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 024X**

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

   Certified types: **LCP9HL and LCP9HWL**

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-T5.

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, 29.05.2020
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 024X**

15. **Description of Product**

The Local Control Panels LCP9HL and LCP9HWL are intended for local control of emergency isolation valve. The LCP indicate statuses of safety valve and VG9000H valve controller. The LCP features a TRIP push-button for driving the valve to a safety position, RESET button for returning the valve to normal position and TEST button for starting or cancelling a partial stroke test (PST). Interfaces are power supply input interface and a current loop communication interface. The PWR is connected to 4-20 mA HART interface of the VG9000H and the safety system analogue output module (Ex-isolator). The mA loop interface to VG9000H includes TX- and RX point-to-point interfaces. The Suffix Y in the product type marking means special construction, which does not affect the types of protection

Interface values:

Power Supply:

Ui = 28 V
Ii = 120 mA
Pi = 1 W
Li = 313 µH
Ci = 33 nF

Tx Current Loop:

Uo = 8.3 V
Io = 5.8 mA
Po = 12 mW
Lo = 50 mH
Co = 3.6 µF

Rx Current Loop:

Uo = 6.5 V
Io = 1.8 mA
Po = 3 mW
Lo = 50 mH
Co = 162 µF

16. **Report Number** EUFI29-20001828-T5

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-LCP -REV2.0_INTRINSIC SAFETY DESCRIPTION_V0.3		0.3	2016-10-31
F77300	LCP9H Ex Description	D	2017-1-17
Maximum Power Dissipation and Surface Temperature Rise Calculations for Intrinsic Safety		0.1	2016-9-12
ME0825-002	Blockdiagram ME0825 / LCP REV2.0	V2	2016-9-14
ME0825-006	LCP REV 2.64 BOM	2.64*	2018-10-09
ME0825-005	ME0825-005_xx_LCP-REV2.0_2016-08-22 - LAYER 30 (ASSEMBLY BOTTOM) - LAYER 27 (ASSEMBLY TOP) - Ex barricades, Bottom - Ex barricades, Top - LAYER 1 (TOP SIDE) - LAYER 2 (GND) - LAYER 3 (POWER) - LAYER 4 (BOTTOM SIDE)	2.0	2016-8-22
F77022	Identification Plate LCP9H_L, LCP9HW_L (AISI 316)	D*	2020-03-06
F79469	Identification Plate LCP9H_L, LCP9HW_L (printable)	C*	2020-03-04
ME0825-LCP	LCP LOOP V.1.08 Schematics	2.0	2016-11-16
F79231	LCP9H_L Mechanics BOM and Assembly	1.0	2017-1-2
	LCP9H_L BOM Part Items	A	2017-1-2
ME0825-008	PCB ASSEMBLY INSTRUCTIONS and PCB SPECIFICATION PCB name: LCP_REV2.0		2016-9-14
F78083	LCP9H potting, process description	1.0	2016-10-28

20. Certificate History

Issue	Date	Report No.	Comment
VTT 16 ATEX 058X	18.1.2017	VTT-S-00107-17	Prime certificate
Issue 1	15.2.2017	-	The maximum allowed ambient temperature ranges revised.
EESF 20 ATEX 024X	29.5.2020	EUFI29-20001828-T5	NB name changed from VTT Expert Services to Eurofins Expert Services. Applicant name changed from Metso Flow Control to Neles Finland. *) Revised documents.

Eurofins Expert Services Oy, Kivimiehentie 4, FI-02150 Espoo, Finland
www.eurofins.fi/expertservices