Блоки управления горелками дополнительные ZUZ

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

Алматы (727)345-47-04
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
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
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
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
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70
Казахстан +7(727)345-47-04
Беларусь +(375)257-127-884
Узбекистан +998(71)205-18-59
Киргизия +996(312)96-26-47

эл.почта: meg@nt-rt.ru || сайт: https://mesa.nt-rt.ru/

mesa electronic

3.02

C-Level-Controller Carbo 100

Special features:

- **Vacuum fluorescent display**
- **Calculates C-level from the residual oxygen or CO_2-content in furnace atmospheres**
- **Menu-guided operation**
- **High safety in operation by galvanic separation of all inputs**
- **Optional connection of two thermocouples Type "K" or "S"**
- **Additional input for CO-analyzer**
- **External programmer linking possible**
- **Use with motorized gas valve or gas- and air solenoid valve**
- **Control output for proportional valve**
- **Recorder output**
- **Foil equalizing**
- **Direct numerical data on display**
- **Relay outputs with 16 A capacity**

Function:

The **Carbo 100** is an intelligent C-Level-Controller for connecting different types of sensors. The unit calculates the C-level from input signals and controls the C-level.

This controller offers a favourably priced system for controlling carbon potentials in heat treatment furnaces.

The system still contains the facilities offered by more expensive systems, such as actual C-level value correction. The investment is soon amortized even on smaller furnaces.

Parameter (fixed values):

CO content if CO analyzer is not connected
Correction data (e.g. foil test)
Correction factors L-probe
Temperature correction factor

Actual value correction:
To eleminate measuring errors and deviations due to special conditions in the furnance, a correction of the calculated C-level which is based on foil samples, is provided.

Needed Accessories:
- Power supply 24 V

Optional Accessories:
-

Control panel housing Made of sheet-steel.
Fixed by brackets.

Dimensions:

Front panel:	144 x 144 mm (hxw)
Housing including connector:	109 x 109 x 210 mm (hxwxd)
Cut-out in front panel:	113 x 113 mm (hxw)

Weight:
approx. 1.5 kg

Protection type:
IP 50 according to DIN 40050

Climate:
Storage: -10...+70 °C
Operation: 0...+50 °C
5...95 % relative humidity, non condensing

Auxiliary voltage:
24 Vdc ±10 %

Power consumption:
approx. 15 Watt

Analog outputs:

C-level: 0...1,5 %C -> 0...20 mA or
(Recorder output) 4...20 mA

y-output Gas: 0...10 V

y-output Air: 0...10 V

Digital outputs:

2 output controls max. 250 V / 1 max. 16 A, AC 1

Probe flushing max. 250 V / 1 max. 16 A, AC 1

Soot limit alarm max. 250 V / 1 max. 16 A, AC 1

"open collector" max. 30 mA / 30 V

All specifications subject to change without prior notice.

mesa electronic

3.03.1

Digital C-Level Controller* E5AK-AA2-500 as position proportioal with magnet valve for gas and air

Special features:

- **Self-optimizing PID controller parameter (Fuzzy Logik)**
- **High accuracy (+-0,2%)**
- **Exchangeable output modules**
- **2 freely definable alarm outputs**
- **Ext. setpoint input 4...20 mA**
- **Modular structure**
- **Serial communications function to the RS-232C or RS422 or RS-485 and transfer procedure (4...20 mA)**
- **Applicable as position proportioal with magnet valve for gas and air**

* **C-Level controlling in connection with intelligent transmitter Carbo 15 or Carbo 47.**

Technical Data:

Construction:
Plastic housing for control panel installation

Protection according:

Front panel:	NEMA4 for indoor use (IP66 equivalent)
Backside panel:	IEC IP20
Clamps:	IEC IP00

Dimensions:
96 x 96 x 115 mm (wxhxd)

Weight:
0,45 kg

Front panel cut-out:
92 x 92 mm (wxh)

Connection:
Screw connection
Wire cross section: max. 2,5 mm

Auxiliary Voltage:
100 to 240 Vac, -15 +10 %, 50/60 Hz

Power consumption:
approx. 16 VA

Climate:
Storage : -25...+65 °C
Operation: -10...+50 °C
35 to 85 % relative humidity, non condensing

Technical Data:

Displays:
2 four-digit, 7-segment displays for PV and SV

Digit height:
PV = 15 mm red
SV = 11 mm green

Output 1:
Direkt connection with Carbo 15 or Carbo 47

Output 2:
Remote setpoint 4...20 mA (Ri = 150 Ohm)

Controller output:
- Relay output (potential free contact, approx. 250 Vac, 3 A) type adjusting motor contoller)

Alarm output:
2 alarm outputs
with respectively 11 differs alarm mode

Setting type:
Digital setting with function keys

Other features:
- Key locking
- Sensor adjustment
- Setpoint shift
- Output selectable for normal and reverse operation
- Upper and lower limit value for the setpoint
- Three-point controller configuration

Functions:
- Manual mode
- Setpoint-Limiter
- Input digital filter
- Input shift
- Run / Stop
- Security

Options:
- Controller output modules
- Interface modules
- dig. Inputs (for approx. 4 Setpoints)

mesa electronic

3.05

Digital Controller with Fuzzy-Logic E5AK

Special features:

- **Self-optimizing PID controller with adjustable Fuzzy-quota**
- **High accuracy (+-0,2%)**
- **Exchangeable output modules**
- **3 freely definable alarm outputs**
- **Ext. setpoint input 4...20 mA**
- **Modular structure**
- **100 ms identificationstime for analog inputs**
- **Fuzzy-Self-Tuning**
- **Adjustment remote setpoint input**
- **Serial communications function to the RS-232C or RS422 or RS-485 and transfer procedure (4...20 mA)**
- **Position-proportional type**
- **Heat/-Cool control**
- **Controller with program is possible**

Technical Data:

Construction:
Plastic housing for control panel installation

Protection according:
Front panel: NEMA4 for indoor use (IP66 equivalent)
Backside panel: IEC IP20
Clamps: IEC IP00

Dimensions:
96 x 96 x 115 mm (wxhxd)

Weight:
0,45 kg

Front panel cut-out:
92 x 92 mm (wxh)

Connection:
Screw connection
Wire cross section: max. 2,5 mm

Auxiliary Voltage:
100 to 240 Vac, -15 +10 %, 50/60 Hz

Power consumption:
approx. 16 VA

Technical Data:

Climate:
Storage : -25...+65 °C
Operation: -10...+50 °C
35 to 85 % relative humidity, non condensing

Displays:
2 four-digit, 7-segment displays for PV and SV

Digit height:
PV = 15 mm red
SV = 11 mm green

Output 1:
- Thermocouples Type K, J, T, E, L, U, N, R, S, B, W or PLII
- Reference termocouples JPt 100, PT100
- Voltage output:
  0...5 V, 1...5 V, 1...10 V, (Ri > = 1 MOhm)
- Current input:
  0...20 mA, 4...20 mA (Ri = 150 Ohm)

Output 2:
Remote setpoint 4...20 mA (Ri = 150 Ohm)

Controller output:
(depending on the built-in module)
relay output
SSR output
voltage output (aktiv, Puls, 12 Vdc or 24 Vdc [NPN] / 24 Vdc [PNP])
current output (4...20 mA or 0...20 mA)

Alarm output:
approx. 3 alarm outputs with 11 differs Alarmmodi (two-point-controller)

Setting type:
Digital setting with funktion keys

Regelverhalten:
ON/OFF or PID control wih autotuning
Proportional: 0,1...999,9 % FS
Integraltime: 0...3999 s
Differential: 0...3999 s

Other features:
- Key locking
- Sensor adjustment
- Setpoint shift
- Output selectable for normal and reverse operation
- Upper and lower limit value for the setpoint
- Three-point controller configuration

