

General Test Certificate

Test Report number: **P-TÜ7-01930**

Manufacturer:
Elaflex Hiby Tanktechnik GmbH & Co.KG
Zweigniederlassung Plettenberg
Auf dem Stahl 9
58840 Plettenberg

Distribution:
Elaflex Hiby Tanktechnik GmbH & Co.KG

Schnackenburgallee 121
22525 Hamburg

Object: Automatic Nozzle
Type "ZVA SL2" and "ZVA SL2 GR" for dispensing fuels
Type "ZVA AdBlue HV" for dispensing Aqueous Urea Solution (AUS 32)
and special design for dispensing other water endangering or flammable
liquids Type „ZVA VI“, „ZVA VA“, „ZVA GBZ“, „ZVA RG“, „ZVA EP“

Period of validity: 31st May 2021

Head of testing and inspection body
for automatic nozzles

Straube 

Date: 31st May 2016

According to this general test certificate the object as named above can be applied as defined by the state building code.

This general test certificate comprises 4 pages and 1 attachment.
For the first time in 2003, a general test certificate was written for the object named above.
This general test certificate replaces the general test certificate P-TÜ7-01930 of 30th March 2011

1 Object and field of application

1.1 The object of this general test certificate are nozzles which automatically shut off due to a pneumatic vacuum before the tank has been filled completely.
The nozzles shut automatically either if the spout mouth and its sensing port are touch any liquids or if the nozzle with the bent-down spout is lifted insofar as the tubular axle line of the spout mouth has reached the horizontal line.

1.2 Field of application:

Type "ZVA SL2 and ZVA SL2 GR":

Dispensing facilities at service stations for refueling motor vehicle tanks and portable containers as well as for filling petrol tanks of portable outdoor work engines for gasoline according to DIN EN 228 ¹⁾, compounds of motor petrols with up to 85% ethanol (DIN 51625 ²⁾), diesel fuels according to DIN EN 590 ³⁾ and fatty acid methyl ester (FAME) for diesel engines according to DIN EN 14214 ⁴⁾.

Type "ZVA AdBlue":

Dispensers at petrol filling stations for the filling of AdBlue vessels in heavy-goods vehicles as well as installations for the filling of transportable vessels with AdBlue. (AUS 32 according to ISO 22241-1 /DIN 70070 ⁵⁾)

"ZVA xx" (special design):

The types are "ZVA VI", "ZVA VA", "ZVA GBZ", "ZVA RG", "ZVA EP":

These nozzles are used for special cases for filling different flammable or water endangering liquids like solvents, alcohol etc. outside of service stations. The service conditions are defined in each individual case.

Discharge according to the wet hose system. The maximum approved volume flow is 80 l/minute for the ZVA SL2 with a spout according to ISO 9159 (da = 25mm) and 55 l/minute with a spout according to ISO 9158 (da = 21mm). The maximum approved volume flow for the ZVA SL2 GR is 45 l/minute, for the ZVA AdBlue 40 l/minute.

The minimum test pressure is 0.5 bar, the maximum (zero-delivery pressure) is 3.5 bar. If required, the nozzle manufacturer can make adjustments so as to enable a maximum test pressure of 4 bar.

1.3 This general test certificate solely validates usability as specified in clause 1.1 and has been issued irrespective of tests and approvals that might be required by other fields of law, e.g. 11. *ProdSV –Explosionsschutzprodukteverordnung* (i.e. regulation on explosion protection).

1.4 Due to the test certificate the mandatory requirements of water law aptitude test according § 63 of the German Water Management Act do not apply for the nozzle.

