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laboratoire

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Technical Data Sheet

0589-2016-xxy0

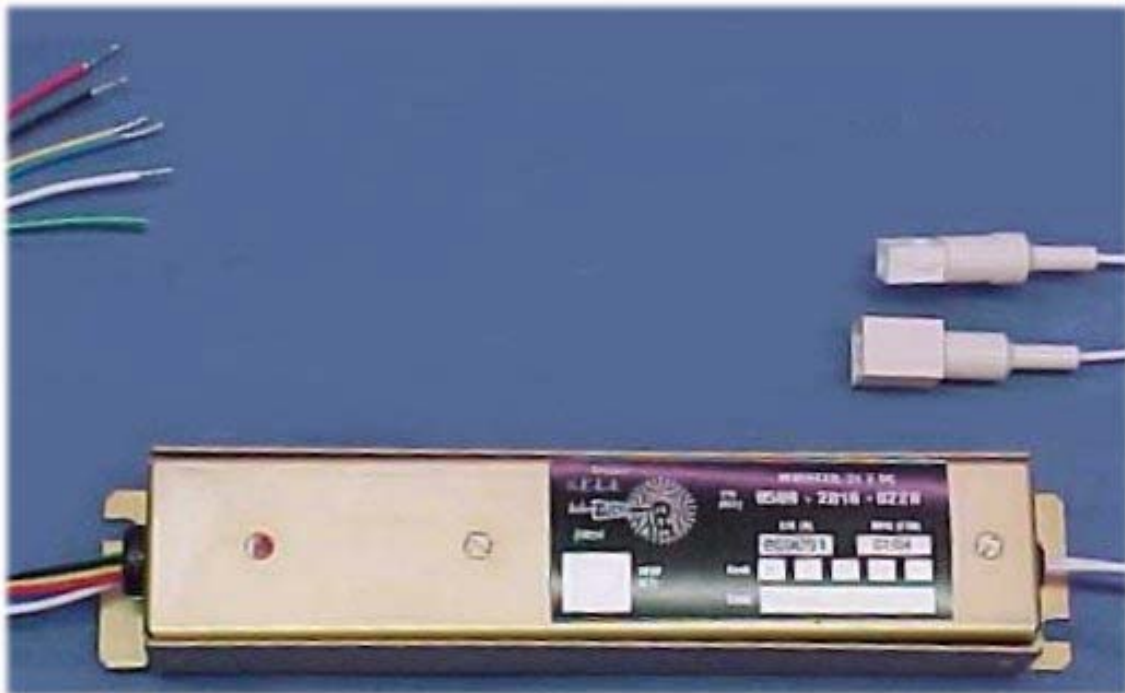
Inverter 24V, SELA lamps

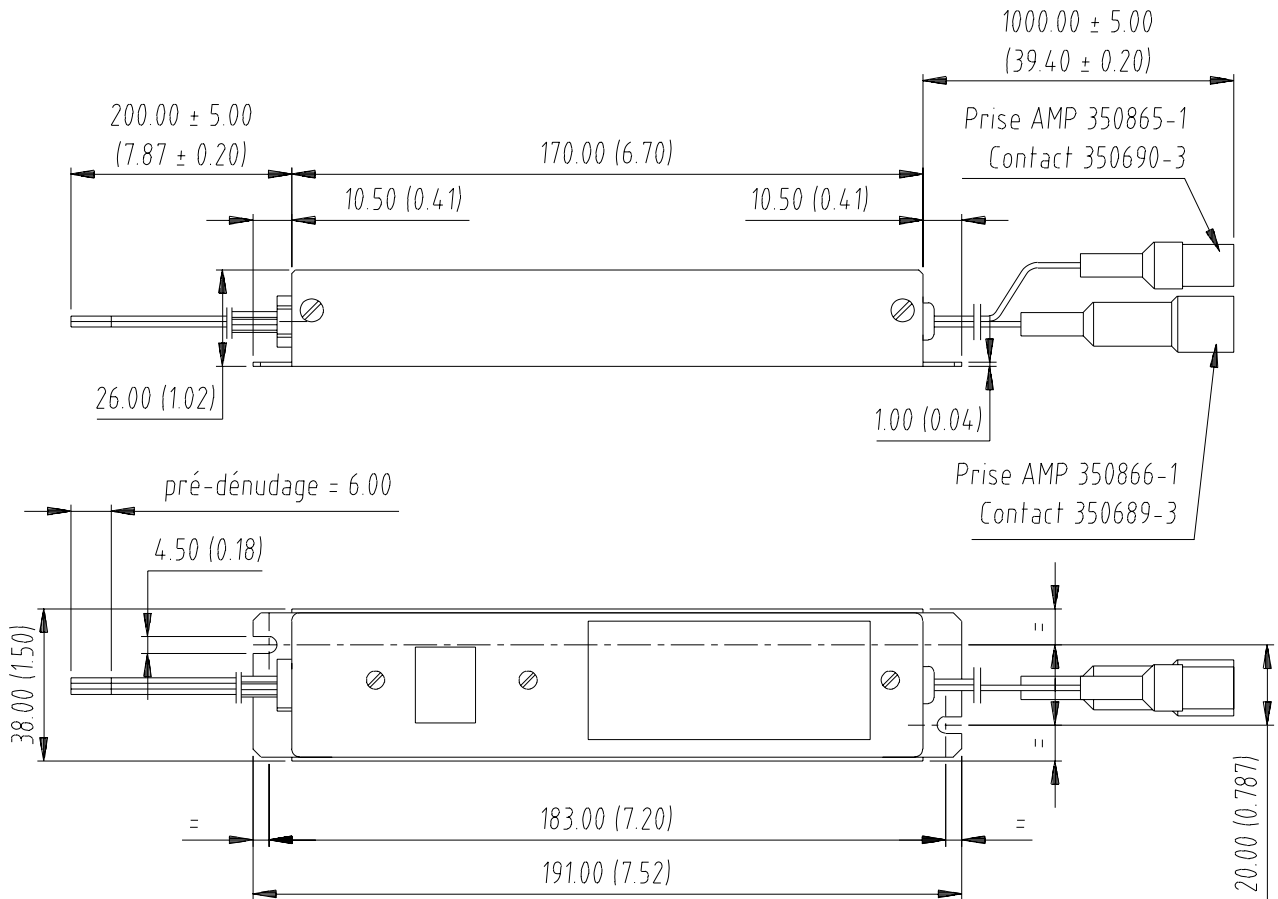
Issue : 02

First issue : 23/06/04



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All dimensions in millimeters. [inch]

Figure 1

1. INSTRUCTIONS FOR USE

With 0589-2016-x2yz Use only SELA lamps 12 mm diameter
 SELA lamps 0710-....
 SELA lamps 0713-....

The number of lamps and arrangement should be in accordance with chart on pages 4, 5.

2. GENERAL DESCRIPTION

The inverter contains a solid state oscillator which regulates the current through the lamp. The brightness can be reduced down to 15% of maximum lighting level with 12 mm lamps.

All electrical components are mounted on a P.C. Board. An aluminium base is used for mounting and thermal dissipation. The inverter is equipped with a safety circuit : the output voltage is switched off in case of output open circuit or failure of the lamp.

This inverter could be presented in five types.

0589-2016-xx1z	Type 1: Inverter with only DIM/BRIGHT logic. (DB)
0589-2016-xx2z	Type 2: Master inverter with dim control by potentiometer. (22K A) Slave inverter, which can be used with Type 2 or type 3,4,5 inverter.
0589-2016-xx3z	Type 3: Master inverter with variable dim control by keyboard. Digital Dim Autostore (DDA)
0589-2016-1x3z	Master inverter with variable dim control by keyboard. Digital Dim Autostore (DDA) ON/OFF by toggle switch.
0589-2016-xx4z	Type 4: Master inverter with variable dim control by keyboard. Digital Dim Start (DDS)
0589-2016-1x4z	Master inverter with variable dim control by keyboard. Digital Dim Start (DDS) ON/OFF by toggle switch.
0589-2016-xx5z	Type 5: Master inverter with variable dim control by keyboard. Digital Bright Start (DBS)
0589-2016-1x5z	Master inverter with variable dim control by keyboard. Digital Bright Start (DBS) ON/OFF by toggle switch.

