

Explanation for BD of the machines

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Machine Details

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| Name | BRAÑOSERA | TAMESA |
| Number | 670123 | 670074 |
| DataBase ID | 2207 | 1245 |
| Control | Heidenhain | Heidenhain |
| Heads | UAD 37kW | UAD 37kW E5E 35kW |
| Vibration Control | X | X |
| Draining | 3 | 2 |
| ATC | Cadena 60 | Pluma 40 |
| Gauge H | S-RENISHAW NC4S | X |
| Gauge P | RENISHAW RMP60-Q | RPM-60 Renishaw |
| X | 5000 mm 15.1kW | 4000 mm 15.1kW |
| Y | 1750 mm 15.1kW | 1500 mm 15.1kW |
| Z | 3750 mm 15.71kW | 3000 mm 15.71kW |

BD information

In the Vixion database there are several tables.

We will only use “variable”, “variable_log_float”, and “variable_log_string”.

The rest of the tables are required for Vixion’s operation, but they do not contain raw data controlled by Correa, so only the necessary tables will be described.

It is possible that some variables did not exist during certain periods of time, as they may have been added later. Therefore, the first time they appear should be taken as the reference point.

After reviewing the tables, we have detected that some data are likely to be corrupted, and we cannot guarantee their validity, since some foreign keys in certain tables refer to variables that are not of the indicated type. Consequently, the raw data from these machines are being recovered to regenerate them, and once they are ready, I will send you the new dumps so that you can reload them in phpPGAdmin.

TABLES

They are all within the **public** schema.

Variable

This table contains the variable names and their types. For each variable name, a description will be provided explaining its meaning and the units in which it is stored.

id: identification number used to link the recorded data.

name: variable name, which will be used to cross-reference and obtain its description and units.

datatype: type of variable as it was stored in the cloud.

variable_log_float

This table stores the raw values of numeric types. A new record is stored at the moment the value changes. As long as the variable's value remains the same, no new record is added.

When the machine is turned off, the record becomes NaN.

id_var: foreign key that references the "variable" table.

date: the date is given in UTC format.

value: value taken by the variable at that moment.

variable_log_string

This table stores the raw values of string types. A new record is stored at the moment the value changes. As long as the variable's value remains the same, no new record is added.

When the machine is turned off, the record becomes NaN.

id_var: foreign key that references the "variable" table.

date: the date is given in UTC format.

value: value taken by the variable at that moment.

Variables from machines

TAMESA

| <u>id</u> | <u>prettyName</u> | <u>units</u> |
|-----------------------------|----------------------------------|-------------------------------------|
| SERIAL_NUMBER | Serial Number | Number |
| MACHINE_TYPE | Machine Type | Number |
| OPERATING_MODE | Operating mode | Enumeral |
| OP_MODE_STANDBY | Machine in standby | true:activated false:deactivated |
| TELESERVICE | Teleservice flag | true:activated false:deactivated |
| OP_MODE_OPERATIONAL_CONTROL | Working Mode operational control | true:activated false:deactivated |
| SPINDLE_OVERRIDE | Spindle override | 1/100% |
| RAPIDTRAVERSE_OVERRIDE | Rapid Feed override | 1/100% |
| FEEDRATE_OVERRIDE | Feed override | 1/100% |
| MACHINE_EMERGENCY | Machine emergency pulsed | true:activated false:deactivated |
| MACHINE_STOP_ACTIVE | NC STOP active | true:activated false:deactivated |

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|----------------------------------|-----------------------------------|-------------------------------------|
| MACHINE_IN_OPERATION | Machine executing a program | true:activated false:deactivated |
| OP_MODE_EXCLUSIVE_AXES_M888 | Working Mode Exclusive Axes M888 | true:activated false:deactivated |
| HEAD_MENU_MAINTENANCE | Maintenance Head Menu | true:activated false:deactivated |
| TEMPERATURA_MOTOR_X | Axis X, engine temperature | degrees |
| EJE_X_UTILIZACION_MOTOR | Axis X, motor utilization | % |
| EJE_X_POSICION_ACTUAL_REFERENCIA | Axis X, actual reference position | micrometers |
| X | X encoder position | micrometers |
| TEMPERATURA_MOTOR_Y | Axis Y, engine temperature | degrees |
| EJE_Y_UTILIZACION_MOTOR | Axis Y, motor utilization | % |
| EJE_Y_POSICION_ACTUAL_REFERENCIA | Axis Y, actual reference position | micrometers |
| TEMPERATURA_MOTOR_Z | Axis Z, engine temperature | degrees |
| EJE_Z_POSICION_ACTUAL_REFERENCIA | Axis Z, actual reference position | micrometers |
| EJE_Z_UTILIZACION_MOTOR | Axis Z, motor utilization | % |
| Y | Y encoder position | micrometers |
| Z | Z encoder position | micrometers |
| C1 | Z encoder position | micrometers |
| C2 | Z encoder position | micrometers |