¹⁾ DIN EN 228: 2014-10 Automotive fuels – Unleaded petrol – Requirements and test methods

²⁾ DIN 51625:2008-08 Automotive fuels – Ethanol Fuel – Requirements and test methods

³⁾ DIN EN 590:2014-04 Automotive fuels – Diesel – Requirements and test methods

⁴⁾ DIN EN 14214:2014-06 Liquid petroleum products – Fatty acid methyl esters (FAME) for Diesel – Requirements and test methods

⁵⁾ ISO 22241-1:2006-10 Diesel engines – No_x reduction agent AUS 32 – Part 1 Quality requirements

DIN 70070:2005-08 Diesel engines – No_x-reduction agent AUS 32 – Quality requirements

2 Construction project regulations

2.1 Composition

The nozzle parts which are essential for the functionality of the automatic shut off function are located in an aluminum body (or stainless steel, cast brass or red brass in case of the special design). The main parts comprise the main valve which can be opened or shut off by a control lever, the Venturi-device, the membrane with its roller coupling, the safety cut out ball assembly for the position-dependent shutdown and the spout. The spout has a sensing port at the lower end. The control lever can be fixed in two or three positions by a lever latch.

Type ZVA SL2 GR is equipped with facilities to enable vapour recovery.

The nozzles have to conform to the documents which are named in the attachment #1 of this general test certificate.

2.2 Construction

The nozzles must only be constructed on the manufacturer's plant:
Elaflex Hiby Tanktechnik GmbH & Co.KG, subsidiary in Plettenberg,
Auf dem Stahl 9, 58840 Plettenberg

3 Verification of conformity

3.1. General

The manufacturer/importer has to issue a compliance declaration in order to certify that the nozzles "ZVA SL2", "ZVA SL2 GR", "ZVA AdBlue HV", "ZVA VI", "ZVA VA", "ZVA GBZ", "ZVA RG", "ZVA EP" conform to DIN EN 13012 ⁶⁾ (where applicable) and to this general test certificate .

Before this compliance declaration the construction product manufacturer has to instruct an approved inspection authority to test the construction product according to No. 2.40 of the Building Rules List A, part 2 (issue 2015/2).

3.2 Manufacturing inspection

By subjecting each nozzle to a routine test according to DIN EN 13012, table 6, the manufacturer has to ensure that:

- all materials used, measurements and fits are consistent with the documents kept by the testing and inspection body
- all parts are made of faultless material
- all nozzles are fully functional.

The results of the manufacturing inspection have to be recorded and kept for a least five years. In case of defects, all necessary steps are to be taken immediately in order to eliminate the defects, removing all defective nozzles

⁶⁾ DIN EN 13012:2012-9 – Construction and performance of automatic nozzles for use on fuel dispensers

4 German Mark of Conformity

Each nozzle, its packaging or its delivery note must be marked by the manufacturer with the German Mark of Conformity ("Ü"-Marking) according to the German Mark of Conformity Acts of each country. The manufacturer must only mark the nozzle if the conditions according to no. 3 are fulfilled.

Furthermore, the following information must be provided on each nozzle at least: Manufacturer or manufacturer sign, ser. No., production quarter and year, Type identification, No. of the test certificate.

5 Regulations for usage and maintenance

Each buyer of a nozzle type "ZVA SL2", "ZVA SL2 GR", "ZVA AdBlue HV", "ZVA VI", "ZVA VA", "ZVA GBZ", "ZVA RG", "ZVA EP" has to be informed of the designated field of application (see no. 1.2) in written form.

The installation and operating information⁷⁾ must be delivered by the applicant. Installation, implementation and operation of the nozzle must be effected according to this installation and operating information.

6 General information

- 6.1 The test certificate does not substitute the legal authorizations, approvals and certificates which are necessary in order to realize any construction project.
- 6.2 The test certificate is granted without prejudice to the rights of a third person, especially private property rights.
- 6.3 The nozzle manufacturer and distributor must provide the nozzle user or operator with copies of the general test certificate and inform them that the test certificate must be provided to application site. At request the authorities involved have to be provided with copies of the test certificate.
- 6.4 The test certificate must only be duplicated as a whole. A partial publication must be approved by a certified inspection authority. Texts and drawings must not contradict the test certificate. Own translations of the test certificate must take the note "Translation of the German original not certified by the TÜV NORD".
- 6.5 The test certificate may be cancelled at any time. The regulations of the test certificate may be amended and changed at a later time, especially if new technical knowledge requires this.

⁷⁾ Technical Description approved by TÜV NORD (installation and operating manual), issued 05.2016