For digital, dim to bright duration = 7 s.

3. MOUNTING

Use 2 # 6 screws.

4. ELECTRICAL WIRING

Use wire gauge 20 or 22

Use EEF 20-19 FILOTEX wire (or MIL-W-16878/5) for lamp connection.

For lamps connection, the cables should have a maximum total length of two meters and should not be wired together.

The housing must absolutely be connected to the ground on aircraft structure, preferably by mounting screws, or by using an as short as possible cable.

WARNING :

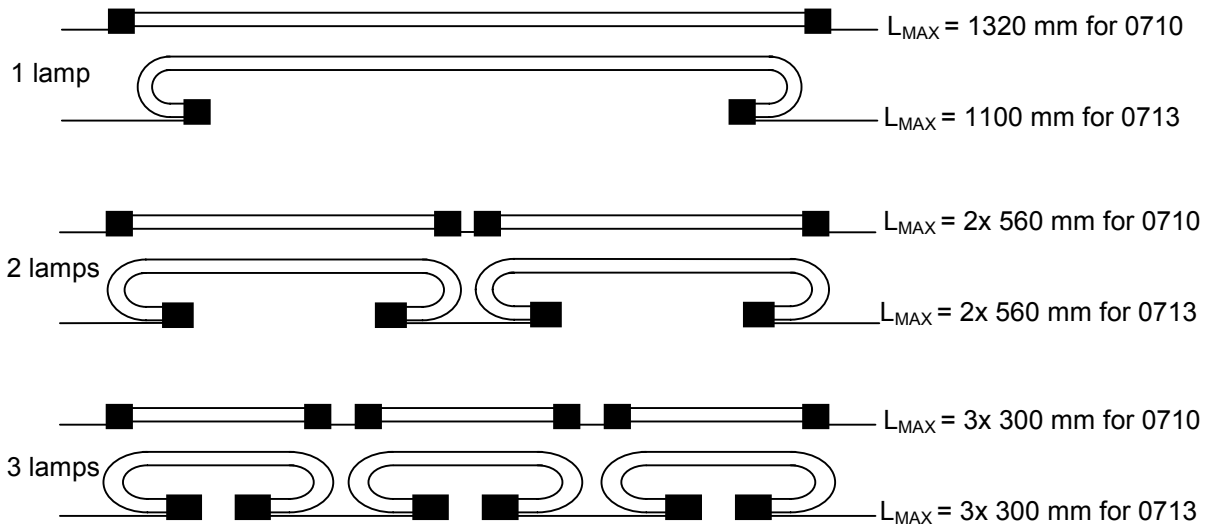
Never connect together the outputs of several inverters. Always connect the two ends of a lamp to the same inverter.

The cables of the lamp or set of lamps should be wired separately and do not exceed a total length of 2 meters.