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| | | |
| TEMPERATURA_MANDRINO_1 | Spindle temperature 1 | degrees |
| MANDRINO_CONSUMO_VISUALIZADO | Spindle consumption viewed | % |
| MANDRINO_CONSUMO_1 | Spindle 1, motor utilization | % |
| MANDRINO_CONSUMO_2 | Spindle 2, motor utilization | % |
| ALARMA_ACTIVA | Alarm active | true:activated false:deactivated |
| MANDRINO_CAMBIO_DE_GAMA_ACTIVO | Spindle gear change active | true:activated false:deactivated |
| MANDRINO_GAMA_ALTA_ACTIVA | Spindle high range active | true:activated false:deactivated |
| MANDRINO_GAMA_BAJA_ACTIVA | Spindle high range active | true:activated false:deactivated |
| EJES_EN_MOVIMIENTO | Axes in motion | true:activated false:deactivated |
| PROG_RUN | Program Run | true:activated false:deactivated |
| PROG_STOPPED | Program stopped | true:activated false:deactivated |
| PROG_INTERRUPTED | Program interrupted | true:activated false:deactivated |

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|-----------------------------------|--|-------------------------------------|
| PROG_FINISHED | Program finished | true:activated false:deactivated |
| PROG_NAME | Program selected | string |
| PROG_LINE | Program Block Number | Number |
| PROG_SUB | Program active | String |
| HEAD_INDEX_MOUNTED | Head index mounted | Number |
| TOOL_SPINDLE_NUMBER | Tool placed in the Spindle(Number) | Tool Number |
| TOOL_CALL | Tool Call request | true:activated false:deactivated |
| TOOL_DEF | Tool Def request | true:activated false:deactivated |
| CURRENT_TIME | Time | TIME |
| TOUCH_PROBE_IN_SPINDLE2 | Status of touch probe in spindle 2 | true:activated false:deactivated |
| TOOL_SPINDLE_INDEX | Tool placed in the Spindle(Index) | Tool Index |
| TOOL_SPINDLE_STORAGE | Tool placed in the Spindle(Pocket Number in ATC) | Tool Pocket |
| TOOL_SPINDLE_ATC | ATC of the Tool placed in the Spindle | ATC |
| TOOL_GRIPPER_MAGAZINE_NUMBER_CAD1 | Tool number in gripper(magazine side, Cad1) | ATC |
| TOOL_GRIPPER_SPINDLE_NUMBER_CAD1 | Tool number in gripper(spindle side, Cad1) | ATC |
| TOOL_UNLOCK_ORDER_MANUAL | Order to unlock tool manually | true:activated |

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| | | false:deactivated |
| TOOL_UNLOCK_ORDER_ATC | Order to unlock tool in ATC | true:activated false:deactivated |
| ACTIVE_TOOL | Tool name placed in spindle | String |
| ATC_STAGE | Atc Stage | number |
| ATC_MANUAL_STAGE | Atc manual Stage | number |
| ATC_STAGE_CAD1 | Atc Stage Cad1 | number |
| ATC_STAGE_CAD2 | Atc Stage Cad2 | number |
| ATC_STAGE_AES | Atc Stage AES | number |
| ATC_ACTUAL_POSITION_CAD1 | Atc actual position cad1 | number |
| ATC_REQUESTED_POSITION_CAD1 | Atc requested position cad1 | number |
| PROG_BLOCKSCAN | Program in Block Scan | true:activated false:deactivated |
| PROG_CANCELLED | Program canceled | true:activated false:deactivated |
| PROG_NAME_CORREA | Program Name | true:activated false:deactivated |
| FEED_PROGRAMMED_THREAD | Programed thread feed rate | mm/rev x 1.000 |
| FEED_THREAD_ACTIVE | Status of Feed thread | true:activated false:deactivated |

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| FEED_RAPID_ACTIVE | Status of Rapid Feeds | true:activated false:deactivated |
| FEED_PROGRAMMED_MINUTE | Feeds programmed per minute. | mm/min/ 1.000 |
| FEED_CONTOUR | Actual Contour Feeds per minute | mm/min/ 1.000 |
| HEAD_C2_TURN_ORDER | C2 body turn order | true:activated false:deactivated |
| HEAD_C1_TURN_ORDER | C1 body turn order | true:activated false:deactivated |
| HEAD_C1_POSITION_REQUESTED | Head C1 position requested | Degrees |
| HEAD_C2_POSITION_REQUESTED | Head C2 position requested | Degrees |
| ENCLOSURE_CLOSED | Enclosure closed and bloqued | true:activated false:deactivated |
| PRESURE_GROUP_HIGH | High Pressure Group Enabled | true:activated false:deactivated |
| PRESURE_GROUP_LOW | Low Pressure Group Enabled | true:activated false:deactivated |
| COOLANT_INTERNAL | Internal coolant activated | true:activated false:deactivated |
| COOLANT_EXTERNAL | External coolant activated | true:activated false:deactivated |
| TEMPERATURA | Temperature 1 | Celsius /1.000 |

