

Annex regarding "Agreement concerning the transmission and use of data"



For products of the product group Condition Based Services (Factory Gate, Smart View Services, Condition Monitoring & Condition Check)

DATA COLLECTION

If you have chosen our data based services of Condition Based Services, a permanent data transmission will be required for the provision or the use of this service. When transmitting the data, you have the option to decide if you would just like to provide data for TRUMPF or if you would also like to receive data, e.g. to benefit from the analysis results.

As a complementary explanation to the agreement on the transmission and use of machine data, this document serves as an overview regarding the collected and transmitted data for the products Smart View Services, Factory Gate, Condition Monitoring and Condition Check. Due to the dynamics of development and the high variety of TRUMPF products, the following data are an extract. The data volume varies depending on the TRUMPF product type and its series release and software release and the concrete configuration of your laser device or laser system. The following information serves as a more extensive description regarding the data transmitted by TRUMPF laser devices or laser systems.

MEASURED VALUES

Measured values are subject to cyclical recording and comprise amongst other things the following technical information:

- **Sensor values:** These include values such as voltages, currents, temperatures, humidity values, pressures, light, frequencies, conductivities and operating hours. Already on the device level, values are used and transmitted for mathematical calculations such as minimum, maximum, standard deviations and average values.
- **Self-test:** When doing the self-test, the status of a laser is determined by sensor values with defined conditions. Furthermore, the success of the self-test is recorded.
- **Self-optimization:** Measurements for automatic optimization of the devices are recorded as well. This includes e.g. current values and voltage values of the pump source. The success of the optimization is recorded as well.

EVENTS

Events are individually based on the operation of the device and therefore occur acyclically. The following data are generated according to the product type:

- **Switching operations:** Switching the device on/off
- **Operating mode:** Change of the operating modes (e.g. energy saving level, maintenance mode, calibration mode etc.)
- **Settings:** Setting data (e.g. limit values etc.) of the installed boards. When changing settings or replacing components, both the date and the new setting values are recorded. This also includes current software states after updates.
- **Messages:** All information generated from the message list such as warnings, faults and information on diagnostics-relevant events.

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COUNTER READING

- Operating hours, operating hours counter, interface signals in total and in power ranges
- Number of program starts
- Number of laser pulses
- Utilization per light path

FURTHER DATA

- Transmission of the program names (no program content)
- Selected OPC UA values for visualization in dashboards