

## Storm front distance sensor



- ▶ The sensor measures the distance between itself and storm front
- ▶ Reading of electromagnetic emission from the lightning sparks (typically at 400 kHz)
- ▶ It detects electrical emissions from lightning activity and then provides an estimation of the distance to the head of the storm, from 40 km away down to 5 km
- ▶ It detects cloud flashes to ground and intra-cloud (cloud to cloud) activities

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 DQA601.1-601A.3 detect the electrical emissions from lightning activity and then provide 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 does not represent the distance to the single lightning but the estimated distance to the leading edge of the storm.

### Technical Specifications

| Order numb.          | DQA601.1  | DQA601A.3  |
|----------------------|-----------|------------|
| <b>Output</b>        | RS232     | TTL-UART   |
| <b>Compatibility</b> | Alpha-Log | MSB        |
| <b>Connector</b>     | DB9-DTE   | Free wires |

### Common Technical Specifications

|                       |   |
|-----------------------|---|
| 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          | 5...24 V DC   |
| Power consumption     | Max 350 µA  |
| Operative Temperature | -40...85 °C   |
| Cable                 | L=10 m + connector  |
| EMC                   | EN 61326-1: 2013  |
| Protection rate       | IP66  |
| Installation          | <ul style="list-style-type: none"> <li>• DYA032 arm and DYA049 collar on pole (diam. 45...65 mm)</li> <li>• DYA046 bar</li> </ul> |

**Accessories**

|  |               |   |
|--|---------------|---|
|  | <b>DYA032</b> | Mounting for storm front distance sensor on DYA049 collar |
|  | <b>DYA049</b> | Collar for fixing DYA032 on pole Ø 45...65 mm             |



▶ *The storm front distance sensor is particularly suitable to be connected to Alpha-Log data-logger and mounted on the DYA046 bar (see figure), or fixed on the DYA032 mounting arm, to complete an early warning solution.*