


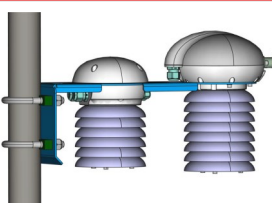

Visibility and Present Weather sensors



- ▶ 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 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. Both DPA305-311.1 analyse 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 |
|-------------------|------------|--|--|---|
| | |  |  |  |
| | Type | Visibility meter and Present weather | Visibility meter and Present weather | Visibility meter |
| Visibility | 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: <ul style="list-style-type: none"> • 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 precipita- tion or Snow or 2 nd visibility threshold | - | - |
| | Power supply | 9...36 Vdc Heater: 24 Vdc/ac | 11...24 Vdc | 9...36 Vdc Heater: 24 Vdc/ac |
| | Consumption | 3.5 W, 6W (no-dew heater ON) | 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 pro- vided | 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 (analogue input) |