

SMARTbox DP Datasheet



Radio

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|------------|---|
| 4G LTE | LTE Cat 4 (incl. 3G/2G) LTE Cat 1 (incl. 3G/2G) LTE Cat M1 NB-IoT (Cat NB1) |
| 3G | UMTS HSPA+ (incl. 2G) UMTS HSPA (incl. 2G) |
| 2G | GSM GPRS |
| Regions | EMEA / APAC / Latinamerica / NorthAmerica / Australia / Global (3G / 2G) |
| GPS | Supported by 2G and 3G Variances |
| Production | The selected Region, Technology and GPS can be defined during Production. The default assembly is 3G with supported regions EMEA / APAC |

Connectivity/Features

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|--------------------------|--|---|
| <p>Layout</p> | | |
| <p>Fieldbus Profibus</p> | <p>Type Standard Baudrates GSD File Input Register Output Register Profibus Slave address ASIC</p> | <p>Profibus Slave DP-V0 Automatic Baudrate Detection Supported Baudrates: 9,6kbit 19,2kbit 45,45kbit 93,75kbit 187,5kbit 500kbit 1500kbit 3000kbit 6000kbit 12000kbit ID Number : 1023 HEX GSD file : PSYS1023.GSD 16 (16bit) 16 (16 bit) Selectable by Cloud, Default: 24 VPC3+S (Profichip)</p> |
| <p>Fieldbus Modbus</p> | <p>Type Baudrate Parity Stoppbits Functioncodes Datapoints</p> | <p>Modbus RTU Master 4800, 9600, 19200, 38400, 57600, 115200 Even, ODD, NONE 2,1 Funct.1 (Read Single Coils) Funct.2 (Read Input Status) Funct.3 (Read Holding Registers) Funct.4 (Read Input Registers) Funct.5 (Write Coil) Funct.6 (Write Holding Register) Max. 10 Modbus Slaves, with 100 datapoints per device or 1000 datapoints with 1 device</p> |
| <p>Sensors</p> | <p>2 Sensor Inputs DIN/O</p> | <p>DIN [voltage free]</p> |

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|------|---|---|
| | AIN | NTC 0..20mA (selectable by Hardware) |
| LEDs | GSM | Flashing- connected to mobile network |
| | RUN | 2xflashing/pause: StartUp Phase 3xflashing/pause: Connected to Server, Data exchange |
| | Act | Flashing: Sensor Board Power |
| | Link | Flashing: Sensor Board is ready to process data |
| USB | For programming, Logging and Trace the device | |



Cloud Connector

Cumulocity




| | | |
|-------------------|--|---------------------------------------|
| Availability | All Cumulocity Based systems, Cloud der Dinge Deutsche Telekom | |
| Realtime Clock | Updating Realtime automatical from #NTP timeserver | |
| Application | CloudFieldbus (CFB Integrated in Devicemanagement) For SetUp connected field devices | |
| Online Operations | Remote Restart Fieldbus Configuration Cloud-Device Change Transmitinterval from device to Cloud Change Communication. Baudrate, Databits, Parity, Stopbits Operate the connected Field device: Registervalues (R/W) Operate the connected Field device: Change CoilValues (R/W) Operate the device with AT Commands in the shell | |
| Communication | MQTT | |
| Security | TLS-Security 1.0 / TLS 1.2 (ab Version 2.4.x) | |
| Notifications | Realtime and Pending Operations | |
| Shell | Operate the device with AT Commands in the shell | |
| Location | Identification by cellular network or GPS Signal (selected- see Radio) | |
| Tracking | Location Route by by cellular network or GPS Signal | |
| Info | Operator, Cell ID, LAC, MNC, MCC, Signal strength | |
| Device Database | Device database Support for Modbus and Profibus: Measurements, Event, Alarms, Values, Read, Read/Write, Signed/Unsigned, Decimal Places, Multiplier, Divisor, No of Bits, StartBit | |
| OTA | RemoteUpdate Software | |
| Data-Exchange | Values | On Change |
| | Alarms | On Change |
| | Events | On Change |
| | Measurements | Default 900 |
| | Signal strength | Is sent every 20 Min as a measurement |
| | Offline Buffering | Alarms, Events, Measurments ≈ 72h |
| SMS | For Troubleshooting you can operate the device by SMS: Reboot Change tenant FOTA/OTA | |



General

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|------------------|--|-------------------|--------------|
| Dimensions | 100 x 70 x 45 mm | | |
| Weight | 89g | | |
| GSM Antenna | SMA Connector | | |
| Power Supply | Nominal voltage range: 12-24 VDC, 10% Maximum continuous (average) supply power: 2.5 W Maximum continuous (average) supply current: 200 mA at 12V, 100 mA at 24V | | |
| Mounting | Via DIN Rail Adapter or Adapter for Wall Mounting | | |
| SIM Card Format | 2FF | | |
| Operating temp. | -20..60°C | | |
| Storage temp. | -40..85°C | | |
| Oper.humidity | Max. 85% | | |
| Storage humidity | Max. 85% | | |
| IP Class | IP20/IP54 (opt.) | | |
| Approvals | America | Europe | Australia |
| | FCC /IC, PTCRB /GCF | R&TTE / GCF / RED | RCM, Telstra |

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| Conformity Declarations | EMC-Directive 2014/30/EU EN 55022:2010 EN 55024:2010 IEC 61000-6-1:2005 IEC 61000-6-3:2011 R&TTE-Directive 2014/53/EU EN 301 511 V9.0.2 EN 301 908-1 V6.2.1 EN 301 908-2 V6.2.1 RoHS-Directive 2011/65/EU EN 50581:2012 | | |
| Profibus Organisation | ID Number : 1023 HEX GSD file : PSYS1023.GSD | | |