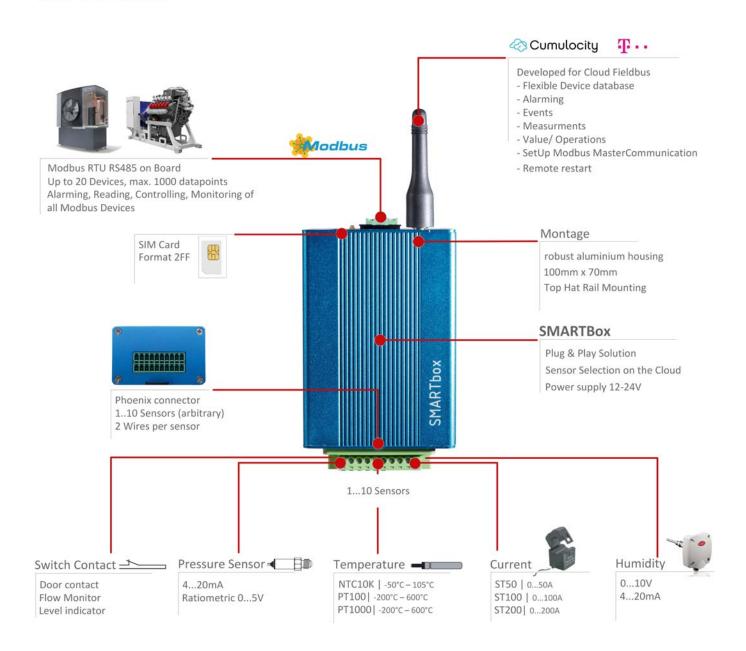


SMARTbox IO

Smartbox, based on the Telit Chipset HE910 is a ready to use solution for connecting Modbus devices to the Cumulocity Fieldbus Cloud. It provides a Master Slave Communication on RS485 for connecting up to 20 devices as well as 10 Sensors (Current ,Temperature, Pressure). Easy configure the SetUp of building automation fielddevices like pumps, e-meters, Airhandling units in the Cumulocity Fieldbus cloud or connect different sensortypes to the box. Using the Smartrest protocol the terminal comes up with a low traffic solution for decentralized applications. For the Smartbox there is a customized user interface available made for easy handling the sensors and showing graphs for consumption and temperatures.

SMARTBox 10



SMARTbox IO Datasheet

Operate the device by SMS	Change APN		Send SMS with APN to the Terminal: GPRS= <apn>, <user>, <pass></pass></user></apn>										
			if no use		d pass i	ass is needed you have to set							
	Change Tenant	Change Tenant Send SMS with Tenant to the Terminal:											
	RESTART	DELETE and register new in Device Registration Send SMS with Tenant to the Terminal:											
		RES											
Realtime Clock		Updating Realtime during StartUp from timeserver by NIST Server											
Connectivity	2G/3G (4G optional)												
Interface	Optional available												
	RUN 2 x flashing /pa 3 x flashing/pau server, data exc	use: Sta	rtUp phas nected to	е			*	Bussuas Sensor3	_	•	Anter	nna	
Interface USB	MiniLISR to operate t	MiniUSB to operate the device with AT command Type Modbus RTU, ASCII (Maste											
Interface USB Fieldbus Communication	-												
Interface USB Fieldbus Communication Modbus	Туре	Mod	bus RT	J, AS	CII (Ma	ster)	15200 (Chan	ae durii	na Rı	untime	possi	ole)
Fieldbus Communication	Type Baudrate	Moc 480	bus RT	J, AS	CII (Ma)0, 384	ster) 100, 1					untime	possi	ole)
Fieldbus Communication	Type Baudrate Parity	Mod 480 Ever	dbus RT 0, 9600 n, ODD,	J, AS), 1920 NON	CII (Ma)0, 384 E (Chai	ster) 100, 1 nge d	luring R	untim			untime	possi	ole)
Fieldbus Communication	Type Baudrate	Moc 480 Evel 2,1 (Fun Fun Fun Fun Fun	bus RT	J, AS NON durir ad Si ad In ad Ho ad In ite Co	CII (Ma DO, 384 E (Char g Runt ngle Co but Sta bilding F but Reg bil)	ster) 100, 1 100	uring R cossible (set ofters) s) (set	untim) fset 10	ne poss	ible)	Ir in CC	(1)	ole)
Fieldbus Communication	Type Baudrate Parity Stopbits	Moc 480 Evel 2,1 (Fun Fun Fun Fun Fun	dbus RT 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 3 (Re ct. 4 (Re ct. 5 (Wr	J, AS NON durir ad Si ad In ad Ho ad In ite Co	CII (Ma 00, 384 E (Char g Runt ngle Co but Sta blding F but Respil) blding	ster) 100, 1 100	luring R cossible (set ofters) s) (set	fset 10	ne poss	ible)	Ir in CC	(1)	ole)
