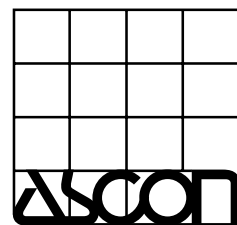


Control, Instrumentation and Automation for Process and Manufacturing Industries



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ISO 9001 Certified



The company

Established in 1969, Ascon designs and manufactures control, instrumentation and automation components for Process and Manufacturing Industries.

The relationship with customers is important for Ascon. Customer Satisfaction is achieved by valuing the customer's needs and by committing the development of the products to a highly specialised, innovative and creative R&D team.

Products are manufactured with technology at the state-of-the-art and in accordance with the total quality approach.

The Ascon's Customer Service assures the support for the correct use of the products in the customer's applications and continuous improvement.

Approvals: UL, cUL, FM, RINA.



- 1 Demo and training room
- 2 R&D department: product development assisted by computer
- 3 Manufacturing: SMD assembly line
- 4 Automatic test for electronic boards
- 5 Final Calibration and Test



Multifunction multiloop controllers - page 3



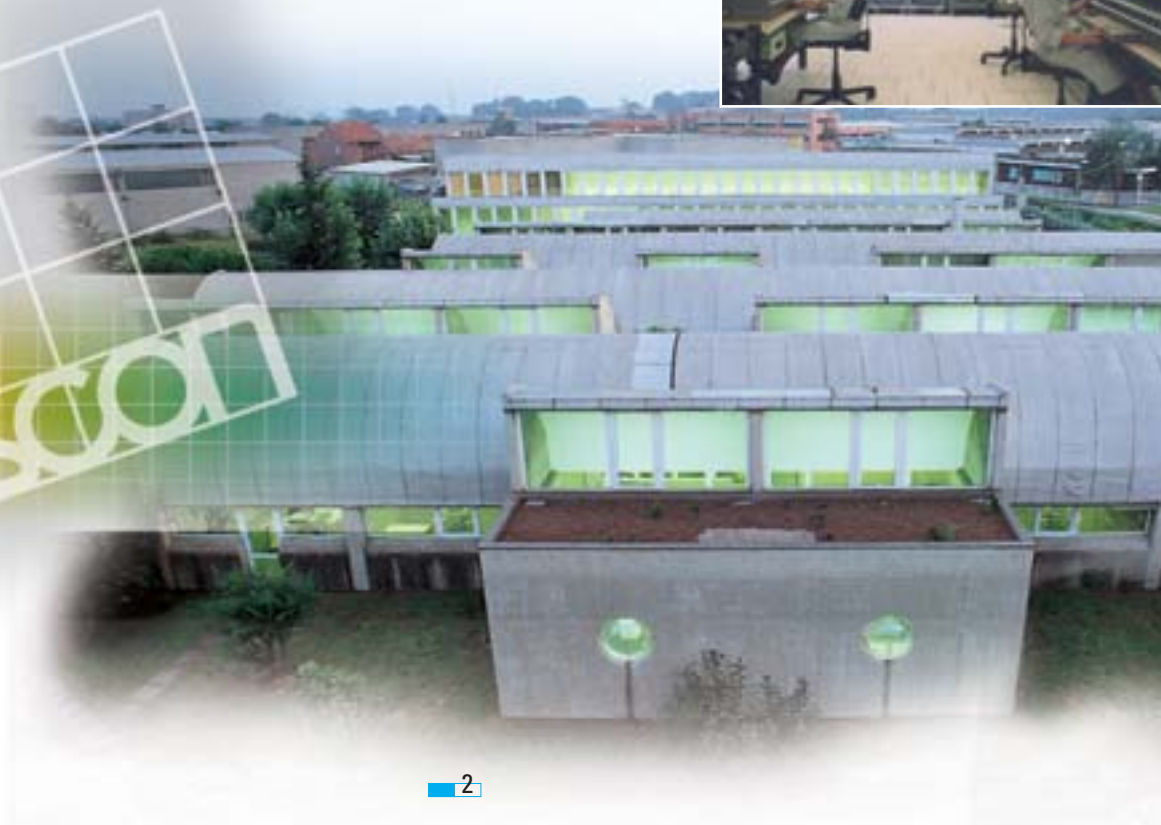
Panel controllers - pages 4/5/6



DIN rail Control and Acquisition modules - page 7



Control and monitoring combustion systems - page 8





AC10: Multiloop Controller

- Up to 4 loops
- 4 analogue inputs and 4 analogue outputs
- 8 digital inputs and 8 digital outputs
- serial communications RS485 with Modbus protocol
- 12 resident strategies selectable from the front panel



AC20: Programmable Multiloop Controller

- Up to 8 analogue inputs, 8 analogue outputs, 32 digital inputs and 32 digital outputs with expansion units.
- Serial communications RS485 with Modbus protocol Arcnet LAN for high speed communications among AC Stations
- Several control strategies and wide library of function blocks available for programming.



