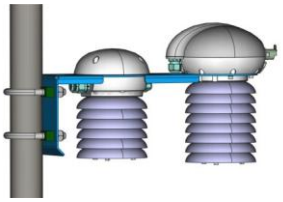
Visibility and Present Weather sensors



- Visibility and Present weather sensors (DPA305-311.1)
- Only visibility sensor (DPA320)
- Lens self-cleaning system by compressed air (DPA311.1)
- Integrated relay output to activate alarms (DPA305)
- Analogue output 4...20 mA (DPA305)

DPA311.1 visibility sensor 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. Both DPA305-311.1 analyze 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. DPA320 represents a low-cost solution to measure visibility in a range up to 7.5 km.

Technical Specifications

		DPA305	DPA311.1	DPA320
				
Visibility	Type	Visibility meter and Present weather	Visibility meter and Present weather	Visibility meter
	Principle	Forward-scattering 45°	Back-scattering	Forward-scattering 45°
	Measure	Visibility MOR (Meteorological Optical Range)	Visibility	Visibility MOR (Meteorological Optical Range)
	Range	Default: 10 m...2 km Selectable: • 10 m...10 km • 10 m...20 km • 10 m...32 km • 10 m...50 km • 10 m...75 km	Default: 10 m...2 km Selectable: 10 m...4 km	10 m .. 7.5 km
	Accuracy	<4,5% at 600 m <5,1% at 2 km < 5% at 1,5 km < 12,5% at 15 km < 20% at 30 km	<100 m: ± 10 m, >100 m: 10%	<10%
	Resolution	10 m (default) or 1 m	1 m	10 m (default) or 1 m

PN		DPA305	DPA311.1	DPA320
Precipitation	Type	WMO codes Tab.4680: Rain, snow, mixed rain/snow, fog, drizzle, clear	WMO codes Tab.4680: Rain, snow, mixed rain/snow, fog, drizzle, clear	-
	Measures	Intensity: 0...60 mm/h (±20%) Accumulation (mm/h)	Intensity: 0...60 mm/h (±20%) Accumulation (mm/h)	-
	Resolution	Intensity: 0.1 mm/h Particle: >0.16 mm	Intensity: 0.1 mm/h Particle: >0.16 mm	-
	Measurement rate	60 s	-	-
General Information	Lens self-cleaning	NO	YES By compressed air (0.6 bar)	NO
	Output (analogue)	4...20 mA Visibility	-	4...20 mA Visibility
	Output (digital)	(RS232/422/485) Visibility and precipitation	RS232/485	RS232/485
	Relays (N.3)	1. Fault 2. Visibility threshold 3. YES/NO precipitation or Snow or 2nd visibility threshold	-	-
	Power supply	9...36 V DC	11...24 V DC	9...36 V DC Heater: 24 V DC/AC
	Consumption	3.5 W	2 W, 3 W (heater ON)	3.5 W, 6W (no-dew heater ON)
	Operative temperature	-40...60 °C	-40...85 °C	-40...60 °C
	Weight	4.3 kg	8 kg	4.2 kg
	Protection rating	IP66	IP67	IP66
	Mounting	Pole mounting kit provided	Pole mounting kit provided	Pole mounting kit provided
	Data Logger compatibility	E-Log (RS232)	E-Log (RS232) Alpha-Log (RS232/485)	E-Log, M-Log, Alpha-Log ed ALIEM (analog input)

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