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中华人民共和国国家标准  
NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 43408-2023

Road Vehicles—Compressed Natural Gas (CNG)  
Refueling Connector  
道路车辆 压缩天然气 (CNG) 加气连接器

(ISO 14469:2017, MOD)

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# Road Vehicles—Compressed Natural Gas (CNG) Refueling Connector

## 1 SCOPE

This document specifies the general construction, instructions and marking requirements for refueling connectors of CNG vehicles, and describes the test methods.

This document is only applicable to the CNG vehicles with a service pressure of 20 MPa.

Note: Unless otherwise specified, all pressures expressed in MPa are gauge pressures.

## 2 NORMATIVE REFERENCES

The following normative documents contain provisions which, through normative reference in this text, constitute essential provision of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

GB/T 1690	Rubber, vulcanized or thermoplastic - Determination of the effect of liquids (GB/T 1690-2010, ISO 1817:2005, MOD)
GB/T 3512	Rubber, vulcanized or thermoplastic - Accelerated ageing and heat resistance tests (GB/T 3512-2014, ISO 188:2011, IDT)
GB/T 10125	Corrosion tests in artificial atmospheres - Salt spray tests (GB/T 10125-2021, ISO 9227:2017, MOD)
ISO 15500-2	Road vehicles - Compressed natural gas (CNG) fuel system components- Part 2: Performance and general test methods
ISO 15500-1	Road vehicles - Compressed natural gas (CNG) fuel system components- Part 1: Safety requirements

## 3 TERMS AND DEFINITIONS

For the purpose of this document, the following terms and definitions apply.

- 3.1 dry air  
air of which the dew point at the test pressure is at least 11°C below the ambient test temperature
- 3.2 working pressure  
maximum pressure that a CNG refueling connector can withstand in actual service
- 3.3 service pressure  
a pressure of 20 MPa at a gas temperature of 15°C for refueling connectors
- 3.4 CNG refueling nozzle  
refueling nozzle  
component which permits quick connection and disconnection of fuel supply to the CNG receptacle in a safe manner
- 3.5 CNG refueling receptacle  
refueling receptacle  
component installed on a vehicle and connected to the CNG storage system which receives the CNG refueling nozzle and permits safe transfer of fuel
- 3.6 CNG refueling connector  
refueling connector  
joined assembly of CNG refueling nozzle and receptacle



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