





NUMERIC SIGN SP2-6XX / 180mm

Presentation



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#### 2 PRESENTATION

The numeric sign are declined on two sizes (100mm and 180mm height). The 180mm sign is made for the outdoor information and the 100mm one for the indoor information. On this document we going to introduce you the 180mm sign.

For more information about the 100mm height sign please refer to the specific documentation.

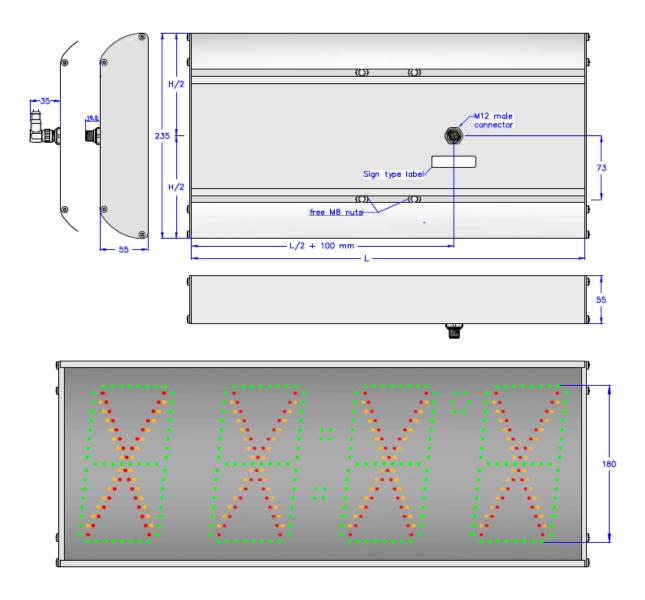






## 3 DIMENSIONS

Note: the length depends on the display type.

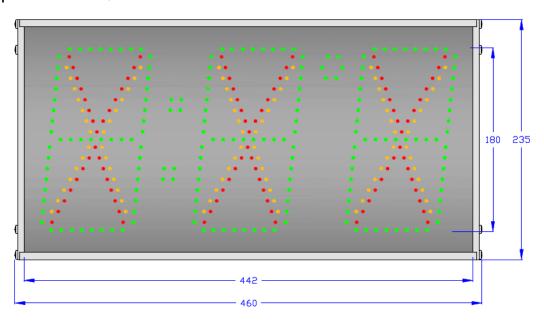




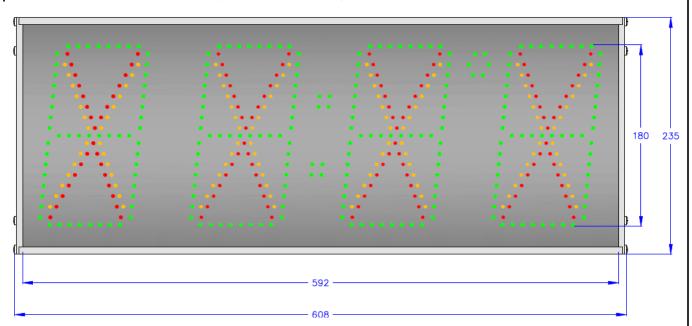


## 4 NUMERIC TYPES

# 4.1 3 DIGITS, SP2-630/180



## 4.2 4 DIGITS, SP2-640/180 (PREFERRED TYPE)







#### 4.3 INTEGRATION EXAMPLE

This is an example of integration into an outdoor enclosure.



Note: the enclosure must be built to avoid excess temperature rise inside it by using for example ventilation outlets and/or sunlight protection metal sheet.





#### 5 OPTIONS

#### 5.1 OUTPUTS

On request 2 outputs (photo-MOS) are available for driving external devices. These outputs can be used for example to drive a green/red traffic light, main entrance barrier blocking, etc. Contact rating is 48Vdc/ac @ 600mA.

| Output | Information |
|--------|-------------|
| 1      | VACANT/FULL |
| 2      | ON/OFF      |

Remark: It's also possible to use a relay card installed inside the computer to drive a third party "VACANT/FULL" sign.

