

**THE NETHERLANDS**  
(N E D E R L A N D)**COMMUNICATION**Concerning <sup>(1)</sup>:

- approval granted
- ~~approval extended~~
- ~~approval refused~~
- ~~approval withdrawn~~
- ~~production definitively discontinued~~

of a type of CNG/LNG component pursuant to Regulation number 110.

**Approval number: E4-110R-010444****Extension number: 00**

1. CNG/LNG component considered:

- ~~Container(s) or cylinder(s)~~<sup>(+)</sup>
- ~~Tank(s) or vessel(s)~~<sup>(+)</sup>
- ~~Pressure indicator~~<sup>(+)</sup>
- ~~Pressure relief valve~~<sup>(+)</sup>
- ~~Automatic valve(s)~~<sup>(+)</sup>
- ~~Excess flow valve~~<sup>(+)</sup>
- ~~Gas tight housing~~<sup>(+)</sup>
- ~~Pressure regulator(s)~~<sup>(+)</sup>
- ~~Non return valve(s) or check valve(s)~~<sup>(+)</sup>
- ~~Pressure relief device (PRD)(temperature triggered)~~<sup>(+)</sup>
- ~~Manual valve~~<sup>(+)</sup>
- ~~Flexible fuel lines~~<sup>(+)</sup>
- ~~Filling unit or receptacle~~<sup>(+)</sup>
- ~~Gas injector(s)~~<sup>(+)</sup>
- ~~Gas flow adjuster~~<sup>(+)</sup>
- ~~Gas/air mixer~~<sup>(+)</sup>
- ~~Electronic control unit~~<sup>(+)</sup>
- ~~Pressure and temperature sensor(s)~~<sup>(+)</sup>
- ~~CNG filter(s)~~<sup>(+)</sup>
- ~~PRD (pressure triggered)~~<sup>(+)</sup>
- ~~Fuel rail~~<sup>(+)</sup>
- ~~Heat exchanger(s)/vaporizer(s)~~<sup>(+)</sup>
- ~~Natural gas detector(s)~~<sup>(+)</sup>



- LNG filling receptacle(s)<sup>(1)</sup>
- LNG pressure control regulator(s)<sup>(1)</sup>
- LNG pressure and/or temperature sensor(s)<sup>(1)</sup>
- LNG manual valve(s)<sup>(1)</sup>
- LNG automatic valve(s)<sup>(1)</sup>
- LNG non return valve(s)<sup>(1)</sup>
- LNG pressure relief valve(s)<sup>(1)</sup>
- LNG excess flow valve(s)<sup>(1)</sup>
- LNG fuel pump(s)<sup>(1)</sup>
- 

2. Trade name or mark : LNG Manifold
3. Manufacturer's name and address : Engineered Controls International, LLC  
100 RegO Drive  
NC 27244, Elon  
United States of America
4. If applicable, name and address of manufacturer's representative :
5. Submitted for approval on : January 2016
6. Technical service responsible for conducting approval tests : Kiwa Nederland B.V.  
P.O. Box 137  
7300 AC Apeldoorn  
The Netherlands
7. Date of report issued by that service : November 11<sup>th</sup> 2016
8. Number of report issued by that service : 160401277
9. Approval : granted/~~refused/extended/withdrawn~~<sup>(1)</sup>
10. Reason(s) of extension (if applicable) :
11. Place : Zoetermeer
12. Date : 01-DEC-2016
13. Signature :



**R.F.R. Clement**

14. The documents filed with the application or extension of approval can be obtained upon request.

---

<sup>(1)</sup> Strike out what does not apply.

