

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 DQA601.1-601.2-601.3 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	DQA601.2	DQA601.3
Output	RS232	USB	TTL-UART
Compatibility	Alpha-Log, Pluvi-ONE	PC (Terminal Emulator), Alpha-Log, Pluvi-ONE	MSB
Connector	DB9-DTE	USB type A	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	2,4-5,5 Vdc
Power consumption	Max 350 µA
Operative Temperature	-40÷85°C
Cable	L. = 5 m
EMC	EN 61326-1: 2013
Protection rate	IP66
Installation	<ul style="list-style-type: none"> • DYA032 arm and DYA049 collar on pole (diam. 45÷65 mm) • DYA046 bar

Accessories

	DYA032	Mounting for Storm front distance sensor on DYA049 collar
	DYA049	Collar for fixing DYA032 on meteo pole Ø 45÷65 mm



▶ The storm front distance sensor is particularly suitable to be connected to Alpha-Log (DLALA0100) or Pluvi-One (ELP001) data-loggers and mounted on the DYA046 bar (see figure), or fixed on the DYA032 mounting arm, to complete an early warning solution.