Fieldbus Communication	Type Baudrate Parity Stopbits Functioncodes	Moc 480 Evel 2,1 (Fun Fun Fun Fun Fun	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 3 (Re ct. 4 (Re ct. 5 (Wi ct. 6 (Wi	J, AS NON durir ad Si ad In ad Ho ad In ite Co	CII (Ma 00, 384 E (Char g Runt ngle Co but Sta blding F but Respil) blding	ster) 100, 1 100	luring R cossible (set ofters) s) (set	fset 10	ne poss	ible)	Ir in CC	(1)	ole)
Fieldbus Communication	Type Baudrate Parity Stopbits Functioncodes Datapoints	Moc 480 Ever 2,1 (i Fun Fun Fun Fun Max 300	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 3 (Re ct. 4 (Re ct. 5 (Wi ct. 6 (Wi	J, AS NON durin ad Si ad Inj ad Ho ad Inj ite Corite H	CII (Ma 00, 384 E (Char g Runt ngle Co but Sta blding F but Respil) blding	ster) 100, 1 100 dime poils) 100 tus) 100 Register 100	luring R cossible (set ofters) s) (set	fset 10 c offse	ne poss	ible) Add O in A	Ir in CC) CC)	pe F
Fieldbus Communication Modbus	Type Baudrate Parity Stopbits Functioncodes Datapoints Polling Rate on Bus	Moc 480 Evel 2,1 (Fun Fun Fun Fun Tun Tun Tun Tun Tun Tun Tun Tun Tun T	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 3 (Re ct. 4 (Re ct. 5 (Wr ct. 6 (Wr	J, AS NON durin ad Si ad Inj ad Ho ad Inj ite Corite H	CII (Ma 00, 384 E (Chai g Runt ngle Co but Sta blding F but Res bil) blding th each	ster) 100, 1 100 dime poils) 100 tus) 100 Register 100	uring R possible (set of ters) (set ter) datapo	fset 10 c offse	00000 ir	ible) Add O in A	dr in CC Addr in) CC)	
Fieldbus Communication Modbus	Type Baudrate Parity Stopbits Functioncodes Datapoints Polling Rate on Bus Type	Moc 480 Evel 2,1 (Fun Fun Fun Fun Tun Tun Tun Tun Tun Tun Tun Tun Tun T	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 3 (Re ct. 4 (Re ct. 5 (Wi ct. 6 (Wi 10 Slav	J, AS NON durin ad Si ad Inj ad Ho ad Inj ite Corite H	CII (Ma 00, 384 E (Chai g Runt ngle Co but Sta blding F but Res bil) blding th each	ster) 100, 1 100 dime poils) 100 tus) 100 Register 100	uring R possible (set of ters) (set ter) datapo	fset 10 c offse	pe D	ible) Add O in A	dr in CC Addr in) CC)	
Fieldbus Communication Modbus	Type Baudrate Parity Stopbits Functioncodes Datapoints Polling Rate on Bus Type NTC	Moc 480 Evel 2,1 (Fun Fun Fun Fun Tun Tun Tun Tun Tun Tun Tun Tun Tun T	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 2 (Re ct. 3 (Re ct. 4 (Re ct. 4 (Re ct. 4 (Ne ct. 6 (Wi	J, AS NON durin ad Si ad Inj ad Ho ad Inj ite Corite H	CII (Ma 20, 384 E (Chai g Runt ngle Co put Sta plding F pout Res pout Res pout Res pout Res pe B -	ster) 100, 1 100 dime poils) 100 tus) 100 Register 100	uring R cossible (set off ters) s) (set ter) datapo	fset 10 c offse	pe D	ible) Add O in A	dr in CC Addr in) CC)	pe F
