

# INLD-100-F

## Lonworks – DALI Bridge



### LONWORKS® - DALI BRIDGE FOR LIGHTING CONTROL: 16 INDEPENDENT DALI GROUPS FOR 64 DEVICES

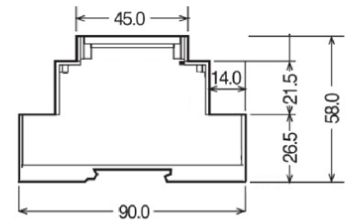
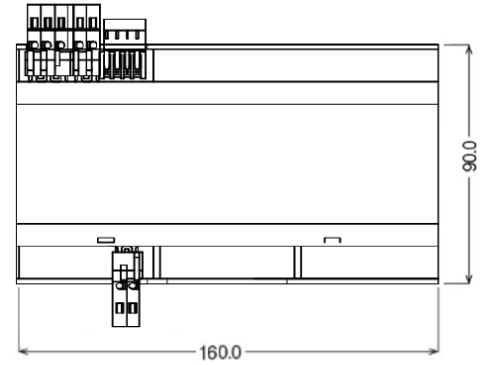
- Lonmark certified Lonworks – DALI bridge.
- Generic purpose Output relay.
- Suitable for Lighting applications.
- DIN rail mounting, 9U.
- Lonmark functional profiles:
  - 0 Nodeobject
  - 3040 lampActuator
  - 3040 lampActuatorISDE
  - 20017 Balastos
- Neuron® FT5000 @ 80Mhz.
- Firmware: FD10B00L01001
- Program ID: 80:00:E1:1E:00:04:04:01



### TECHNICAL DATA

#### FEATURES

ELECTRICAL	
Power Supply	85 – 265VAC
Frequency (AC Supply source)	50-60 Hz
Overvoltage	275VAC 75J@10X1000µseg
Overload	Fuse 500mA
Power consumption	<10 W
OUTPUTS	
Output	1 x 10A@250VAC Cosφ=1
COMMUNICATIONS	
Type	LonWorks (ISO/IEC 14908-2)
Transceiver	FT-X3
Channel	FTT-10 (78 KBps)
Type	DALI (EN-60929-Anexo E, IEC62386)
Independent groups (DALI)	Up to 16 Groups (64 devices)
INDICATORS LEDS	
DALI	DALI network activity Manual/Auto mode SYNC process Device states Power Supply
LONWORKS®	Network activity Service Pin
PACKAGE	
Mounting	DIN Rail 9U
Dimensions (millimeters)	160 x 90 x 58
Colour	White
IP	IP 20
ENVIRONMENT	
Operating temperature	0°C..50°C
Storage temperature	-10°C..60°C
Operating humidity	0%..90%

