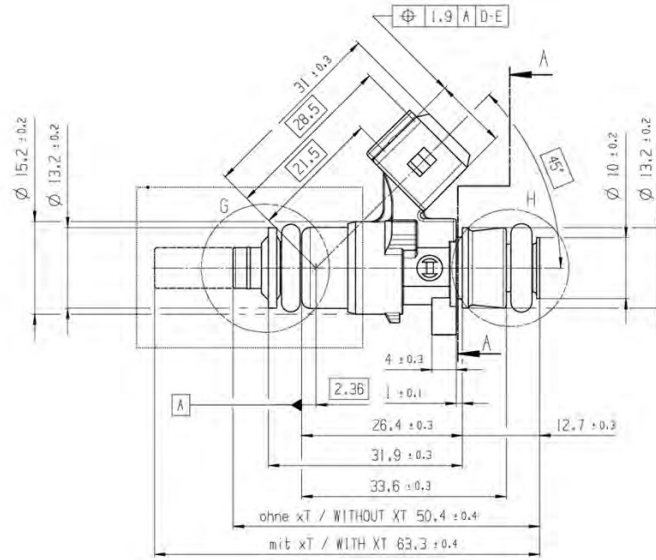
Dimensions



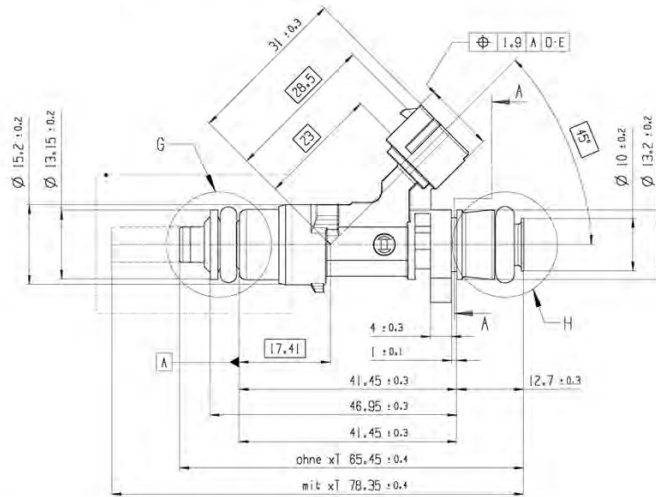
Spray Illustrations



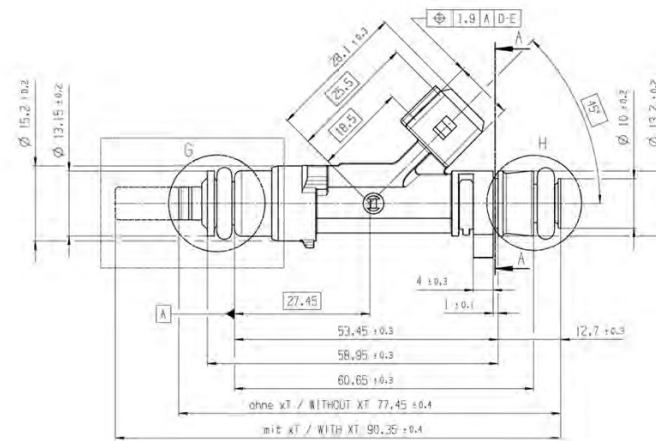
Housing Variations



EV 14 Compact

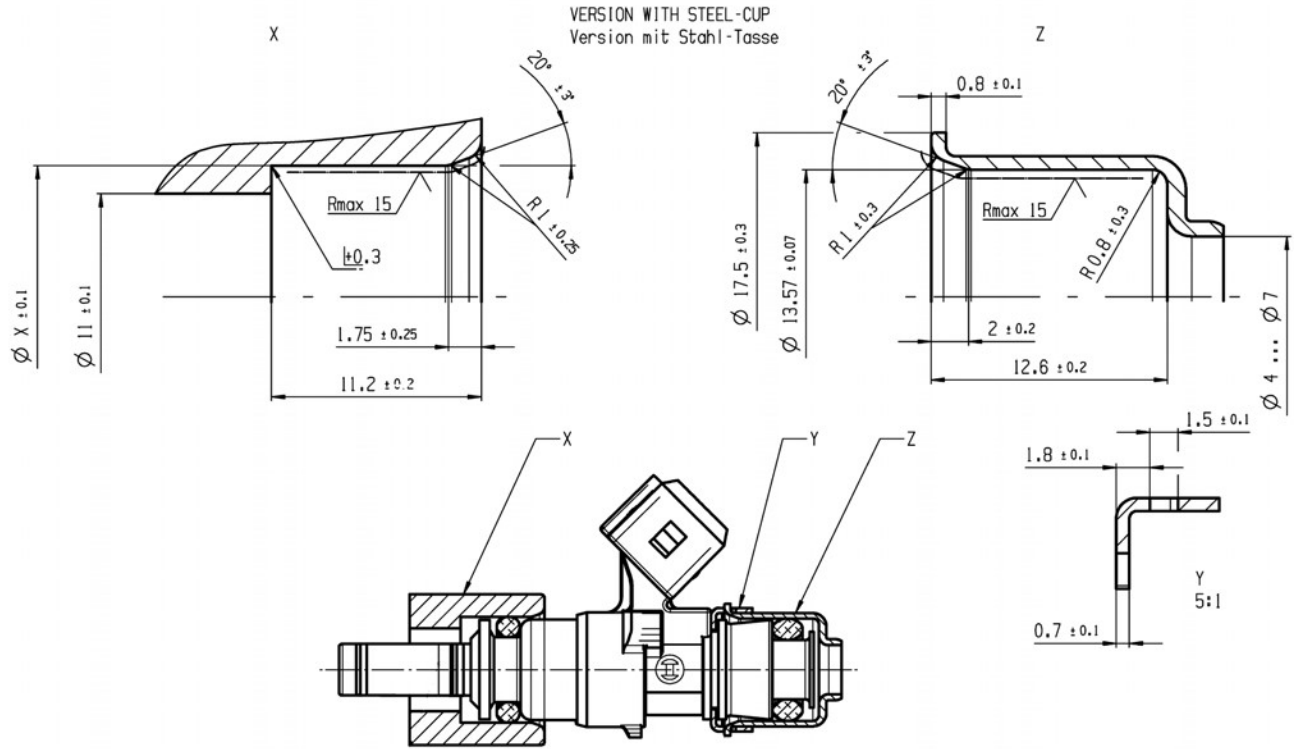


EV 14 Standard



EV 14 Long





Mounting Instructions

## EV 14 Variations

## Variations of production type valves

Part Nr.	0 280 158 110	0 280 158 200	0 280 158 107	0 280 158 013	0 280 158 038
Flow rate/min	116 g/170 cm <sup>3</sup>	116 g/170 cm <sup>3</sup>	150 g/219 cm <sup>3</sup>	150 g/219 cm <sup>3</sup>	237 g/347 cm <sup>3</sup>
Type	C	E	C	E	C
Housing	L	S	L	S	KxT
$\alpha$	15°	15°	20°	19°	20°
$\gamma$	0°	0°	0°	0°	0°
$\delta$	0°	90°	0°	90°	0°
Resistance	12 $\Omega$	12 $\Omega$	12 $\Omega$	12 $\Omega$	12 $\Omega$

Part Nr.	0 280 158 116	0 280 158 123	0 280 158 040
Flow rate/min	237 g/347 cm <sup>3</sup>	429 g/627 cm <sup>3</sup>	670 g/980 cm <sup>3</sup>
Type	E	E	C
Housing	L	SxT	KxT
$\alpha$	22°	25°	30°
$\gamma$	5°	0°	0°
$\delta$	90°	90°	0°
Resistance	12 $\Omega$	12 $\Omega$	12 $\Omega$

Further variations are available on request

## Variations of Motorsport valves

Part Nr.	B 280 436 038-07	B 280 436 038-08	B 280 436 038-09	B 280 436 038-10	B 280 436 469-01
Flow rate/min	503 g/736 cm <sup>3</sup>	503 g/736 cm <sup>3</sup>	387 g/566 cm <sup>3</sup>	387 g/566 cm <sup>3</sup>	697 g/1,019 cm <sup>3</sup>
Type	C	C	C	C	E
Housing	S	S	S	S	S
$\alpha$	70°	25°	70°	25°	20°
$\gamma$	0°	0°	0°	0°	0°
$\delta$	-	-	-	-	90°
Resistance	12 $\Omega$	12 $\Omega$	12 $\Omega$	12 $\Omega$	12 $\Omega$

Further variations are available on request.