#### 5.2 INPUTS

On request an opto-isolated input is available for forcing the sign to the "FULL" state. This can be uses for example to force the main entrance sign to "FULL" when the entrance barrier is blocked to guarantee information integrity





## 6 ACCESSORIES

# 6.1 FIXING SYSTEM

| LANG CLAMP     |            |              |     |  |
|----------------|------------|--------------|-----|--|
| Art.           | Diameter   |              |     |  |
| 3840           | Ø30mm      |              |     |  |
|                | CLAM       | IP BASE      |     |  |
| Art.           | Diameter   |              |     |  |
| 3841           | Ø30mm      | 100          |     |  |
|                | SOCKET HEA | D CAP SCREWS |     |  |
| Art.           | Size       | 0            |     |  |
| 200330         | M8x16      | 6            | T s |  |
|                | N          | UTS          |     |  |
| Art.           | Size       | <b>(2)</b>   |     |  |
| 200113         | M8         |              |     |  |
|                | SPRING LO  | CK WASHERS   |     |  |
| Art.           | Size       |              | 4   |  |
| 200331         | M8         |              |     |  |
| SAW SET SQUARE |            |              |     |  |
| Art.           | Size       |              |     |  |
| 00412          | M6         | A ( )        |     |  |





## 6.2 CONNECTING

| POWER SUPPLY and COMMUNICATION |        |   |                           |  |
|--------------------------------|--------|---|---------------------------|--|
| Art.                           | Length | ~ |                           |  |
| 42670                          | 60cm   |   | Franch control of Miles I |  |
| 42670.020                      | 200cm  |   | 3 Oberes                  |  |





## 7 FEATURES

| Character height                  | 180mm   |
|-----------------------------------|---|
| Display type                      | 7 segments  |
| Addressing                        | 1 to 240  |
| Ambient light sensor              | 0 to 2500lx   |
| Variable LED intensity            | 3.25% to 100% (automatic or manual)   |
| Possible display state            | NUMBER, NEARLY FULL, FULL, CLOSED, RESERVED, ADDRESS, TIME (12H/24H), DATE (DDMM, MMDD, MMYY), TEMPERATURE (°C and °F) LUXMETER VOLTMETER USER SEQUENCE |
| LED synchronization               | ✓   |
| Internal temperature measurement  | ✓   |
| Field updatable embedded software | ✓   |
| Input/output option               | ✓   |





## **8 ELECTRICAL CONNECTIONS**

#### 8.1 MAIN CONNECTION

The main connection regroups the power supply and the data bus in one M12 male connector at the rear of the sign.

|    |            | Designation | Color | M12 Pin |
|----|------------|-------------|-------|---------|
|    | POWER bus  | +48V        | BROWN | 1       |
|    | 1 OWER bus | OV          | BLUE  | 3       |
|    | DATA bus   | D+          | WHITE | 2       |
| 79 | DATA DUS   | D-          | BLACK | 4       |





#### 9 SHORT SPECIFICATIONS

9.1 GENERAL

Size L?? x H235mm x P55mm (without connectors)

Length is depending of the type

Housing material Anodized aluminium

Lateral cap: ABS, grey RAL7040 Front: PMMA (Plexiglas® XT)

Operating temperature range -25°C to 55°C (-13°F to +131°F)

Degree of protection IP44 (IP67 for M12 connector)

9.2 ELECTRICAL

Power supply 48VDC nominal (43.0VDC to 48.5VDC)

Insulation category Class III

Communication bus standard RS-485, 2 wires (half-duplex)

9.3 LED

The LED display of the signs uses high intensity surface mounted LED with lens.

