DALI Interface Dimmable Electronic Ballasts for Fluorescent Lamps / Compact Lamps

FL 13-57/100-277V/50/60Hz TCS/D/T DIM-D

Specifications

- Universal input voltage(120-277VAC)
- Low harmonic distortion (THD<10%)
- High power factor (λ>0.98)
- DALI Interface, Dimming range from 3-100%
- Lamp start at 1% possible, defined Lamp friendly warm start within 1.5s with AC and 0.6s with DC
- Automatic lamp recognition for optimum operation with standardized data acc. to IEC
- Push-DIM, dimming and switching via push-button with memory function
- Error feed back and programmable features in DALI mode, switching via the mains or with digital signal
- Dimming which is comfortable to the eye
- Full electronic lamp management and digital communication with ASIC and μ C
- Constant light output independent of fluctuating supply voltage
- Safe shuodown of defective lamps
- Safe shutdown of lamps at end of life
- Automatic restart after lamp replacement
- Operating temperature (ta= -20 ~ +50°C)

Approvals:

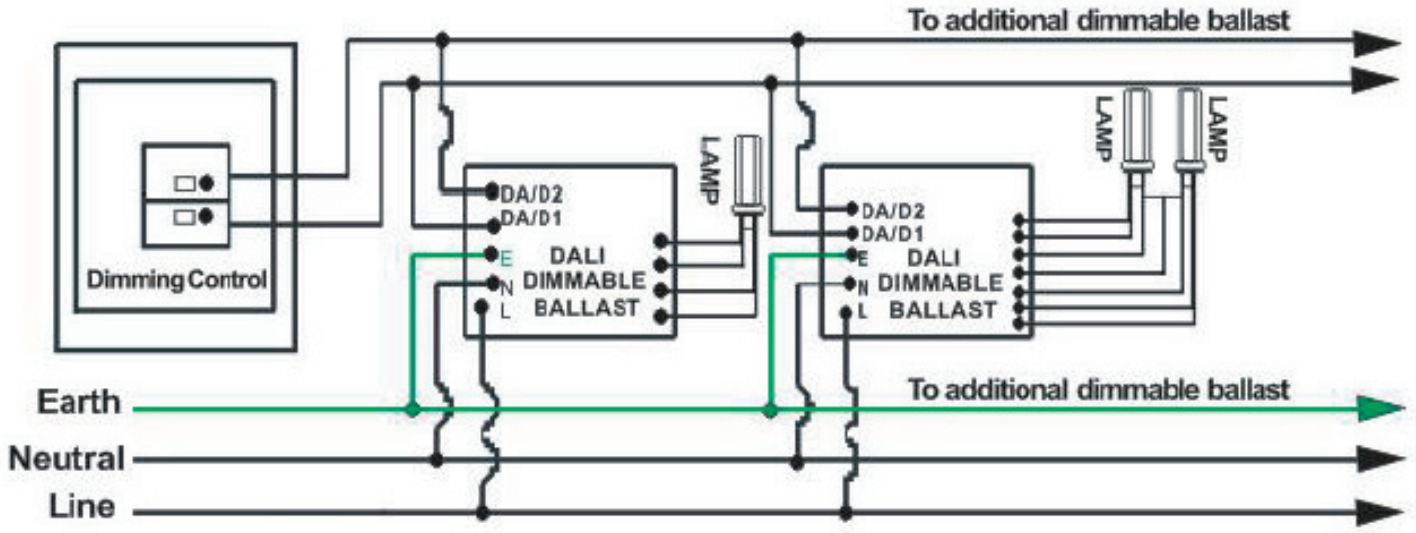
UL Listed #935
ANSI C82.11 Ballast Standard
FCC 47CFR Part 18 EMI/RFI
ANSI C62.41 Category A
EN 55015
EN 55022
EN 60924 sect. I-II
EN 60928
EN 60929
EN 61000-3-2
EN 61347-2-3
EN 61547
GB 15143-1994
GB 17625.1-2003
GB/T 15144-2005
in accordance with VDE 0108