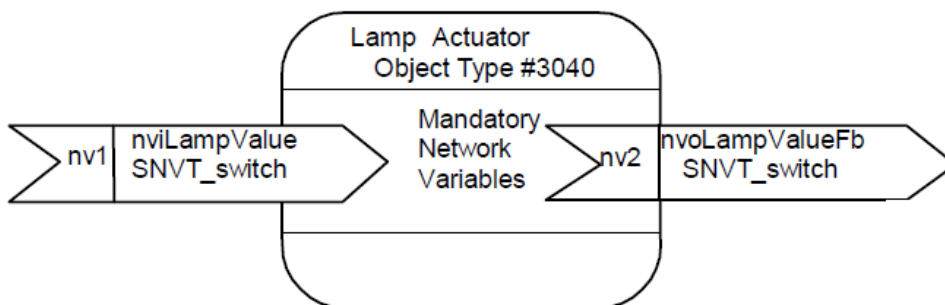
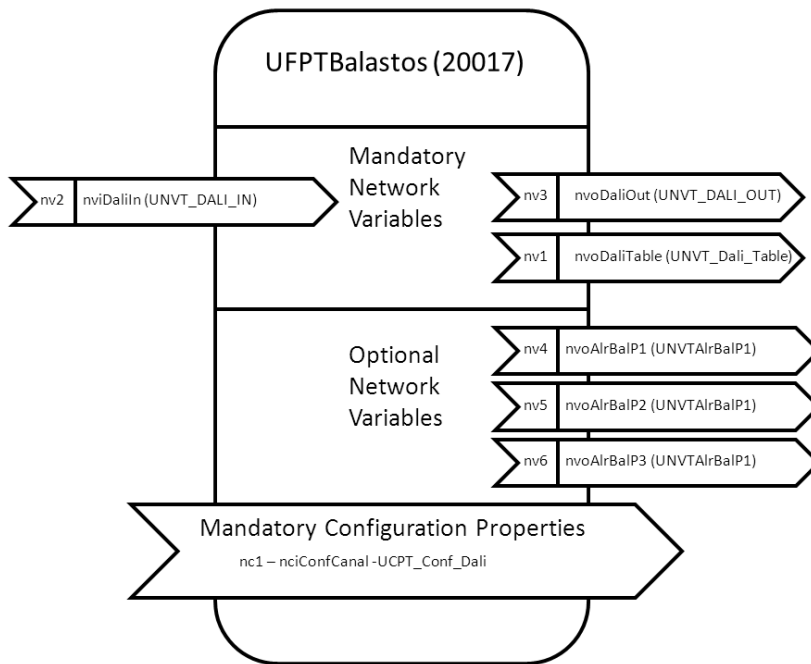
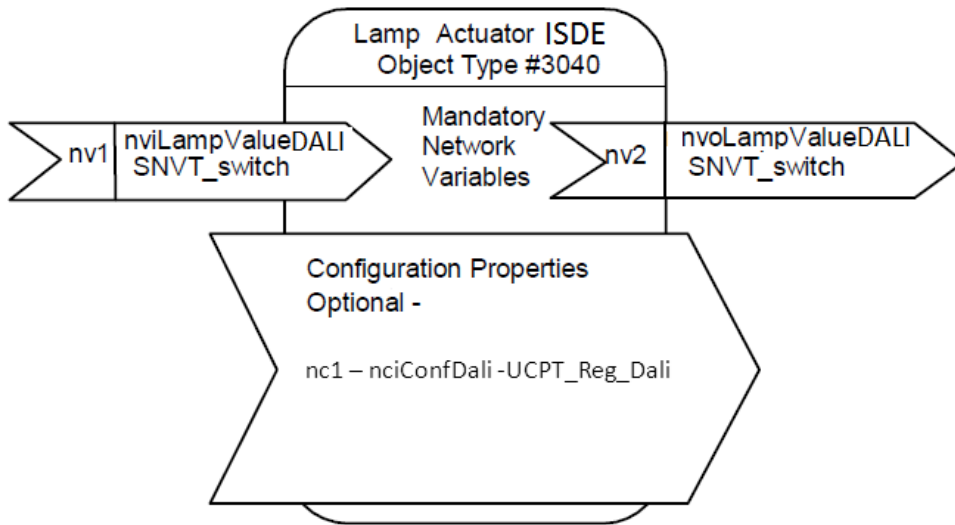


Dimensions (mm)

### FUNCTIONAL FEATURES

- LonWorks® - DALI bridge for lighting control.
- Up to 64 DALI balast and 16 independent DALI groups.
- Led indicator for LonWorks® and DALI network monitoring.
- Balast automatic search.
- Power switch with debugging purposes for DALI lights to be turned on.