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|---|--|-------------------------------------|
| TEMPERATURA_PT100 | Temperatura pt100 0 | Celsius / 100 |
| TEMPERATURA_ANALOGICAS_0 | Temperatura analogica 0 | Celsius /100 |
| TEMPERATURA_CARNERO | Ram temperature | true:activated false:deactivated |
| TEMPERATURA_CARNERO_2 | Ram temperature 2 | true:activated false:deactivated |
| TEMPERATURA_BASE | Base temperature | true:activated false:deactivated |
| TEMPERATURA_CABEZAL | Head temperature | true:activated false:deactivated |
| DILATACIONES_CORRECCION_AXIAL | Dilatation axial correction | mm / 10.000 |
| DILATACIONES_CORRECCION_TRANSVERSAL | Dilatation transversal correction | mm / 10.000 |
| DILATACIONES_CORRECCION_AXIAL_CABEZAL_1 | Dilatation head 1 axial correction | mm / 10.000 |
| DILATACIONES_CORRECCION_AXIAL_CABEZAL | Dilatation head axial correction | mm / 10.000 |
| DILATACIONES_CORRECCION_TRANSVERSAL_CABEZAL_1 | Dilatation head 1 transversal correction | mm / 10.000 |
| DILATACIONES_CORRECCION_TRANSVERSAL_CABEZAL_2 | Dilatation head 1 transversal correction | mm / 10.000 |
| THERMAL_COMPENSATION_ON | Thermal compensation active | true:activated false:deactivated |
| FUNCION_M128 | Funcion M128 | true:activated |

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| | | false:deactivated |
| FUNCION_M144 | Funcion M144 | true:activated false:deactivated |
| FUNCION_M575 | Funcion M575 | true:activated false:deactivated |
| FUNCION_M591 | Funcion M591 | true:activated false:deactivated |
| FUNCION_M592 | Funcion M592 | true:activated false:deactivated |
| EJE_Y_DISTANCIA_A_COTA | Axis Y, distance to go | mm / 1.000 |
| EJE_X_DISTANCIA_A_COTA | Axis X, distance to go | mm / 1.000 |
| EJE_Z_DISTANCIA_A_COTA | Axis Z, distance to go | mm / 1.000 |
| EJE_X_AVANCES_PERMITIDOS | Axis X, feeds allowed | true:activated false:deactivated |
| EJE_Y_AVANCES_PERMITIDOS | Axis Y, feeds allowed | true:activated false:deactivated |
| EJE_Z_AVANCES_PERMITIDOS | Axis Z, feeds allowed | true:activated false:deactivated |
| EJE_X_EN_MOVIMIENTO | Axis X in motion | true:activated false:deactivated |
| EJE_Y_EN_MOVIMIENTO | Axis Y in motion | true:activated |

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| | | false:deactivated |
| EJE_Z_EN_MOVIMIENTO | Axis Z in motion | true:activated false:deactivated |
| EJE_X_EN_POSICION | Axis X in position | true:activated false:deactivated |
| EJE_Y_EN_POSICION | Axis Y in position | true:activated false:deactivated |
| EJE_Z_EN_POSICION | Axis Z in position | true:activated false:deactivated |
| SPINDLE_RPM | Spindle nominal RPM | rpm x 1000 |
| MANDRINO_N_SELECCIONADO | Spindle number selected | number |
| SPINDLE_LOAD | Spindle utilization | % |
| SPINDLE_TEMP | Spindle temperature | Degrees Celsius |
| MANDRINO_POSICION_ACTUAL | Spindle actual position | Degrees / 10.000 |
| MANDRINO_M4_ACTIVA | Spindle in M4 | true:activated false:deactivated |
| MANDRINO_M3_ACTIVA | Spindle in M3 | true:activated false:deactivated |
| CONFIG_NUMERO_EJES | Config, axes number | Number |
| CONFIG_NUMERO_MANDRINOS | Config, spindle umber | Number |
| PARAMETROS_MECANIZADO | Parameters of machining | Number |

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| EJE_4_UTILIZACION_MOTOR | Axis 4, motor utilization | % |
| EJE_4_POSICION_ACTUAL_REFERENCIA | Axis 4, actual reference position | micrometers |
| TEMPERATURA_MOTOR_4 | Axis 4, engine temperature | degrees |
| TEMPERATURA_MOTOR_5 | Axis 5, engine temperature | Degrees |
| EJE_5_UTILIZACION_MOTOR | Axis 5, motor utilization | % |
| TEMPERATURA_MOTOR_6 | Axis 6, engine temperature | Degrees |
| EJE_5_POSICION_ACTUAL_REFERENCIA | Axis 5, actual reference position | micrometers |
| EJE_6_UTILIZACION_MOTOR | Axis 6, motor utilization | % |
| EJE_6_POSICION_ACTUAL_REFERENCIA | Axis 6, actual reference position | micrometers |
| TEMPERATURA_MOTOR_7 | Axis 7, engine temperature | Degrees |
| EJE_7_UTILIZACION_MOTOR | Axis 7, motor utilization | % |
| EJE_7_POSICION_ACTUAL_REFERENCIA | Axis 7, actual reference position | micrometers |
| TEMPERATURA_MOTOR_8 | Axis 8, engine temperature | Degrees |
| EJE_8_UTILIZACION_MOTOR | Axis 8, motor utilization | % |
| EJE_8_POSICION_ACTUAL_REFERENCIA | Axis 8, actual reference position | micrometers |
| TEMPERATURA_MOTOR_9 | Axis 9, engine temperature | Degrees |
| EJE_9_POSICION_ACTUAL_REFERENCIA | Axis 9, actual reference position | micrometers |

