



# Dimming the next step in energy saving

## HF-Regulator Intelligent Touch DALI for TL5/TL-D/PL-L lamps

This intelligent high-frequency electronic dimming ballast utilizes the DALI or Touch and Dim push-button protocol for fluorescent lamps. It meets A1BAT requirements, thereby pre-empting upcoming legislation. With a special command you can retrieve the system's mains power consumption, and with another you can find out which lamp wattage is connected. Combined with controls, additional energy savings can be achieved. The ballast is primarily designed for Indoor application. For outdoor application, the luminaire should be minimum Classland need to be sufficiently protected against water & dust. The installation should also be guard against any lightening surge or any other necessary electrical protection as deemed in such typical installation & application.

### Benefits

- Extremely low stand-by losses, controlled cut-off for dim levels above 80%, hybrid control dimming (current control at 100% and power control at 1%) – combined with MASTER TL5 Eco the most energy-efficient solution
- HF operation improves light quality and lamp lifetime.
- Compliant with European and Asian norms and suitable for emergency lighting systems

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## Features

- HF-R Intelligent recognizes what type of lamp (T5 HE, HO, ECO, TL-D, PL-L) is connected and drives it accordingly
- Programmed start: flicker-free ignition < 1.0 second and striation-free operation, no stroboscopic effects. Preheating the lamp electrodes enables the lamps to be switched on and off without reducing life
- Smart power ensures constant light, independent of mains fluctuations and dimming from 1 to 100%
- Stop circuit is activated within 5 seconds in the event of lamp failure (safety stop), and ballast resets automatically after lamp replacement
- Programmable for intelligent functionalities via Philips MultiOne: Corridor mode, Emergency DC dim level, Burn-in time

## Application

- Indoor, general and task lighting applications in combination with lighting control systems (personal control, daylight linking and/or movement detection)

## Versions



HF-Ri TD 280 TL5/PL-L E+  
220-240V



MLD14/24.3FR-04/220-240/DALI



MLD14/24.4FR-04/220-240/DALI



HF-Ri TD 1 28/35/49/54 TL5 E+  
195-240V



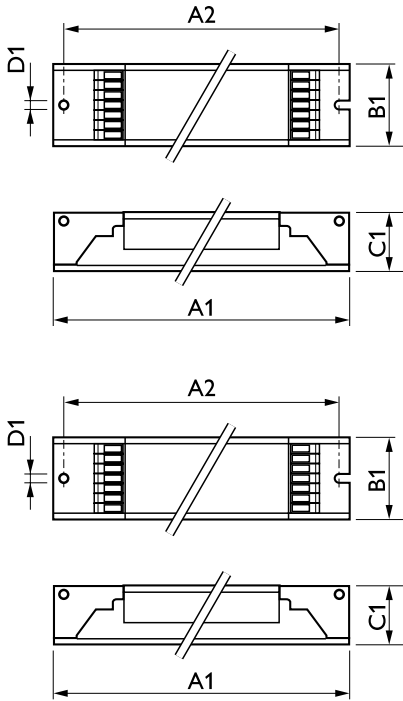
HF-Ri TD 1 35/49/80 TL5 E+  
195-240V



HF-Ri TD 2 28/35/49/54 TL5 E+  
195-240V

# HF-Regulator Intelligent Touch DALI for TL5/TL-D/PL-L lamps

## Dimensional drawing



| Product                           | D1     | C1    | A1     | A2     | B1    |
|-----------------------------------|--------|-------|--------|--------|-------|
| HF-Ri TD 280 TL5/PL-L E+ 220-240V | 4.2 mm | 22 mm | 424 mm | 415 mm | 30 mm |

