



Manufactured and designed by Energy Technology and Control Ltd. Located at Sussex, United Kingdom

## **FUNCTIONAL SAFETY CERTIFICATE**

Kiwa Gastec Certification hereby declares that the **Parallel Positioning Controller**, type

# Fireye Inc. PPC6000

and the associated components as detailed in the appendices to this certificate are suitable for inclusion in a S.I.L. 3 loop.

The compliance is based on an evaluation to EN 61508 (2001).

Report number

Division Director.

: 123836

The systems and their associated components only comply with the above listed safety requirements if the specifications and instructions as detailed in the commissioning manual are met.

The PPC6100 Parallel Positioning Controller provides fuel air ratio control systems for industrial burners, providing a PID function to control the pressure/temperature of the boiler by modulating the fire rate. The controller can be complemented with various boiler sensors, servo motors, display boards, oxygen probe interface and daughter boards.

GASTEC

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Issued 9 July 2009
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## **FUNCTIONAL SAFETY CERTIFICATE**

Kiwa Gastec Certification hereby declares that the **Integrated Burner Controller**, type

# Fireye Inc. Nexus NX6100

and the associated components as detailed in the appendices to this certificate are suitable for inclusion in a S.I.L. 3 loop.

The compliance is based on an evaluation to EN 61508 (2001).

Report number

: 123836

The systems and their associated components only comply with the above listed safety requirements if the specifications and instructions as detailed in the commissioning manual are met.

The NX6100 Integrated Burner Controller provides fully integrated burner control systems for industrial burners, providing a PID function to control the pressure/temperature of the boiler by modulating the fire rate, full burner management functions including flame/air pressure monitoring and a fuel shut-off valve control. The controller can be complemented with various boiler sensors, servo motors, display boards, oxygen probe interface and daughter boards.

Where a safety limit function or gas valve proving function is mandatory for the application, the system shall be included with respectively a Fireye Inc. fail safe temperature sensor or pressure sensor.

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Appendix no.: 1 Dated: July 2009 Examination report(s): 123836 dated November 2008

FUNCTIONAL SAFETY CERTIFICATE: E 1855 FS1 to FS6

This appendix supersedes appendix no. 1 dated Dec. 2008.

Integrated Burner Controller, type Fireye Inc. Nexus NX6100.

List of all available types:

| Model: | Characteristics:  |  |
|--------|-------------------|--|
| NX6100 | Standard control. |  |

### List of approved combinations:

| Model:   | Characteristics:  |  |
|----------|---|--|
| NX1021   | Gas Pressure Sensor 600mBar                               |  |
| NX1030   | Steam Pressure Sensor 25Bar                               |  |
| NX1034   | Pressure Sensor (Gas or Steam) 4Bar                       |  |
| NX1040   | Boiler Temperature Sensor 0 – 150°C                       |  |
| NX1044   | Boiler Temperature Sensor 0 – 400'C                       |  |
| LA220978 | Oxygen Probe  |  |
| LA220979 | Oxygen Probe  |  |
| LA220980 | Oxygen Probe  |  |
| NXCBH    | External PSU & CANbus Hub                                 |  |
| NXC04    | Servo 4Nm   |  |
| NXC12    | Servo 10Nm  |  |
| NXC20    | Servo 20Nm  |  |
| NXC04A   | Servo 4Nm   |  |
| NXC15A   | Servo 15Nm  |  |
| NXC20A   | Servo 20Nm  |  |
| NXC40    | Servo 40Nm  |  |
| NXC20S   | Servo 20Nm  |  |
| NXC50S   | Servo 50Nm  |  |
| NXDBMB   | Daughter Board (comms only)                               |  |
| NXDBISO  | Daughter Board (comms + 4-20mA)                           |  |
| NXDBVFD  | Daughter Board (comms + inverter interface)               |  |
| NX6101   | Display Unit,12 key (Basic Function)                      |  |
| NX6110   | Display Unit,12 key (Including Relays & RTC)              |  |
| NX6120   | Display Unit,12 key (Including Relays, RTC, Data Logging) |  |
| NXO2INT  | Oxygen Probe Interface                                    |  |
| NXIATS   | Temp Sensor   |  |
| NXESI120 | Servo Interface   |  |
| NXTSD104 | 10.4" Touch Screen Display                                |  |



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FUNCTIONAL SAFETY CERTIFICATE: E 1855 FS1 to FS6

Appendix no.: 1
Dated: July 2009
Examination report(s):
123836 dated November 2008

This appendix supersedes appendix no. 1 dated Dec. 2008.

Parallel Positioning Controller, type Fireye Inc. PPC6000.

List of all available types:

| Model:  | Characteristics:  |
|---------|-------------------|
| PPC6000 | Standard control. |

### List of approved combinations:

| Model:   | Characteristics:   |  |
|----------|--|--|
| LA220978 | Oxygen Probe   |  |
| LA220979 | Oxygen Probe   |  |
| LA220980 | Oxygen Probe   |  |
| NXCBH    | External PSU & CANbus Hub                                |  |
| NXC04    | Servo 4Nm  |  |
| NXC12    | Servo 10Nm   |  |
| NXC20    | Servo 20Nm   |  |
| NXC04A   | Servo 4Nm  |  |
| NXC15A   | Servo 15Nm   |  |
| NXC20A   | Servo 20Nm   |  |
| NXC40    | Servo 40Nm   |  |
| NXC20S   | Servo 20Nm   |  |
| NXC50S   | Servo 50Nm   |  |
| NXDBMB   | Daughter Board (comms only)                              |  |
| NXDBISO  | Daughter Board (comms + 4-20mA)                          |  |
| NXDBVFD  | Daughter Board (comms + inverter interface)              |  |
| NX600    | Display Unit,9 key (Basic Function)                      |  |
| NX610    | Display Unit,9 key (Including Relays & RTC)              |  |
| NX620    | Display Unit,9 key (Including Relays, RTC, Data Logging) |  |
| NXO2INT  | Oxygen Probe Interface                                   |  |
| NXIATS   | Temp Sensor  |  |
| NXESI120 | Servo Interface  |  |
| NXTSD104 | 10.4" Touch Screen Display                               |  |