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| EJE_9_UTILIZACION_MOTOR | Axis 9, motor utilization | % |
| HEAD_NUMBER_MODEL_INDEX1 | Head number model for index 1 | Number |
| HEAD_NUMBER_MODEL_INDEX2 | Head number model for index 2 | number |
| CAC_INITIALIZED | Head change has been initialized | Boolean |
| CAC_HEAD_REQUESTED | Head requested for the change | Number |
| CAC_STATUS | Phase of the CAC | Number |
| CONVETOR_ALARM | Conveyor alarmed | true:activated false:deactivated |
| CONVEYOR_1_START | Conveyor 1 started | true:activated false:deactivated |
| CONVEYOR_2_START | Conveyor 2 started | true:activated false:deactivated |
| CONVEYOR_1_INVERTER | Conveyor 1 inverter started | true:activated false:deactivated |
| TOUCH_PROBE_MONITOR | Monitoring of the Touch Probe | true:activated false:deactivated |
| CONVEYOR_2_INVERTER | Conveyor 2 inverter started | true:activated false:deactivated |
| TOUCH_PROBE_MEASUREMENT_CICLE_ACTIVE | Status of Probe cycle | true:activated false:deactivated |
| TOUCH_PROBE_IN_SPINDLE1 | Status of touch probe in spindle 1 | true:activated |

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|-------------|----------------|-------------------|
| | | false:deactivated |
| PROG_STATUS | Program status | enumerals |

BRAÑOSERA

| id | prettyName | units |
|-----------------------------|----------------------------------|-------------------------------------|
| SERIAL_NUMBER | Serial Number | Number |
| MACHINE_TYPE | Machine Type | Number |
| TELESERVICE | Teleservice flag | true:activated false:deactivated |
| OP_MODE_STANDBY | Machine in standby | true:activated false:deactivated |
| OPERATING_MODE | Operating mode | Enumeral |
| OP_MODE_OPERATIONAL_CONTROL | Working Mode operational control | true:activated false:deactivated |
| PROG_STATUS | Program status | Enumeral |
| OVERRIDE_SPINDLE | Spindle override | % |
| OVERRIDE_FEEDRATE | Feed override | % |
| OVERRIDE_RAPIDTRAVERSE | Rapid Feed override | % |
| MACHINE_EMERGENCY | Machine emergency pulsed | true:activated false:deactivated |
| MACHINE_STOP_ACTIVE | NC STOP active | true:activated false:deactivated |
| MACHINE_IN_OPERATION | Machine executing a program | true:activated |

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| | | false:deactivated |
| TEMPERATURE_MOTOR_X | Axis X, engine temperature | degrees |
| AXIS_X_MOTOR_UTILIZACION | Axis X, motor utilization | % |
| AXIS_X_ACTUAL_POSITION_REFERENCE | Axis X, actual reference position | micrometers |
| X | X encoder position | micrometers |
| TEMPERATURE_MOTOR_Y | Axis Y, engine temperature | Degrees |
| AXIS_Y_MOTOR_UTILIZATION | Axis Y, motor utilization | % |
| EJE_Y_ACTUAL_POSITION_REFERENCE | Axis Y, actual reference position | micrometers |
| Y | Y encoder position | micrometers |
| TEMPERATURE_MOTOR_Z | Axis Z, engine temperature | Degrees |
| AXIS_Z_MOTOR_UTILIZACION | Axis Z, motor utilization | % |
| EJE_Z_POSICION_ACTUAL_REFERENCE | Axis Z, actual reference position | micrometers |
| Z | Z encoder position | micrometers |
| C1 | C1 encoder position | micrometers |
| C2 | C2 encoder position | micrometers |
| TEMPERATURE_SPINDLE_1 | Spindle temperature 1 | Degrees |
| SPINDLE_LOAD_1 | Spindle 1, motor utilization | % |
| ALARM_ACTIVE | Alarm active | true:activated |

