

WIRELESS BASE STATION

FLTA is a base station for wireless network transmitters and I/O modules. From FLTA, the controls and measurements can be read via Modbus RTU and through the 8 analogue outputs. Respectively the control signals that come to base station via Modbus can be directed to I/O modules. FLTA base station needs a FLAN antenna.

supply	24 Vac/dc, 2 VA
frequency	868.30 MHz Class 1
outputs	8 x 0...10 Vdc
range	up to 500 m in the line of sight, 20...100 m in buildings
connectivity	max. 99 sensors or max. 20 I/O modules, max. 8 repeaters
network	max. 63 base stations
housing	IP20, for 35 mm DIN rail
communication	Modbus RTU



TYPE	ART NO.	
FLTA	1191030	base station for wireless sensors
FLAN	1191040	antenna

WIRELESS CONFIGURATION TOOL

FLSER is a wireless configuration tool for setting the addresses of the sensors, the wireless repeaters and the I/O modules. The tool can also be used for testing the communication signal strength.

supply	3.6 V lithium battery
frequency	868.30 MHz Class 1
housing	IP20, ABS plastic



TYPE	ART NO.	
FLSER	1191070	configuration tool for wireless devices
A04491	A04491	AA lithium battery, 3.6 V 2 Ah

WIRELESS REPEATER

FLREP repeaters can be used to extend the range of wireless sensors in difficult environments. It is possible to use up to 8 repeaters for one FLTA base station.

supply	12 or 24 Vac/dc
frequency	868.30 MHz Class 1
housing, FLREP	IP20, ABS plastic
housing, FLREP-U	IP54



TYPE	ART NO.	
FLREP	1191080	wireless repeater with internal antenna, for indoor use
FLREP-U	1191081	wireless repeater with external antenna, for outdoor use
M230/12-4	1184080	230 Vac/12 Vdc 4 VA power supply

WIRELESS TRANSMITTERS

TEFL wireless room temperature sensors are designed for temperature detection of indoor spaces. The communication between the TEFL room units and the FLTA base station is two-way. Commissioning is done by using the wireless FLSER configuration tool.

room °C, % rH

supply	3.6 V lithium battery
frequency	868.30 MHz Class 1
range	0...+50 °C
housing	IP20, ABS plastic
mounting	with screws on wall or on junction box (hole distance 60 mm)
dimensions	86 x 86 x 32 mm



TYPE	ART NO.	
TEFL	1191010	wireless room sensor
TEFL-P	1191011	wireless room sensor with set point adjustment
TEFL-RH	1191020	wireless room sensor with %rH
TEFL-RH-P	1191021	wireless room sensor with %rH and set point setting
FL-S5	1191050	S5 switch option for TEFL
FL-N	1191060	display option for TEFL
FL-DI	1191051	DI option for TEFL
A04491	A04491	AA lithium battery, 3.6 V 2 Ah

WIRELESS TRANSMITTERS

TEUFL is a wireless sensor for detecting outdoor temperatures. Communication between the sensors and the FLTA base station is two-way. In addition to temperature information, TEUFL sensor can send also one 0...10 V signal or one contact (DI) information (TEUFL-DI). Commissioning is done by using the wireless FLSER configuration tool.

outdoors °C, 0...10 V

supply	3.6 V lithium battery
frequency	868.30 MHz Class 1
range 1	-50...+150 °C
range 2	0...10 Vdc
mounting	with screws, external lugs
housing	IP54, cable glands downwards



TYPE	ART NO.	
TEUFL	1191100	wireless outdoor temperature sensor
TEUFL-24	1191101	wireless outdoor temperature sensor, 24 Vac/dc supply
TEUFL-DI	1191102	wireless outdoor temperature sensor, with a contact (DI) input
TEUFL-DI-24	1191103	wireless outdoor temperature sensor, with 24 Vac/dc supply and with a contact (DI) input
A04491	A04491	AA lithium battery, 3.6 V 2 Ah

External Pt1000 temperature sensor, e.g. TEAT PT 1000.