Functions:
- Manual mode
- Heat-/Cool control
- Setpoint-Limiter
- Alarm heater burnout detection
- Setpoint-ramp
- MV-Limiter
- MV change rate limiter
- Input digital filter
- Input shift
- Run / Stop
- Security

Options:
- Controller output modules
- Interface modules
- dig. Inputs (for approx. 4 Setpoints)

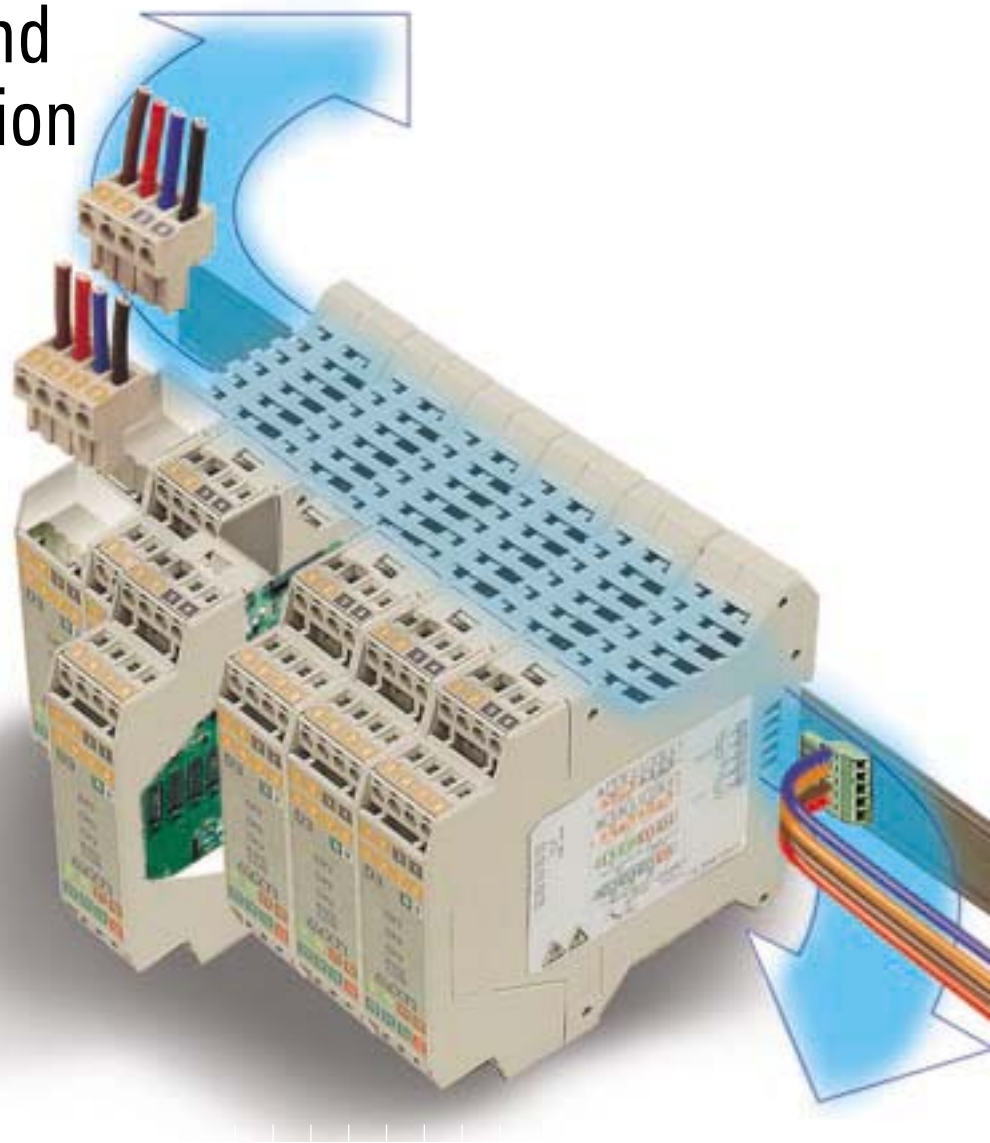
TÜV CERT
DIN EN ISO 9001 : 2000
QA-Nr.: 041002000292

mesa electronic

deltadue® series
DIN rail mounting modules for control and data acquisition

δ2 SERIES

Process controllers
Temperature controllers
Transmitters with alarms
I/O modules



δ2 SERIES

δ2 SERIES

E

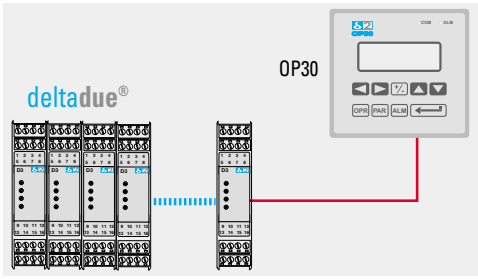
deltadue® series DIN rail mounting modules for control and data acquisition

ASCON process control experience, together with the constant need for integration and the evolution of distributed control strategies have brought to a new product series, deltadue®, combining control and acquisition modules with transmitters.

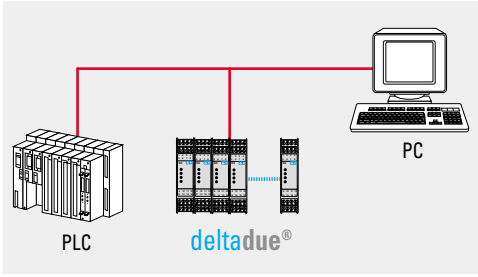
These modules can accomplish different functions and are easily integrated, as they can be either mounted in control panels or on the machine, favouring both the development of more compact control panels and a better "geographic" distribution. Thanks to the filed bus technology, these modules can be easily combined with Operator Panels, PLCs, and PCs.

An easy to use and intuitive software is provided for module configuration from PC.

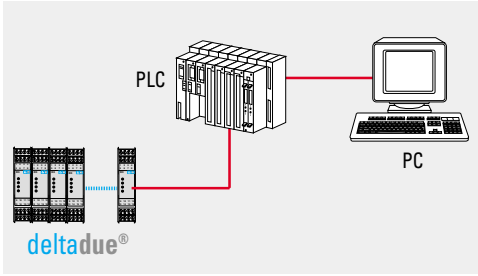
Distributed Control – Local Control
Machines and small plants control
- Control and monitoring through dedicated Operator's Panel
- Alarm management and trip logics
- Modularity and flexibility
- Easy mounting and wiring



Distributed Control – Central Control
Plants automation with highly integrated control functions
- Dedicated modules for critical controls
- Advanced process controls
- Hot swapping modules
- Standard protocol communication buses



High Integration – Distributed Control
Integrated automation of complex plants
- Control system optimised dimensioning
- Geographic distribution of system components
- Integration of control and automation functions
- Managing of safety and redundancy strategies



As all ASCON's products series, deltadue® is manufactured in accordance with the ISO 9001Certified Total Quality System. High immunity to electromagnetic disturbance, together with ASCON products reliability, have enabled us to extend product warranty up to three years.

deltadue® S2 SERIES

DISTRIBUTE

Allows great versatility

- Small size integrated modules
- Multiple functions in a single unit
- Identical positions of terminals/signals
- One only configuration software for all models
- TC-TR-mV-mA universal input
- Auxiliary power supply for transmitters.

Temperature controllers
Process controllers
Transmitters
I/O modules
Communication interfaces

...and total integration...

- Inside control panel/machine-mounted
- Remote/centralized
- RS485/CanBus
- Communication interface.

... reduces wiring errors and installation time ...

- DIN-rail quick mounting
- Less connections thanks to a single Bus for both power supply and communications
- Less connections thanks to a single Bus for both power supply and communication
- Reduced wiring errors thanks to polarized plugs and coloured tags, for a much easier signal identification
- Electrical safety increased by low voltage power supply and high immunity from noises
- Quickly and easily replaceable, even with instruments under power, without the interruption of communications (Hot Swapping).