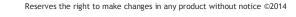
| Color | 100% Intensity<br>(typ.) | Wavelength |
|-------|--------------------------|------------|
| Green | 1600mcd                  | 525nm      |
| Red   | 1600mcd                  | 626nm      |
| Amber | 1600mcd                  | 590nm      |
| Blue  | 700mcd                   | 470nm      |







# SIGNAL-PARK SIGNS 180 mm





# TECHNICAL DATA SHEET

# Dynamic Display Enseigne Dynamique



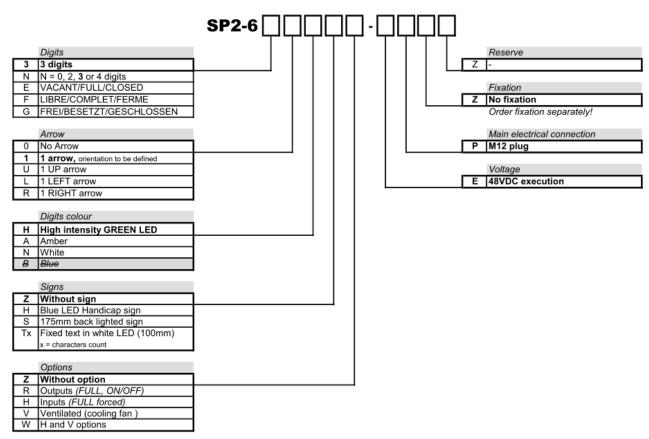
## Contenu

| Nomenclature English3  |   |  |  |  |
|------------------------|---|--|--|--|
| Nomenclature Français4 |   |  |  |  |
| SP2-601 / 180mm        | 5 |  |  |  |
| SP2-620 / 180mm        | 7 |  |  |  |
| SP2-621 / 180mm        | 9 |  |  |  |
| SP2-621H / 180mm       |   |  |  |  |
| SP2-630 / 180m         |   |  |  |  |
| SP2-631 / 180mm        |   |  |  |  |
| SP2-640 / 180mm        |   |  |  |  |
|                        |   |  |  |  |
| SP2-641 / 180mm        |   |  |  |  |





# Nomenclature English



#### Note:

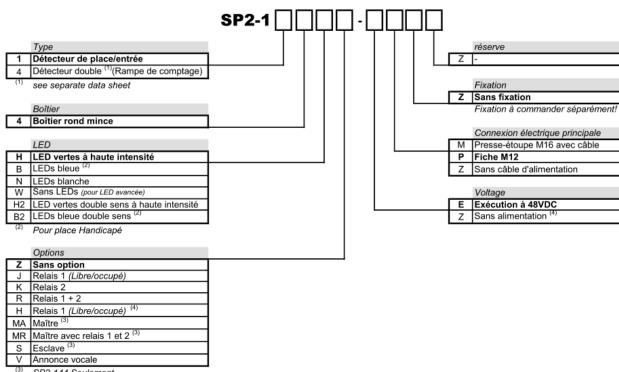
Preferred type in BOLD

Undefined position, not known or not applicable, the letter code is replaced by x or X. Example: SP2-631HZZ-ExZZ For exact reference, use the article number.





# Nomenclature Français



SP2-144 Seulement

Note:

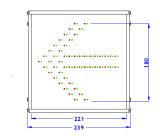
Type préféré en Gras

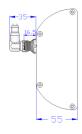
Position non définie, ne sait pas ou ne s'applique pas, la lettre de code est remplacé par exemple x ou X.: SP2-114HZ-ExZZ

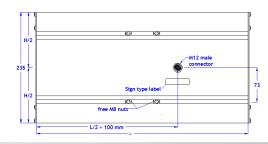


hauteur fixée par magnetisme









# SP2-601 / 180mm

Size

Order N°Article: 3691 / 3691 (cooling fan option)

#### Technical Specifications / Caracteristiques techniques

| Taille:                           | L239mm x H235mm x P55mm (without connectors)  |
|-----------------------------------|---|
| <b>Weight</b> Poids:              | 0.9Kg   |
| roids.                            | U.7Ng   |
| Housing material                  |   |
| Boîtier:                          | Anodized aluminum<br>Lateral cap: ABS, grey RAL7040<br>Front: PMMA (Plexiglas® XT)<br>UL94-V0 compliant plastics (plastiques conformes)                                     |
| Operating temperature range       |   |
| Temperature de fonctionnement:    | -25°C to 55°C (-13°F to +131°F)   |
| Storage temperature range:        |   |
| Plage de temperature de stockage: | -40°C to 85°C (-40°F to +185°F)   |
| Relative humidity                 |   |
| Humidté relative:                 | 5-95%RH (not condensing) (sans condensation)  |
| Degree of protection              |   |
| Degré de protection:              | IP44 (IP67 for M12 connectors) (IP67 avec connecteurs M12)  |
|                                   | IP30 (Cooling fan option) (option ventilée)   |
|                                   |   |
| <u>Electrical / electricité</u>   |   |
| Power supply:<br>Alimentation:    | <b>48VDC nominal (43.0VDC to 48.5VDC)</b> Note: voltages above 49.0V destroys internal surge protection Note: tensions supérieures à 49.0V détruiront la protection interne |
| Insulation category               | •   |
| Catégorie d'isolation:            | Class III (III)   |
| Consumption Consommation:         | 300mA max to 700mA max.Communication bus standard   |
| сопзонинации.                     | RS-485 ,2 wires (half-duplex) / RS-485, 2 fils (semi-duplex)  |
|                                   |   |





