

1. **EU-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System Intended for use in Potentially explosive atmospheres
Directive 2014/34/EU**
3. EU-Type Examination Certificate Number: **EESF 24 ATEX 031X**
4. Product: **Valve Positioner**
Certified types: **NDX Fieldbus**
5. Manufacturer: **Valmet Flow Control Oy**
6. Address: **Vanha Porvoontie 229, FI-01380 Vantaa, Finland**
7. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
8. Eurofins Electric & Electronics Finland Oy, Notified Body number 0537, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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.

The examination and test results are recorded in confidential report No. EUFI29-24003149-T1.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-11:2012 / IEC 60079-11:2023**
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 EU-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 1G	Ex ia IIC T6...T4 Ga
	II 1D	Ex ia IIIC T ₂₀₀ 85 °C...T ₂₀₀ 115 °C Da
	II 2G	Ex ib IIC T6...T4 Gb
	II 2D	Ex ib IIIC T ₂₀₀ 85 °C...T ₂₀₀ 115 °C Db
		FISCO field device
		IP66

Espoo, 11.12.2024
Eurofins Electric & Electronics Finland Oy

Jenni Hirvelä
Senior Expert

Kari Koskela
Senior Expert

This document is digitally signed.

13. **Schedule**14. **EU-Type Examination Certificate EESF 24 ATEX 031X**15. **Description of Product**

NDX Fieldbus is an intelligent valve positioner targeted for use in high-end control valves with either linear or rotary travel. The valve positioner monitors the valve position and controls the actuator which provides the force to control the valve itself.

NDX Fieldbus is connected to FISCO power supply. NDX Fieldbus communicates via Fieldbus (Foundation Fieldbus or PA) that can be used for indicating the valve position towards the control system.

The device is available in variants with the following interface options:

- Fieldbus
- Profibus

Profibus variant has in general different communication protocol and change in electronics is only one pull down resistor assembled or not assembled.

Electrical ratings, FISCO ia/ ib:

Ui ≤ 24 V li ≤ 380 mA Pi ≤ 5.32 W Ci < 5 nF Li < 10 μH

16. **Report Number**

EUFI29-24003149-T1.

17. **Specific Conditions of Use**

1. The maximum allowed ambient temperature ranges according to different T Classes are:
 - Tamb -40 °C ... +50 °C for temperature classes T6 (Gas) or T85 °C (Dust)
 - Tamb -40 °C ... +65 °C for temperature classes T5 (Gas) or T100 °C (Dust)
 - Tamb -40 °C ... +80 °C for temperature classes T4 (Gas) or T115 °C (Dust)
2. The permissible ambient temperature range depends on the used configuration. The ambient temperature range is marked on the identification plate.
3. At an ambient temperature ≥ +70 °C, the temperature rating of the connection cable shall be in accordance with maximum ambient temperature range.
4. For Temperature Classes for dust, a total immersion to dust required for category 1 D (EPL Da) equipment was considered.
5. For Equipment category 1G (EPL Ga), the enclosure parts or enclosures made of aluminium alloy shall not be subjected to friction or impacts due to spark ignition hazard.
6. The valve controller shall be connected according to the manufacturer's instructions.
7. The safety valve controller shall not be subject to prolific charge generating mechanism by dust.
8. The marking label is isolated from earth and may present 56 pF capacitance.
9. The plastic cover of the enclosure shall be wiped with damp cloth only due to risk of electrostatic charging.

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

Drawings and documents are listed in the confidential report.

20. Certificate History

Issue	Date	Report No.	Comment
EESF 24 ATEX 031X	11.12.2024	EUFI29-24003149-T1	Prime certificate

NDX Fieldbus Product Type Nomenclature:

1 N D X	PRODUCT GROUP																				
	Neles Intelligent Valve Controller Series NDX																				
	2	PNEUMATIC ACTION																			
	1	Single Acting																			
	2	Double Acting (Available with 5. sign 2, 5. sign 1)																			
	3	PNEUMATIC CAPACITY																			
	5	Normal Capacity (80 Nm3/h)																			
	4	FAIL ACTION																			
	1	Fail safe																			
	5	ENCLOSURE																			
	1	Standard - Aluminum with composite cover																			
	2	Flameproof/Explosion Proof - Aluminum																			
	6	COMMUNICATION / INPUT SIGNAL RANGE																			
	F	FOUNDATION fieldbus, physical layer according to IEC 61158-2. (Available with 5. sign 2., 5. sign 1)																			
	P	Profibus PA, physical layer according to IEC 61158-2. (Available with 5. sign 2., 5. sign 1)																			
	7	TEMPERATURE RANGE																			
	G	General: -40..+85 °C																			
	8	Standard; Ex i & I/O extension capable																			
	9	APPROVALS FOR HAZARDOUS AREAS (1/2)																			
	N	No approval																			
	X	ATEX / IECEx Ex i certification																			
10	APPROVALS FOR HAZARDOUS AREAS (2/2)																				
N	No approval																				
X	ATEX / IECEx Ex i certification																				
11	PNEUMATIC CONNECTIONS & GAUGES																				
0	1/4 NPT without gauges (no block, no gauges)																				
1	1/4 NPT with gauges (block with 1/4 NPT threads+ gauges)																				
2	G1/4 without gauges (block with G1/4 threads)																				
3	G1/4 with gauges (block with G1/4 threads + gauges)																				
12	VARIANT																				
N	Neles																				
13	DIAGNOSTICS																				
0	Advanced diagnostics																				
1	Premium diagnostics																				
14	SPECIAL VERSION																				
0	None																				
15	RESERVED (I/O EXTENSION)																				
0	None																				
16	RESERVED																				
0	None																				
17	Characters 18-20 received for partner identification																				
-	* * * Partner's identification – shall not affect hazardous area approvals.																				
Special feature – shall not affect hazardous area approvals																					
N D X	2	5	1	2	T	G	-	X	N	0	N	0	0	0	0	0	6	6	8	Y	SAMPLE MODEL CODE (Char = 21)