

Data sheet

KST absolute singleturn sensor

Generation 2

Main features

Thanks to its countless technical and competitive edges on the market, the KST absolute sensor finds ever wider applications in industrial opening systems such as speedy-doors, folding-doors, gates, sectional doors and automation devices by and large.

Working on a single turn, the KST sensor provides a value for each position in the 360° of rotation, storing the current position data and preventing losses of information on restarting or power supply downtimes at the connected equipment.

When coupling the sensor with shafts on reduction ratios higher than 1:1, we recommend to adopt an embedded encoder of a Ravioli rotary limit switch. In this event contact our offices directly for support.

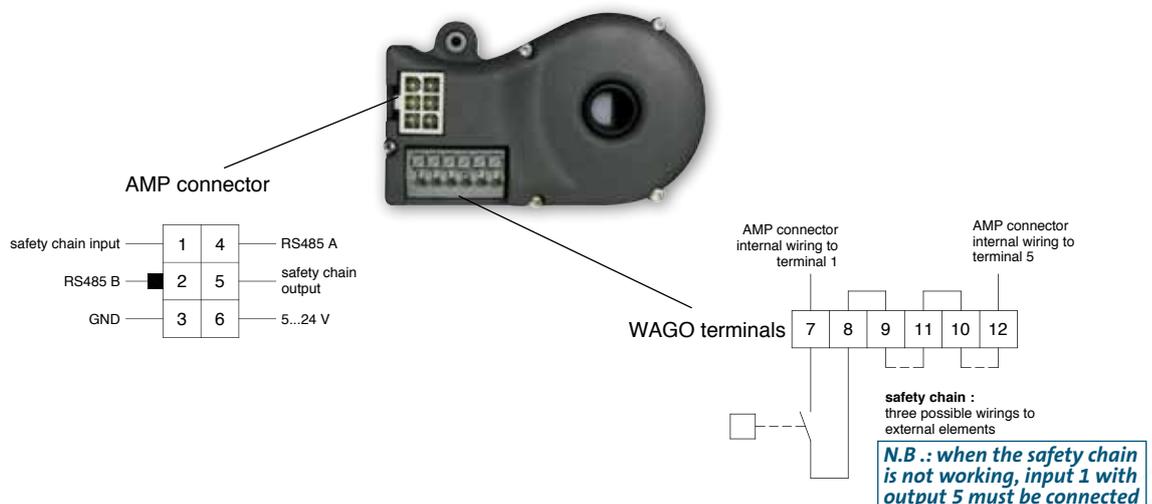


Technical features

Sensor

Operating voltage	5...24 V
Operating current	50mA
Operating temperature	-20°...+70°C
Interface	RS485; asynchronous; half duplex
Transfer rate	9.600 / 19.200 / 38.400 / 57.600 bps
Angle detection range	Single 360° turn
Resolution	0,0879°/ step (12 bit = 4096 steps over 360°)
Maximum deviation	+/- 0,2° +/- 4 bits in 8192 / 360°
Protection Degree	IP 20
Interference reception	EN 61326-1
Interference emission	Group 1 Class B EN 61326-1 / EN 55011:2016
Maximum rotational speed	160°/s

Electrical connection diagram of the sensor



Installation and maintenance guidelines

SETUP AND WIRING

The installation of the KST absolute sensor must be carried out by qualified staff, in compliance with the safety standards in force. Before wiring, the machine must be mandatorily disconnected from the power supply. For correct installation, provide operating temperatures ranging from -20°C to $+70^{\circ}\text{C}$. The sensor is not suitable for use in potentially explosive environments.

Acids, oils and solvents can cause wear to the appliance; avoid using oils or greases to lubricate any part of the product.

Wiring must be executed sticking to the letter of the machine's wiring diagram.

Once installation is completed, check the correct working of the sensor and the machine.

Installation steps:

- Disconnect the machine from the power supply
- Firmly secure the sensor by means of the appropriate fixing screw
- Strip the cable for the electrical connection, then wire the connector and connect it to the sensor
- After restoring voltage to the machine, check the correct operation of the sensor and the machine

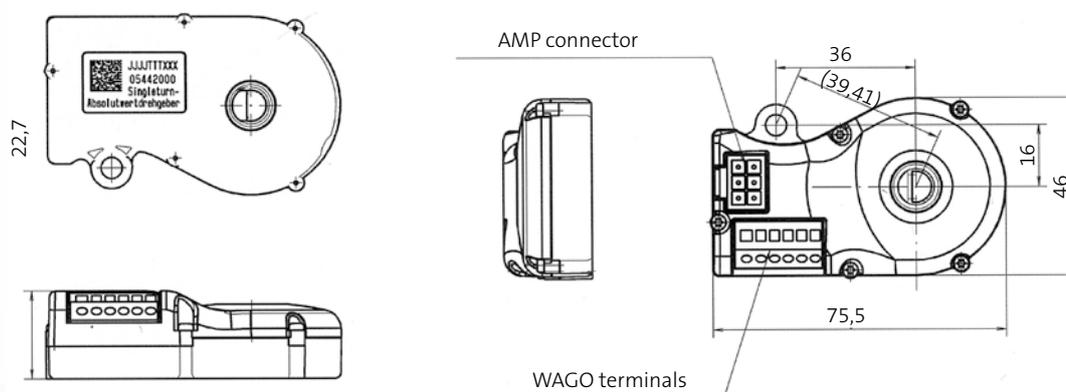
Servicing operations:

- Disconnect the machine from the power supply
- Check the conditions of the wiring system
- Check the correct drive system and axiality
- Check the envelope integrity

Safety

Safety level	Level C Cat. 2 according to EN 13849-1
Safety level of software	Class B according to EN 60730-1 / EN 60335-1
MTTF value	109,9 years
DC	$\geq 90.0\%$
CCF	68 according to EN ISO 849-1 Annex F

Dimensions



RAVIOLI S.p.a. declines any liability for damage resulting from incorrect installation or improper use of the product.