#### Inputs (options) / Entrées (options)

| Insulation<br>Isolation | 3Kv max. |
|-------------------------|----------|
| Driving current         |          |
| Courant de commande     | 7mA typ. |

#### Outputs (options) / Sorties (options)

| Insulation<br>Isolation | 3KV max.           |
|-------------------------|--------------------|
| Voltage<br>Tension      | 48Vdc / 30Vac max. |
| <b>Current</b> Courrant | 600mA max.         |

#### LED display / Affichage LED

The LED display of the signs uses high intensity surface mounted LED with lens. Color and intensity can change slightly between productions due to components tolerances.

L'affichage de l'enseigne utilise des LED's de haute intensité. La couleur ainsi que l'intensité des LED's peuvent changer légèrement suivant la production en raison de la tolérance des composants.

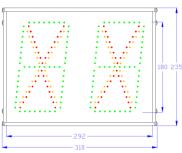
| Hauteur des caractères:         | 180mm |
|---------------------------------|-------|
| Viewing angle (half intensity): |       |
| Angle de vue (semi- intensité)  | 30°   |
| Viewing angle                   |       |
| Angle de vue                    | 180°  |
| Viewing distance                |       |
| Distance lisible                | 60m   |

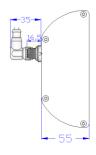


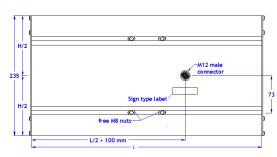
# Dynamic Display

# **Enseigne Dynamique**









# SP2-620 / 180mm

Order N°Article: 3692 / 3692 (cooling fan option)

#### Technical Specifications / Caracteristiques techniques

| Size<br>Taille:                   | L310mm x H235mm x P55mm (without connectors)   |
|-----------------------------------|--|
| <b>Weight</b> Poids:              | 0.9Kg  |
|                                   |  |
| Housing material Boîtier:         | Anodized aluminum Lateral cap: ABS, grey RAL7040 Front: PMMA (Plexiglas® XT) UL94-V0 compliant plastics (plastiques conformes) |
| Operating temperature range       |  |
| Temperature de fonctionnement:    | -25°C to 55°C (-13°F to +131°F)  |
| Storage temperature range:        |  |
| Plage de temperature de stockage: | -40°C to 85°C (-40°F to +185°F)  |
| Relative humidity                 |  |
| Humidté relative:                 | 5-95%RH (not condensing) (sans condensation)   |
| Degree of protection              |  |
| Degré de protection:              | IP44 (IP67 for M12 connectors) (IP67 avec connecteurs M12)   |
|                                   | IP30 (Cooling fan option) (option ventilée)  |

#### Electrical / electricité

| Power | supply: |
|-------|---------|
|-------|---------|

Alimentation:

#### 48VDC nominal (43.0VDC to 48.5VDC)

Note: voltages above 49.0V destroys internal surge protection Note: tensions supérieures à 49.0V détruiront la protection interne.

