**KSB AmaControl protection modules for water and waste water products**

The cabinet-mounted device is designed for monitoring water and waste water products.

Via a digital interface and the app the following individual parameters can be set: alarm values, warning values, setpoints and trip values, trip delays and re-start delays or interlocked tripping without automatic re-start.

An error relay and a warning relay ensure reliable tripping and pre-warning, respectively.

AmaControl's diagnosis interface (DP) provides operating data, fault lists, a fault counter, information on operating hours, start/stop cycles, current measured values, and a detailed fault analysis for the most recent fault (all measured values within a pre-defined time frame), which can be accessed via the app or Modbus RTU.

The AmaControl 4 device features both a diagnosis interface (DP) and an integrated Modbus RTU interface, whereas the AmaControl L, AmaControl X and AmaControl 3 devices use the diagnosis interface (DP) for outputting Modbus RTU information. In this case, an INT 600DM gateway (accessory) is required. A maximum of four INT600 DM gateways with a total of twenty AmaControl devices can be operated in a single Modbus RTU network.

The AmaControl versions available differ in terms of the sensor inputs provided and other technical details.

AmaControl 3:

1 x motor temperature, 2 x temperature, 2 x conductance (leakage) and 1 x 4-20mA signal

Phase failure, phase sequence, phase asymmetry, overvoltage, undervoltage, short circuit and open sensor circuit

AmaControl 4:

1 x motor temperature, 2 x temperature, 2 x conductance (leakage) and 1 x 4-20mA signal, current measurement, Modbus RTU (RS 485) on board

Phase failure, phase sequence, phase asymmetry, overvoltage, undervoltage, short circuit and open sensor circuit

Apparent power, effective power, reactive power, cos phi (when using the current transformer input)

AmaControl L:

1 x motor temperature, 1 x temperature, 1 x conductance (leakage)

AmaControl X:

1 x motor temperature (PTC) 1 x temperature (bimetal), 1 x conductance (leakage), explosion protection approval

**Technical data:**

Control cabinet housing (H x W x D):

 AmaControl 3, AmaControl 4: 127.2 mm x 45 mm x 113.6 mm

 AmaControl L, AmaControl X: 127.2 mm x 22.5 mm x 113.6 mm

Connections: Removable spring-loaded terminals

Fastening: Snap-mounted on 35 mm standard rail

Power supply: AC/DC 50/60 Hz 24 V ±10 % 9 VA

 AC 50/60 Hz 115 - 230 V ±10 % 9 VA

Permissible ambient temperature: -30°C … +70°C

Interface: Diagnosis port

Indication: LED for functional check with flash code

Phase monitoring: 3 phases, 80 - 690 V ±10 %, 20 - 100 Hz ±10 %,
suitable for operation on a frequency inverter

Motor temperature: Bimetal, PTC, Pt100, Pt1000

Temperature: PTC, Pt100, Pt1000

Conductance: 10k - 1MΩ, switching input 24V DC
Exceeded or undershot

Analog input: 0 - 20 mA / 4 - 20 mA

Relays: Error relay and warning relay, 2 x AC 240 V, 2,5 A C300

**Certification:**

CE, UL Listed + CoC certificate

**Purchase order information:**

- Manufacturer: KSB

- Type series: AmaControl

- Material price group: LW

**Material number:**

See type series booklet 2301.5

**Accessories:**

See type series booklet 2301.5

**Typical tender AmaControl**

**2301.521/02-DE**

**Subject to technical modification without prior notice**

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