## ADDENDUM

1. Additional information concerning the type approval of a type of CNG/LNG components pursuant to Regulation number 110.
  - 1.1. Natural Gas Storage System
    - 1.1.1. Container(s) or cylinder(s) (for CNG system)
      - 1.1.1.1. Dimensions :
      - 1.1.1.2. Material :
    - 1.1.2. Tank(s) or vessel(s) (for LNG system)
      - 1.1.1.1. Capacity :
      - 1.1.1.2. Material :
  - 1.2. Pressure indicator
    - 1.2.1. Working pressure(s) <sup>(2)</sup> :
    - 1.2.2. Material :
  - 1.3. Pressure relief valve (discharge valve)
    - 1.3.1. Working pressure(s) <sup>(2)</sup> :
    - 1.3.2. Material :
  - 1.4. Automatic valve(s)
    - 1.4.1. Working pressure(s) <sup>(2)</sup> :
    - 1.4.2. Material :
  - 1.5. Excess flow valve
    - 1.5.1. Working pressure(s) <sup>(2)</sup> :
    - 1.5.2. Material :
  - 1.6. Gas-tight housing
    - 1.6.1. Working pressure(s) <sup>(2)</sup> :
    - 1.6.2. Material :
  - 1.7. Pressure regulator(s)
    - 1.7.1. Working pressure(s) <sup>(2)</sup> :
    - 1.7.2. Material :
  - 1.8. Non-return valve(s) or check valve(s)
    - 1.8.1. Working pressure(s) <sup>(2)</sup> :
    - 1.8.2. Material :
  - 1.9. Pressure relief device (temperature triggered)
    - 1.9.1. Working pressure(s) <sup>(2)</sup> :
    - 1.9.2. Material :
  - 1.10. Manual valve
    - 1.10.1. Working pressure(s) <sup>(2)</sup> :
    - 1.10.2. Material :
  - 1.11. Flexible fuel lines
    - 1.11.1. Working pressure(s) <sup>(2)</sup> :
    - 1.11.2. Material :



1.12.	Filling unit or receptacle	
1.12.1.	Working pressure(s) <sup>(2)</sup>	:
1.12.2.	Material	:
1.13.	Gas injector(s)	
1.13.1.	Working pressure(s) <sup>(2)</sup>	:
1.13.2.	Material	:
1.14.	Gas flow adjuster	
1.14.1.	Working pressure(s) <sup>(2)</sup>	:
1.14.2.	Material	:
1.15.	Gas/air mixer	
1.15.1.	Working pressure(s) <sup>(2)</sup>	:
1.15.2.	Material	:
1.16.	Electronic control unit	
1.16.1.	Basic software principles	:
1.17.	Pressure and temperature sensor(s)	
1.17.1.	Working pressure(s) <sup>(2)</sup>	:
1.17.2.	Material	:
1.18.	CNG filter(s)	
1.18.1.	Working pressure(s) <sup>(2)</sup>	:
1.18.2.	Material	:
1.19.	PRD (pressure triggered)	
1.19.1.	Working pressure(s) <sup>(2)</sup>	:
1.19.2.	Material	:
1.20.	Fuel rail(s)	
1.20.1.	Working pressure(s) <sup>(2)</sup>	:
1.20.2.	Material	:
1.21.	Heat Exchanger(s)/Vaporizer(s)	
1.21.1.	Working pressure(s) <sup>(2)</sup>	:
1.21.2.	Material	:
1.22.	Natural gas detector(s)	
1.22.1.	Working pressure(s) <sup>(2)</sup>	:
1.22.2.	Material	:
1.23.	LNG filling receptacle(s)	
1.23.1.	Working pressure(s) <sup>(2)</sup>	:
1.23.2.	Material	:
1.24.	LNG pressure control regulator(s)	
1.24.1.	Working pressure(s) <sup>(2)</sup>	:
1.24.2.	Material	:
1.25.	LNG pressure and/or temperature sensor(s)	
1.25.1.	Working pressure(s) <sup>(2)</sup>	:
1.25.2.	Material	:



- 1.26. LNG manual valve(s)
- 1.26.1. Working pressure(s)<sup>(2)</sup> : 2.38 MPa (23.8 bar)
- 1.26.2. Material : See report 160401277
  
- 1.27. LNG automatic valve(s)
- 1.27.1. Working pressure(s)<sup>(2)</sup> :
- 1.27.2. Material :
  
- 1.28. LNG non-return valve(s)
- 1.28.1. Working pressure(s)<sup>(2)</sup> :
- 1.28.2. Material :
  
- 1.29. LNG pressure relief valve(s)
- 1.29.1. Working pressure(s)<sup>(2)</sup> : 1.59 MPa (15.9 bar) E4-110R-010365-L
- 1.29.2. Material : See report 160401277
  
- 1.30. LNG excess flow valve(s)
- 1.30.1. Working pressure(s)<sup>(2)</sup> :
- 1.30.2. Material :
  
- 1.31. LNG fuel pump(s)
- 1.31.1. Working pressure(s)<sup>(2)</sup> :
- 1.31.2. Material :

---

<sup>(2)</sup> Specify the tolerance