| Product                                | D1     | C1      | A1       | A2       | B1      |
|--|--------|---------|----------|----------|---------|
| HF-Ri TD 3 14/24 TL5 E+ 195-240V       | 4.2 mm | 22.0 mm | 360.0 mm | 350.0 mm | 39.0 mm |
| HF-Ri TD 4 14/24 TL5 E+ 195-240V       | 4.2 mm | 22.0 mm | 360.0 mm | 350.0 mm | 39.0 mm |
| HF-Ri TD 1 28/35/49/54 TL5 E+ 195-240V | 4.1 mm | 22.0 mm | 360.0 mm | 350.0 mm | 30.0 mm |
| HF-Ri TD 1 35/49/80 TL5 E+ 195-240V    | 4.1 mm | 22.0 mm | 360.0 mm | 350.0 mm | 30.0 mm |
| HF-Ri TD 2 28/35/49/54 TL5 E+ 195-240V | 4.1 mm | 22.0 mm | 360.0 mm | 350.0 mm | 30.0 mm |
| HF-Ri TD 1 14/21/24/39 E+ 195-240V     | 4.1 mm | 21.0 mm | 360.0 mm | 350.0 mm | 30.0 mm |
| HF-Ri TD 2 14/21/24/39 E+ 195-240V     | 4.1 mm | 21.0 mm | 360.0 mm | 350.0 mm | 30.0 mm |

## Operating and Electrical

Input Frequency 50 to 60 Hz

## Approval and Application

| Order Code   | Full Product Name                      | Energy Efficiency Index |
|--------------|--|-------------------------|
| 913700609666 | HF-Ri TD 280 TL5/PL-L E+ 220-240V      | A1                      |
| 913700679066 | HF-Ri TD 3 14/24 TL5 E+ 195-240V       | A1 BAT                  |
| 913700679166 | HF-Ri TD 4 14/24 TL5 E+ 195-240V       | A1 BAT                  |
| 913700695666 | HF-Ri TD 1 28/35/49/54 TL5 E+ 195-240V | A1 BAT                  |

| Order Code   | Full Product Name                      | Energy Efficiency Index |
|--------------|--|-------------------------|
| 913700698366 | HF-Ri TD 1 14/21/24/39 E+              | A1 BAT                  |
| 913700695766 | HF-Ri TD 1 35/49/80 TL5 E+ 195-240V    | A1 BAT                  |
| 913700695866 | HF-Ri TD 2 28/35/49/54 TL5 E+ 195-240V | A1 BAT                  |
| 913700698466 | HF-Ri TD 2 14/21/24/39 E+              | A1 BAT                  |

## Operating and Electrical

| Order Code   | Full Product Name                      | Input Voltage |
|--------------|--|---------------|
| 913700609666 | HF-Ri TD 280 TL5/PL-L E+ 220-240V      | 220 to 240 V  |
| 913700679066 | HF-Ri TD 3 14/24 TL5 E+ 195-240V       | 195-240 V     |
| 913700679166 | HF-Ri TD 4 14/24 TL5 E+ 195-240V       | 195-240 V     |
| 913700695666 | HF-Ri TD 1 28/35/49/54 TL5 E+ 195-240V | 195-240 V     |

| Order Code   | Full Product Name                      | Input Voltage |
|--------------|--|---------------|
| 913700698366 | HF-Ri TD 1 14/21/24/39 E+              | 195-240 V     |
| 913700695766 | HF-Ri TD 1 35/49/80 TL5 E+ 195-240V    | 195-240 V     |
| 913700695866 | HF-Ri TD 2 28/35/49/54 TL5 E+ 195-240V | 195-240 V     |
| 913700698466 | HF-Ri TD 2 14/21/24/39 E+              | 195-240 V     |

## General Information

## HF-Regulator Intelligent Touch DALI for TL5/TL-D/PL-L lamps

| Order Code   | Full Product Name                      | Number Of Products On MCB (16A) |                 |           |
|--------------|--|---------------------------------|-----------------|-----------|
|              |  | Type B) (Nom)                   | Number Of Lamps | Lamp Type |
| 913700609666 | HF-Ri TD 280 TL5/PL-L E+ 220-240V      | 9                               | 2 piece/unit    | TL5/PL-L  |
| 913700679066 | HF-Ri TD 3 14/24 TL5 E+ 195-240V       | 16                              | 3 piece/unit    | TL5       |
| 913700679166 | HF-Ri TD 4 14/24 TL5 E+ 195-240V       | 16                              | 4 piece/unit    | TL5       |
| 913700695666 | HF-Ri TD 1 28/35/49/54 TL5 E+ 195-240V | 39                              | 1 piece/unit    | TL5       |