Insulation category

Catégorie d'isolation:



Consumption

Consommation:

300mA max to 700mA max.Communication bus standard RS-485 ,2 wires (half-duplex) / RS-485, 2 fils (semi-duplex)





#### Inputs (options) / Entrées (options)

| Insulation<br>Isolation                    | 3Kv max. |
|--|----------|
| <b>Driving current</b> Courant de commande | 7mA typ. |

| Outputs (options) / Sorties (options) |                    |
|---------------------------------------|--------------------|
| Insulation<br>Isolation               | 3KV max.           |
| Voltage<br>Tension                    | 48Vdc / 30Vac max. |
| Current                               | Torde / Jorde Max. |
| Courrant                              | 600mA max.         |

#### LED display / Affichage LED

Character height

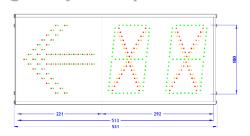
The LED display of the signs uses high intensity surface mounted LED with lens. Color and intensity can change slightly between productions due to components tolerances.

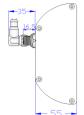
L'affichage de l'enseigne utilise des LED's de haute intensité. La couleur ainsi que l'intensité des LED's peuvent changer légèrement suivant la production en raison de la tolérance des composants.

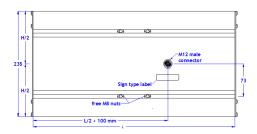
| Hauteur des caractères:  | 180mm      |
|--|------------|
| Display type Type d'affichage:                                 | 7 segments |
| LED's per segment LED's par segment:                           | 7 to 9     |
| Red crosses<br>Croix rouge                                     | Yes / Oui  |
| Amber crosses<br>Croix ambrée                                  | Yes / Oui  |
| Viewing angle (half intensity): Angle de vue (semi- intensité) | 30°        |
| Viewing angle Angle de vue                                     | 180°       |
| Viewing distance Distance lisible                              | 60m        |











# SP2-621 / 180mm

#### <u>Technical Specifications / Caracteristiques techniques</u>

| Size<br>Taille:                   | L531mm x H235mm x P55mm (without connectors)   |
|-----------------------------------|--|
| <b>Weight</b><br>Poids:           | 1.3Kg  |
| Housing material                  |  |
| Boîtier:                          | Anodized aluminum Lateral cap: ABS, grey RAL7040 Front: PMMA (Plexiglas® XT) UL94-V0 compliant plastics (plastiques conformes) |
| Operating temperature range       |  |
| Temperature de fonctionnement:    | -25°C to 55°C (-13°F to +131°F)  |
| Storage temperature range:        |  |
| Plage de temperature de stockage: | -40°C to 85°C (-40°F to +185°F)  |
| Relative humidity                 |  |
| Humidté relative:                 | 5-95%RH (not condensing) (sans condensation)   |
| Degree of protection              |  |
| Degré de protection:              | IP44 (IP67 for M12 connectors) (IP67 avec connecteurs M12)   |
|                                   | IP30 (Cooling fan option) (option ventilée)  |

#### Electrical / electricité

| Power | SU | ipply: |  |
|-------|----|--------|--|
| 4.1.4 |    |        |  |

Alimentation:

#### 48VDC nominal (43.0VDC to 48.5VDC)

Note: voltages above 49.0V destroys internal surge protection Note: tensions supérieures à 49.0V détruiront la protection interne.

#### Insulation category

Catégorie d'isolation:

Class III

#### Consumption

Consommation:

300mA max to 700mA max.Communication bus standard RS-485 ,2 wires (half-duplex) / RS-485, 2 fils (semi-duplex)





#### Inputs (options) / Entrées (options)

| Insulation<br>Isolation                | 3Kv max. |
|--|----------|
| Driving current<br>Courant de commande | 7mA typ. |

# Outputs (options) / Sorties (options) Insulation Isolation 3KV max. Voltage Tension 48Vdc / 30Vac max.

Current Courrant

Character height

#### LED display / Affichage LED

The LED display of the signs uses high intensity surface mounted LED with lens. Color and intensity can change slightly between productions due to components tolerances.

600mA max.

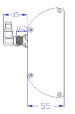
L'affichage de l'enseigne utilise des LED's de haute intensité. La couleur ainsi que l'intensité des LED's peuvent changer légèrement suivant la production en raison de la tolérance des composants.