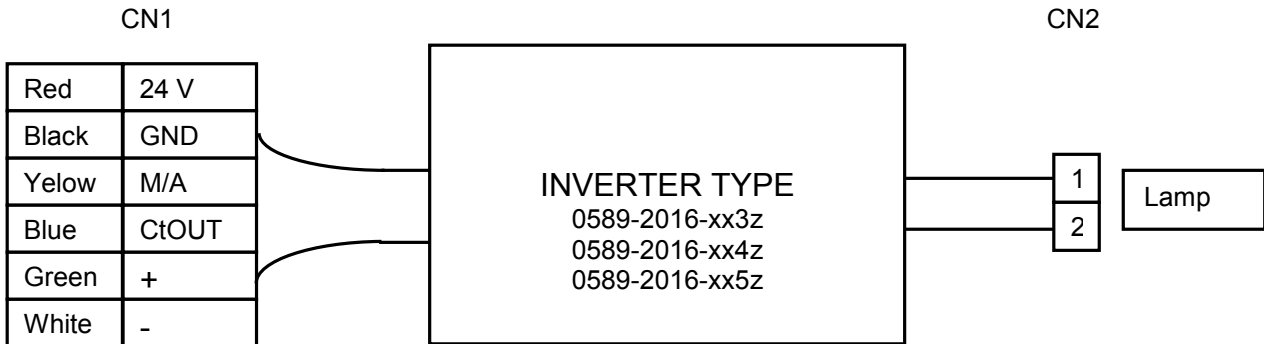
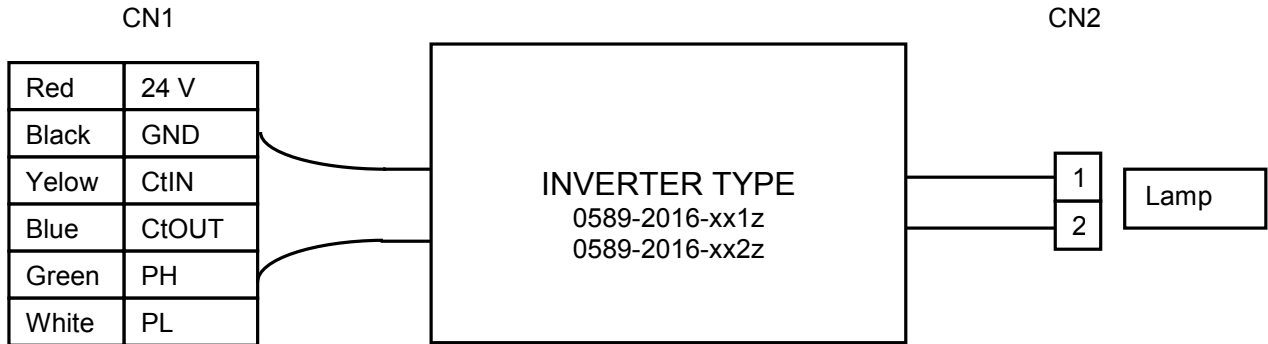
4.1. ARRANGEMENT OF LAMPS

12 mm diameter lamps (0710-... or 0713-...)