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| | | false:deactivated |
| EMERGENCY_PULSED | Emergency push button active. Pilz entry. | true:activated false:deactivated |
| SPINDLE_GEAR_CHANGE_ACTIVE | Spindle gear change active | true:activated false:deactivated |
| SPINDLE_HIGH_RANGE | Spindle high range active | true:activated false:deactivated |
| SPINDLE_LOW_RANGE | Spindle low range active | true:activated false:deactivated |
| AXES_IN_MOTION | Axes in motion | true:activated false:deactivated |
| PROG_STOPPED | Program stopped | true:activated false:deactivated |
| PROG_RUN | Program Run | true:activated false:deactivated |
| PROG_INTERRUPTED | Program interrupted | true:activated false:deactivated |
| PROG_FINISHED | Program finished | true:activated false:deactivated |
| PROG_NAME | Program selected | String |
| PROG_SUB | Program active | String |
| PROG_LINE | Program Block Number | Number |

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| HEAD_INDEX_MOUNTED | Head index mounted | Number |
| TOOL_SPINDLE_NUMBER | Tool placed in the Spindle(Number) | Tool Number |
| TOOL_CALL | Tool Call request | true:activated false:deactivated |
| TOOL_DEF | Tool Def request | true:activated false:deactivated |
| CURRENT_TIME | Time | TIME |
| HOURS_MACHINE_ON | Amount of time with the machine ON, for comparison purposes | Hours |
| RESTART_COUNTER | Number of times that the machine has been turn on-off | Number |
| POWER_OFF_FAIL_COUNTER | Number of possible power off failures | Number |
| EASY_LOG_NUMBER | Number for easy log message | string |
| EASY_LOG_MESSAGE | Register for easy log message | Text |
| EMERGENCY | Machine program stopped, emergency | true:activated false:deactivated |
| TOOL_SPINDLE_INDEX | Tool placed in the Spindle(Index) | Tool Index |
| TOOL_SPINDLE_STORAGE | Tool placed in the Spindle(Pocket Number in ATC) | Tool Pocket |
| TOOL_SPINDLE_ATC | ATC of the Tool placed in the Spindle | ATC |
| TOOL_GRIPPER_MAGAZINE_NUMBER_CAD1 | Tool number in gripper(magazine side, Cad1) | ATC |
| TOOL_GRIPPER_SPINDLE_NUMBER_CAD1 | Tool number in gripper(spindle side, Cad1) | ATC |

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| | | |
| TOOL_UNLOCK_ORDER_MANUAL | Order to unlock tool manually | true:activated false:deactivated |
| ACTIVE_TOOL | Tool name placed in spindle | String |
| TOOL_UNLOCK_ORDER_ATC | Order to unlock tool in ATC | true:activated false:deactivated |
| ATC_STAGE | Atc Stage | Number |
| ATC_MANUAL_STAGE | Atc manual Stage | Number |
| ATC_STAGE_CAD1 | Atc Stage Cad1 | Number |
| ATC_REQUESTED_POSITION_CAD1 | Atc requested position cad1 | Number |
| ATC_STAGE_AES | Atc Stage AES | Number |
| ATC_ACTUAL_POSITION_CAD1 | Atc actual position cad1 | Number |
| ATC_ERRORS | Number of errors related to tool changes | Number |
| AUTOMATIC_TOOL_CHANGES | Number of automatic tool changes | Number |
| MANUAL_TOOL_CHANGES | Number of manual tool changes | Number |
| TOOL_DEF_COUNTER | Number of TOOL DEF | Number |
| VERTICAL_AUTO_TOOL_CHANGES | Number of automatic tool changes with head in vertical position | Number |
| HORIZONTAL_AUTO_TOOL_CHANGES | Number of automatic tool changes with head in horizontal position | Number |
| LAST_TOOL_CHANGE_TIME | The amount of time which took the last automatic tool change | Seconds |

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| ERROR_827_COUNTER | Number of counting errors in ATC | Number |
| PROG_CANCELLED | Program canceled | true:activated false:deactivated |
| ERROR_930_COUNTER | Number of error caused by an excess in tool change time | Number |
| PROG_NAME_CORREA | Program Name | true:activated false:deactivated |
| FEED_PROGRAMMED_THREAD | Programed thread feed rate | mm/rev / 1.000 |
| FEED_THREAD_ACTIVE | Status of Feed thread | true:activated false:deactivated |
| FEED_RAPID_ACTIVE | Status of Rapid Feeds | true:activated false:deactivated |
| FEED_PROGRAMMED_MINUTE | Feeds programmed per minute. | mm/min / 1.000 |
| FEED_CONTOUR | Actual Contour Feeds per minute | mm/min / 1.000 |
| HEAD_C1_TURN_ORDER | C1 body turn order | true:activated false:deactivated |
| HEAD_C2_TURN_ORDER | C2 body turn order | true:activated false:deactivated |
| HEAD_C1_POSITION_REQUESTED | Head C1 position requested | Degrees |
| HEAD_C2_POSITION_REQUESTED | Head C2 position requested | Degrees |
| ACTIVE_NC_MACRO | Number of the active NC macro | |
| CYCLE_305_COUNTER | Number of times that the cycle 305 has been executed | Number |

