

## Operational Description RSS

### RSS-T2-US/CA (0377717)

The RSS T2 is a radio sensor system consisting of 2 connectable sensors and a radio system. These sensors are reed switches for monitoring the gripper position (e.g. gripper open). In this way it is possible to check, whether a part has been gripped or if the gripper is in opened or closed position (2 sensors = 2 positions).

In the event of a signal change at the sensors, a radio signal is sent out. Furthermore, a radio signal is also sent out every 10 seconds after the last signal change in order to check the radio path. The STM300 from Enocean is used as radio module and corresponding to the recommendation of the STM300's operating manual, a wire antenna serves as antenna.

### RSS-P1 (8705401)

The RSS P1 is a radio sensor system consisting of 1 connectable sensor and a radio system. This sensor is a pressure switch for detecting a pressure drop at the chaw below an adjustable threshold value.

In the event of a signal change at the sensors, a radio signal is sent out. Furthermore, a radio signal is also sent out every 10 seconds after the last signal change in order to check the radio path. The STM300 from Enocean is used as radio module and the antenna is a chip antenna (part number: 7488910092) from the company Würth.

For further descriptions on the radio chip's function, see the documentation attached to the STM300.

### Differences between the modules

Both modules use exact the same RF module (STM300 from Enocean). Both modules send out a radio signal in the event of:

- a) a signal change at the sensor
- b) a cyclic sending every 10 seconds after the last signal change

However, different antennas are used in the two modules. HVIN 0377717 uses a wire antenna as recommended by Enocean for the frequency range 868,35 MHz (see manual STM300 page 27). HVIN 8705401 uses a chip antenna from Würth (see data sheet 7488910092). Furthermore, the two modules vary in reference to the battery capacity. In HVIN 0377717 two LS17330 batteries are applied, whereas in HVIN 8705401 there is only one LS17330 battery used. Another differing aspect is the form of the housing.