Ø 12 mm



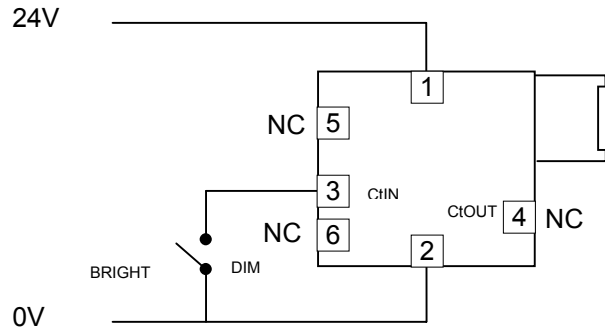
4.2. CONNECTOR DESCRIPTION



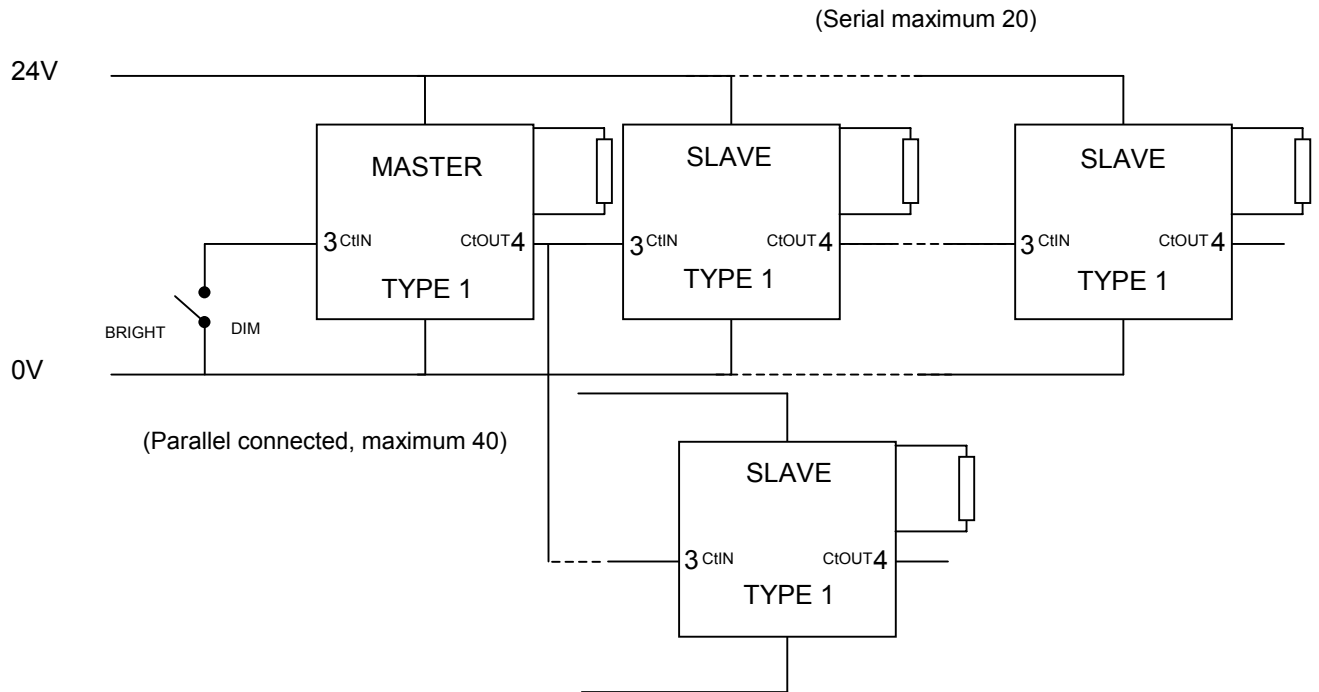
4.3. FAMILY AND USE

4.3.1. Inverter type 1 (0589-2016-xx1z)

DIM / BRIGHT

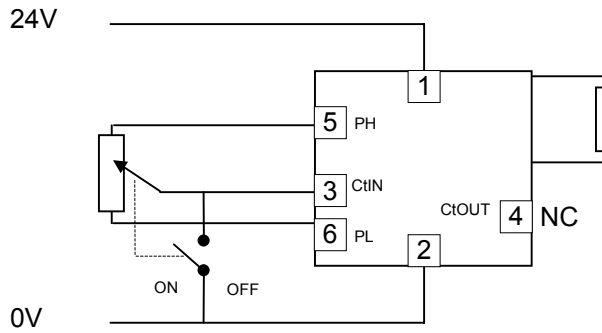


Master Inverter with slaves

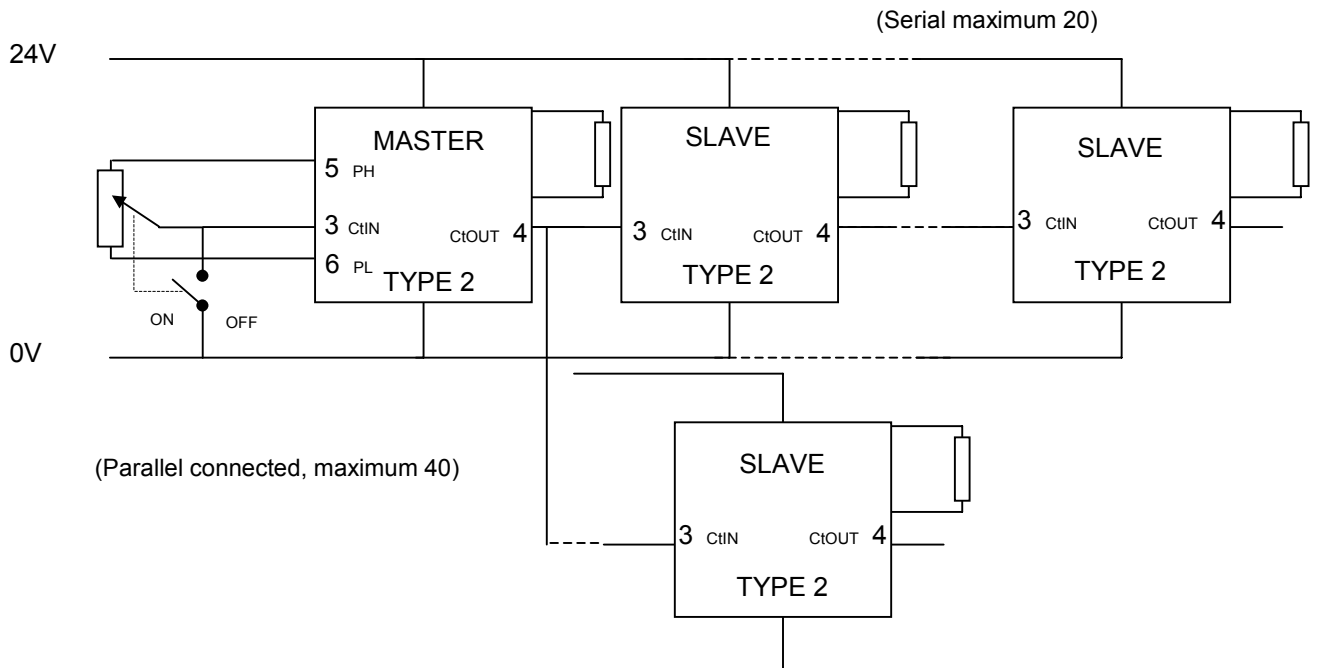


4.3.2. Inverter type 2 (0589-2016-xx2z)

Analog DIM variable with ON/OFF

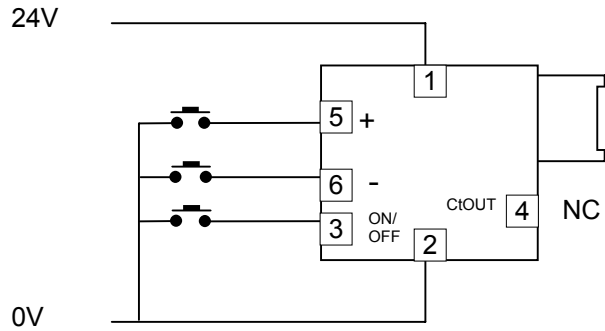


Master inverter with slaves

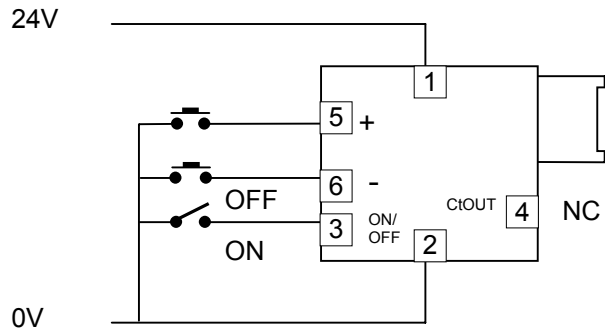


4.3.3. Inverter type 3 (0589-2016-xx3z, -xx4z et -xx5z)

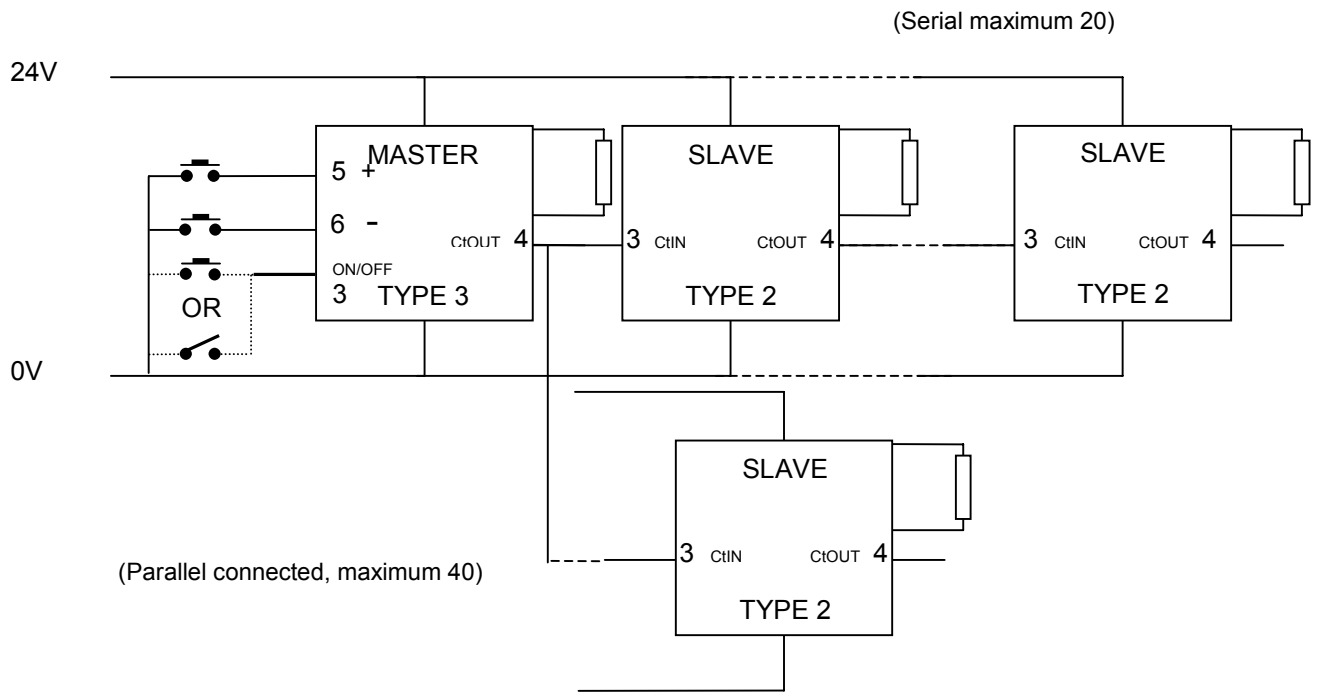
Digital DIM variable with ON/OFF push button



Digital DIM variable with ON/OFF by toggle switch



Master Inverter with slaves



SUMMARY

Fonctions	TUBE ϕ 12