Technical Data

Parameter	Min. *	Nom. *	Max.	Unit
Number Of Lamps	2	-	2	-
Lamp Power	26x2	-	42x2	W
Input Power	59.2	-	92.4	W
Rated Input Voltage	100	230	277	V
AC Input Voltage Range	90	-	304	V
DC Input Voltage Range	150	-	304	V
Input Frequency	0	50-60	-	Hz
Input Current	0.49A@120V	0.40A@230V	0.33A@277V	A
Power Factor	0.90	0.98	-	-
Operating Frequency	40	-	120	KHz
Lamp Current Crest Factor	-	-	1.7	-
THD	-	-	10%	-
Operating Ambient Temperature(@ta)	-20	-	50	°C
Maximum Case Temperature(@tc)	-	-	75	°C
Average Service Life	50,000	-	-	Hours

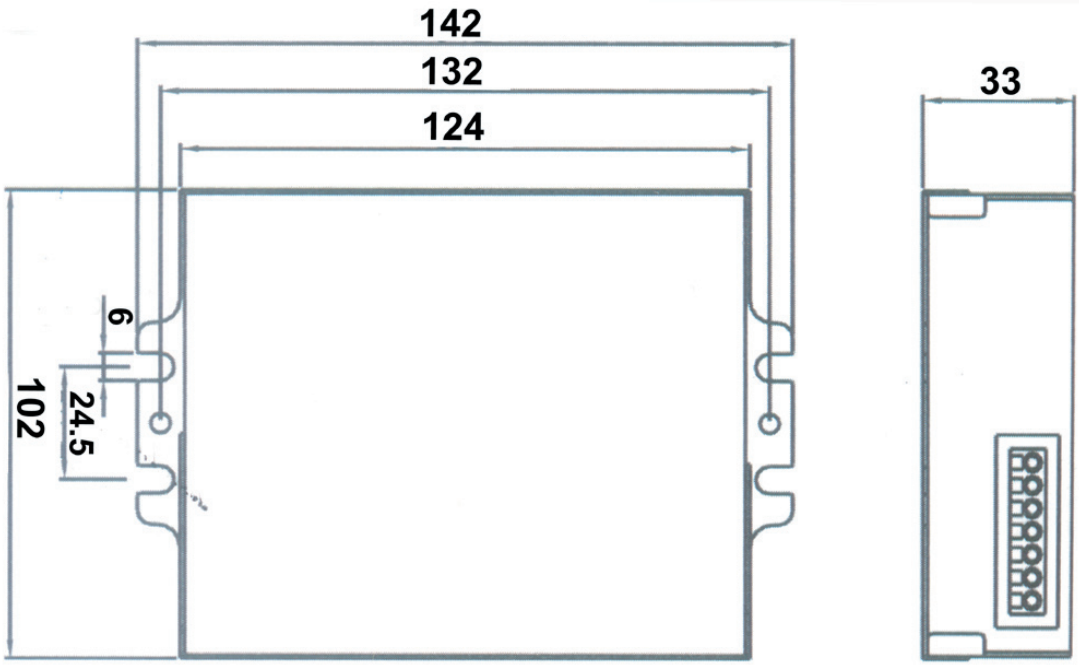
* Valid at ambient temperature of 25°C

Wiring Diagram



Ballast has plug in wire trap connectors.
Use 18 AWG solid copper wire (dia. 0.5-1.0mm^2)
Stripped to 5/16” (7.0~8.5mm)
Ballast must be grounded.
Use external ground wire.

Dimensions(mm)



LxWxH = 142x102x33mm

0/1-10V Interface Dimmable Ballasts for Fluorescent Lamps / Linear Lamps

T8 FL 15-70/100-277V/50/60Hz T8 DIM-A

Specifications

- Universal input voltage(120-277VAC)
- Low harmonic distortion (THD<10%)
- High power factor (λ>0.98*)
- Standard DC0/1-10V control interface
- Dimming range from 1-100%
- Lamp start at 1% possible
- Defined Lamp friendly warm start within 1.5s with AC and 0.6s with DC
- High luminous efficacy
- Virtually eliminates lamp flicker
- Safe shuodown of defective lamps
- Safe shutdown of lamps at end of life
- Automatic restart after lamp replacement

