

Compact and... more



Time proportioning, continuous and valve drive control



Fuzzy tuning, automatic selection of the best tuning method



Continuous isolated control (D3) or retransmission output



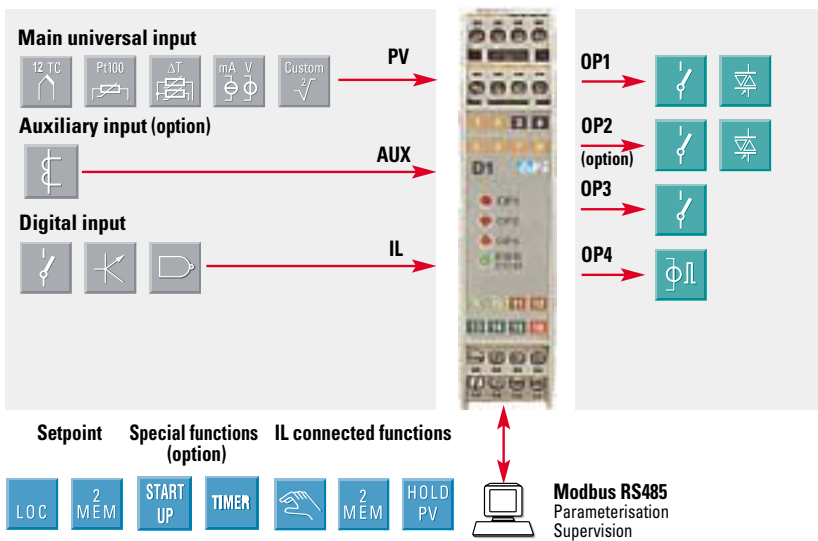
Start-up



Timer

D1 line

Resources



Operating mode

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

Fuzzy tuning with automatic selection



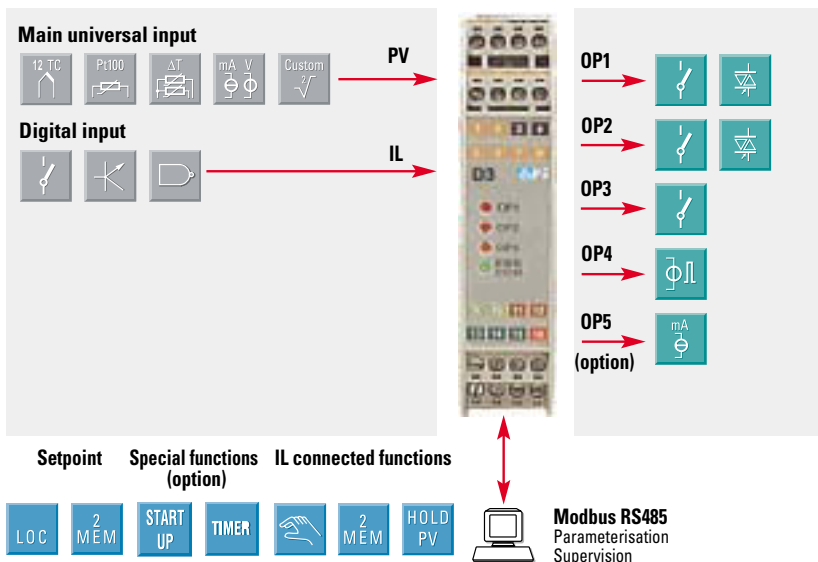
One shot
Auto tuning



One shot
Natural Frequency

D3 line

Resources



Operating mode

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

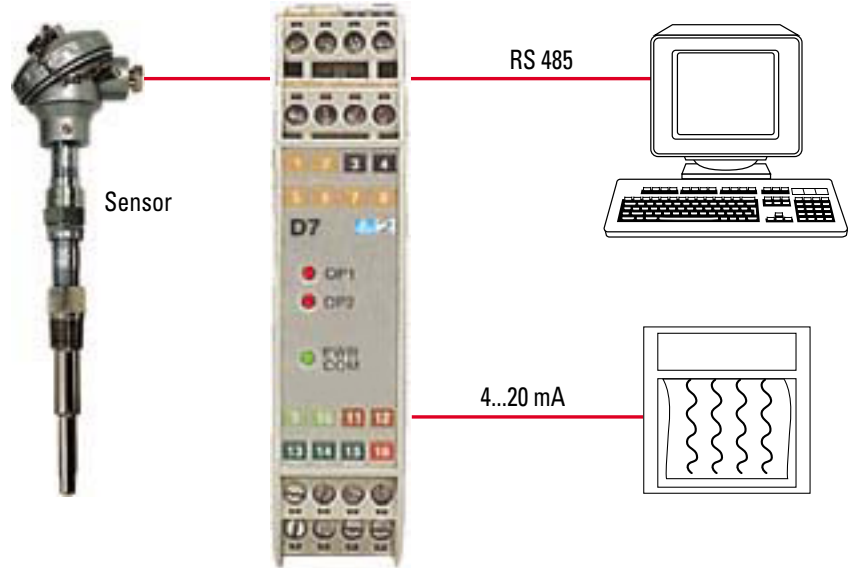
Universal input ...

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

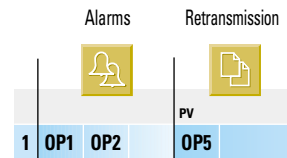
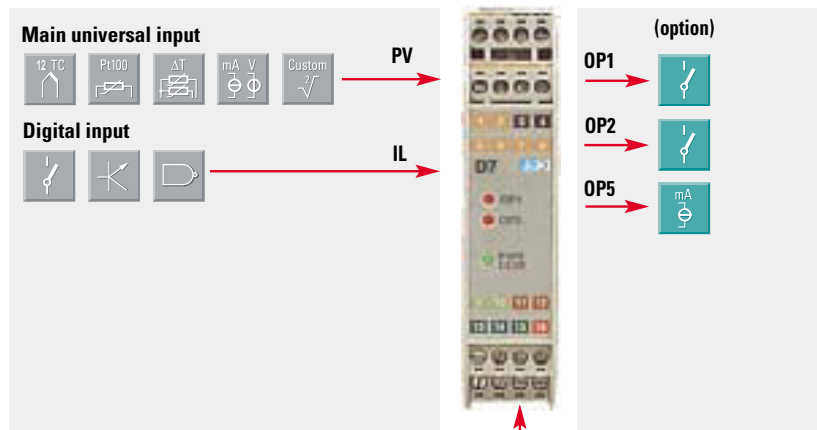


2 configurable relay alarms

D7 line

Resources

Outputs (option)



IL connected function



Modbus RS485
Parameterisation
Supervision

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