... beats down costs

- Reduces the total volume of the panel thanks to its compact size
- Significant reduction in man/hours for installation, maintenance and training
- Unified operator interface
- Optimisation of the PLC without no addition of expensive auxiliary modules.

S2 SERIES

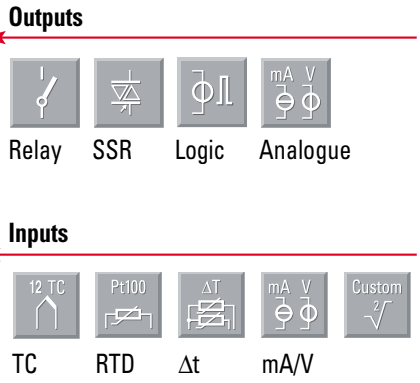
S2 SERIES

S2 SERIES

D CONTROL

Universal inputs and outputs

The modules can be connected to any type of sensor (including infrared) and signal 0/4...20 mA or 50 mV, linear and non linear, also with custom linearisation.
All types of outputs are provided (relay, SSR, digital, mA). They can be used for control, re-transmission, and alarms.
The control function is guaranteed by a PID algorithm with overshoot control for discontinuous control, continuous control, or for valve drive, with two alarms that can be configured in the normal, latching, or blocking mode.



Digital input

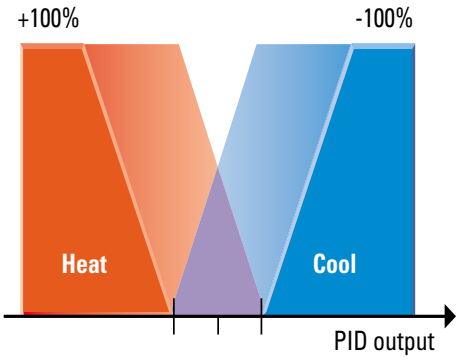
A digital input "IL", which can be freely associated with one of the following functions, is always available to increase the level of automation:
- Measure hold
- Stored Setpoint selection
- Auto/Man mode change
- Timer activation.

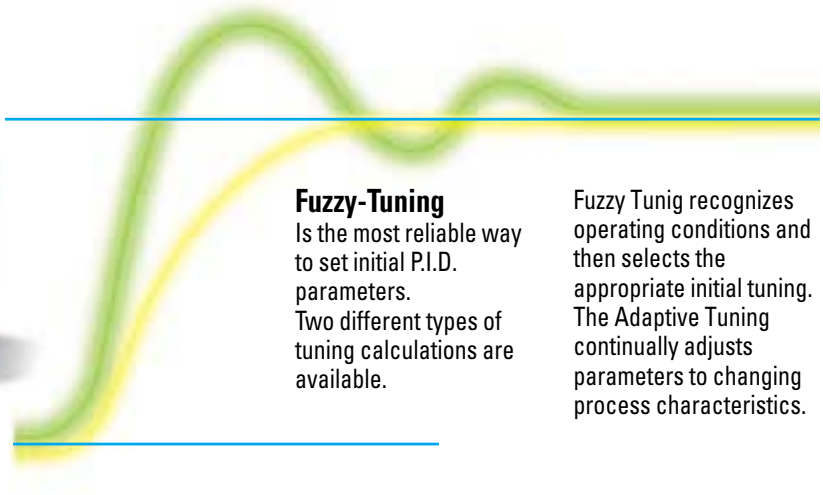
Current transformer input

The input from CT option allows to read the load current and in case of defects to activate an alarm.
The alarm is activated both if the load current drops below the threshold in the "on" phase, and in the presence of current in the off phase (>3% of the scale field).

Heat/cool control

The PID algorithm controls two separate independent outputs, one of which controls heating while the other controls cooling.
Heating and cooling can be separated or overlapped. The cool action can be corrected through the relative cool gain.
The two outputs can be limited separately





Fuzzy-Tuning

Is the most reliable way to set initial P.I.D. parameters.
Two different types of tuning calculations are available.

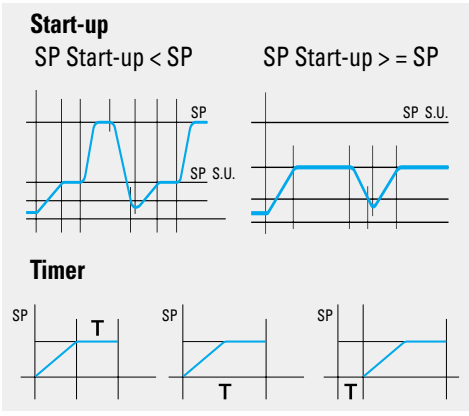
Fuzzy Tunig recognizes operating conditions and then selects the appropriate initial tuning. The Adaptive Tuning continually adjusts parameters to changing process characteristics.

Fuzzy-Tuning

The highly sophisticated Fuzzy tuning feature has two initial "one shot" tuning modalities and an automatic system, which selects the optimal solution based on process conditions.

Special functions

The delta**due**® line incorporates the two special optional functions of Start-up and Timer, avoiding the use of additional timers and reducing direct (Timer) and indirect (installation and cabling) costs. What is more, the output inhibition function can be activated, allowing to interrupt control at any time (from the serial communications), while maintaining the acquired variable indication without having to remove the current.



Compact and... more

Time proportioning, continuous and valve drive control

Fuzzy tuning, automatic selection of the best tuning method

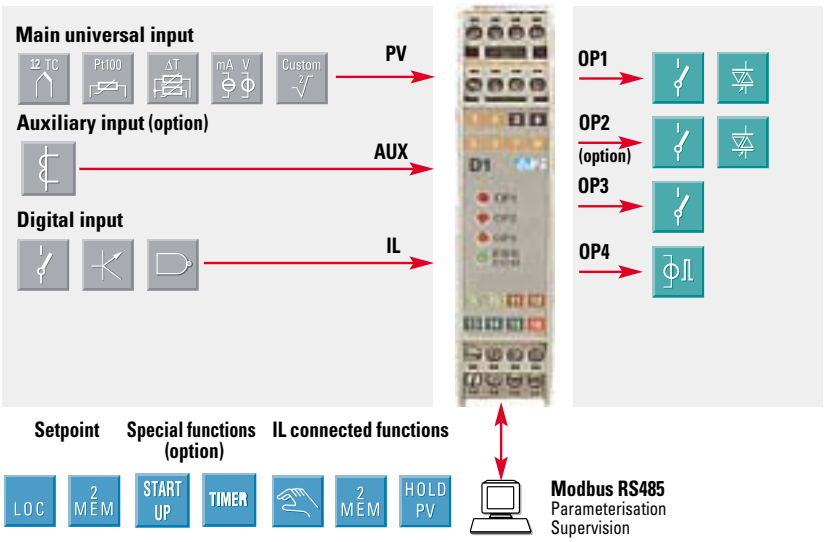
Continous isolated control (D3) or retrasmission output

Start-up

Timer

D1 line

Resources



Setpoint: LOC, 2 MEM

Special functions (option): START UP, TIMER

IL connected functions: 2 MEM, HOLD PV

Modbus RS485
Parameterisation
Supervision

Operating mode

		Control		Alarms		
1	Single action	OP1			OP2	OP3
2		OP4		OP1	OP2	OP3
4	Double action (option)	OP1	OP2			OP3
5		OP1	OP4		OP2	OP3
6		OP4	OP2	OP1		OP3

