

## First rain display & regulator



- ▶ The display & regulator must be connected to a rain gauge
- ▶ Information about the rain status: no rain, first rain, further rain
- ▶ Configurable parameters to set thresholds of rain status (T<sub>1</sub>, T<sub>2</sub>, Q<sub>p</sub>)
- ▶ Relay outputs to indicate rain status

“First rain” is the first 5 mm of water rained in a given period of time. More than 5 mm of rain it is treated as “further rain” condition. DGP020 display unit, connected to a rain gauge, informs through its relay about the rain condition status, it shows the total rain, the rain intensity and the duration of the rain event. T<sub>1</sub>, T<sub>2</sub> and Q<sub>p</sub> parameters shown below, are programmable. The status of rain indicated by the display are described below:


- No rain condition: is any period of at least T<sub>1</sub> min of no precipitation. The beginning of precipitation during the no rain period determines the transition to the status of “first rain”
- First rain condition: rainy condition, following a continuous period of no rain, or interrupted by any rain event intervals lower than T<sub>2</sub> min, until rain volume reaches Q<sub>p</sub> mm. When reached Q<sub>p</sub> mm of precipitation, the system moves to further rain condition. If during first rain condition rain stops for a period longer than T<sub>2</sub> min, the system goes back to the “no rain condition”.
- Further rain condition: is the period following the first rain condition, during which there are no rain breaks longer than T<sub>1</sub> min. Break longer than T<sub>1</sub> minutes determines the transition to the “no rain condition”.

T<sub>1</sub>, T<sub>2</sub> and Q<sub>p</sub> parameters are programmable.

### Technical Specifications

Code	DGP020	
<b>Input</b>	Input	Tipping bucket rain gauge (1 imp. = 0.2 mm)
<b>Output</b>	Relay	OFF during “further rain” condition ON during other conditions: No rain, First rain
	Exchange contact	1 Amp 250 V AC
<b>Commands</b>	Switch	On/Off
	Led	Condition status information when relay is ON
	Buttons	N.4 buttons for T <sub>1</sub> , T <sub>2</sub> , Q <sub>p</sub> set-up and language
<b>Power supply</b>	Power supply	24 V AC ± 10% (opz. 220 Vac)
	Power consumption	2 VA
	Battery	Rechargeable Ni-Mh 9 Vdc 150 mAh
	Battery life	48 h if relay is OFF, 30 h if ON
<b>General information</b>	CE	Industrial environments
	Operative limits	0...50 °C; UR 0...90%
	Language	Italian, English, French and German
	Display	LCD 20 chars, N.4 rows
	Dimension	144 x 72 mm
	Enclosure	DIN box (ELF020)

## Accessories

	<b>ELF020</b>	IP65 box for DGP020 First rain display and regulator. It includes the power supply system (220 -> 24 V AC) and the main switch. Dimensions: 300x400x200 mm Material: polyester Power supply: 220 -> 24 V AC Mounting: to mast or to wall
--	---------------	---

## First Rain System

The First Rain System consists of a rain gauge connected to the regulator / first rain inter-ventor closed inside an IP65 box. The system can be mounted on a pole and is connected to the electric pumps that regulate the opening / closing of the First Rain tanks.

The system includes:

Ref. Fig.	PN	Description
		<b>Regulator/ First Rain Interventor</b>
1	<b>DGP020</b>	Display+regulator/First Rain/24Vac
		<b>IP65 Box</b>
2	<b>ELF020</b>	Box IP65/DGP020
		<b>Pole H.2 m (see catalogue MW9007-ENG-01)</b>
3	<b>DYA006.1</b>	Pole/H=2m/D=50mm
	<b>DYA020</b>	Tripod/concrete installation/pole D= 50 mm
	<b>DYA020.1</b>	Anchoring bolts for tripod/3 set
		<b>Rain Gauge (see catalogue MW9000-ENG-18)</b>
4	<b>DQA230.1</b>	Sensor/Rain gauge/324cmq/Siphon/HZ
5	<b>DYA040.2</b>	Arm/DQA230-231/to D=50mm.pole
	<b>DWA505A</b>	Cable/L=5m/sensors

	Parameters	Range	Default
T1	Duration of the absence of precipitation that determines the transition from the condition of "further rain" to that of "absence rain"	1...9999 min	2880 min
T2	Duration of first rain breaks that do not suspend the latter condition The occurrence of a longer pause immediately leads back to the "no rain" condition	1...9999 min	2880 min
QP	Precipitation quantity, defined as first rain, the totalization of which determines the passage to the condition of "further rain"	1...9 mm	5 mm

▶ T1, T2 and QP parameters are programmable