AC30: Controller/Programmer for continuous and discontinuous processes.

- Up to 64 fully configurable and selectable programs. I/Os and communications equal to AC20.
- 4 synchronized or independent programmers with related sequences
- 400 segments maximum
- Automatic or manual start of the program.



AC SPLIT:

- Remote display version of AC10, AC20 and AC30
- Separate HMI
- On machine mounting.



Auxiliary DIN rail modules for signal conditioning

- 4-8 configurable analogue inputs for Thermocouples, RTDs, potentiometers, mV, etc.
- 8 Relay or SSR outputs.

AC PROGRAM

Total freedom to build up your control strategy

- Graphic programming software under Windows
- Wide library of basic and advanced function blocks
- Storage of all programs and parameters
- Direct print of strategy, connections, network.



Multifunction Multiloop Programmable Controllers

From the advanced multiloop controller to the mini PLC

- 4-8 analogue I/Os
- 8-32 digital I/Os
- 4 control loops, 12 resident strategies
- Programmer with integral clock
- High resolution graphical display, interactive menu, bargraphs, trends and alarm pages
- Control strategy building by dedicated PC software AC Prograph
- 3 access levels: operator, controller and engineer
- Expansion modules for digital and analogue inputs and outputs
- Size 72x144 DIN, 260 mm depth.



Universal controllers gammadue® series

gammadue® is the result of Ascon's experience in designing and manufacturing compact, powerful and reliable controllers.



C1-M1: Controller Indicator Transmitter

- Single action controller
- Indicator-transmitter
- Alarms + retransmission
- FM Approved Safety Limiter (C1 only)
- Size: C1 - 1/32 DIN 48 x 24 x 120 mm
M1 - 1/16 DIN 48 x 48 x 120 mm

M2: Hot-Runners controller

- Single or double action "Heat/cool" controller
- Current transformer input
- 1 digital input: Auto/Man, Loc/Stand-by setpoint, keypad lock
- Simultaneous setpoint change of up to 48 controllers with remote command
- 2 configurable Alarms
- 1/16 DIN 48 x 48 x 120 mm.

M3: Double action controller

- Single or double action "Heat/cool" controller
- Current transformer input
- 2 configurable Alarms + retransmission
- Start-up and Timer functions
- 1/16 DIN 48 x 48 x 120 mm.

"Tailor-made" instruments

- Adaptability to the process
- Extra features available
- Simple and safe start up and use
- Memory chip for data copy/archive
- PC configurable
- Open to the external world
- Front protection IP65
- CE, UL and cUL certification
- 3 years warranty

- From 1/32 DIN to 1/4 DIN size
- 2 front colours available
- Universal input: T/C, RTD (Pt100), mA, mV, Hz, IR sensors and "custom" linearisation
- Auxiliary input for Remote Setpoint, Feedback Potentiometer and Current Transformer
- Up to 3 digital inputs configurable for Auto/Man, Setpoint Loc/Mem, Start/Stop, etc.
- Up to 4 Relay/SSR outputs, freely configurable for control/alarm purposes
- 2 Isolated analogue outputs 0/4-20mA or Volts for control/retransmission
- 1 control loop with PID or On-Off algorithm plus Overshoot function for relay, logic, analogue and valve drive outputs
- Step response or Natural frequency One-shot Fuzzy-Tune with automatic selection
- "Adaptive" continuous tuning
- Programmable setpoint
- Special functions like Start-up and Timer
- Serial comm.s: Master/Slave RS485 Modbus/Jbus, PROFIBUS
- Auxiliary power supply for transmitters.



X1: Single or double action controller

- Single or double action "Heat/cool" controller
- Remote setpoint and current transformer input
- Up to 3 alarms + retransmission
- 1/8 DIN 48 x 96 x 110 mm.



X3: Valve drive output controller

- Single or double action "Heat/cool" controller
- Remote setpoint and current transformer input
- Up to 3 alarms + retransmission
- 3 digital inputs: Auto/Man, Loc/Rem/Mem setpoint, Start/Stop, keypad lock, etc.
- Programmable setpoint
- 1/8 DIN 48 x 96 x 110 mm.



M4: Analogue Output controller

- Simple or double action "Heat/cool" controller
- Current transformer input
- Analogue output for control or retransmission
- 2 configurable Alarms + retransmission
- Start-up and Timer functions
- FM Approved Safety Limiter
- 1/16 DIN 48 x 48 x 120 mm.



