Visibility sensor and Present weather

DPA305 and DPA312 visibility sensors with a measuring range up to 2 km is designed to detect fog and haze on roads and in tunnels. DPA305 with both digital and analogue outputs as well as relays for switching external equipment; it can be integrated into Intelligent Transport Systems and used for automatically switching warning signs in changing visibility conditions.
DPA311 analyses water particles of different forms in the air as fog, rain or snow or mix form. It can measure visibility, type of precipitation including its intensity and accumulation.

Order numb.		**DPA305** (1)	**DPA312** (2)	**DPA311** (2)
	Type	Visibility meter		Visibility meter and Present weather
Visibility	*Principle*	Forward-scattering a 45°	Optical backscatter	
	Range	<10 m÷2 km visibility (MOR)	10 m÷2 km visibility (MOR)	
	Accuracy	<= 10%	<100 m: ± 10 m >100 m: 10%	
	Resolution	NA	1 m	1 m
Precipitation	*Type*			WMO codes Tab.4680: Rain, snow, mixed rain/snow, fog, drizzle, clear
	Measures			Intensity: 0÷60 mm/h (±20%) Accumulation (mm/h)
	Resolution			Intensity: 0,1 mm/h Particle : >0,16 mm
	Measurement rate			60 s
Informazioni generali	*Output*	4÷20 mA	RS485 Half duplex, 1200 bauds, ASCII	
	Relays (n.3)	1) Fault 2) Visibility threshold YES/NO precipitation or 2nd visibility threshold		
	Power supply	9÷36 Vcc	11÷15 Vdc	
	Consumption	6 W normal running (no dew, heater ON) 2,5 W no dew heater OFF	60 mA + 200 mA for lens heating	
	Operative temperature	-30÷50°C	-30÷60°C	

Snow level
Technical features - MODELS

Snow level sensor

The robust design of DQL011 makes it the ideal solution for reliable measurement of snow-depth in extreme conditions. The additional air-temperature detection feature guarantees precise readings over a wide temperature range. The powerful ultrasonic impulses emitted by this sensor deliver reliable readings even when there is a difficult reflection ratio, as is the case with powdery or fresh snow. The sensor is characterized by a high level of operating reliability, low energy consumption and ease of use in the field.

Order numb.	**DQL011**	
Snow level	*Principle*	Ultra-sonic (frequency 50 kHz)
	Range	0÷8 m
	Resolution	1 mm
	Accuracy	< 0,1% Full scale
	Beamwidth	12°
Air temperature	*Principle*	Semiconductor in radiant shield
	Range	-40÷60°C
	Resolution	0,1°C
	Accuracy	< 0,15%
General information	*Power supply*	10,5÷15 Vdc
	Power consumption	Max 200 mA, 5 mA (stand-by)
	Energy consumption	0,5 Ah/day (1 min. measuring interv.)
	Output 1	2x0/4-20 mA
	Output 2	RS232
	Operative temperature	-40÷60°C
	Material	Aluminum
	Installation	Mast-mounting for 61 mm pipe
	Connector	12 pin-connector (cable not included)
Accessories	**Order numb.**	
	DYA047	Support for DQL011 on meteo pole Ø 50 mm (maximum height: 4m)
	MN1072	Cable each meter

Leaf wetness sensor
Technical features - MODELS

Leaf wetness sensor
The leaf wet presence sensors detect the presence of water over the leaf surface irrespective of the source. Sensors is based on the principle of conductivity between electrodes, which are arranged on the double sensitive surface.

Order numb.	DQA057.1
Principle	Conducimetric
Measure	Leaf area wetness
Range	0÷100%
Accuracy	5%
Output	2x0.5÷3 Vdc (upper and lower surface)
Power supply	5÷18 Vdc (<1 mA)
Operative temperature	-15÷ 50°C
Power supply	10÷14 Vdc
Protection	IP67
Cable	L = 10 m

Storm front distance
Technical features - MODELS

Storm front distance sensor
Detection of the storm front distance (not lightning strike intensity) within an area of in 5÷40 km range. Utilizing a sensitive RF receiver and integrated proprietary algorithm, the DQA600-601 sensors the electrical emissions from lightning activity and then provides for an estimation of the distance to the head of the storm from 40 km away, while rejecting disturbances from manmade signals such as motors and microwave ovens. The estimated distance which is displayed in the distance estimation register does not represent the distance to the single lightning but the estimated distance to the leading edge of the storm.

Order numb.	DQA600	DQA601
Compatibility	Pluvi-ONE data logger	M/E/X-Log data logger
Connector	Combatible with Pluvi-ONE input	Free wires
DQA601	*Range*	5÷40 km
	Resolution	14 steps (5, 6, 8, 10, 12, 14, 17, 20, 24, 27, 31, 34, 37, 40 km)
	Output	RS232
	Protocol	ASCII
	Filter	Disturber rejection algorithm & auto antenna tuning
	Power supply	2.4 - 5.5 Vdc
	Power consumption	Max 350 µA
	Operative Temperature	-40÷85°C
	Cable	L = 5 m