QUICKTRONIC® DALI T5
Universal Voltage Dimming Systems

✓ RoHS compliant

Fluorescent Controllable Lighting Systems

High Efficiency Series

QHE T5 DALI

Lamp / Ballast Guide

28W T5 - PENTRON® lamps*
1-lamp QHE1x28T5/UNV DALI
2-lamp QHE2x28T5/UNV DALI

Primary Lamp Type:
FP28T5

* Not to be used with Energy Saving T5 lamps

Key System Features

- Digital Addressable Control
  - Individual control of fixtures
  - Up to 16 groups
  - Up to 16 scenes
- 100-1% dimming
- Programmable fade rates
- High Efficiency
- 1.0 ballast factor at full power
- Universal Input Voltage (120/277V)
- PROStart® (programmed rapid start)
  - Extends lamp life
- QUICKSENSE® ballast technology (end-of-lamp-life sensing)
- QUICK 60+® lamp and ballast warranty
- Anti-flash circuitry - turns on at previous light level
- Operates >40kHz to reduce potential IR interference
- Wiretrap connectors
- Control may be wired for Class 1 or Class 2 applications
- RoHS compliant
- Lead-free solder and manufacturing process

Application Information

SYLVANIA QUICKTRONIC DALI Dimming ballasts are ideally suited for:
- Offices
- Daylight harvesting
- Energy management
- Load shedding
- A/V presentations
- Conference rooms
- Occupancy sensors
- Zone and scene control

SYLVANIA QUICKTRONIC High Efficiency PROStart T5 DALI Dimming ballasts combine digital control technology with full-range continuous dimming to provide a new level of lighting system performance. This allows for greater flexibility and control of the lighting environment than can be achieved with traditional 0-10VDC dimming systems. The communications protocol is "DALI", an acronym for "Digital Addressable Lighting Interface". This is a worldwide open standard for digital lighting control that has been accepted by all the leading lighting suppliers.

QUICKTRONIC T5 DALI ballasts control PENTRON T5 lamps over a wide (100-1%) range of light level settings, from 1.0 ballast factor to 0.01 ballast factor. Control wiring is simplified by two polarity-free connections that can be routed in the same raceway as power wires.

QUICKTRONIC T5 DALI ballasts are available in one and two lamp models that operate at 120V or 277V input line voltage, eliminating "wrong voltage" wiring errors and reducing the number of models in inventory by half. These ballasts are RoHS compliant and feature lead-free solder and manufacturing process.

Setting the standard for quality, QUICKTRONIC T5 DALI systems are covered by the QUICK 60+® warranty, the first and most comprehensive system warranty in the industry.

System Information

PROStart (Programmed rapid start) ballasts provide optimum starting conditions to provide up to 100,000 switching cycles for use on occupancy sensor and building control system applications.

The DALI protocol offers individual addressability and allows the user to dim any particular fixture or groups of fixtures at one time. Simple controller programming steps allow for:

- Fade rates, dim levels, time of day, groups and scenes to be customized.

- Flexibility in grouping fixtures; no need to re-wire fixtures when groups need to be changed.

- Systems are scalable and can be expanded anytime the user needs change, without the need for costly re-wiring. Additional fixtures are added to groupings simply by means of software.
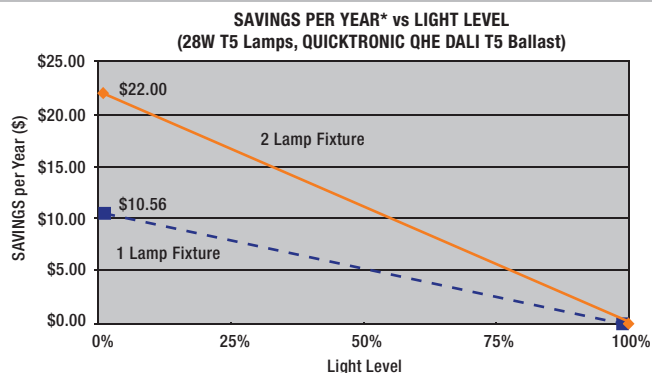
SAVINGS PER YEAR* vs LIGHT LEVEL
(28W T5 Lamps, QUICKTRONIC QHE DALI T5 Ballast)

*FP28T5 lamps with QUICKTRONIC QHE T5 DALI ballast
*Based on 4000 hrs/yr, $0.11/kWh & 120V operation
*Savings per Year (@Light Level) = Cost of operation (100% Light Level) - Cost of operation (@Light Level)

DALI offers a two-way communication exchange. The DALI system allows communication to the ballast and the ballast to communicate back via the appropriate controls. Monitoring can be obtained on operating conditions, such as operating hours, light-level or failed lamps. This lamp fault-reporting feature can save significant cost by quickly identifying the location, especially in large facilities or in applications where lamps are concealed by lenses.

QUICKTRONIC T5 DALI lighting systems can also be integrated with Building Management Systems (BMS) by installing gateways that translate between the DALI and BMS systems. Specification of DALI compatible gateways, controls and ballasts ensure flawless operation of the lighting system.