WIRELESS TRANSMITTERS

KLUFLL is a wireless transmitter for detecting outdoor temperatures and humidity. The communication between the sensors and the FLTA base station is two-way. Commissioning is done by using the wireless FLSER configuration tool. LUX 11 illumination sensor can be connected to the KLUFLL transmitter.

outdoors °C, % rH, (lx)

supply	3.6 V lithium battery
frequency	868.30 MHz Class 1
range 1	0...100 % rH
range 2	-50...+150 °C
range 3	0...1000 lx
mounting	with screws, external lugs
housing	IP54, cable gland downwards



TYPE	ART NO.	
KLUFLL	1191110	wireless outdoor humidity and temperature transmitter
LUX 11 + NTC 10	1133350	illumination and temperature sensor (NTC 10)
LUX 11 + NTC 20	1133351	illumination and temperature sensor (NTC 20)
A04491	A04491	AA lithium battery, 3.6 V 2 Ah

WIRELESS TRANSMITTERS

HDHFL transmitters are designed for detecting carbon dioxide concentration and temperature in the room spaces. HDHFL-RH transmitters have also a humidity output. Commissioning is done by using the wireless FLSER configuration tool.

room ppm CO₂, °C, % rH

supply	24 Vac/dc, 1 VA
frequency	868.30 MHz Class 1
range, CO ₂	0...2000 ppm
range, temperature	0...+50 °C
range, humidity	0...100 % rH
accuracy, CO ₂	typ. ±40 ppm +3 % from value
accuracy, temperature	±0,5 °C, at 25 °C
accuracy, humidity	±2 % rH, at 25 °C
outputs	0...10 V < 2 mA
ambient temperature	0...+50 °C
housing	IP20, ABS plastic
dimensions	87 x 86 x 30 mm
mounting	with screws on wall or on junction box (hole distance 60 mm)



TYPE	ART NO.	
HDHFL	1191150	CO ₂ and °C transmitter with wireless communication
HDHFL-N	1191151	CO ₂ and °C transmitter with wireless communication and with display
HDHFL-RH	1191160	CO ₂ , °C and % rH transmitter with wireless communication
HDHFL-RH-N	1191161	CO ₂ , °C and % rH transmitter with wireless communication and with display

WIRELESS OCCUPANCY SENSOR

LAFL is a wireless detector for occupancy monitoring movement. The detector is passive infrared (PIR) which reacts to temperature changes. The communication between the sensors and the FLTA base station is two-way. Commissioning is done by using the wireless FLSER configuration tool. Mounting bracket and screws are included to the delivery.

supply	3,6 V lithium battery
frequency	868.30 MHz Class 1
ambient temperature	0...+50 °C
housing	IP40
coverage angle	140°



TYPE	ART NO.	
LAFL	1191120	wireless PIR detector
LAFL-LX	1191121	wireless PIR detector with illumination (0...2000 lx)
A04491	A04491	AA lithium battery, 3.6 V 2 Ah

WIRELESS TRANSMITTERS

PAFL is a wireless pulse counter. The counter can be used to measure pulses from electricity consumption meters, gas flow meters and water consumption meters. Commissioning is done by using the wireless FLSER configuration tool.

supply	2 x 3,6 V lithium battery or 24 Vac/dc
frequency	868.30 MHz Class 1
max. pulse frequency	20 Hz
min. pulse duration	25 ms
ambient temperature	-40...+50 °C
mounting	with screws, external lugs
housing	IP54, cable gland downwards



TYPE	ART NO.	
PAFL	1191170	wireless pulse counter
A04491	A04491	AA lithium battery, 3.6 V 2 Ah

WIRELESS I/O MODULE

RYFL is a wireless I/O module for sending and receiving analogue and digital information.

supply	230 Vac (24 Vac to order)
frequency	868.30 MHz Class 1
input 1	contact / 0...10 V, selectable
input 2	contact / 0...10 V, selectable
output 1	0...10 V and 24 Vac PWM / relay 230 Vac, 5 A res., selectable
output 2	0...10 V and 24 Vac PWM / relay 230 Vac, 5 A res., selectable



TYPE	ART NO.	
RYFL	1191130	wireless I/O module
FLAN	1191040	antenna

TOOL FOR MONITORING WIRELESS NETWORK

FLSNIF is a tool for monitoring the functionality of the wireless network. By using this tool you may follow one by one the signals between the wireless field equipment and the base station. Monitoring is possible only for signals which are available at the very moment. A PC with installed monitoring software is needed with the tool. The software is delivered with the tool.



TYPE	ART NO.	
FLSNIF	1191140	tool for monitoring the wireless network

METERS

KLM is a mechanical thermometer for a duct installation. Two scales are available.

stem	Ø 9 x 200 mm
face	Ø 100 mm
mounting	by a flange



TYPE	ART NO.	
KLM -40/60	1240010	duct thermometer -40...+60 °C
KLM 0/60	1240020	duct thermometer 0...+60 °C