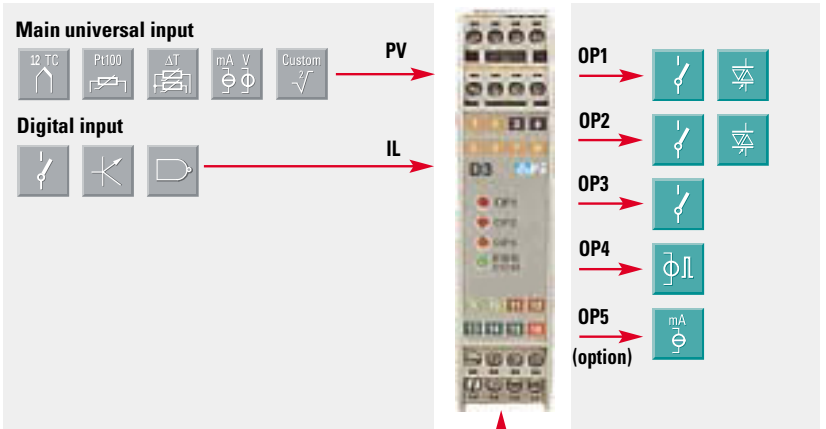
Fuzzy tuning with automatic selection

One shot Auto tuning

One shot Natural Frequency

D3 line

Resources



Setpoint: LOC, 2 MEM

Special functions (option): START UP, TIMER

IL connected functions: 2 MEM, HOLD PV

Modbus RS485
Parameterisation
Supervision

Operating mode

		Control		Alarms			Retransmission
							PV/SP
1	Single action	OP1			OP2	OP3	OP5
2		OP4		OP1	OP2	OP3	OP5
3		OP5		OP1	OP2	OP3	
4	Double action	OP1	OP2			OP3	OP5
5		OP1	OP4		OP2	OP3	OP5
6		OP4	OP2	OP1		OP3	OP5
7		OP1	OP5		OP2	OP3	
8		OP5	OP2	OP1		OP3	
9		OP5	OP4	OP1	OP2	OP3	
10	Valve (Opt.)	OP1	OP2			OP3	OP5

Fuzzy tuning with automatic selection

One shot Auto tuning

One shot Natural Frequency

Data acquisition modules

The acquisition modules can be used as a simple digital **interface**.
If provided with the 0/4...20 mA output option, they can be used as **transmitters** or as **isolators** of analogic signals.

Universal input ...

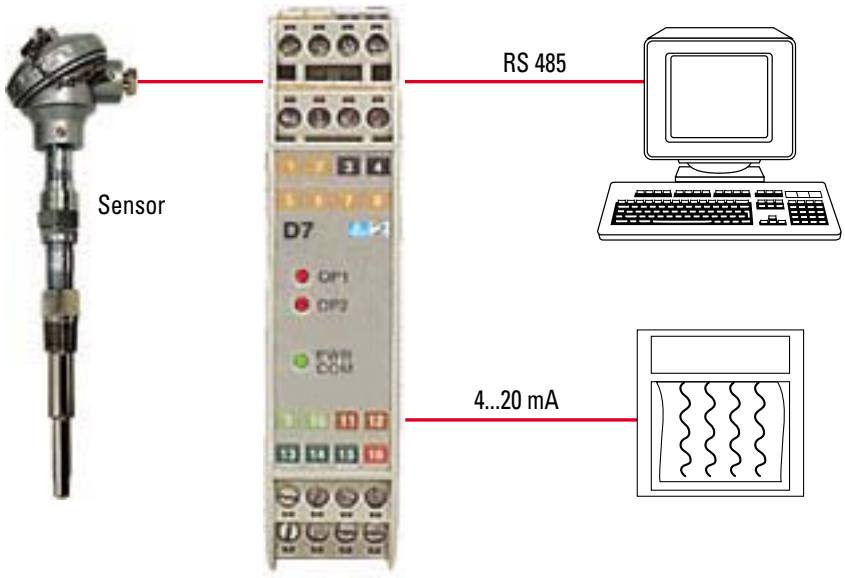
They can be connected to any type of sensor (including infrared) or to 0/4...20mA or 50 mV linear signals, also with custom linearization.
They are also provided with supply for external transmitter and digital input for the measure hold

... an insulated output ...

The 0/4...20 mA output is galvanically isolated by plating: 500V~/min, it has a resolution of 12 bit with an 0.1% accuracy

... and alarm thresholds

The 2 optional relay outputs can be used as absolute alarm thresholds with latching, blocking, and sensor breaking functions



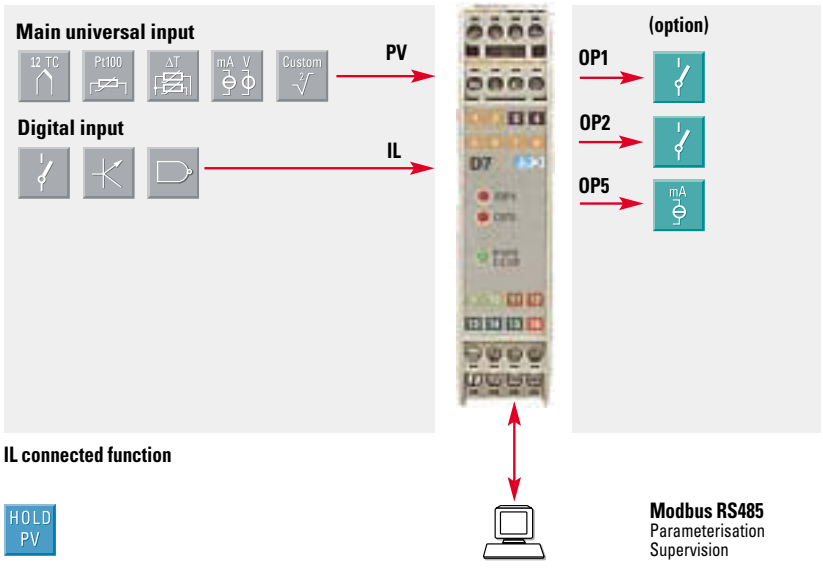
Not only a digital interface

Isolated output transmitter-isolator

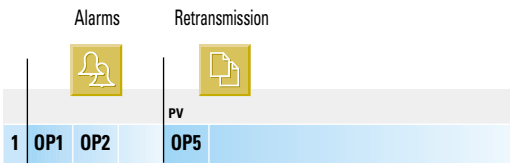
2 configurable relay alarms

D7 line

Resources



Outputs (option)



Application fields

The deltadue® line is so versatile that it covers many possible applications in the field of distributed control, from simple digital acquisition to the more complex process control function, and lends itself to many different sectors, such as