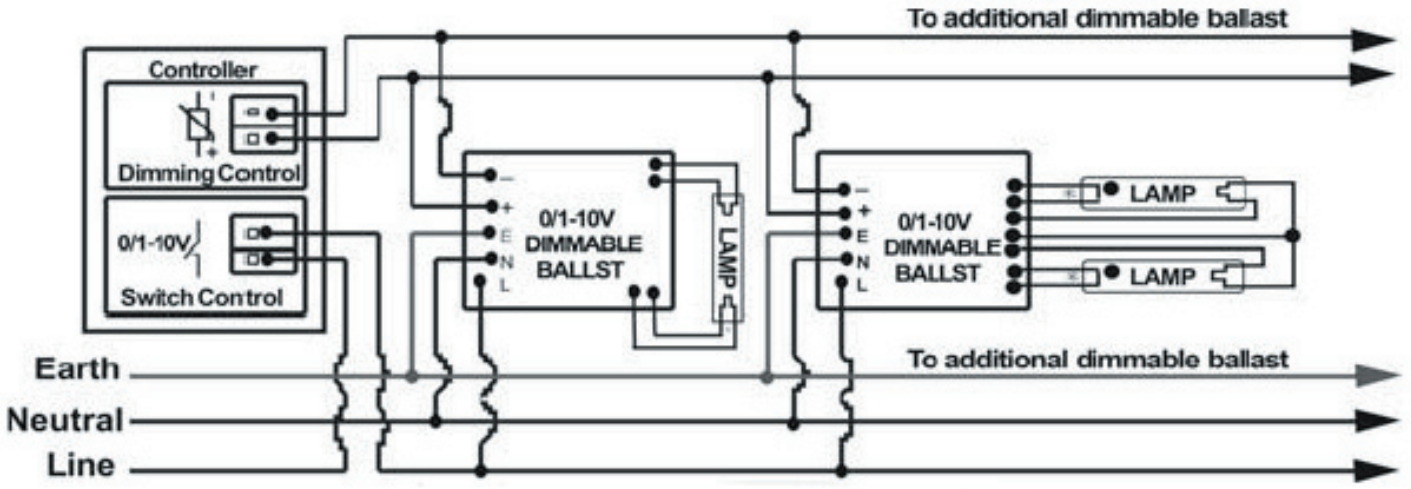
Approvals:
UL Listed #935
ANSI C82.11 Ballast Standard
FCC 47CFR Part 18 EMI/RFI
ANSI C62.41 Category A
EN 55015, EN 55022
EN 60924 sect. I-II
EN 60928, EN 60929
EN 61000-3-2
EN 61347-2-3
EN 61547
GB 15143-1994
GB 17625.1-2003
GB/T 15144-2005
in accordance with VDE 0108

Technical Data

Parameter	Min. *	Nom. *	Max.	Unit
Number Of Lamps	2	-	2	-
Lamp Power	18x2	-	40x2	W
Input Power	39.6	-	88	W
Rated Input Voltage	100	230	277	V
AC Input Voltage Range	90	-	304	V
DC Input Voltage Range	150	-	304	V
Input Frequency	0	50-60	-	Hz
Input Current	0.33A@120V	0.38A@230V	0.31A@277V	A
Power Factor	0.90	0.98	-	-
Operating Frequency	40	-	120	KHz
Lamp Current Crest Factor	-	-	1.7	-
THD	-	-	10%	-
Operating Ambient Temperature(@ta)	-20	-	50	°C
Maximum Case Temperature(@tc)	-	-	75	°C
Average Service Life	50,000	-	-	Hours

