

THE NETHERLANDS
(N E D E R L A N D)

COMMUNICATION

Concerning ⁽¹⁾:

- ~~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- ~~approval withdrawn~~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*110R05/00*0396*06

1. ~~CNG/LNG~~ component considered:

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



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

2. Trade name or mark : LNG Economizer ECL/ECR series
Brand names: RegO Products
Macro Technologies
3. Manufacturer's name and address : Engineered Controls International LLC
100 RegO Drive 27244
Elon, North Carolina
United States of America
4. If applicable, name and address of manufacturer's representative : N.A.
5. Submitted for approval on : 30-03-2015
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 : 23-01-2023
8. Number of report issued by that service : 150201360_P000277090
9. Approval : ~~granted/refused/extended/withdrawn~~⁽¹⁾
10. Reason(s) of extension (if applicable) : The currently homologated LNG Economizer ECL 602 series is updated to the latest Revision of the ECE Regulation 110
11. Place : Zoetermeer
12. Date : 07 February 2023
13. Signature : 
R.F.R. Clement
14. The documents filed with the application or extension of approval can be obtained upon request.

⁽¹⁾ 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)
 - 1.1.2.1. Capacity :
 - 1.1.2.2. Material :
 - 1.1.3. CNG accumulator
 - 1.1.3.1. Dimensions :
 - 1.1.3.2. Material :
 - 1.1.3.3. Capacity :
 - 1.2. Pressure indicator
 - 1.2.1. Working pressure(s) ⁽²⁾ :
 - 1.2.2. Material :
 - 1.3. Pressure relief valve (discharge valve)
 - 1.3.1. Working pressure(s) ⁽²⁾ :
 - 1.3.2. Material :
 - 1.4. Automatic valve(s)
 - 1.4.1. Working pressure(s) ⁽²⁾ :
 - 1.4.2. Material :
 - 1.5. Excess flow valve
 - 1.5.1. Working pressure(s) ⁽²⁾ :
 - 1.5.2. Material :
 - 1.6. Gas-tight housing
 - 1.6.1. Working pressure(s) ⁽²⁾ :
 - 1.6.2. Material :
 - 1.7. Pressure regulator(s)
 - 1.7.1. Working pressure(s) ⁽²⁾ :
 - 1.7.2. Material :
 - 1.8. Non-return valve(s) or check valve(s)
 - 1.8.1. Working pressure(s) ⁽²⁾ :
 - 1.8.2. Material :
 - 1.9. Pressure relief device (temperature triggered)
 - 1.9.1. Working pressure(s) ⁽²⁾ :
 - 1.9.2. Material :
 - 1.10. Manual valve
 - 1.10.1. Working pressure(s) ⁽²⁾ :
 - 1.10.2. Material :



1.11.	Flexible fuel lines	
1.11.1.	Working pressure(s) ⁽²⁾	:
1.11.2.	Material	:
1.12.	Filling unit or receptacle	
1.12.1.	Working pressure(s) ⁽²⁾	:
1.12.2.	Material	:
1.13.	Gas injector(s)	
1.13.1.	Working pressure(s) ⁽²⁾	:
1.13.2.	Material	:
1.14.	Gas flow adjuster	
1.14.1.	Working pressure(s) ⁽²⁾	:
1.14.2.	Material	:
1.15.	Gas/air mixer	
1.15.1.	Working pressure(s) ⁽²⁾	:
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) ⁽²⁾	:
1.17.2.	Material	:
1.18.	CNG filter(s)	
1.18.1.	Working pressure(s) ⁽²⁾	:
1.18.2.	Material	:
1.19.	PRD (pressure triggered)	
1.19.1.	Working pressure(s) ⁽²⁾	:
1.19.2.	Material	:
1.20.	Fuel rail(s)	
1.20.1.	Working pressure(s) ⁽²⁾	:
1.20.2.	Material	:
1.21.	Heat Exchanger(s)/Vaporizer(s)	
1.21.1.	Working pressure(s) ⁽²⁾	:
1.21.2.	Material	:
1.22.	Natural gas detector(s)	
1.22.1.	Working pressure(s) ⁽²⁾	:
1.22.2.	Material	:
1.23.	LNG filling receptacle(s)	
1.23.1.	Working pressure(s) ⁽²⁾	:
1.23.2.	Material	:
1.24.	LNG pressure control regulator(s)	
1.24.1.	Working pressure(s) ⁽²⁾	: ECL and ECR series up to 3.8 MPa ECL 502 series up to 1.6 MPa ECL 602 series up to 2.4 MPa
1.24.2.	Material	: See report 150201360 and its extensions



- 1.25. LNG pressure and/or temperature sensor(s)
 - 1.25.1. Working pressure(s) ⁽²⁾ :
 - 1.25.2. Material :
- 1.26. LNG manual valve(s)
 - 1.26.1. Working pressure(s) ⁽²⁾ :
 - 1.26.2. Material :
- 1.27. LNG automatic valve(s)
 - 1.27.1. Working pressure(s) ⁽²⁾ :
 - 1.27.2. Material :
- 1.28. LNG non-return valve(s)
 - 1.28.1. Working pressure(s) ⁽²⁾ :
 - 1.28.2. Material :
- 1.29. LNG pressure relief valve(s)
 - 1.29.1. Working pressure(s) ⁽²⁾ :
 - 1.29.2. Material :
- 1.30. LNG excess flow valve(s)
 - 1.30.1. Working pressure(s) ⁽²⁾ :
 - 1.30.2. Material :
- 1.31. LNG fuel pump(s)
 - 1.31.1. Working pressure(s) ⁽²⁾ :
 - 1.31.2. Material :
- 1.32. CNG Compressor
 - 1.32.1. Working pressure(s) ⁽²⁾ :
 - 1.32.2. Material :

⁽²⁾ Specify the tolerance