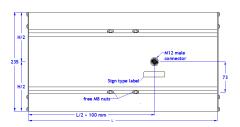
| Hauteur des caractères:         | 180mm      |
|---------------------------------|------------|
| Display type                    |            |
| Type d'affichage:               | 7 segments |
| LED's per segment               |            |
| LED's par segment:              | 7 to 9     |
| Red crosses                     |            |
| Croix rouge                     | Yes / Oui  |
| Amber crosses                   |            |
| Croix ambrée                    | Yes / Oui  |
| Viewing angle (half intensity): |            |
| Angle de vue (semi- intensité)  | 30°        |
| Viewing angle                   |            |
| Angle de vue                    | 180°       |
| Viewing distance                |            |
| Distance lisible                | 60m        |











## SP2-621H / 180mm

#### Order N°Article: 3698

#### <u>Technical Specifications / Caracteristiques techniques</u>

| Size<br>Taille:                   | L755mm x H235mm x P55mm (without connectors)               |
|-----------------------------------|--|
| Weight                            |  |
| Poids:                            | 2,24Kg   |
| Housing material                  |  |
| Boîtier:                          | Anodized aluminum  |
|                                   | Lateral cap: ABS, grey RAL7040 Front: PMMA (Plexiglas® XT) |
|                                   | UL94-VO compliant plastics (plastiques conformes)          |
| Operating temperature range       |  |
| Temperature de fonctionnement:    | -25°C to 55°C (-13°F to +131°F)                            |
|                                   |  |
| Storage temperature range:        |  |
| Plage de temperature de stockage: | -40°C to 85°C (-40°F to +185°F)                            |
| Relative humidity                 |  |
| Humidté relative:                 | 5-95%RH (not condensing) (sans condensation)               |
| Degree of protection              |  |
| Degré de protection:              | IP44 (IP67 for M12 connectors) (IP67 avec connecteurs M12) |
|                                   | IP30 (Cooling fan option) (option ventilée)                |
|                                   |  |

#### Electrical / electricité

Alimentation:

48VDC nominal (43.0VDC to 48.5VDC)

Note: voltages above 49.0V destroys internal surge protection Note: tensions supérieures à 49.0V détruiront la protection interne.

Insulation category

Catégorie d'isolation:

Class III

Consumption

Consommation:

300mA max to 700mA max.Communication bus standard RS-485 ,2 wires (half-duplex) / RS-485, 2 fils (semi-duplex)





#### Inputs (options) / Entrées (options)

| Insulation          |          |   |
|---------------------|----------|---|
| Isolation           | 3Kv max. |   |
| Driving current     |          | - |
| Courant de commande | 7mA typ. |   |

| Outputs (options) / Sorties (options) |                    |
|---------------------------------------|--------------------|
|                                       |                    |
| Insulation                            |                    |
| Isolation                             | 3KV max.           |
|                                       |                    |
| Voltage                               |                    |
| Tension                               | 48Vdc / 30Vac max. |
|                                       |                    |
| Current                               |                    |
|                                       | 600mA max.         |
| Courrant                              | butta max.         |

#### **LED DISPLAY / AFFICHAGE LED**

Character height

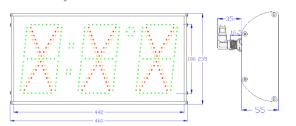
The LED display of the signs uses high intensity surface mounted LED with lens. Color and intensity can change slightly between productions due to components tolerances.

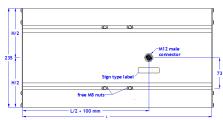
L'affichage de l'enseigne utilise des LED's de haute intensité. La couleur ainsi que l'intensité des LED's peuvent changer légèrement suivant la production en raison de la tolérance des composants.

| Hauteur des caractères:         | 180mm      |
|---------------------------------|------------|
| Display type                    |            |
| Type d'affichage:               | 7 segments |
| LED's per segment               |            |
| LED's par segment:              | 7 to 9     |
| Red crosses                     |            |
| Croix rouge                     | Yes / Oui  |
| Amber crosses                   |            |
| Croix ambrée                    | Yes / Oui  |
| Viewing angle (half intensity): |            |
| Angle de vue (semi- intensité)  | 30°        |
| Viewing angle                   |            |
| Angle de vue                    | 180°       |
| Viewing distance                |            |
| Distance lisible                | 60m        |