SEE THE WORLD IN A NEW LIGHT

SYLVANIA

Catalog #	Date	Type
Project	Prepared by	
Comments		

High-Efficiency, DALI T5 Dimming Systems, Universal Voltage (120-277V)

RoHS compliant

Item Number	OSRAM SYLVANIA Description	Input Current (AMPS)	Lamp Type	Rated Lumens (lm)	No. of Lamps	Ballast Factor (BF)	Initial System Lumens	Mean System Lumens	System Power (W) 120V	System Power (W) 277V	System[1] Efficacy (lm/W)	BEF[2]
51456	QHE 1x28T5/UNV DALI *20-pack*	0.27/0.12	FP28T5	2900	1	1.00 0.01	2900 30	2725 25	32 8	31 8	94	3.23
51458	QHE 2x28T5/UNV DALI *20-pack*	0.52/0.22	FP28T5	2900	2	1.00 0.01	5800 60	5450 55	62 12	60 12	97	1.67

QHE1x28T5/UNV DALI and QHE2x28T5/UNV DALI replaces QTP1x28T5/UNV DALI and QTP2x28T5/UNV DALI respectively (Output wiring has changed). Contact OSRAM SYLVANIA for details.
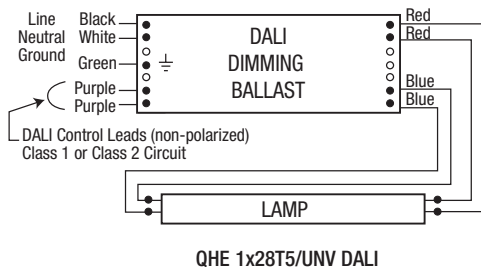*1: System Efficacy is based on the lowest System Power.*
2: BEF (Ballast Efficiency Factor) shown = (Ballast Factor x 100) divided by System Power (Note: calculation based on lowest system power).
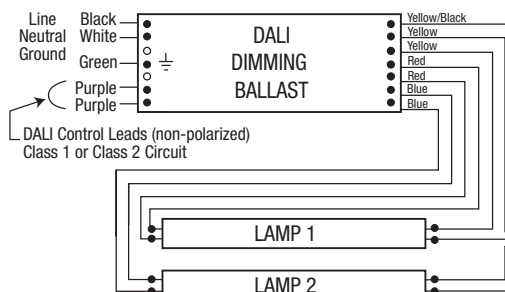
Installation Notes

Output wiring for dimming ballasts can differ significantly from non-dimming ballasts and other manufacturers dimming ballasts. Refer to applicable wiring diagram below or on ballast label. For optimal dimming performance, fluorescent lamps may require seasoning for up to 12 hours prior to low temperature starting and low level dimming. Refer to NEMA LSD 23-2002 Lighting Systems Division: Recommended Practice - Lamp Seasoning for Fluorescent Dimming Systems. Ballast case or ground terminal must be grounded.

Wiring Diagrams:

Wiring: Push-in (wiretrap) connections (no leads provided)
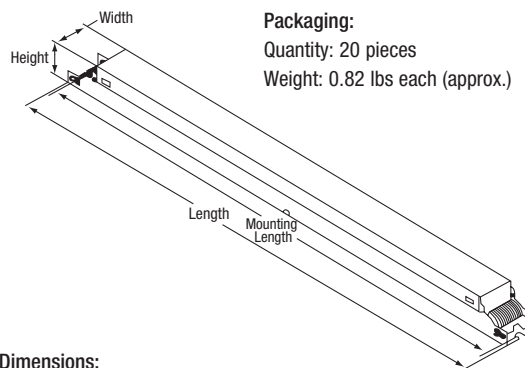Use 18 AWG solid copper wire only

QHE 1x28T5/UNV DALI

QHE 2x28T5/UNV DALI

DALI Controls Information

Siemens Building Technology
http://sbt.siemens.com

Cooper
http://greengate.coopercontrol.com

Crestron
www.crestron.com

Hunt Dimming
www.huntdimming.com

Leviton
www.leviton.com

Starfield Controls
www.starfieldcorp.com

Watt Stopper
www.wattstopper.com

Please contact controls manufacturer to order/specify controls.
For the latest controls list go to www.sylvania.com
Also for more information, check out the LCA (Lighting Controls Association) site: www.lightingcontrolsassociation.org

Packaging:
Quantity: 20 pieces
Weight: 0.82 lbs each (approx.)

Dimensions:

Units	L	ML	W	H
inches	16.7	16.3	1.18	1.0
mm	425	414	30.0	25.4

Item Number — **51458 QHE 2 x 28T5 / UNV DALI** — System Type - DALI
QUICKTRONIC High Efficiency — Line Voltage (120-277V)
Number of Lamps — Primary Lamp Type (FP28T5)

Performance Guide

Data provided is based on testing done using SYLVANIA PENTRON® T5 lamps shown. QUICKTRONIC® DALI ballasts are compatible with other manufacturers equivalent lamp types that meet ANSI specifications. **Not to be used with Energy Savings T5 lamps.**

Specifications
Data based on FP28T5

Starting Method: PROStart (Programmed Rapid-Start)
Circuit Type: Series
Lamp Frequency: >40 kHz
Lamp CCF: <1.7
Starting Temp: 50°F (10°C) min.
Input Frequency: 50/60 Hz
THD: <10% @ full output
Power Factor: >98% @ full output
Voltage Range: ±10% of 120/277 rated voltage
UL Listed Class P, Type 1 Outdoor
RoHS compliant[1]
CSA Certified
70°C Max. Case Temperature
FCC 47CFR Part 18 Non-Consumer
Class A Sound Rating
ANSI C62.41 Cat. A Transient Protection
Remote Mounting (Max wire length from ballast case to lampholders): 5 ft.

1 Complies with European Union Restriction of Hazardous Substances Directive (Directive EC 2002/95)

Control Information

QUICKTRONIC T5 DALI ballasts are compatible with DALI digital controllers available from various manufacturers. For a list of DALI control manufacturers, please contact OSRAM SYLVANIA.

Control Specifications:
Two wire non-polarized control. May be wired as Class 1 or Class 2 circuit, consult Local and National Electrical Codes.

OSRAM SYLVANIA
National Customer
Service and Sales Center
1-800-LIGHTBULB
(1-800-544-4828)
www.sylvania.com

Specifications subject to change without notice.

QHE T5 DALI

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the system solution®