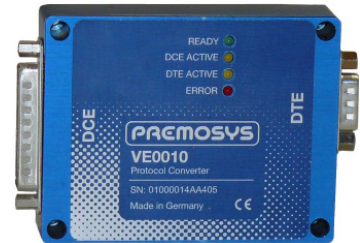


Protocol Converter VE0010

The VE0010 facilitates the connection of a COGNEX In-Sight Vision system to a FANUC robot with R-J3 control. The communication is conducted over serial interfaces in both directions. On the side of the robot, the additional software "sensor interface" is required which allows for the direct transfer of data from external devices to the standard and positioning register of the robot. From there, they can then be processed as usual.

In order to implement this, the VE0010 includes its own processor with a large program and data memory that disposes of two self-sustaining serial interfaces, which makes it possible to combine the two different protocols of the "sensor interface" and the Vision system.



An In-Sight JOB is available by means of which simple tests can be carried out. With this and with the help of the PC tool, the user can quickly ensure that all connections have been placed correctly and that the entire system is, in principle, ready for operation.



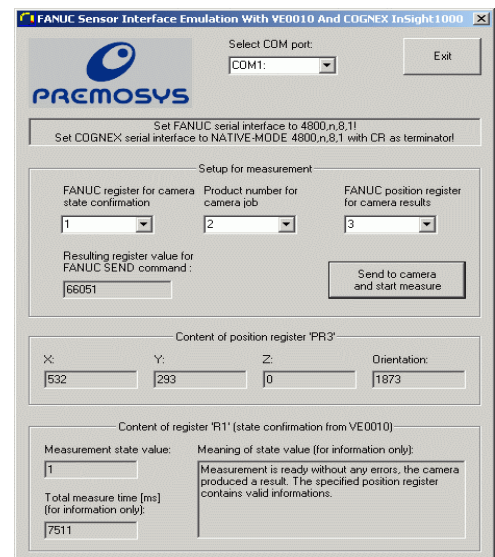
Technical data:

- Interface InSight RS232C , 4800 Baud, 1 start bit, 8 data bits, 1 stop bit
- Protocol InSight Plain-ASCII Format + Native-Mode commands
- Interface Roboter RS232C, 4800 Baud, 1 start bit, 8 data bits, 1 Stop bit; no parity!
- Protocol Roboter Fanuc-Sensor Interface Software
- Coupling: Power supply and RS232 interface Vision sensor via 9-pole SUB-D plug (Male);
- RS 232 interface robot control via 25-pole SUB-D plug (Male)

In order to support the developer of an application involving the VE0010, the scope of delivery includes a PC program with the help of which the core functions SEND and RCV, available through the additional robot software "sensor interface", are emulated. The tool permits the user to set all parameters that are required in connection with the vision task on the side of the robot and then starts a measurement (SEND). The PC tool exactly reproduces the "sensor interface" protocol and then indicates the return values of the VE0010 and the attached vision sensor. The PC tool thus also facilitates potential debugging on an already existing installation but can also simply be used as a support for the program development on the vision sensor („JOB“) in office.

Moreover, an In-Sight JOB is available by means of which simple tests can be carried out. With this and with the help of the PC tool, the user can quickly ensure that all connections have been placed correctly and that the entire system is, in principle, ready for operation.

Additional documents: Tech Note Robot Communications - FANUC



Dimensions

- Length: app. 90mm
- Breadth: app. 70mm
- Height: app. 22mm

Power supply

- 24 VDC (-5%/+10%), max. 0,1 A

Weight: app. 200g