M5: Process controller-programmer - 50ms sampling time

- Single or double action "Heat/cool" controller with analogue or valve drive output
- 1 aux. input for remote setpoint, feedback potentiometer and current transformer
- 1 analogue output for control or retransmission
- "Adaptive" Tuning
- 2 digital inputs: Auto/Man, Loc/Rem/Mem setpoint, Start/Stop, keypad lock, etc.
- Up to 3 configurable alarms
- Programmable setpoint
- "fast view" and Memory chip
- 1/16 DIN 48 x 48 x 150 mm.



O1: Single or double action controller

- Single or double action "Heat/cool" controller
- 1 aux. input for Remote setpoint or Current Transformer
- Up to 3 configurable alarms + retransmission
- 1/4 DIN 96 x 96 x 110 mm.

X5: Process controller-programmer - 50ms sampling time - PROFIBUS, Modbus Master and Slave

- Single or double action "Heat/cool" controller with analogue or valve drive output
- 1 aux. input for remote setpoint, feedback potentiometer
- 2 analogue outputs for control and retransmission
- "Adaptive" Tuning
- 3 digital inputs: Auto/Man, Loc/Rem/Mem setpoint, Start/Stop, keypad lock, etc.
- Up to 4 configurable alarms
- Programmable setpoint
- Mathematical package
- "fast view" and Memory chip
- 1/8 DIN 48 x 96 x 110 mm.

C1/J1/J3: Single or double input indicator

- Configurable display colour: Red or green (J1/J3 only)
- Up to 4 alarms - NO or NC contacts - ISA sequence
- 3 digital inputs for PV hold, min/max selection
- PV retransmission
- Mathematical functions
- C1 - 1/32 DIN 48 x 24 x 120 mm
- J1/J3 - 1/8 DIN 96 x 48 x 110 mm
- Auxiliary Power Supply for transmitter.

RZ/RS: Hybrid recorder for industrial environment

- 100 and 180 mm Z fold paper
- Universal input: T/C, RTD (Pt100), mV, mA
- Up to 4 pens
- 6 to 24 dot channels
- Class 0.15
- Up to 24 alarm relays
- Remote commands
- RZ - 144 x 144 DIN
- RS - 288 x 288 DIN.



**Q5: Process controller-programmer -
50ms sampling time - PROFIBUS,
Modbus Master and Slave**

- Single or double action "Heat/cool" controller with analogue or valve drive output
- 1 aux. input for remote setpoint, feedback potentiometer
- 2 analogue outputs for control and retransmission
- "Adaptive" Tuning
- 3 digital inputs: Auto/Man, Loc/Rem/Mem setpoint, Start/Stop, keypad lock, etc.
- Up to 4 configurable alarms
- Programmable setpoint
- Mathematical package
- "fast view" and Memory chip
- 1/4 DIN 96 x 96 x 110 mm.



Q3: Valve drive output controller

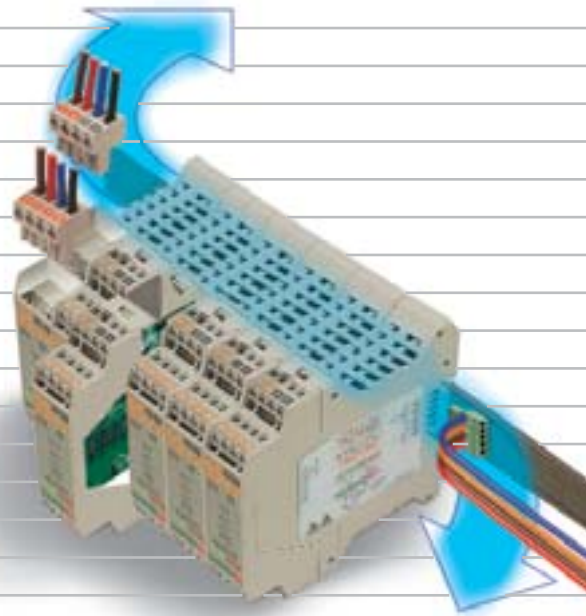
- Simple or double action "Heat/cool" controller
- Remote setpoint and current transformer input
- 3 digital inputs: Auto/Man, Loc/Rem/Mem setpoint, Start/Stop, keypad lock, etc.
- Up to 3 alarms + retransmission
- Programmable setpoint
- 1/4 DIN 96 x 96 x 110 mm.