**FUNCTIONAL BLOCKS**



Name	Type	Value	Description
<b>Configuration</b>			
nviConfDali	UCPT_Reg_Dali	See documentation below	Ballast and functional block configuration parameters

Field	Value	Description
EscalonRegulacion	200 → 100 %	% Percentage per second for ballast dimming.
TiempoLatido	0 seconds	MaxSendTime for <b>nvoRegulación</b> .
TiempoEncendido	0 seconds	Maximum time for the ligh turned on with <b>nviRegulacion</b>
ValorMinimo	0 → 0 %	Minimum value.
ValorMaximo	200 → 100 %	Maximum value.
TipoControl	64	Specifies the functional block DALI addressing type: 16: group addressing. 64: ballast addressing. 255: Broadcast.
NumeroControl	255	Number of ballast or group addressed.
Auxiliar_1	5%	% Pertentage step for dimming with <b>nviSetting</b> .
Auxiliar_2	20 -> 200 mseconds	Time between dimming steps x 10 mseg with <b>nviSetting</b> .
Auxiliar_3	0	Not available.

```
typedef struct {
    unsigned short EscalonRegulacion;
    unsigned long TiempoLatido;
    unsigned long TiempoEncendido;
    unsigned short ValorMinimo;
    unsigned short ValorMaximo;
    unsigned short TipoControl;
    unsigned short NumeroControl;
    unsigned short Auxiliar_1;
    unsigned short Auxiliar_2;
    unsigned short Auxiliar_3;
};UCPT_Reg_Dali;
```

Name	Type	Value	Description
<b>Input network variables</b>			
nviDaliIn	UNVT_DALI_IN	See documentation below	Direct input for DALI interface

Campo	Descripción
Codigo	1 ... 2000: DALI commands
Dato_1	A byte for DALI command.
Dato_2	X byte for DALI command.
Auxiliar_1	Not available.
Auxiliar_2	Not available.
Auxiliar_3	Not available.

```
typedef struct {
    unsigned long Codigo;
    unsigned long Dato_1;
    unsigned long Dato_2;
    unsigned long Auxiliar_1;
    unsigned long Auxiliar_2;
    unsigned long Auxiliar_3;
};UNVT_DALI_IN;
```

Name	Type	Value	Description
<b>Output network variables</b>			
nvoDaliOut	UNVT_DALI_OUT	See documentation below	Feedback for <b>nviDaliIN</b> updates.

Campo	Descripción
Codigo	1 ... 2000: DALI Commands.
Dato_1	Answer byte from ballast.
Dato_2	Not available.
Dato_3	1: Answer OK. 2: Answer error. 3: Command executed without answer.
Dato_4	Not available.
Dato_5	Ramdon code for each network variable update.
Dato_6	Not available.
Dato_7	Not available.
Dato_8	Not available.

```
typedef struct {
    unsigned long Codigo;
    unsigned long Dato_1;
    unsigned long Dato_2;
    unsigned long Dato_3;
    unsigned long Dato_4;
    unsigned long Dato_5;
    unsigned long Dato_6;
    unsigned long Dato_7;
    unsigned long Dato_8;
};UNVT_DALI_OUT;
```

Name	Type	Value	Description
<b>Output Network variables</b>			
nvoDaliTable	UNVT_Dali_Table	0: Ballast OK 1: Lamp failure 2: Not available 3: Ballast is not in the network	DALI network feebdack.

```
typedef struct{
    unsigned short CurrentTest;
    unsigned Dali_0 :2;
    unsigned Dali_1 :2;
    unsigned Dali_2 :2;
    unsigned Dali_3 :2;
    unsigned Dali_4 :2;
    unsigned Dali_5 :2;
    unsigned Dali_6 :2;
    unsigned Dali_7 :2;
    unsigned Dali_8 :2;
    unsigned Dali_9 :2;
    unsigned Dali_10 :2;
    unsigned Dali_11 :2;
    unsigned Dali_12 :2;
    unsigned Dali_13 :2;
    unsigned Dali_14 :2;
    unsigned Dali_15 :2;
    unsigned Dali_47 :2;
    unsigned Dali_48 :2;
    unsigned Dali_49 :2;
    unsigned Dali_50 :2;
    unsigned Dali_51 :2;
    unsigned Dali_52 :2;
    unsigned Dali_53 :2;
    unsigned Dali_54 :2;
    unsigned Dali_55 :2;
    unsigned Dali_56 :2;
    unsigned Dali_57 :2;
    unsigned Dali_58 :2;
    unsigned Dali_59 :2;
    unsigned Dali_60 :2;
    unsigned Dali_61 :2;
    unsigned Dali_62 :2;
    unsigned Dali_63 :2;
};UNVT_Dali_Table;
```