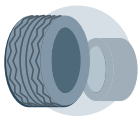

Aeronautics and Automotive

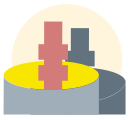

Food and Beverage


Light chemical and Pharmaceutical


HVAC


Power generating


Rubber and Plastic


Heat treatments


Ceramic


Air, water and waste water treatments


Glass

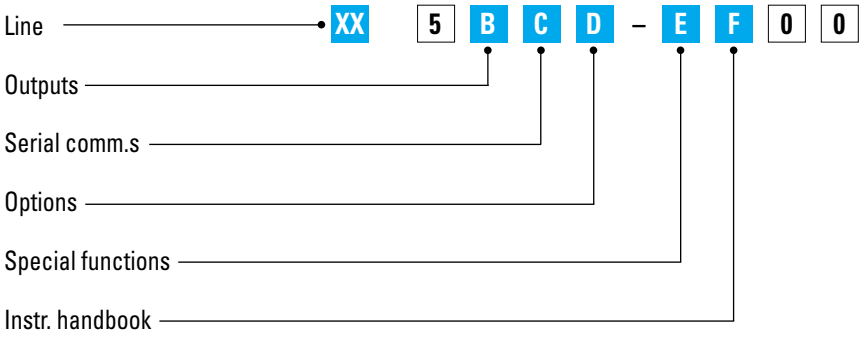
Characteristics

General	**D1**	**D3**	**D7**
Universal power supply 24 V~ 50/60 Hz or 24 V–. Noise immunity level IV, CE	●	●	●
Measure input, auxiliary and digital inputs			
Measure update time in ms	200	200	200
Sampling time (maximum output update time in ms)	500	500	500
Input configurable for TC, RTD, mA, mV, DT, "custom" linearization, and IR sensor	●	●	●
Power supply for external transmitter	●	●	●
Auxiliary input for CT	O		
Digital input for Auto/Man, stored Setpoint selection, hold PV, and Timer launch	●	●	● (only hold PV)
Control			
PID with overshoot control, Hot/Cold double action, "Soft Start" on output	● (C/F only with OP2)	●	
For valve drive (floating), analogue in mA		O (no Pot)	
Tuning			
FUZZY-TUNING in 2 modalities and automatic selection	●	●	
Outputs			
Relay or SSR outputs	1+1 (opt.)	2	2 (opt.)
Relay Output (alarm), Logic Output (control)	1+1	1+1	
Analogue output in mA (Control or Retransmission)		O	O (only Retransm.)
Alarms			
Band, Deviation or Absolute, led On/Off	3	3	3 (only Absolute)
Latching/Blocking Modality	●	●	●
Loop break alarm	●	●	
Heater break alarm with CT input	O		
Setpoint			
Stored	2	2	
Start-up and Timer functions	O	O	
Upper/lower limit and up/down Ramp can be set separately	●	●	
Serial communication			
RS485 isolated up to 9600 baud with Modbus/Jbus Slave protocol	●	●	●
CanBus (alternatively to RS485)	O	O	O
Configuration and parametrization from PC	●	●	●

● = Standard O = Option

S E R I E S

Ordering codes



Line	XX
Temperature contoller with CT	D1
Double action controller with analogue output	D3
Acquisitor, Transmitter-Isolator with alarms	D7

Outputs OP1	OP2	D1	D3	D7	B
None				✓	0
Relay	Not available	✓			0
Relay	Relay	✓	✓	✓	1
SSR	Not available	✓			3
SSR	SSR	✓	✓		5

Serial comm.s	C
CanBus	3
RS 485 Modbus/Jbus SLAVE	5

Options	D1	D3	D7	D
None	✓	✓	✓	0
Valve drive output (no potentiometer)		✓		2
Current transformer input	✓			3
OP5 control (D3 only) or retransmission		✓	✓	5
Valve drive output (no potentiometer) + OP5 retransmission		✓		7

Special functions	D1	D3	D7	E
Not fitted	✓	✓	✓	0
Start-up + Timer	✓	✓		2

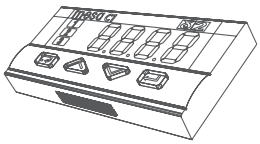
Instruction handbook: user manual + installation	F
Italian-English (standard)	0
French-English	1
German-English	2
Spanish-English	3

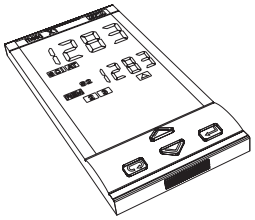
Distributed by:

mesa electronic

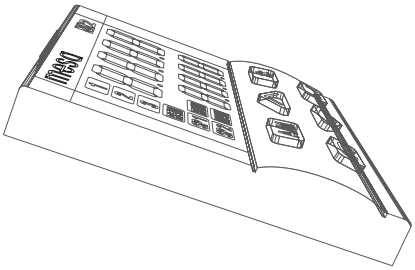
gammadue® series
Universal Controllers, Setpoint Programmers-Controllers and Indicators

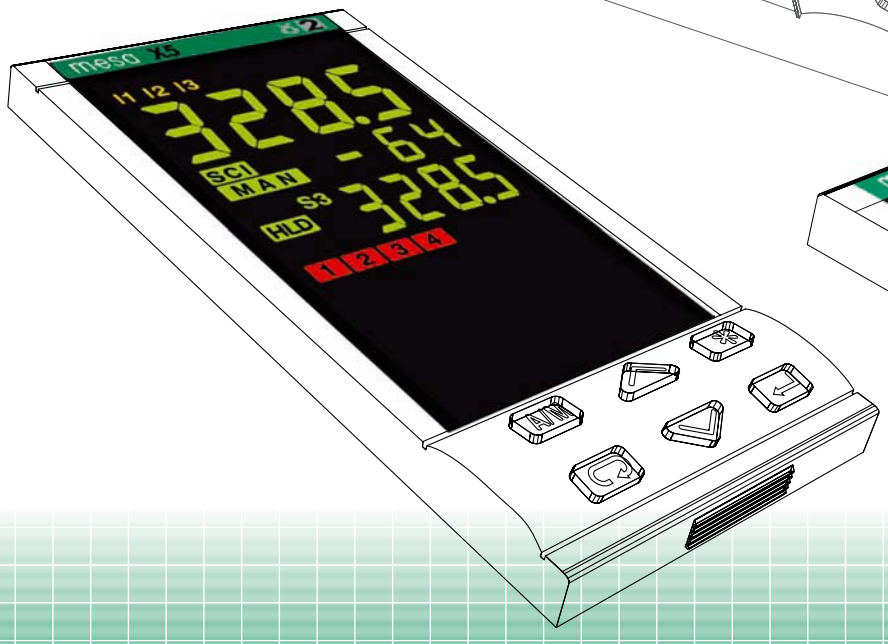
δ2 SERIES

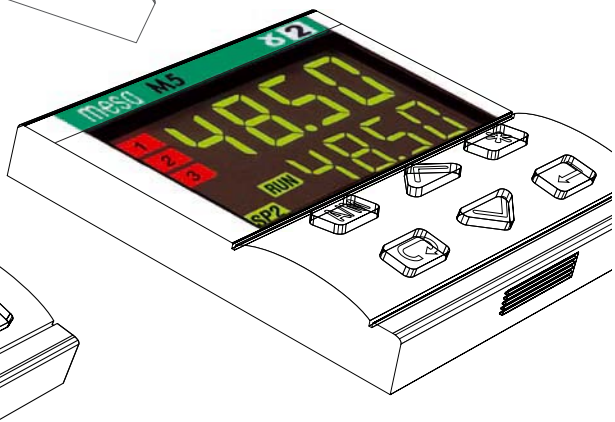




- All sizes, from 1/32 DIN to 1/4 DIN
- Many additional features available: Timer, Start-up, Current transformer input
- Open to the external world: Modbus, PROFIBUS DP and Modbus Master
- PC configurable
- Memory chip for data copying/archiving
- Simple and safe to start up and use







E

MESA CONTROLLERS AND

gammadue® series

gamma**due**® is the result of Ascon's experience in designing and manufacturing compact, powerful and reliable controllers and indicators

A universal instrument tailor-made...

The wide available range of formats, functions and services allows the instrument most suitable to the process needs to be chosen.

gamma**due**® can be used with any type of sensor (thermocouples, thermoresistances, infra-red thermometres) and linear signal (mA, Volt, Hz), as well as with non-linear signals, thanks to a special Custom linearisation.

Additional inputs are also available:
- 1 analogue input for remote Setpoint, current load control (by CT), valve drive position potentiometer
- 3 digital inputs for Auto/Man, Loc/Rem, Start/Stop, etc.

Furthermore, all types of output are available: Relay, SSR, SSR drive, mA and Volt, that can freely be configured for control, re-transmission or alarms.

Control functions are ensured through a PID algorithm developed for:
- Time proportioniong output with single or double action control
- Analogue output control
- Valve drive output control

Additional functions further provide:
- 4 alarms configurable as normal, latching or blocking, that can be grouped in OR
- Local, Remote and Programmed Setpoint management
- Both "master" and "slave" serial communications
- Mathematical package.

- **All sizes, from 1/32 DIN to 1/4 DIN**
- **Withdrawable from front**
- **2 front colours available**

...kommunikativ...