IP 65
front Protection



RV: Paperless recorder

- Up to 30 channels
- 5.5 TFT Display with wide vision angle
- Universal input: T/C, RTD (Pt100), mA, mV, Hz
- Up to 8 digital inputs
- Trend, Bargraph, tables
- Up to 6 alarm relays
- Storing of the data on floppy disk or Flash memory card
- Data analysis software
- Remote commands
- Mathematical functions
- RS485 ModBus, Ethernet, e-mail, web server
- RV100 - 144 x 144 DIN up to 12 channels
- RV200 - 288 x 288 DIN up to 30 channels.



delta due® series Control and Acquisition modules DIN rail mounting

The new **delta due®** series includes control, acquisition and transmitter modules. This is the result of a mix among Ascon experience in process control, the constant demand of integrated solutions and the evolution of the distributed control. These modules with different functions can be easily integrated. They can be installed inside the control panel or on the machine, allowing smaller cabinets as well as a better geographical distribution. Thanks to the technology of fieldbus these modules can be connected with local HMI, SCADA softwares and PLCs. User friendly software assists rapid configuration.

Distributed Control and Acquisition

- **Common bus for serial communications and power supply**
- **Great flexibility and total integration**
- **Open to the external world and PC configurability**
- **Reduction of installation time and miswiring**
- **Cost Reduction**
- **3 years warranty**
- Universal input: T/C, RTD (Pt100), mA, mV, Hz, "custom" linearisation and IR sensors
- Auxiliary input for Current Transformer
- Digital input configurable for Auto/Man, Loc/Mem setpoint, etc.
- Up to 3 Relay or SSR outputs, for control/alarm purposes
- Isolated analogue output 0/4-20 mA for control/retransmission
- 1 control loop with PID or On-Off algorithm plus Overshoot function with Single or double action "Heat/cool"
- One-shot Fuzzy-Tune
- Special functions like Start-up and Timer
- Auxiliary power supply for transmitters.



deltaDue®



Dimensions:
L 22,5 mm x H 99 mm x D 115.



D1: Single or double action controller

- Single or double action "Heat/cool" controller
- Current transformer input
- Digital input: Auto/Man, etc.
- 3 relay outputs + 1 SSR drive output for control or alarm purposes
- Start-up and Timer functions

D2: Dual loop controller

- 2 isolated loops On-Off or PID single action controller
- 2 relay/SSR outputs + 2 SSR drive outputs for control or alarm purposes

D3: Analogue output controller

- Single or double action "Heat/cool" controller
- Digital input: Auto/Man, etc.
- 3 relay outputs + 1 SSR drive output for control or alarm purposes
- Isolated Analogue output 0/4-20mA for control or retransmission
- Start-up and Timer functions.

D7: Analogue acquisition module

- 1 universal input: T/C, RTD (Pt100), mA, mV and IR sensors
- 1 digital input: PV hold
- Isolated analogue retransmission output
- 2 relay outputs for alarm purposes

D8: Digital acquisition module

- 6 digital input/output
- up to 2 frequency inputs
- 2 relay outputs
- PWM function with adjustable duty cycle

D9: Dual analogue acquisition module

- 2 isolated universal inputs: T/C, RTD (Pt100), mA, mV and IR sensors
- 2 relay/SSR outputs
- + 2 SSR drive outputs for alarm purposes.

DX: Manager module and gateway

- Manager: Hot Swapping and On line configuration of all deltaDue® and gammaDue® instruments
- Gateway: Modbus/ Modbus, PROFIBUS DP, DeviceNet, CANOpen
- 2 independent slave ports for SCADA software and Operator Panel



AutoLink®

SCADA software

- Windows environment
- Self-configuration up to 32 controllers, simple and flexible
- Mimic, Alarm and trend Pre-formatted pages
- Data archive and report generation



OP30: HMI for Deltadue series

- Self-configuration
- Clear visualization of data and parameters
- Pre-configured displays pages

Combustion control and monitoring systems with zirconium oxide probe

- Zirconium oxide probe Z02 line
- Indicator, monitor and controller OXI, OXM, OXR line
- Complete systems line SI
- CO Analyser line ZC

- Energy saving
- Normatives compliance
- Reduction of pollution
- Low cost
- Quick installation and low maintenance
- Financial benefits and avoidance of excessive climate levy



ASCON not only controllers...

- DP/TP/ZP:** Pressure and Δ pressure transmitters
- TL:** Level transmitters
- ZH:** Humidity transmitters

- TH:** Thyristor power controllers
- THC:** Single phase solid state relay



- VM/VP:** Control valves
- SE:** Rotary Electric actuators
- EP:** E/P converters

Distributor:

- Z/ZT:** Temperature probes/transmitters
- ZI:** Infrared temperature sensors

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