1. # TYPE EXAMINATION CERTIFICATE

2. **Equipment or Protective System Intended for use in Potentially explosive atmospheres**
Directive 2014/34/EU

3. Type Examination Certificate Number: **EESF 20 ATEX 021X Issue 1**

4. Product: **Local control panels for valve controller**

   Certified types: **LCP9H and LCP9HW**

5. Manufacturer: **Neles Finland Oy**

6. Address: **Vanha Porvoontie 229, FI-01380 Vantaa, Finland**

   Additional manufacturing locations:

   Scanfil OÜ
   Vana Sauga 40
   EE-80010 Pärnu
   Estonia

7. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8. Eurofins Expert Services Oy, Certification Body No. S017 accredited by the Finnish Accreditation Service (FINAS), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive 2014/34/EU of February 2014.

   The examination and test results are recorded in confidential report No. EUFI29-20001828-T3.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

   EN IEC 60079-0:2018 EN 60079-11:2012

10. If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11. This Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12. The marking of the product shall include the following:

   II 3G Ex ic IIC T6…T4 Gc

Espoo, 26.01.2021
Eurofins Expert Services Oy

Jenni Hirvelä
Senior Expert

Kari Koskela
Senior Expert

This document is digitally signed.

13. **Schedule**

14. **Type Examination Certificate EESF 20 ATEX 021X Issue 1**

15. **Description of Product**

The certified types LCP9H and LCP9HW are meant to be used together with VG9000H safety valve controller. LCP9H has an Open / Close Button to manually drive the valve to fail-safe position. LCP9HW operation is similar to LCP9H but without Open / Close Button. The both types will be used to operate the emergency isolation valve locally by sending requests to VG9000H controller and receiving information of current valve status from the controller. Functions of the types are driving the valve to fail-safe position, resetting the valve to normal operation and testing the valve operation manually. Functions are activated by push-button switches mounted to LCP enclosure. Five LED-indicators show the status of current function. All buttons can be equipped with lockable stainless steel button covers to prevent accidental use. All metal parts of the enclosure are galvanically connected to each other. The LCP9H/ LCP9HW have two interfaces. Power is normally supplied via Exi isolator. The Current loop bus for communication between LCP9H/ LCP9HW and VG9000H is point-to-point type control protocol. The Suffix Y in the product type marking means special construction, which does not affect the types of protection.

The maximum input values of the power supply are:

Ui = 25,2 V,	Ii = 150 mA,	Pi = 650 mW
Ci = 25 nF,	Li = 201 µH	

The maximum output values of the current loop communication interface channels A and B are:

Uo = 8,8 V,	Io = 42 mA,	Po = 93 mW
Co = 45 µF,	Lo = 45 mH	

16. **Report Number** EUFI29-20001828-T3

17. **Specific Conditions of Use**

- The maximum allowed ambient temperature ranges are:

  -20 °C ... +65 °C for temperature class T6
  -20 °C ... +80 °C for temperature class T5
  -20 °C ... +85 °C for temperature class T4

- The permissible ambient temperature range depends on the used configuration. The ambient temperature range is marked on the identification plate.

- The certified type does not comply with the dielectric strength requirement for isolation from earth. Instructions shall include necessary information regarding the correct installation.

18. **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed at item 9.

19. **Drawings and Documents**

Doc.No.	Document Title	Issue	Date
ME0825-016	• LCP I.S. Description LCP REV 1.10	1.2	2014-12-12
	• Temperature and power dissipation calculations for I.S. Description	1.1	2014-12-12
ME0825-008	PCB ASSEMBLY INSTRUCTION and PCB SPECIFICATION, (PCB name LCP REV1.10)	V1.3	2015-01-20
ME0825-006	LCP REV 1.11 BOM	1.72*	2018-10-23
ME0825-005	ME0825-005_xx_LCP-REV1.10_2014-12-30 - LAYER 30 (ASSEMBLY BOTTOM) - LAYER 27 (ASSEMBLY TOP) - Ex barricades, Bottom	1.10	2014-12-30

- Ex barricades, Top
- LAYER 1 (TOP SIDE)
- LAYER 2 (GND)
- LAYER 3 (POWER)
- LAYER 4 (BOTTOM SIDE)

ME0825-004	ME0825-004_LCP-REV1.10_schematics_V1.1_2014-11-19.sch	1.10	2014-12-30
ME0825-002	ME0825 / LCP REV 1.10 BLOCKDIAGRAM	V5	2015-02-04
F77782	IDENTIFICATION PLATE LCP9H, LCP9HW Ex ia / Ex ic / Ex em	C*	2020-03-04
F78083	LCP9H potting, process description	1.0	2016-10-28
F78102	LCP9H Mechanics BOM and Assembly	A	2016-10-31

20. Certificate History

Issue	Date	Report No.	Comment
VTT 16 ATEX 048X	11.1.2010	VTT-S-06236-09	Prime certificate
Issue 1	26.8.2010	VTT-S-07019-10	Alternative type LCP9HW added. Lockable button cover construction checked against requirements for “ia” type of protection. Revised documents: • ME0825-013, rev 1.1 → 1.2 • ME0825-016, rev 1.1 → 1.2 • F26133, rev. A → C
Issue 2	5.5.2011	VTT-S-03838-11	Address changed. Non I.S. relevant changes in schedule documents. Revised documents: • ME0825-013, rev 1.2 → 1.3 • ME0825-006, rev 1.1 → 1.2 • F26133, rev. C → D
Issue 3	7.7.2011	-	New manufacturing location added, Scanfil OÜ
Issue 4	10.7.2013	VTT-S-04833-13	Compliance with standard versions EN 60079-0:2012, 6th Edition and EN 60079-11:2012, 6th Edition assured. Non I.S. relevant changes in schedule documents. Revised documents: • ME0825-013, rev 1.3 → F33674, rev. 1.0 • ME0825-006, rev 1.2 → 1.4 • F26133, rev. D → E
Issue 5	9.7.2015	VTT-S-03286-15	Manufacturer´s name changed.*) New document revisions. Minor changes in electronics.
Issue 6	16.2.2017	VTT-S-00839-17	Encapsulated electronics board (PCBA) introduced. Maximum ambient temperature range revised. *) New documents.
EESF 20 ATEX 021X	29.5.2020	EUFI29-20001828-T4	NB name changed from VTT Expert Services to Eurofins Expert Services. Applicant name changed from Metso Flow Control to Neles Finland. *) Markings revised.
Issue 1	26.01.2021	EUFI29-20001828-T3	Report number corrected.