DIM / BRIGHT	0589-2016-0210
Slave	0589-2016-0210
Analog Variable DIM	0589-2016-0220
Slave	0589-2016-0220
Digital DIM Autostore	0589-2016-0230
Digital DIM Autostore, ON/OFF by toggle switch	0589-2016-1230
Slave	0589-2016-0220
Digital DIM Start	0589-2016-0240
Digital DIM Start, ON/OFF by toggle switch	0589-2016-1240
Slave	0589-2016-0220
Digital Bright Start	0589-2016-0250
Digital Bright Start, ON/OFF by toggle switch	0589-2016-1250
Slave	0589-2016-0220

5. : ELECTRICAL CHARACTERISTICS

Nominal voltage : 24 VDC
Maximum voltage : 28 VDC
Minimum voltage : 22 VDC
Input current : nominal = 1.2 A with maximal lamp length.

Input current "OFF" = 26 mA for type 1 and 2
= 60 mA for type 3, 4 and 5

6. : OPERATING TEMPERATURE

- 40°C to + 55°C permanent operation
- 55°C to + 70°C operation during 30 mn.

7. : SPECIFICATIONS

The inverter complies with Air Specifications DO 160C and DO 160D.

8. : INSPECTION SPECIFICATIONS

Before installation the equipment can be checked according to inspection specification SELA 0189-2016-CR

9. : WEIGHT

0,2 Kg \pm 2 % for 0589-2016-xx1z and xx2z
0,21 Kg \pm 2 % for 0589-2016-xx3z, xx4z, xx5z

10. : MAINTENANCE AND CALIBRATION

The equipment is factory calibrated. No periodic maintenance or calibration is necessary.

11. : STORAGE

There is no limit for storage material.
There is no specific storage conditions.

Identification of update revisions

DATE	ISSUE	LIST OF UPDATED PAGES	REMARKS
23/06/04	01	-	New
29/07/04	02	1, 4, 11	Change Lamps references.

DOCUMENT APPROVED by : Quality Manager, the 29/07/04