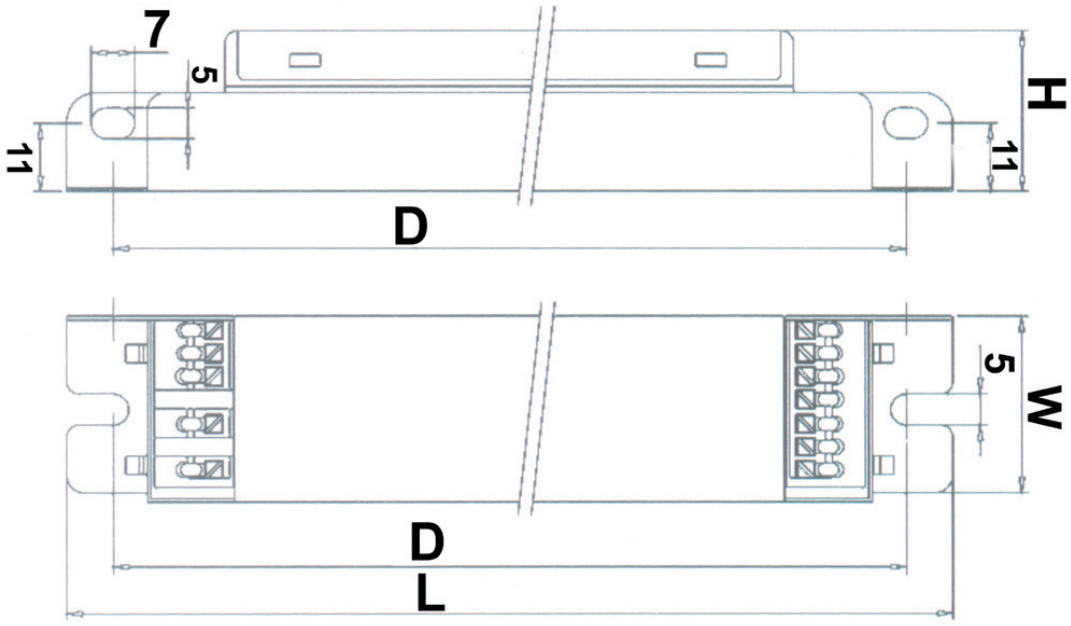
* Valid at ambient temperature of 25°C

Wiring Diagram



Ballast has plug in wire trap connectors.
Use 18 AWG solid copper wire (dia. 0.5-1.0mm^2)
Stripped to 5/16” (7.0~8.5mm)
Ballast must be grounded.
Use external ground wire.

Dimensions(mm)



LxWxH = 400x30x26mm D=385mm

0/1-10V Interface Dimmable Ballasts for Fluorescent Lamps / Linear Lamps

T5 HE FL 14-35/100-277V/50/60Hz T5 DIM-A

Specifications

- Universal input voltage(120-277VAC)
- Low harmonic distortion (THD<10%)
- High power factor (λ>0.98*)
- Standard DC0/1-10V control interface
- Dimming range from 2-100%
- Lamp start at 2% possible
- Defined Lamp friendly warm start within 1.5s with AC
- High luminous efficacy
- Virtually eliminates lamp flicker
- Safe shuodown of defective lamps
- Safe shutdown of lamps at end of life
- Automatic restart after lamp replacement

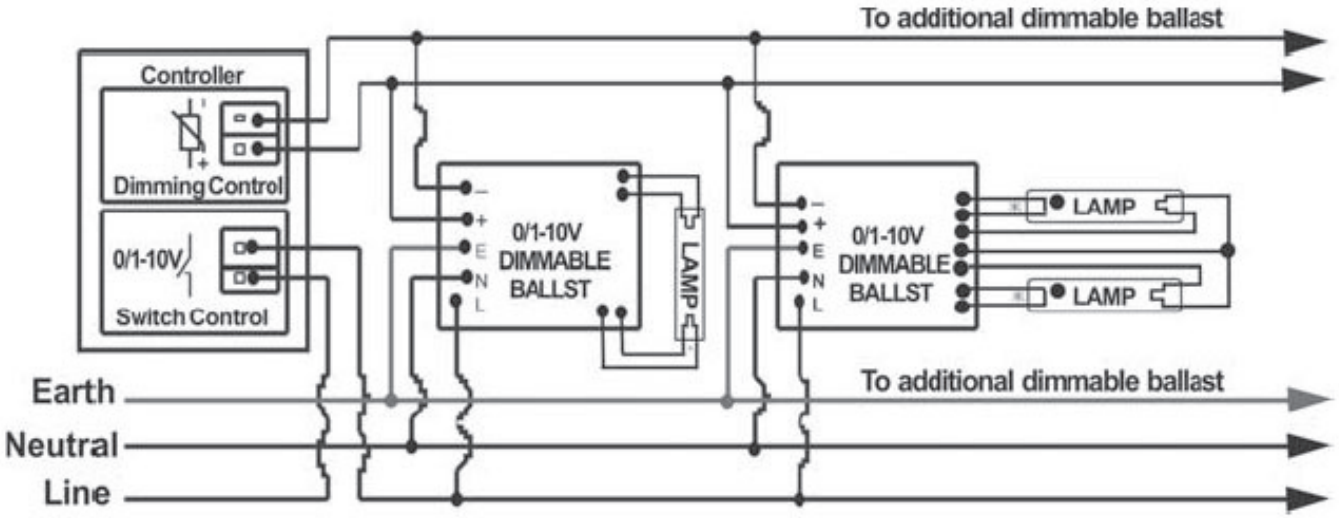
Approvals:
UL Listed #935
ANSI C82.11 Ballast Standard
FCC 47CFR Part 18 EMI/RFI
ANSI C62.41 Category A
EN 55015, EN 55022
EN 60924 sect. I-II
EN 60928, EN 60929
EN 61000-3-2
EN 61347-2-3
EN 61547
GB 15143-1994
GB 17625.1-2003
GB/T 15144-2005
in accordance with VDE 0108