Interfacing with the outside world is ensured through the three types of serial communications which, using two of the most established standard protocols - **Modbus** and **PROFIBUS DP** - allow gamma**due**® to be integrated in control, supervision and monitoring systems.
Furthermore, the presence of **Modbus Master**, integrated with the mathematical package,

UNIVERSAL PANEL INDICATORS

...adaptable to the process...

gammadue® 's **Fuzzy-Tuning** is very sophisticated: it avails of two initial "one-shot" tuning methods and an automatic system which, on the basis of the process conditions, selects the optimal one.
The **Adaptive-Tuning** function optimises the control of processes whose characteristics are continuously changing.

...and to the operator...

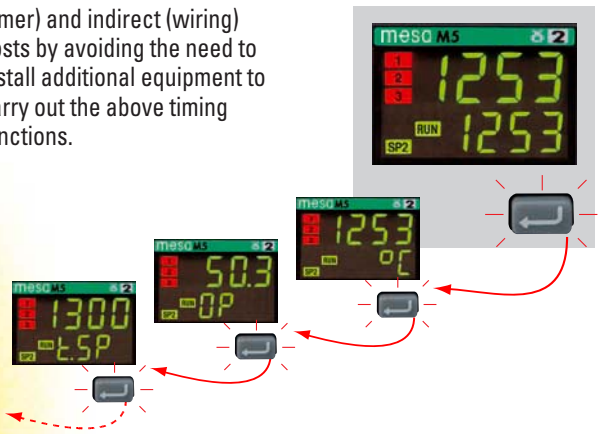
A particular customisable, password protected viewing procedure (**fast view**) allows the operator to reach rapidly the functions and information considered most important, while the option of hiding parameters or preventing their alteration prevents misuse of the instrument.

A **memory chip** is available to aid start-up operations. This chip is capable of memorising all data concerning one controller and downloading them into other controllers or archiving them. Furthermore, there is also a software package for configuring and parametrising by PC.

...includes additional services...

The integration of special Setpoint manipulation functions, such as **Start-up** and **Timer**, in addition to the most classical programmed Setpoint, makes the gammadue® instruments far more complete than a simple controller. Furthermore, gammadue® reduces direct (timer) and indirect (wiring) costs by avoiding the need to install additional equipment to carry out the above timing functions.

Fast view



allows the top range instrument to receive, process and send data (for example the Setpoint) to other controllers belonging to the gammadue® series or simply equipped with **Modbus Slave** serial communications.

PROFI PROCESS FIELD BUS

Icons Table:

PV input

- Thermocouple
- RTD Pt100
- Delta temp. (2xRTD)
- mA and V
- "Custom"
- Frequency

Auxiliary inputs

- Current transformer
- mA Remote setpoint
- V Remote setpoint
- Feedback potentiometer

Digital inputs

- Isolated contact
- NPN open collector
- TTL open collector

Digital outputs

- SPST relay
- SSR
- SPDT relay
- PNP open collector
- SSR drive

Analogue Output

- mA
- mA/V

Setpoint

- Local
- Memorised
- Remote
- Programmer

Special functions

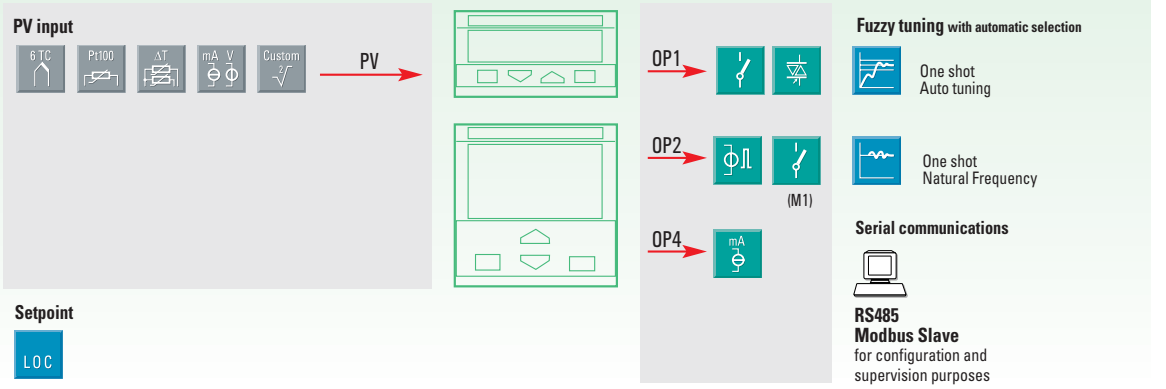
- Start-up
- Timer

Digital input connected functions

- Auto/Man
- Memorised setpoint activation
- PV Hold
- Loc/Rem
- Run, Hold, Reset and program selection
- Stand-by
- Setpoint slopes inhibition
- Digital Outputs lock
- Keypad lock

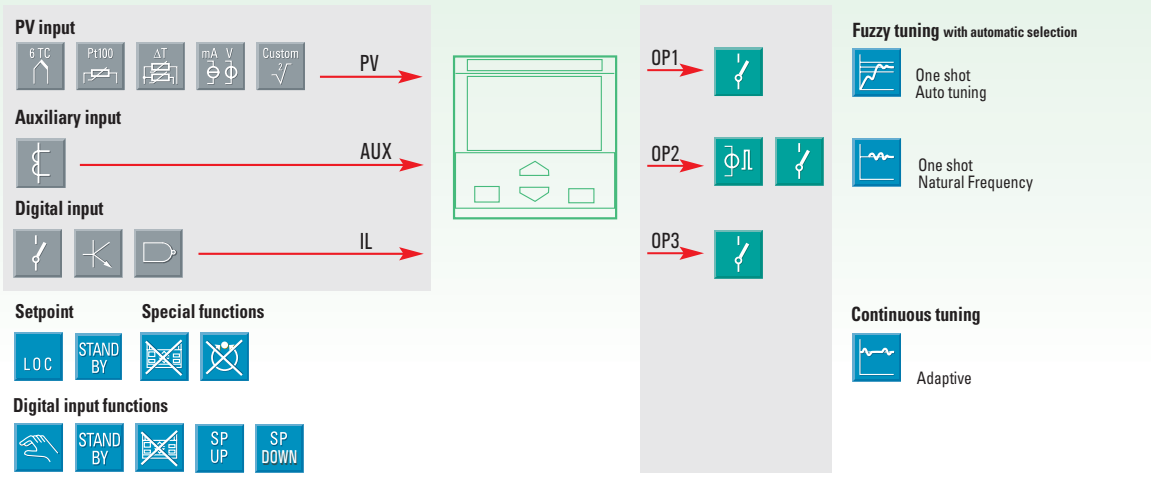
Controller-Indicator-Transmitter

- **C1 line** - 1/32 DIN - 48 x 24 x 120 mm
- **M1 line** - 1/16 DIN - 48 x 48 x 120 mm
- Single action PID or On-Off algorithm with overshoot control
- Up to 2 configurable alarms
- Isolated analogue output for re-transmission
- Auxiliary power supply for 2-wire transmitter
- Configurable as controller, Indicator with or without alarm thresholds, Indicator/Transmitter
- Safety Limiter function (C1 only) FM approved, PED compliant.