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| CYCLE_305_WITHOUT_ROTARY_TABLE | Number of times that the cycle 305 has been executed (without rotary table) | Number |
| CYCLE_305_WITH_ROTARY_TABLE | Number of times that the cycle 305 has been executed (with rotary table) | Number |
| CYCLE_305_WITH_VERTICAL_ROTARY_TABLE | Number of times that the cycle 305 has been executed (with vertical rotary table) | Number |
| CYCLE_310_COUNTER | Number of times that the cycle 310 has been executed | Number |
| CYCLE_310_WITH_PANEL | Number of times that the cycle 310 has been executed (with a panel) | Number |
| CONFIGURATION_CHANGES_COUNTER | Number of times that panels and rotary tables configuration is changed | Number |
| CYCLE_310_WITHOUT_PANEL | Number of times that the cycle 310 has been executed (only for preset) | Number |
| M629_COUNTER | Number of times that the tool probe position is modified | Number |
| PANEL_CONFIGURATON | Panel Configuration Meaning: -/-/-/-/P3/P2/P1 | Number |
| CONFIGURATION_PT_1_AND_2 | Rotary table Configuration (1-2) V2/V/H/M/V2/V/H/M | Number |
| CONFIGURATION_PT_3_AND_4 | Rotary table Configuration (3-4) V2/V/H/M/V2/V/H/M | Number |
| CYCLE_351_COUNTER | RNumber of times that the cycle 351 have been executed | Number |
| CYCLE_350_351_COUNTER | RNumber of times that the cycle 350-351 have been executed | Number |
| CYCLE_381_COUNTER | Number of times that the cycle 381 has been executed | Number |

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| CYCLE_382_COUNTER | Number of times that the cycle 382 has been executed | Number |
| CYCLE_397_COUNTER | Number of times that the cycle 397 has been executed | Number |
| CYCLE_398_COUNTER | Number of times that the cycle 398 has been executed | Number |
| M885_WARMING_COUNTER | Number of times that the warming cycle has been executed (for UDX type) | Number |
| M320_COUNTER | Number of times that the M320 has been executed | Number |
| CYCLE_341_WARMING_COUNTER | Number of times that the warming cycle has been executed (for E5E type) | Number |
| CYCLE_WARMING_LOW_TEMPERATURE | Low temperature warming cycle - Number of times | Number |
| CYCLE_WARMING_DAILY | Daily warming - Number of times | Number |
| CYCLE_WARMING_WEEK | Week type warming - Number of times | Number |
| ENCLOSURE_CLOSED | Enclosure closed and bloqued | true:activated false:deactivated |
| CYCLE_WARMING_WEEKEND | Weekend type warming - Number of times | Number |
| PRESURE_GROUP_HIGH | High Pressure Group Enabled | true:activated false:deactivated |
| PRESURE_GROUP_LOW | Low Pressure Group Enabled | true:activated false:deactivated |
| COOLANT_EXTERNAL | External coolant activated | true:activated false:deactivated |
| COOLANT_INTERNAL | Internal coolant activated | true:activated |

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|--------------------------|--------------------------|-------------------------------------|
| | | false:deactivated |
| TEMPERATURA_CARNERO | Ram temperature | true:activated false:deactivated |
| TEMPERATURA_CARNERO_2 | Ram temperature 2 | true:activated false:deactivated |
| TEMPERATURA_BASE | Base temperature | true:activated false:deactivated |
| TEMPERATURA_E5E_rod1 | E5E rod1 temperature | Celsius |
| TEMPERATURA_E5E_rod2 | E5E rod2 temperature | Celsius |
| TEMPERATURA_CABEZAL | Head temperature | true:activated false:deactivated |
| TEMPERATURA_E5E_rod3 | E5E rod3 temperature | Celsius |
| VACUOSTATO_VACIO_CABEZAL | Vacuostato vacio cabezal | Pressure |
| NIVEL_TALADRINA_DEP_1 | Coolant level storage 1 | Pressure |
| E_DESBLOQUEO_HERRAMIENTA | Tool unlock input | true:activated false:deactivated |
| E_DESBLOQUEO_C1 | C1 unlock input | true:activated false:deactivated |
| E_DESBLOQUEO_C2 | C2 unlock input | true:activated false:deactivated |
| E_CAUDAL_REF1 | Cooling flow input1 | true:activated |

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| | | false:deactivated |
| E_CAUDAL_REF2 | Cooling flow input2 | true:activated false:deactivated |
| E_CAUDAL_REF1_S1 | Cooling flow s1 input1 | true:activated false:deactivated |
| E_CAUDAL_REF2_S1 | Cooling flow s1 input2 | true:activated false:deactivated |
| E_RPM_ELAX | RPM ELAX input | true:activated false:deactivated |
| CONSUMO_ELAX | ELAX Compsuntion | true:activated false:deactivated |
| SONDA_TEMP_E5E_PLATO | Temperature probe E5E plate | true:activated false:deactivated |
| S_TALADRINA_INTERNA_VARIABLE | Internal Coolant variable | true:activated false:deactivated |
| S_TALADRINA_EXTERNA_VARIABLE | External Coolant variable | true:activated false:deactivated |
| S_EV_CAIDA_CARNERO | Ram drop solenoid valve output | true:activated false:deactivated |
| S_EV_VUELCO2_CARNERO | Ram dump solenoid valve2 output | true:activated false:deactivated |
| S_EV_VUELCO1_CARNERO | Ram dump solenoid valve1 output | true:activated |