Fieldbus Communication Modbus	Type Baudrate Parity Stopbits Functioncodes Datapoints Polling Rate on Bus Type NTC PT1000 420mA (supply by	Moc 480 Evel 2,1 (Fun Fun Fun Fun Tun Tun Tun Tun Tun Tun Tun Tun Tun T	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 3 (Re ct. 3 (Re ct. 5 (Wr ct. 6 (Wr 10 Slav rpe A	J, AS NON durin ad Si ad Inj ad Ho ad Inj ite Corite H	CII (Ma OO, 384 E (Char g Runt ngle Co out Sta olding F out Re oil) olding th each	ster) 100, 1 100 dime poils) 100 tus) 100 Register 100	during R cossible (set offiters) s) (set ter) datapo	fset 10 c offse	D0000 ir	ible) Add O in A	dr in CC Addr in ype E) CC)	pe F - 2
Fieldbus Communication Modbus	Type Baudrate Parity Stopbits Functioncodes Datapoints Polling Rate on Bus Type NTC PT1000 420mA (supply by Smartbox)	Moc 480 Evel 2,1 (Fun Fun Fun Fun Tun Tun Tun Tun Tun Tun Tun Tun Tun T	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 3 (Re ct. 4 (Re ct. 5 (Wi ct. 6 (Wi	J, AS NON durin ad Si ad Inj ad Ho ad Inj ite Corite H	CII (Ma OO, 384 E (Chai g Runt ngle Co out Sta olding F out Res oil) oil) oil) oilding th each	ster) 100, 1 100 dime poils) 100 tus) 100 Register 100	uring R cossible (set offiters) s) (set ter) datapo	fset 10 c offse	pe D 5 - 5	ible) Add O in A	ype E) CC)	pe F - 2 8
Fieldbus Communication Modbus	Type Baudrate Parity Stopbits Functioncodes Datapoints Polling Rate on Bus Type NTC PT1000 420mA (supply by Smartbox) 010V DIN (supply by	Moc 480 Evel 2,1 (Fun Fun Fun Fun Tun Tun Tun Tun Tun Tun Tun Tun Tun T	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 2 (Re ct. 3 (Re ct. 4 (Re ct. 4 (Re ct. 4 (Re ct. 4 (Ne ct. 6 (Wi	J, AS NON durin ad Si ad Inj ad Ho ad Inj ite Corite H	CII (Ma 20, 384 E (Chai g Runt ngle Cc but Sta blding F bill blding th each 8	ster) 100, 1 100 dime poils) 100 tus) 100 Register 100	uring R cossible (set offters) s) (set ter) datapo	fset 10 c offse	pe D 5 - 5	ible) Add O in A	dr in CC Addr in /pe E - -) CC)	pe F - 2 8
Fieldbus Communication Modbus	Type Baudrate Parity Stopbits Functioncodes Datapoints Polling Rate on Bus Type NTC PT1000 420mA (supply by Smartbox) 010V DIN (supply by Smartbox)	Moc 480 Evel 2,1 (Fun Fun Fun Fun Tun Tun Tun Tun Tun Tun Tun Tun Tun T	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 2 (Re ct. 3 (Re ct. 4 (Re ct. 4 (Re ct. 4 (Re ct. 4 (Ne ct. 6 (Wi	J, AS NON durin ad Si ad Inj ad Ho ad Inj ite Corite H	CII (Ma 20, 384 E (Chai g Runt ngle Cc but Sta blding F bout Res bill) blding th each 8	ster) 100, 1 100 dime poils) 100 tus) 100 Register 100	during R cossible (set offiters) s) (set ter) datapo	fset 10 c offse	pe D 5	ible) Add O in A	Addr in /pe E 6) CC)	pe F - 2 8
Fieldbus Communication Modbus Sensors	Type Baudrate Parity Stopbits Functioncodes Datapoints Polling Rate on Bus Type NTC PT1000 420mA (supply by Smartbox) 010V DIN (supply by Smartbox) Fast DIN	Moc 480 Evel 2,1 (Fun Fun Fun Fun Ty	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct.2 (Re ct.3 (Re ct.3 (Re ct.5 (Wi ct.6 (Wi	J, AS N, 1920 NON durir ad Si ad Inpad Hc ad Infide Hc itte H Ty Ty	CII (Ma OO, 384 E (Chai g Runt ngle Co out Sta olding F out Res oil) olding th each 8	ster) 100, 11 nge d nge d ime p bils) tus) Register Regis Ty	luring R cossible (set offters) s) (set ter) datapo	fset 10 confission of the conf	pe D 5	Ty	rin CC Addr in rpe E 6	Ty	pe F - 2 8 -