Technical Data

Parameter	Min. *	Nom. *	Max.	Unit
Number Of Lamps	2	-	2	-
Lamp Power	14x2	-	35x2	W
Input Power	30.8	-	77	W
Rated Input Voltage	100	230	277	V
AC Input Voltage Range	90	-	304	V
DC Input Voltage Range	150	-	304	V
Input Frequency	0	50-60	-	Hz
Input Current	0.25A@120V	0.33A@230V	0.27A@277V	A
Power Factor	0.90	0.98	-	-
Operating Frequency	40	-	120	KHz
Lamp Current Crest Factor	-	-	1.7	-
THD	-	-	10%	-
Operating Ambient Temperature(@ta)	-20	-	50	°C
Maximum Case Temperature(@tc)	-	-	75	°C
Average Service Life	50,000	-	-	Hours

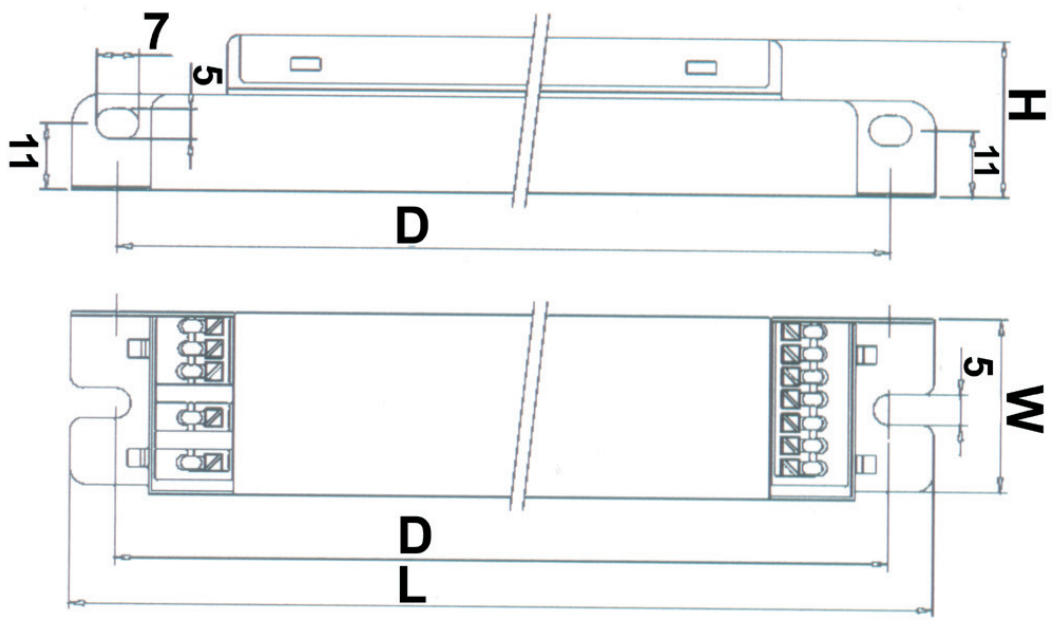
* Valid at ambient temperature of 25°C

Wiring Diagram



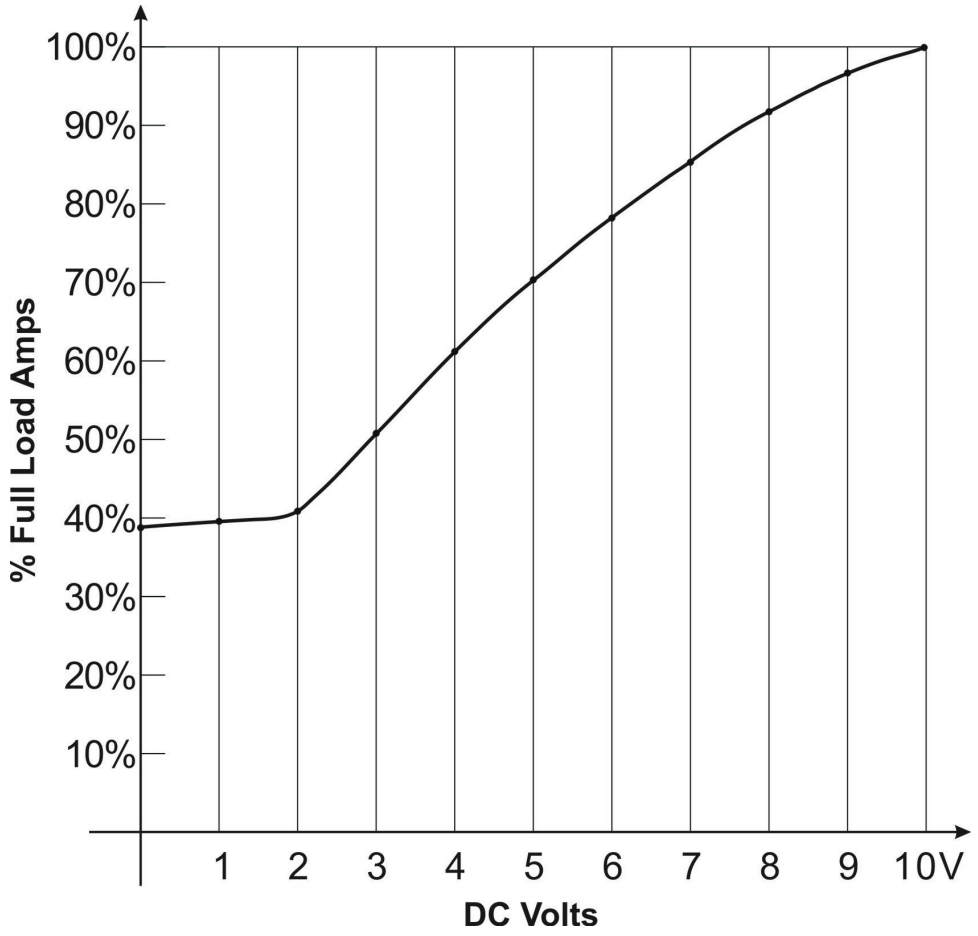
Ballast has plug in wire trap connectors.
Use 18 AWG solid copper wire (dia. 0.5-1.0mm^2)
Stripped to 5/16” (7.0~8.5mm)
Ballast must be grounded.
Use external ground wire.

Dimensions(mm)



LxWxH = 400x30x26mm D=385mm

Current Versus Signal Curve



Note

The dimmable ballasts have an isolated input circuit topology which operates on feedback generated through a small signal transformer.

This isolates the controller from the high voltage of the ballast power supply but it means the controller signal cannot be the typical transducer voltage level signal, it must be capable of sinking approximately 10ma when operating the ballast in the lower light levels. If there is a pull down resistor on board your controller as is the case with typical hvac equipment (to reduce spurious noise when no device is connected to the output), you will want to change this pull down resistor to a smaller value of around 2k.