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| | | false:deactivated |
| DILATACIONES_CORRECCION_AXIAL | Dilatation axial correction | mm / 10.000 |
| DILATACIONES_CORRECCION_TRANSVERSAL | Dilatation transversal correction | mm / 10.000 |
| DILATACIONES_CORRECCION_AXIAL_CABEZAL_1 | Dilatation head 1 axial correction | mm / 10.000 |
| DILATACIONES_CORRECCION_AXIAL_CABEZAL | Dilatation head axial correction | mm / 10.000 |
| DILATACIONES_CORRECCION_TRANSVERSAL_CABEZAL_1 | Dilatation head 1 transversal correction | mm / 10.000 |
| DILATACIONES_CORRECCION_TRANSVERSAL_CABEZAL_2 | Dilatation head 1 transversal correction | mm / 10.000 |
| THERMAL_COMPENSATION_ON | Thermal compensation active | true:activated false:deactivated |
| FUNCION_M128 | Funcion M128 | true:activated false:deactivated |
| FUNCION_M144 | Funcion M144 | true:activated false:deactivated |
| FUNCION_M575 | Funcion M575 | true:activated false:deactivated |
| FUNCION_M591 | Funcion M591 | true:activated false:deactivated |
| FUNCION_M592 | Funcion M592 | true:activated false:deactivated |
| EJE_X_DISTANCIA_A_COTA | Axis X, distance to go | mm / 1.000 |
| EJE_Z__DISTANCIA_A_COTA | Axis Z, distance to go | mm / 1.000 |

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| EJE_Y_DISTANCIA_A_COTA | Axis Y, distance to go | mm / 1.000 |
| EJE_X_AVANCES_PERMITIDOS | Axis X, feeds allowed | true:activated false:deactivated |
| EJE_Y_AVANCES_PERMITIDOS | Axis Y, feeds allowed | true:activated false:deactivated |
| EJE_Z_AVANCES_PERMITIDOS | Axis Z, feeds allowed | true:activated false:deactivated |
| EJE_X_EN_MOVIMIENTO | Axis X in motion | true:activated false:deactivated |
| EJE_Z_EN_MOVIMIENTO | Axis Z in motion | true:activated false:deactivated |
| EJE_Y_EN_MOVIMIENTO | Axis Y in motion | true:activated false:deactivated |
| EJE_X_EN_POSICION | Axis X in position | true:activated false:deactivated |
| EJE_Y_EN_POSICION | Axis Y in position | true:activated false:deactivated |
| EJE_Z_EN_POSICION | Axis Z in position | true:activated false:deactivated |
| MANDRINO_N_SELECCIONADO | Spindle number selected | number |
| SPINDLE_RPM | Spindle nominal RPM | rpm / 1000 |

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| MANDRINO_CONSUMO_VISUALIZADO | Spindle consumption viewed | % |
| SPINDLE_TEMP | Spindle temperature | Degrees Celsius |
| MANDRINO_POSICION_ACTUAL | Spindle actual position | Degrees / 10.000 |
| MANDRINO_M3_ACTIVA | Spindle in M3 | true:activated false:deactivated |
| MANDRINO_M4_ACTIVA | Spindle in M4 | true:activated false:deactivated |
| MANDRINO_PARADO_DIFERIDO | Spindle stopped | true:activated false:deactivated |
| MANDRINO_STATUS_POSICIONAMIENTO | Spindle pos status | true:activated false:deactivated |
| MANDRINO_EN_MOVIMIENTO | Spindle in motion | true:activated false:deactivated |
| MANDRINO_EN_TAPPING_MODE | Spindle in tapping mode | true:activated false:deactivated |
| MANDRINO_ORDEN_DE_PARADA | Spindle stopped order | true:activated false:deactivated |
| CONFIG_NUMERO_EJES | Config, axes number | Number |
| CONFIG_NUMERO_MANDRINOS | Config, spindle umber | Number |
| CAMBIO_GAMA_CONTADOR | Gear change counter | Number |

