

### 2. Products

## 2.3 SENSORS FOR EARTH FAULT DETECTION

### 2.3.1. GAE120/SENS-JW1003 (split core)

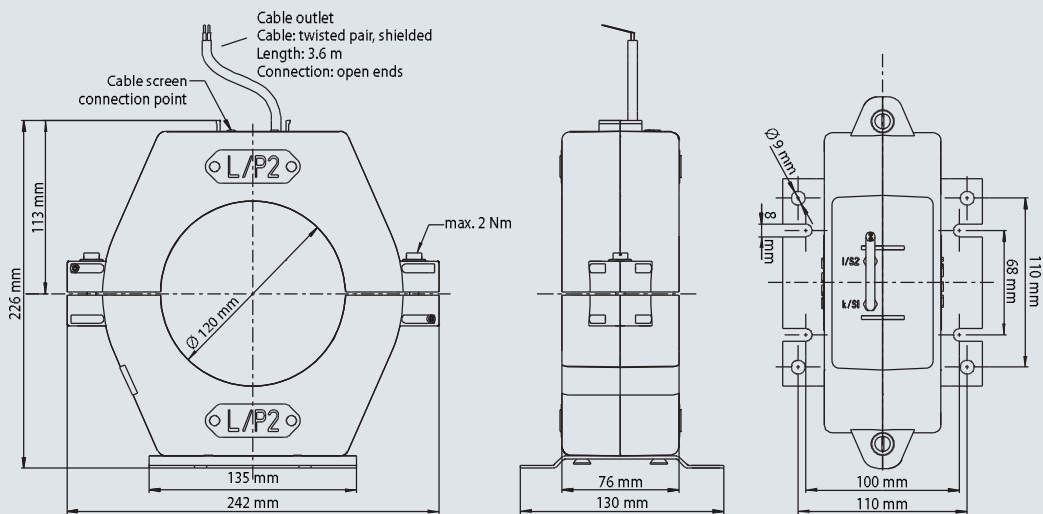
The sensor for earth fault detection of type GAE120/SENS is based on a market proven and established product. All output cables of the substation are conducted through this transformer.



In case of earth fault in a three-phase network, a current occurs due to the displacement of the neutral point. This current is implemented with a specific ratio in the output of the sensor. Therefore, the system enables to detect fault and short-circuit currents, respectively.

In this sensor inductive transformer principles are combined with sophisticated sensor technology. The high finished cut surfaces of the iron core ensure a constant and high accuracy of the measurement after assembling.

## GAE120/SENS - JW1003



### Datasheet GAE120/SENS - JW1003

<b>Insulation level</b>	0,72 / 3 kV	
<b>Rated frequency</b>	50 Hz / 60 Hz	
<b>Rated short time thermal current</b>	25 kA / 3 s	
<b>Ratio earth fault detection</b>	60 A // 225 mV (or on request)	
<b>Accuracy class</b>	Primary current: from 1 to 60 A	Phase displacement: $\pm 120$ minutes
	Class 1 according to IEC 60044-8	
<b>Output signal</b>	225 mV according to IEC 60044-8	
<b>Standard</b>	IEC 60044-8	
<b>External conditions</b>	Operation: -25°C to +55°C or -40°C to +40°C, on request	
	Storage: -40°C to +80°C, on request	
<b>Rated burden</b>	$\geq 20$ k $\Omega$	
<b>Connection cable &amp; interface</b>	See configuration table page 11	