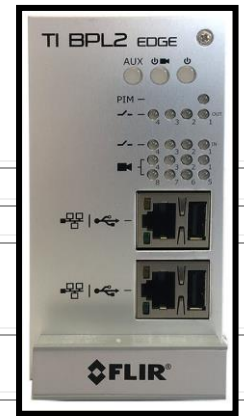


TECHNICAL SPECIFICATIONS TI BPL2 EDGE

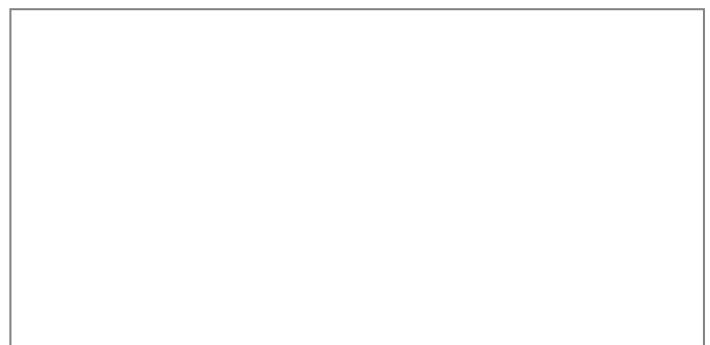


Name Interface (Part Number)	TI BPL2 EDGE (PN 10-7013)
Compatible traffic sensors	TrafiOne, TrafiSense2, TrafiSense Dual, TrafiCam HD
Basic Functionality	<ul style="list-style-type: none"> - Connecting zone outputs from BPL2 sensor(s) to controller - Routing power to BPL2 sensor(s) - Connecting laptop/PC to BPL2 sensor(s) for system configuration & viewing
# BPL Sensors to Connect	1-8 BPL2 sensors <i>Note: one TrafiSense Dual counts as two BPL2 sensors</i>
Power IN	12-60VDC polarized via EDGE connector (pins A/B) 12-60VDC non-polarized via EDGE connector (pins D/E) for BPL2 sensors
Power LED/button	1 interface power LED/button (green = operational, off = no power, red flashing = booting), long push = reset interface only 1 sensor fuse power LED/button (green = operational, red = fuse blown), long push = reset sensors only (power cycle) 1 auxiliary power LED/button: for enabling and disabling Wi-Fi (green = on, red = error, off = off)
PIM LED	1 PIM LED (green = PIM operational, red = communications issue, off = no PIM allocated)
Power OUT	Idem power IN, power + communications (= Broadband over Power Line) to BPL2 sensors via EDGE connector (pins P/R)
Ports on TI BPL2 EDGE	2 RJ45 Ethernet connectors (10/100Mbit/s auto switching, for connection to PC & LAN network) 2 USB/A connectors (top one for output expansion to 4/I/O USB, bottom one for USB Wi-Fi stick)
# Detection Outputs	<ul style="list-style-type: none"> - 4 optical coupled dry contacts via EDGE connector (pins F/H, W/X, S/T, Y/Z) - $I_{max} = 50mA$, $U_{max} = 48VDC$ - Close on event or open on event (configurable) - Detection output 1-4 and common detection output 1-4 <i>Note: maximum 20 extra detection outputs can be added via maximum five 4/I/O USB units</i> <i>Note: via RS485 (pins U/V) + PIM module (not provided by FLIR), up to 64 detection output states can be provided to TS2/ATC controller</i>
# Detection Output LEDs	4 output LEDs front: green = output active, red = output in recall, off = no output allocated
# Error Outputs	<ul style="list-style-type: none"> - 1 optical isolated switch component via EDGE connector (pins J/K) - $I_{max} = 50mA$, $U_{max} = 48VDC$ - Open on event (hardware output) - Error output and common error output
# Error LEDs	8 BPL2 sensor status LEDs (green = sensor operational, red = error, off = no sensors allocated)
Function of Error Output	<ul style="list-style-type: none"> - Error output active = error in TI BPL2 EDGE or power supply down, or - Error output active = error in 4/I/O USB with output(s) assigned (e.g. no communications), or - Error output active = error in corresponding BPL2 sensor (e.g. no communications, reboot)
# Inputs	<ul style="list-style-type: none"> - 4 inputs via EDGE connector (pins 1/A, 2/A, 3/A, 10/A) - Input 1-4 and common input A (logic ground)
# Input LEDs	4 input LEDs front: green = input active, red = input in recall, off = no input allocated
Interface Firmware	Yes
Communications BPL2 Sensor(s) – Interface	Broadband over Power Line (2 nd generation), Traficon protocol (XML)
Cable BPL2 Sensor(s) – Interface	2-3 wired cable going from BPL2 sensor(s) to interface, via backplane connector to terminal block: - 2 wires for DC power & communications: broadband over power line 2 nd generation (BPL2) - 1 wire for protective earth
Current/Power Consumption	Typical 160mA @ 24VDC / 4W (max. 14W, with expansion hardware, such as I/O, USB, board)
Mass	≈ 270g
Physical Dimensions (HxWxD)	115mm x 59mm x 191mm, standard US EDGE rack height & depth, width = double slot
Interface Mounting	EDGE-rack mountable
Regulatory Issues	<ul style="list-style-type: none"> - EMC: FCC Title 47 Part 15 class B - Shock & Vibration: NEMA II specs - Temperature range: NEMA II specs (-34C to +74C, or -29F to +165F)

TECHNICAL SPECIFICATIONS 4I/O USB



Name Interface (Part Number)	4 I/O USB (PN 10-4675)
Basic Functionality	Providing extra outputs to the traffic light controller
# BPL Sensors to Connect	None
Power IN	5VDC via USB/B connector Powered by TI BPL2 EDGE via its USB/A connector
Power LED	1 expansion board power LED (green = operational, red = error)
Power OUT	None
Ports on 4 I/O USB	USB/B port: for connection power and output states from TI BPL2 EDGE to 4I/O USB USB/A port for daisy chaining power and output states to the next 4I/O USB
# Detection Outputs	- 4 extra optical coupled dry contacts per 4I/O USB via EDGE connector (F/H, W/X, S/T, Y/Z) - $I_{max} = 50mA$, $U_{max} = 48VDC$ - close on event or open on event (configurable) - detection output 1-4 and common detection output <i>Note: in total, maximum 20 detection outputs can be added via maximum five 4I/O USB units</i> <i>Note: Channel selector switch on front of 4 I/O USB to enable outputs 5-8, 7-10, 11-14..., 21-24</i>
# Detection Output LEDs	4 output LEDs front: green = output active, red = output in recall, off = no output allocated
# Error Outputs	None
Function of Error Outputs	None
# Inputs	- 4 inputs via EDGE connector (pins 1/A, 2/A, 3/A, 10/A) - Input 1-4 and common input A (logic ground)
# Input LEDs	4 input LEDs front: green = input active, off = input not active or no input allocated
Interface Firmware	None
Communications BPL Sensor – 4 I/O USB	None
Cables TI BPL2 EDGE – 4I/O USB	USB/A to USB/B cable, supplied by FLIR (locks at both sides so cable is locked)
Current/Power Consumption	Typical 25mA @ 24VDC / 600mW
Mass	≈ 100g
Physical Dimensions (HxWxD)	115mm x 29,5mm x 191mm, Standard US EDGE rack height & depth, width = single slot
Interface Mounting	EDGE-rack mountable
Regulatory Issues	- EMC: FCC Title Part 15 class B - Shock & Vibration: NEMA II specs - Temperature range: NEMA II specs (-34C to +74C, or -29F to +165F)



Data subject to alternation without notice or obligation Issue: APR2018