

MCON nitro

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
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Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
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Вологда (8172)26-41-59
Воронеж (473)204-51-73
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Ижевск (3412)26-03-58
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Россия (495)268-04-70

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Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Киргизия (996)312-96-26-47

Новокузнецк (3843)20-46-81
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Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Казахстан (7172)727-132

Смоленск (4812)29-41-54
Сочи (862)225-72-31
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Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

Furnace Controller for Nitriding MCON Nitro



Special Features:

- Menu-guided operation
- Color-TFT-touch-screen display, 320 x 240 pix
- Exact control
- Connections of one thermocouples type B,C,E,J,K,L,M,N,R,S,T by choice
- Program memory with 99 set point programs with 24 segments and 16 control track for Kn- and process temperature (time synchronous)
- Program tracks, free eligible
- Continuous control of ammonia, PID control
- Transfer output, Kn
- All inputs and outputs 4...20 mA (unless thermocouple)
- Directly adaptation of flowmeter controller for NH₃, N₂, CO₂ or Endogas
- 2 ammonia flowmeter controllers for small or great quantity are choose able (thereby high precision)
- Limit of control variable at ammonia quantity are separate possible
- Possibility for initial gas
- Set point programmer for process temperature is indicated

Principle of Operation:

MCON Nitro measures H₂ level in furnace and calculate characteristic nitriding number Kn. Depending on the difference between measured Kn and desired Kn (setpoint), NH₃ flow is increased or decreased which directly affects dissolution of ammonia and thus H₂ level into furnace and Kn. In addition, device also controls the temperature in the furnace with heating or heating/cooling outputs. N₂ and Endogas flows are set points which are used to drive mass flow controllers while NH₃ flow is controlled with PID control algorithm in which process value is Kn and manipulation value is scaled to NH₃ flow.

The **MCON Nitro** is a measuring and control system for exact furnace atmosphere-control in nitriding- or nitrocarburizing processes. The 99 program controls of process-temperature and KN -values, with free eligible program time tracks and analogous outputs for NH₃- N₂- Endogas CO₂, by mass flow controls enable a exact control of gas-nitriding processes. A controlled N₂- thinning of the Nitriding atmosphere is possible. By use of the initial gas, it is possible to reduce the complete treatment time.

In connection with the program time tracks and a program selection in addition, a pre-oxidation of the components is possible.

The user can define his own alarm thresholds which do not only control critical values but also activate therefor occupied outputs. Predefined alarms are triggered automatically if unexpected system conditions (probe errors, control errors, etc.) occur.

An integrated web server allows remote access to all new MESA devices.

User accounts with password protection improve the safety in usage by locking access levels, parameters and functions depending on user privileges.

MCON Nitro controller is available with only one or two control loops.

Furnace Controller for Nitriding MCON Nitro



Technical Data

Design:
ABS DIN 1/4 housing for panel mounting

Degree of Protection:
IP54 according to IEC 60529

Dimensions:
96 x 96 x 111 mm (W x H x D)

Control Loops:
2 control loops (Kn control, furnace temperature)
3 PID-parameter settings per control loop
PID or On/Off control

Control Output Types:
Heating/cooling, gas/CO or (CO2, Endogas),
valve control or analog output
Custom designed digital outputs for process control

Communication Interface:
Ethernet, non-isolated RS485/422

Power Supply:
AC 85VAC...265VAC, 50-60Hz or

Power Consumption:
15VA

Display:
Color-TFT-touch-screen display, 320 x 240 pix
16it, 3,5' with robust touch-screen

Kn-Level Measuring Range:
0...99.99 Kn

Kn-Level Measurements:
Sensor for measurement H2

Optional:
Isolated RS485/422, Profibus

Accessories
Standard bracket mount bars

Advantages:

Direct wireless access to all new MESA equipment
99 programs with 24 segments and 16 control track
Custom alarms and soot limitation control
Custom alarms
Diagram display
Isolated RS485 / 422 Modbus, Profibus-DP,
Ethernet interface
Data transfer and firmware update via USB Interface
Up to 2 independent control loops

Article number	Device name
700-0350	MCon Nitro

Optional accessories

700-1100	Profibus DP V1 MCon
700-1101	Modbus RTU protocol MCon
700-1102	MESA Legacy protocol MCon

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