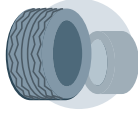
Light chemical and Pharmaceutical



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	○		
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		○ (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)		○	○ (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	○		
Setpoint			
Stored	2	2	
Start-up and Timer functions	○	○	
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)	○	○	○
Configuration and parametrization from PC			
	●	●	●

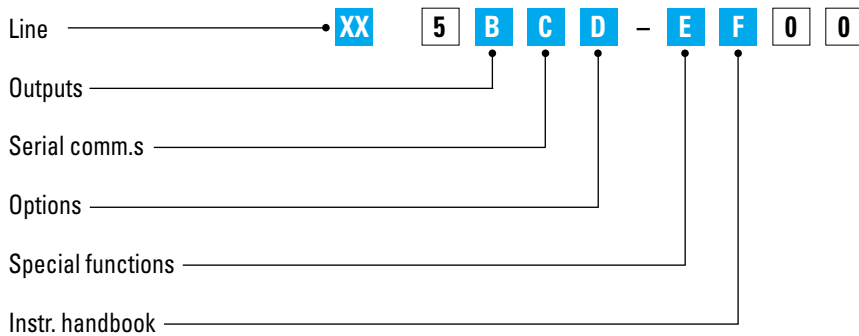
● = Standard

○ = Option



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Ordering codes



Line					XX	
Temperature controller 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	

Mesa Industrie-Elektronik GmbH

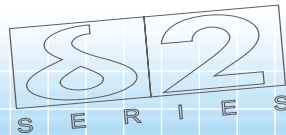
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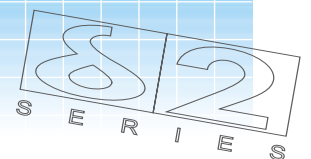


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