# SP2-630 / 180mm

Order N°Article: 3693 / 3693 V (cooling fan option)

#### Technical Specifications / Caracteristiques techniques

| Size Taille:                      | L460mm x H235mm x P55mm (without connectors)   |
|-----------------------------------|--|
| Weight<br>Poids:                  | 2,24Kg   |
| Housing material                  |  |
| Boîtier:                          | Anodized aluminum  |
|                                   | Lateral cap: ABS, grey RAL7040<br>Front: PMMA (Plexiglas® XT)<br>UL94-V0 compliant plastics (plastiques conformes)   |
| Operating temperature range       |  |
| Temperature de fonctionnement:    | -25°C to 55°C (-13°F to +131°F)  |
| Storage temperature range:        |  |
| Plage de temperature de stockage: | -40°C to 85°C (-40°F to +185°F)  |
| Relative humidity                 |  |
| Humidté relative:                 | 5-95%RH (not condensing) (sans condensation)   |
| Degree of protection              |  |
| Degré de protection:              | IP44 (IP67 for M12 connectors) (IP67 avec connecteurs M12)   |
|                                   | IP30 (Cooling fan option) (option ventilée)  |
| <u>Electrical / electricité</u>   |  |
| Power supply: Alimentation:       | <b>48VDC nominal (43.0VDC to 48.5VDC)</b> Note: voltages above 49.0V destroys internal surge protection Note: tensions supérieures à 49.0V détruiront la protection interne. |
| Insulation category               | ^  |
| Catégorie d'isolation:            | Class III 🛈  |
| Consumption Consommation:         | 300mA max to 700mA max.Communication bus standard RS-485 , 2 wires (half-duplex) / RS-485, 2 fils (semi-duplex)  |





#### Inputs (options) / Entrées (options)

Insulation
Isolation 3Kv max.

Driving current
Courant de commande 7mA typ.

#### Outputs (options) / Sorties (options)

| <b>Insulation</b><br>Isolation | 3KV max.           |
|--------------------------------|--------------------|
| <b>Voltage</b><br>Tension      | 48Vdc / 30Vac max. |
|                                |                    |

Courrant

#### **LED DISPLAY / AFFICHAGE LED**

Current

The LED display of the signs uses high intensity surface mounted LED with lens. Color and intensity can change slightly between productions due to components tolerances.

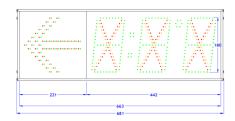
600mA max.

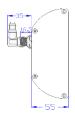
L'affichage de l'enseigne utilise des LED's de haute intensité. La couleur ainsi que l'intensité des LED's peuvent changer légèrement suivant la production en raison de la tolérance des composants.

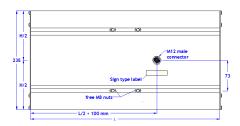
| Character height Hauteur des caractères: | 180mm      |
|--|------------|
|  | 155/1111   |
| Display type                             |            |
| Type d'affichage:                        | 7 segments |
| LED's per segment                        |            |
| LED's par segment:                       | 7 to 9     |
| Red crosses                              |            |
| Croix rouge                              | Yes / Oui  |
| Amber crosses                            |            |
| Croix ambrée                             | Yes / Oui  |
| Viewing angle (half intensity):          |            |
| Angle de vue (semi- intensité)           | 30°        |
| Viewing angle                            |            |
|  | 180°       |
| Angle de vue                             | 100        |
| Viewing distance                         |            |
| Distance lisible                         | 60m        |
|  |            |









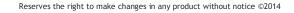


# SP2-631 / 180mm

Order N°Article: 3695 / 3695 V (cooling fan option)