| Order Code   | Full Product Name                      | Number Of Products On MCB (16A) |                 |           |
|--------------|--|---------------------------------|-----------------|-----------|
|              |  | Type B) (Nom)                   | Number Of Lamps | Lamp Type |
| 913700698366 | HF-Ri TD 1 14/21/24/39 E+              | 30                              | 1 piece/unit    | TL5       |
| 913700695766 | HF-Ri TD 1 35/49/80 TL5 E+ 195-240V    | 18                              | 1 piece/unit    | TL5       |
| 913700695866 | HF-Ri TD 2 28/35/49/54 TL5 E+ 195-240V | 18                              | 2 piece/unit    | TL5       |
| 913700698466 | HF-Ri TD 2 14/21/24/39 E+              | 16                              | 2 piece/unit    | TL5       |

### Mechanical and Housing

| Order Code   | Full Product Name                      | Housing     |
|--------------|--|-------------|
| 913700609666 | HF-Ri TD 280 TL5/PL-L E+ 220-240V      | L 425x30x21 |
| 913700679066 | HF-Ri TD 3 14/24 TL5 E+ 195-240V       | L 360x39x22 |
| 913700679166 | HF-Ri TD 4 14/24 TL5 E+ 195-240V       | L 360x39x22 |
| 913700695666 | HF-Ri TD 1 28/35/49/54 TL5 E+ 195-240V | L 359x30x21 |

| Order Code   | Full Product Name                      | Housing     |
|--------------|--|-------------|
| 913700698366 | HF-Ri TD 1 14/21/24/39 E+              | L 360x30x21 |
| 913700695766 | HF-Ri TD 1 35/49/80 TL5 E+ 195-240V    | L 359x30x21 |
| 913700695866 | HF-Ri TD 2 28/35/49/54 TL5 E+ 195-240V | L 359x30x21 |
| 913700698466 | HF-Ri TD 2 14/21/24/39 E+              | L 360x30x21 |

### System characteristics

| Order Code   | Full Product Name                      | Lamp Power On PL-L | Lamp Power On TL5       | Lamp Power On TL5 ECO  | Lamp Power |             |                          |
|--------------|--|--------------------|-------------------------|------------------------|------------|-------------|--------------------------|
|              |  |                    |                         |                        | On TL-D    | On TL-D ECO | Rated Ballast-Lamp Power |
| 913700609666 | HF-Ri TD 280 TL5/PL-L E+ 220-240V      | -                  | -                       | -                      | -          | -           | 80 W                     |
| 913700679066 | HF-Ri TD 3 14/24 TL5 E+ 195-240V       | 15/22.9 W          | 15/23.3 W               | 13.6/20.1 W            | 17 W       | 13.7 W      | 14/24 W                  |
| 913700679166 | HF-Ri TD 4 14/24 TL5 E+ 195-240V       | 15.8/22.9 W        | 14.5/23.4 W             | 12.9/19.7 W            | 16.6 W     | 14.2 W      | 14/24 W                  |
| 913700695666 | HF-Ri TD 1 28/35/49/54 TL5 E+ 195-240V | 51.2 W             | 29.4/36.4/51.6/54.8 W   | 26.3/30.2/45.7/50.4 W  | 52.2 W     | 42.7 W      | 28-35-49-54 W            |
| 913700698366 | HF-Ri TD 1 14/21/24/39 E+              | 22.5/30.0/38.0 W   | 13.7/20.7/23.0/36.5 W   | 12.5/19.1/20.0/33.0 W  | 32 W       | -           | 14/21/24/39 W            |
| 913700695766 | HF-Ri TD 1 35/49/80 TL5 E+ 195-240V    | 76.3 W             | 35.9/51/75.6 W          | 32.8/45.2/73.6 W       | -          | -           | -                        |
| 913700695866 | HF-Ri TD 2 28/35/49/54 TL5 E+ 195-240V | 101.6 W            | 58.9/73.6/107.2/113.4 W | 50.8/66.5/95.6/102.7 W | 101.1 W    | 89.8 W      | 28-35-49-54 W            |
| 913700698466 | HF-Ri TD 2 14/21/24/39 E+              | 45.0/60.0/76.0 W   | 27.4/41.4/46.0/73.0 W   | 25.0/38.2/40.0/66.0 W  | 64.0 W     | -           | 14/21/24/39 W            |

