Introduction

This document describes the DALI-2 Operating Modes used by RAPIX products.

Definition of Operating Modes

DALI-2 standards define an Operating Mode as:

> *Set of states identified by a number in the range [0,255], characterised by a collection of variables and memory settings, and used to select a set of functionality to be exhibited by a device, including its required reaction to commands.*
>
> *Note to entry: Devices may support more than one operating mode.*

The standards go on to define Operating Mode settings as

> 0 means operation according to the standards;
>
> 1 .. 127 are reserved settings and may not be used;
>
> 128 .. 255 have manufacturer defined effects.

What this means in practice is that Operating Modes allow a product to have alternative functions, options, behaviour, and even alternative interpretation of DALI commands.

Use of Operating Modes in RAPIX products

RAPIX products use Operating Modes to enable, disable, or activate alternative functions and behaviours.

The use of Operating Modes can be difficult or complex depending on the commissioning software being used. RAPIX commission software (for example: *RAPIX Integrator*) allows any operating mode value to be set for any product from any manufacturer.

RAPIX Output units

Only the RAPIX Blind/Shutter relay uses an Operating Mode: When set to Mode 128 (0x80), the enhanced functions are activated. These commands become active:

UP Moves the blind UP/OPEN by 10%

DOWN Move the blind DOWN/CLOSED by 10%

LEVEL Setting an arc power level 0 = OFF/STOP, and levels 1 .. 254 correspond to a proportion of the blind/shutter/curtain travel, where 1 = fully closed and 254 = full opened. Amounts in between correspond to some proportion. For example, 128 = 50% open.

Extended Command 232: **STORE DTR AS ALLOW BROADCAST** is defined:

> *If the operating Mode is 0x80, then store the DTR as the allow broadcast flag. If the value is 0, then broadcast reaction is disabled, otherwise enabled (this includes MASK).*

Extended Command 233: **STORE DTR AS SWEEP TIME** is defined:

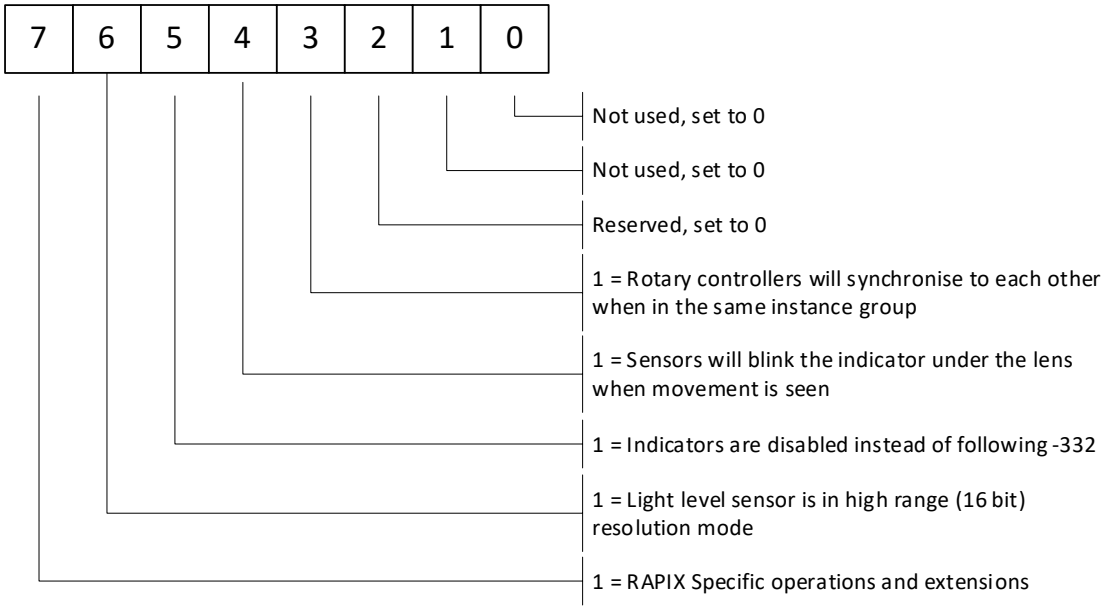
> *If the operating Mode is 0x80, then store the DTR as the sweep time in seconds. A value of MASK and 0 are considered the same, which is, that the sweep time is 0 - ie not configured.*

RAPIX Input units

All RAPIX input units support Operating Modes. RAPIX Input units means:

- All RAPIX sensors;
- All RAPIX switches (such as DGOZ-DSW30M-xx); and
- All RAPIX universal input units.

The Operating Modes supported by input units take the form of a bit mask:



This allows combining options, where this makes sense on a product.

Examples:

Light Level Sensor, set 16 bit (high range mode, 0 ..65535 lux): 0xC0

Movement sensor, set to blink when movement is detected: 0x90

Movement sensor with light level, set 16 bit (high range mode, 0 ..65535 lux) and also to blink when movement is detected: 0xD0

Rotary Controllers, set to link to each other and disable indicators: 0xA8

Change History

Rev	Date	Updated By	Comment
1	29 Dec 2024	AQ	First Release

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APN-RAPIX-030-01 Dec 2024