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| CAMBIO_GAMA_CONTADOR_0 | Gear change counter 0 fails | Number |
| CAMBIO_GAMA_CONTADOR_1 | Gear change counter 1 fails | Number |
| CAMBIO_GAMA_CONTADOR_2 | Gear change counter 2 fails | Number |
| CAMBIO_GAMA_CONTADOR_3 | Gear change counter 3 fails | Number |
| CAMBIO_GAMA_CONTADOR_4 | Gear change counter 4 fails | Number |
| CAMBIO_GAMA_SALIDA_EN_FUNCIONAMIENTO_CONTADOR | Gear change has come out, working, counter | Number |
| CAMBIO_GAMA_NO_RECUPERADA_EN_FUNCIONAMIENTO_CONTADOR | Gear change not recovered, working, counter | Number |
| ERROR_PN_CAMBIO_GAMA | Gear change has come out, working | Number |
| MANDRINO_CAMBIO_DE_GAMA_PEDIDO | Spindle gear change requested | Number |
| CAMBIO_GAMA_TIEMPO_CAMBIO_UD | Gear change change time, per change | Seconds |
| CAMBIO_GAMA_NUMERO_REINTENTOS_UD | Gear change retries, per change | Number |
| CAMBIO_GAMA_GAMA_PEDIDA | Gear change retries, per change | Number |
| PARAMETROS_MECANIZADO | Parameters of machining | Number |
| CYCLE_360_COUNTER | Number of times that the cycle 360 has been executed | Number |
| CYCLE_360_COUNTER_Q_11 | Number of times that the cycle 360 has been executed (Param 1/1) | Number |
| CYCLE_360_COUNTER_Q_12 | Number of times that the cycle 360 has been executed (Param 1/2) | Number |
| CYCLE_360_COUNTER_Q_21 | Number of times that the cycle 360 has been executed (Param 2/1) | Number |

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| CYCLE_360_COUNTER_Q_22 | Number of times that the cycle 360 has been executed (Param 2/2) | Number |
| SEMAPHORE_RED | Semaphore, red light | Number |
| SEMAPHORE_GREEN | Semaphore, green light | Number |
| SEMAPHORE_BLUE | Semaphore, blue light | Number |
| EJE_W_BRAKE | Axis W, brake | true:activated false:deactivated |
| SAFETY_WORK_MODE | Working Safety mode active | Number |
| MARKER_ONE | Marker one | true:activated false:deactivated |
| MARKER_ZERO | Marker zero | true:activated false:deactivated |
| SEMAPHORE_LIGHTS | Semaphore lights | 1:R, 2:G, 3:B, 4:G+W, 5:B+W |
| TEMPERATURA_MOTOR_4 | Axis 4, engine temperature | degrees |
| EJE_4_UTILIZACION_MOTOR | Axis 4, motor utilization | % |
| EJE_4_POSICION_ACTUAL_REFERENCIA | Axis 4, actual reference position | micrometers |
| TEMPERATURA_MOTOR_5 | Axis 5, engine temperature | degrees |
| EJE_5_UTILIZACION_MOTOR | Axis 5, motor utilization | % |
| EJE_5_POSICION_ACTUAL_REFERENCIA | Axis 5, actual reference position | micrometers |
| TEMPERATURA_MOTOR_6 | Axis 6, engine temperature | degrees |

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| EJE_6_UTILIZACION_MOTOR | Axis 6, motor utilization | % |
| EJE_6_POSICION_ACTUAL_REFERENCIA | Axis 6, actual reference position | micrometers |
| TEMPERATURA_MOTOR_7 | Axis 7, engine temperature | degrees |
| EJE_7_UTILIZACION_MOTOR | Axis 7, motor utilization | % |
| EJE_7_POSICION_ACTUAL_REFERENCIA | Axis 7, actual reference position | micrometers |
| TEMPERATURA_MOTOR_8 | Axis 8, engine temperature | degrees |
| EJE_8_UTILIZACION_MOTOR | Axis 8, motor utilization | % |
| EJE_8_POSICION_ACTUAL_REFERENCIA | Axis 8, actual reference position | micrometers |
| HEAD_NUMBER_MODEL_INDEX1 | Head number model for index 1 | number |
| CONVETOR_ALARM | Conveyor alarmed | true:activated false:deactivated |
| CONVEYOR_1_START | Conveyor 1 started | true:activated false:deactivated |
| CONVEYOR_1_INVERTER | Conveyor 1 inverter started | true:activated false:deactivated |
| CONVEYOR_2_START | Conveyor 2 started | true:activated false:deactivated |
| CONVEYOR_2_INVERTER | Conveyor 2 inverter started | true:activated false:deactivated |

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| TOUCH_PROBE_MONITOR | Monitoring of the Touch Probe | true:activated false:deactivated |
| PART_MEASURING_CYCLE_ACTIVE | Status of Probe cycle | true:activated false:deactivated |
| TOUCH_PROBE_IN_SPINDLE1 | Status of touch probe in spindle 1 | true:activated false:deactivated |
| TOUCH_PROBE_IN_SPINDLE2 | Status of touch probe in spindle 2 | true:activated false:deactivated |
| MANDRINO_TOUCH_PROBE_NUMBER | Spindle touch probe number active | Number |
| MANDRINO_TOUCH_PROBE_TYPE | Spindle touch probe type active | Number |
| TOOL_MEASURING_CYCLE_ACTIVE | Status of Probe cycle | true:activated false:deactivated |
| HOURS_UAD | Hours with UAD running | Hours |