Name	Type	Description
<b>Output network variables</b>		
nvoAlrBalP1	UNVTAlrBalP1	DALI network feedback state for ballast from 0..21.
nvoAlrBalP2	UNVTAlrBalP1	DALI network feedback state for ballast from 22..43.
nvoAlrBalP3	UNVTAlrBalP1	DALI network feedback state for ballast from 44..63.






```
typedef struct {
    unsigned short Campo_1;
    unsigned short Campo_2;
    unsigned short Campo_3;
    unsigned short Campo_4;
    unsigned short Campo_5;
    unsigned short Campo_6;
    unsigned short Campo_7;
    unsigned short Campo_8;
    unsigned short Campo_9;
    unsigned short Campo_10;
    unsigned short Campo_11;
    unsigned short Campo_12;
    unsigned short Campo_13;
    unsigned short Campo_14;
    unsigned short Campo_15;
    unsigned short Campo_16;
    unsigned short Campo_17;
    unsigned short Campo_18;
    unsigned short Campo_19;
    unsigned short Campo_20;
    unsigned short Campo_21;
    unsigned short Campo_22;
}UNVTAlrBalP1;
```

Name	Type	Value	Description
<b>Configuration</b>			
nciConfCanal	UCPT_Conf_Dali	See documentation below	DALI network configuration parameters.

Field	Value	Description
TiempoLectura	3000 mseconds	Time between ballast analysis for <b>nvoDaliTable</b> .
TiempoEsperaRespuesta	100 mseconds	Timeout time for a ballast request
NumeroConfirmaciones	2	Debounce for <b>nvoDalilon</b> to inform ballast error.
TiempoReenvio	5 seconds	MaxSendTime for INLD-100 to send the ballast status. Preventing for ballast reset or unknown condition.
NumeroBalastos	64	Number of ballast in DALI network for <b>nvoDalilon</b> to be scanned.
Auxiliar_1		Not available.
Auxiliar_2		Not available.
Auxiliar_3		Not available.

```
typedef struct {
    unsigned long TiempoLectura;
    unsigned long TiempoEsperaRespuesta;
    unsigned long NumeroConfirmaciones;
    unsigned short TiempoReenvio;
    unsigned short NumeroBalastos;
    unsigned short Auxiliar_1;
    unsigned short Auxiliar_2;
    unsigned short Auxiliar_3;
}UCPT_Conf_Dali;
```

## RELATED PRODUCTS

	<p><b>INLD-180-F</b></p>	<p><b>Lonworks - DALI 8EMS:</b>              8 multisensor inputs (motion and brightness sensor)</p> <p>LonWorks – DALI bridge for lighting control with movement and brightness sensor capability.</p>
	<p><b>INLD-144-F</b></p>	<p><b>Lonworks - DALI 4ED/4EMSLP:</b>              4 digital inputs + 4 multisensor input (motion and brightness sensor)</p> <p>LonWorks – DALI bridge for lighting control with movement, brightness sensor and switch capability.</p>
	<p><b>IMTEC-100</b></p>	<p><b>Touch panel with display:</b></p> <p>Lonworks touch panel with scenes, dimmer and lighting control for 6 groups.</p>
	<p><b>INS-044-F</b></p>	<p><b>Lonworks 4ED/4EMS:</b>              4 digital inputs + 4 multisensor inputs</p> <p>Lonworks device for 4 switch inputs and 4 multisensor inputs.</p>
	<p><b>ISM-100-LP</b></p>	<p><b>Multisensor</b></p> <p>Wall mounting sensor for motion and brightness.</p>

### Ordering information

**INLD-100-F**  
**Código: 810-52**

