

### CONTROLLERS

**D20din**



**DC20din**



**D20din-DC20din** is a microprocessor based series with digital controls and LCD display with easy programming, reliable measurements, and versatile features to control other external equipment. **D20din** series provides excellent quality/price and is enclosed into DIN rail 6 modules type enclosure for various type of mounting assembly. **DC20din** is enclosed into a IP65 plastic housing for wall mounting.

<b>D20din PH</b>	<b>D20din CL (free chlorine)</b>	<b>D20din RX (redox/ORP)</b>
10.00 mS range	1000 µS range <b>D20din CD (conductivity)</b>	100 µS range

Also available following parameters: **D20 T°** temperature controller 0÷100°C with FWT STEMP probe  
**D20 DTP** controller with timer to manage external contacts (eg.water meter) synchronising the activation time of output relay: recommended for proportional dosing (dividing mode) with motor driven dosing pumps

#### CONTROL MODES

<b>ON-OFF mode via relay output:</b>	2 set-points ON-OFF with relay output, contact free, will activate a constant/ON-OFF mode dosing pump or other equipment.
<b>Advanced programming functions:</b>	it allows to program two threshold points to open a working range around set-point 1 and 2 with Hysteresis regulation.
<b>Pulse With Modulation time/pause (PWM) proportional mode set point 2:</b>	Selecting PWM proportional time/pause pulse output on set-point 2, will activate a constant/ON-OFF dosing pumps or other equipment.
<b>Proportional output 4÷20 mA on set point 2:</b>	Selecting proportional 4÷20 mA, it activates either a chart recorder or dosing pump suitable to process a remote mA signal
<b>Response Delay:</b>	It will delay the pump injection for time selectable, thus allowing the right time for sensors to polarize.
<b>Manual Temperature compensation:</b>	Only for PH and CD controllers

#### MAIN FEATURES

	D20-PH	D20-CL*	D20-RX	D20- CD		
Range:	0÷14.00 pH	0÷10.00 ppm	0÷1000 mV	0÷10.00 mS**	0÷1000 µS	0÷100 µS
Resolution <sup>1</sup> :	± 0,01 pH	± 0,01 ppm	± 1 mV	± 10 µS	± 1 µS	± 0,1 µS
Hysteresis:	0,05 pH	0,05 ppm	5 mV	50 µS	5 µS	0,5 µS
Zero <sup>2</sup> :	± 10%	± 20%	± 20%	± 10%	± 10%	± 10%
Gain <sup>3</sup> :	± 25%	± 25%	-----	± 25%	± 25%	± 25%
Connections:	BNC	Wiring terminal	BNC	Connections wiring terminal		
Input probes:	10 <sup>12</sup> Ohm electrode	Amperometric chlorine cell	10 <sup>12</sup> Ohm electrode	CD probe constant K1	CD probe constant K5	CD probe constant K5

\*Free chlorine (chlorine residual)

\*\*Available 0÷100.0 mS range with 100µS resolution

1-Resolution: display resolution  
 2-Zero: potentiometer excursion adjustment from calibration point  
 3-Gain calibration

## CONTROLLERS

### OTHER TECHNICAL CHARACTERISTICS

<b>Linearity, Stability, Reproducibility:</b>	± 2%	
<b>Delay:</b>	adjustable max 99 sec.	
<b>Display:</b>	3 ½ digits+point	
<b>Input impedance:</b>	Max 400 Ohm	
<b>Power supply:</b>	230 Vac standard; upon request 24 V ~/115V~	
<b>Fuse</b>	1 fuse 315 mA delayed	
<b>Temperature setting:</b>	Manual temperature compensation (only for PH and CD)	
<b>Electrical connections:</b>	Extractable electrical connector clamp	
<b>Set-Points:</b>	two set-points	Independent setting
	ON-OFF	Two set points to activate two Constant/On-Off mode dosing pumps or other equipment.
	Pulse With Modulation time/pause (PWM) proportional mode:	Selecting PWM proportional time/pause pulse output contact free on set-point 2, will activate a constant/ON-OFF mode dosing pumps or other equipment.
<b>Functions:</b>	Analogic 4÷20 mA output proportional for set-point 2	Selecting proportional 4÷20 mA, it can activates either a chart recorder or dosing pump suitable to process a remote mA signal on any Set point
<b>Outputs:</b>	Output 1	Contact voltage free
	Output 2	Contact voltage free
	Output 3	Proportional pulses (TTL)
	Resistive load	5A max 230 V AC
	Inductive load	1A 230 V AC
	mA output output	4÷20 mA input impedance 400 Ohm
<b>Enclosure:</b>	Protection	IP20 (D20din) - IP65 / with wired terminal IP54 (DC20)
	Material	ABS plastic DIN rail 6 modules (D20din); plastic box DC20
	Front controls	Polycarbonate adhesive
	Working temperature	0÷50 °C

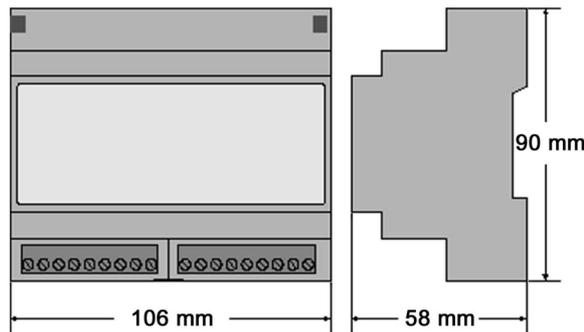
**NOTE:** D20din series is **NOT** provided with Chlorine cell, electrodes and probes which are available upon request.  
 FWT di Tommaso Commonara declines any responsibility in case the controller is used with other brand probes and sensors.

### OTHER MEASURING PARAMETER ALSO AVAILABLE:

- **D20 T°** temperature controller: 0÷100°C with resolution ± 0,1°C
- **D20din DTP** external pulses control: it divides or multiplies external pulses to drive a motor driven metering pump for proportional mode dosing operations.

#### Dimensions D20DIN:

Net weight:	<b>0,35 KG</b>
Gross weight:	<b>0,85 KG</b>



#### Dimensions DC20DIN:

Net weight:	<b>0,85 KG</b>
Gross weight:	<b>1,2 KG</b>