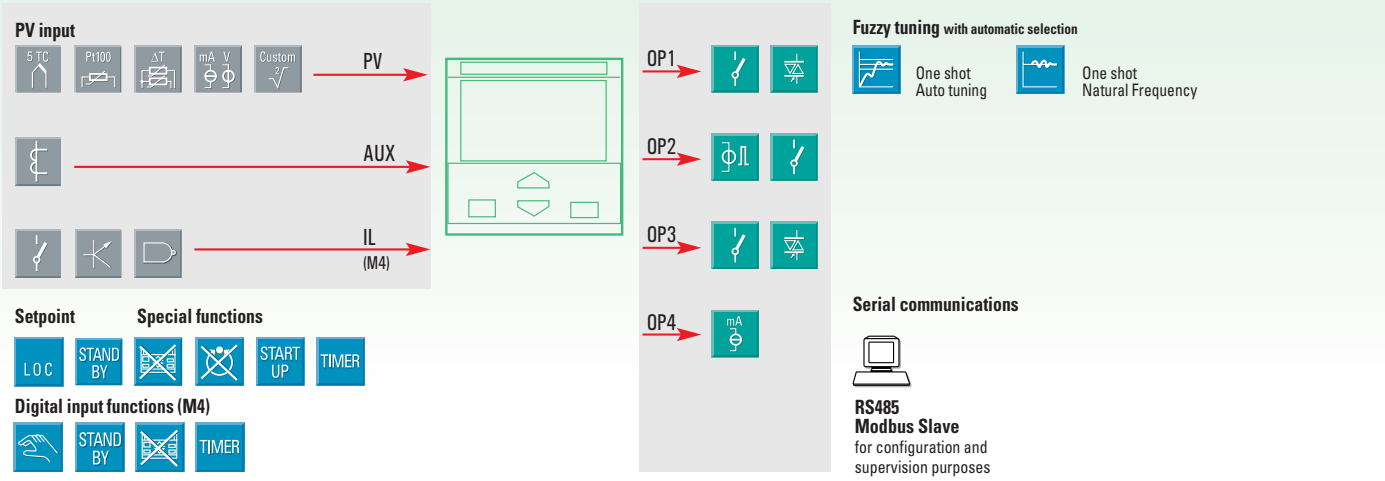
Hot-Runner controller

- **M2 line** - 1/16 DIN 48 x 48 x 120 mm
- Single or double action H/C PID or On-Off algorithm with overshoot control and Soft Start
- Current transformer input for load control
- Simultaneous change of the Setpoint by remote control, up to 48 instruments
- Maintaining the optimal value of the control output, even in emergencies
- Up to 2 configurable alarms
- 1 digital input for Auto/Man, Loc/Stand-by, keypad lock
- Auxiliary power supply for 2-wire transmitter.



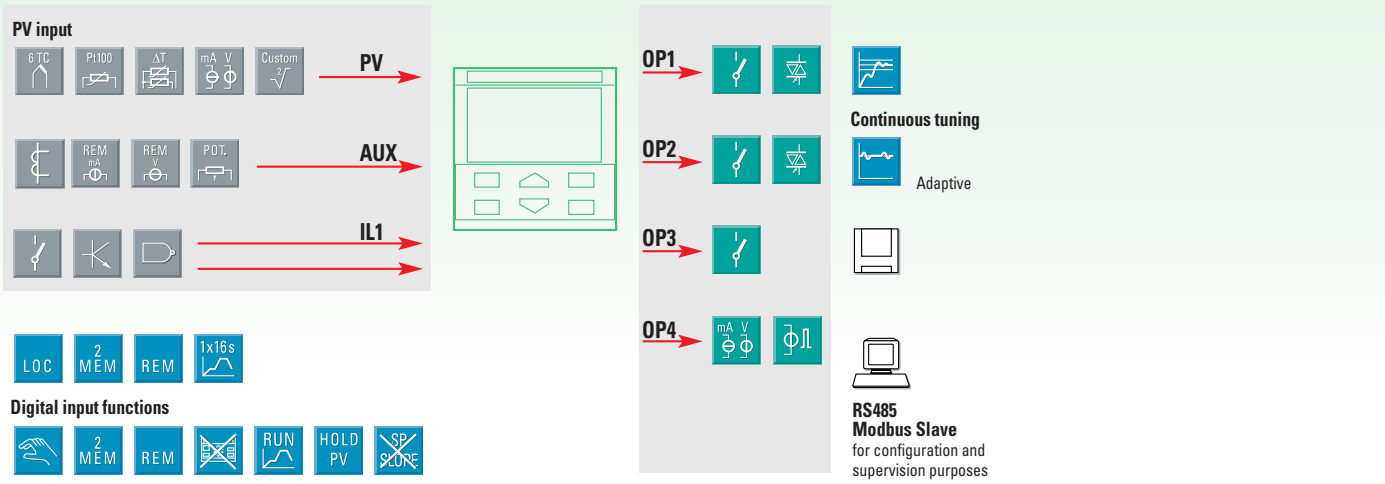
Temperature controller

- **M3/M4 line** - 1/16 DIN 48 x 48 x 120 mm
- Single or double action H/C PID or On-Off algorithm with overshoot control and Soft Start
- Current transformer input for load control
- Up to 2 configurable alarms
- 1 isolated analogue output for re-transmission (M3)
- 1 isolated analogue output for control and/or re-transmission (M4)
- Special functions: Start-up and Timer
- 1 Digital input (M4): Auto/Man, Loc/Stand-by, keypad lock
- Auxiliary power supply for 2-wire transmitter
- Safety Limiter function (M4 only) FM approved, PED compliant.



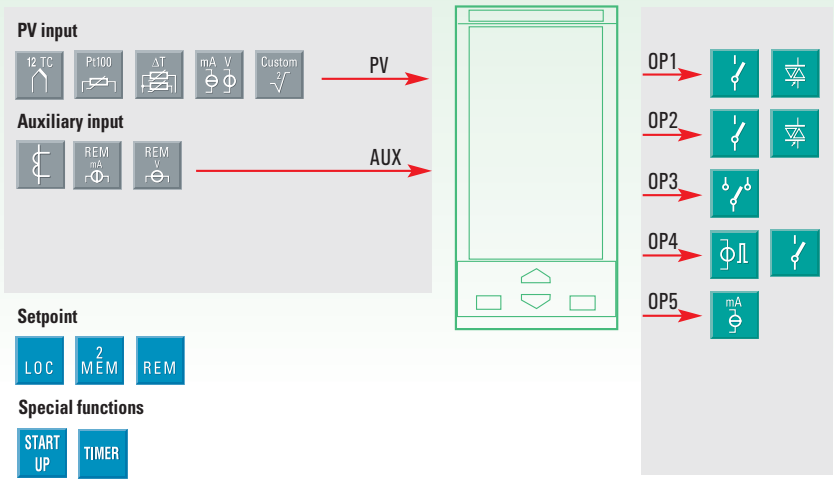
Process controller with programmable Setpoint

- **M5 line** - 1/16 DIN 48 x 48 x 150 mm
- 50ms sampling time
- Single or double action H/C PID or On-Off algorithm with overshoot control and Soft Start
- time proportioning, analogue and valve drive control
- Auto/Man with bumpless
- Up to 4 configurable alarms
- Remote Setpoint with Bias and Ratio trim
- 1 Setpoint programmed up to 16 segments
- Fast View for customised parameters menu
- Memory chip for data copying/archiving
- Auxiliary power supply for 2-wire transmitter.



Heat/Cool Temperature controller

- **X1 line** - 1/8 DIN 48 x 96 x 110 mm
- **Q1 line** - 1/4 DIN 96 x 96 x 110 mm
- Single or double action H/C PID or On-Off algorithm with overshoot control and Soft Start
- 1 isolated analogue output for re-transmission
- Up to 3 configurable alarms
- Special functions: Start-up and Timer
- Auxiliary power supply for 2-wire transmitter.