Fieldbus Communication Modbus Sensors	Type Baudrate Parity Stopbits Functioncodes Datapoints Polling Rate on Bus Type NTC PT1000 420mA (supply by Smartbox) 010V DIN (supply by Smartbox) Fast DIN Relais Output Fieldbus2 -	Moc 480 Evel 2,1 (Fun Fun Fun Fun Tun Tun Tun	dbus RTI 0, 9600 n, ODD, Change ct. 1 (Re ct. 2 (Re ct. 2 (Re ct. 3 (Re ct. 4 (Re ct. 4 (Re ct. 5 (Wi ct. 6 (Wi ct. 10 Slav rpe A 10	J, AS NON durir ad Si ad Inp ad Hi ite Cr ite H Ty	CII (Ma 20, 384 E (Chai g Runt ngle Cc but Sta slding F but Res bil) blding th each 8	ster) 100, 1' nge d nge d time p bils) tus) Register Register Ty	luring R cossible (set offiters) s) (set ter) datapo	fset 10 confise	pe D 5	Ty	r in CC Addr in /pe E 6 4	Ty	pe F - 2 8

CoT Support	User	Cloud Fleldbus					
	Security	TLS					
	Operations	Reboot device Add childdevice and reload device database Change Transmit interval for measurements (Events, alarms, values updated OnChange) Change Baudrate, Databits, Parity, Stopbits Change Modbus Register values Change Modbus Coil Values Operate the device with AT Commands in the Shell					
	Communication	SmartRest protocol (all operations and requests) Self Registration SmartRest Templates					
	Notifications	Realtime Notifications (+ pending every 12 minutes)					
	Shell	Operate the device with AT Commands in the Shell					
	Info	Sending operator, Cell ID, Lac, MNC, MCC, Signal strength					
	Sending Values	On Change					
	Sending Alarms	On Change					
	Sending Events	On Change					
	Sending Measurements	Settable 1s6h in Modbus Configuration tab Default 900 seconds					
	Sending Signal strength	sent every 10 Min as a measurement					
	Sending Location	Identification by cellular network, sent at startUp					
	Offline Buffering	Alarm, Events, Measurements, max. ≈ 24 hours					
	Device database	Device database Support: Measurements, Event, Alarms, Values, Read Read/Write, Signed/Unsigned, Decimal Places, Multiplier, Divisor, No o Bits, StartBit					
	Update Database on Device	Load new Modbus Database automatically by reboot or adding childdevices					
	FOTA	Remoteupdate Software					
Dimensions	00 x 70 x 45 mm						
Weight	89g						
GSM Antenna	SMA Connector						
Power Supply	Nominal voltage range: 24VDC, 10% Maximum continuous (average) supply power: 2.5W Maximum continuous (average) supply current: 100mA at 24V						
Operating temperature	-2060°C						
Storage temperature	-4085°C						
Operating humidity	Max. 85%						
Storage humidity	Max. 85%						
Mounting	Via DIN Rail Adapter or Adapter for Wall Mounting						
IP Class	IP20/IP54 (optional)						
SIM Card Format	2FF						
Certifications	F© (E						
Conformity Declarations	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						