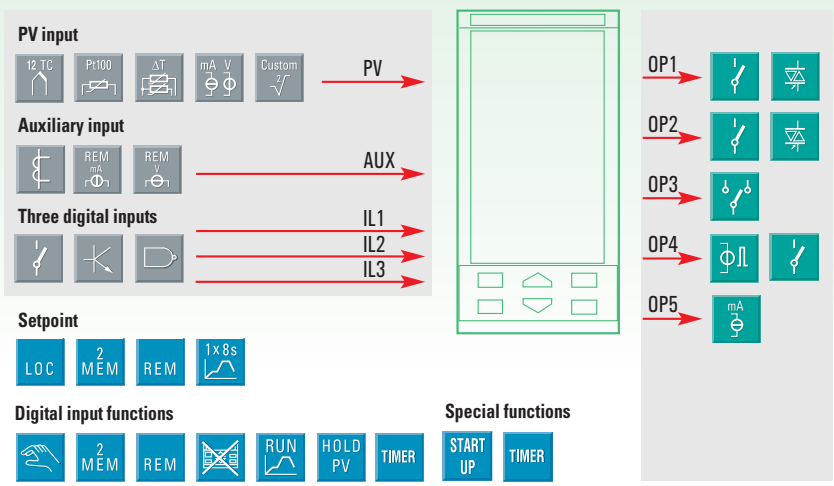
Fuzzy tuning with automatic selection

Serial communications

RS485
Modbus Slave
for configuration and supervision purposes

Double action controller with analogue output

- **X3 line** - 1/8 DIN 48 x 96 x 110 mm
- **Q3 line** - 1/4 DIN 96 x 96 x 110 mm
- Single or double action H/C PID or On-Off algorithm with overshoot control and Soft Start
- Current transformer input for load control
- 1 isolated analogue output for control or re-transmission
- Auto/Man with bumpless
- Up to 3 configurable alarms
- 1 programmed Setpoint up to 8 segments
- Special functions: Start-up and Timer
- Auxiliary power supply for 2-wire transmitter.



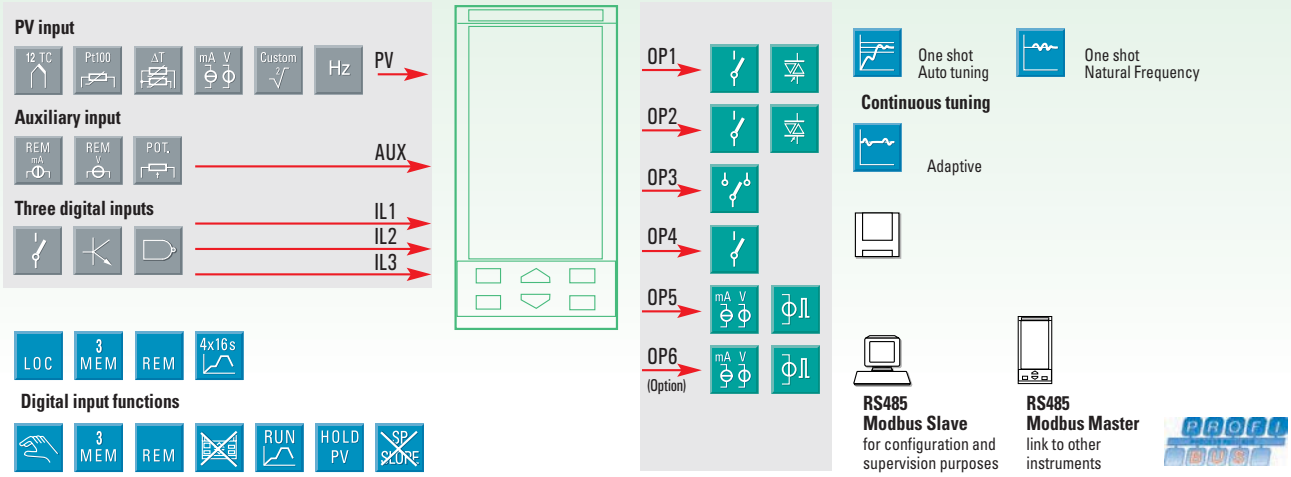
Fuzzy tuning with automatic selection

One shot
Auto tuning

One shot
Natural Frequency

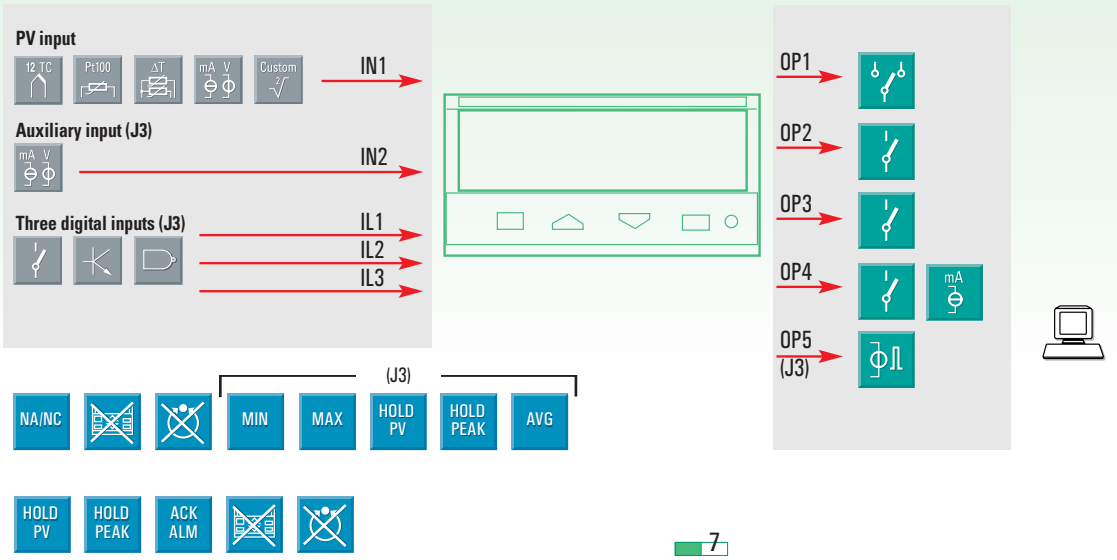
Process controller-Programmer with PROFIBUS DP and Modbus Master/Slave

- **X5 line** - 1/8 DIN 48 x 96 x 110 mm
- **Q5 line** - 1/4 DIN 96 x 96 x 110 mm
- 50ms sampling time
- 2 isolated analogue outputs for control and/or re-transmission
- Single or double action H/C PID or On-Off algorithm with overshoot control and Soft Start
- time proportioning, analogue and valve drive control
- Auto/Man with bumpless
- Up to 4 configurable alarms
- Remote Setpoint with Bias and Ratio trim
- 4 Setpoint programs up to 16 segments each
- Mathematical package
- Fast View for customised parameters menu
- Memory chip for data copying/archiving
- Auxiliary power supply for 2-wire transmitter.



Single or double input universal indicators

- **J1/J3 line** - 1/8 DIN 96 x 48 x 110 mm
- Configurable display colour: red or green
- Main universal input
- Auxiliary Input (J3): mA, V, for mathematical functions in combination with the main input
- Up to 4 configurable alarms, NO or NC contacts, ISA sequence (J3)
- Isolated analogue output for re-transmission
- 3 digital inputs (J3) for PV hold, min/max selection, alarm acknowledgement
- Auxiliary power supply for 2-wire transmitter.



MESA DGTP5-AK Digital Regulator

Digital regulator

Features DGTP5-AK

- Connection: Screw connection
- Wire cross-section: max. 2.5 mm Auxiliary voltage: 100 to 240 V AC, -15 to +10%, 50/60 Hz
- Power consumption: approx. 16 VA
- Climate conditions: Storage: -25...+65 °C Operation: -10...+50 °C Relative humidity from 35 to 85%, non-condensing

По вопросам продаж и поддержки обращайтесь:

Алматы (727)345-47-04
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
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
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
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
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70
Казахстан +7(727)345-47-04
Беларусь +(375)257-127-884
Узбекистан +998(71)205-18-59
Киргизия +996(312)96-26-47

эл.почта: meg@nt-rt.ru || сайт: https://mesa.nt-rt.ru/