#### Technical Specifications / Caracteristiques techniques

| <b>Size</b><br>Taille:            | L681mm x H235mm x P55mm (without connectors)   |
|-----------------------------------|--|
| Weight<br>Poids:                  | 2.70Kg   |
| Housing material                  |  |
| Boîtier:                          | Anodized aluminum<br>Lateral cap: ABS, grey RAL7040<br>Front: PMMA (Plexiglas® XT)<br>UL94-V0 compliant plastics (plastiques conformes)                              |
| Operating temperature range       |  |
| Temperature de fonctionnement:    | -25°C to 55°C (-13°F to +131°F)  |
| Storage temperature range:        |  |
| Plage de temperature de stockage: | -40°C to 85°C (-40°F to +185°F)  |
| Relative humidity                 |  |
| Humidté relative:                 | 5-95%RH (not condensing) (sans condensation)   |
| Degree of protection              |  |
| Degré de protection:              | IP44 (IP67 for M12 connectors) (IP67 avec connecteurs M12)   |
|                                   | IP30 (Cooling fan option) (option ventilée)  |
| <u>Electrical / electricité</u>   |  |
| Power supply: Alimentation:       | 48VDC nominal (43.0VDC to 48.5VDC) Note: voltages above 49.0V destroys internal surge protection Note: tensions supérieures à 49.0V détruiront la protection interne |
| Insulation category               |  |
| Catégorie d'isolation:            | Class III  |
| Consumption Consommation:         | 300mA max to 700mA max.Communication bus standard RS-485 , 2 wires (half-duplex) / RS-485, 2 fils (semi-duplex)  |







#### Inputs (options) / Entrées (options)

| Insulation<br>Isolation                    | 3Kv max. |  |
|--|----------|--|
| <b>Driving current</b> Courant de commande | 7mA typ. |  |

#### Outputs (options) / Sorties (options)

| Insulation              |                    |
|-------------------------|--------------------|
| Isolation               | 3KV max.           |
| Voltage<br>Tension      |                    |
| Tension                 | 48Vdc / 30Vac max. |
|                         |                    |
| <b>Current</b> Courrant | 600mA max.         |

#### LED display / Affichage LED

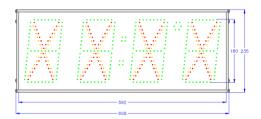
# The LED display of the signs uses high intensity surface mounted LED with lens. Color and intensity can change slightly between productions due to components tolerances.

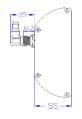
L'affichage de l'enseigne utilise des LED's de haute intensité. La couleur ainsi que l'intensité des LED's peuvent changer légèrement suivant la production en raison de la tolérance des composants.

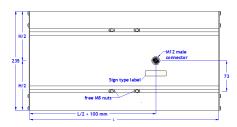
| Character height<br>Hauteur des caractères: | 180mm      |
|---|------------|
| Display type                                |            |
| Type d'affichage:                           | 7 segments |
| LED's per segment                           |            |
| LED's par segment:                          | 7 to 9     |
| Red crosses                                 |            |
| Croix rouge                                 | Yes / Oui  |
| Amber crosses                               |            |
| Croix ambrée                                | Yes / Oui  |
| Viewing angle (half intensity):             |            |
| Angle de vue (semi- intensité)              | 30°        |
| Viewing angle                               |            |
| Angle de vue                                | 180°       |
| Viewing distance                            |            |
| Distance lisible                            | 60m        |
|   |            |











# SP2-640 / 180mm

Order N°Article: 3694 / 3694V (cooling fan option)

#### Technical Specifications / Caracteristiques techniques

| Size<br>Taille:                   | L610mm x H235mm x P55mm (without connectors)  |
|-----------------------------------|---|
| Weight<br>Poids:                  | 2.70Kg  |
| Housing material                  |   |
| Boîtier:                          | Anodized aluminum<br>Lateral cap: ABS, grey RAL7040<br>Front: PMMA (Plexiglas® XT)<br>UL94-V0 compliant plastics (plastiques conformes)                                     |
| Operating temperature range       |   |
| Temperature de fonctionnement:    | -25°C to 55°C (-13°F to +131°F)   |
| Storage temperature range:        |   |
| Plage de temperature de stockage: | -40°C to 85°C (-40°F to +185°F)   |
| Relative humidity                 |   |
| Humidté relative:                 | 5-95%RH (not condensing) (sans condensation)  |
| Degree of protection              |   |
| Degré de protection:              | IP44 (IP67 for M12 connectors) (IP67 avec connecteurs M12)  |
|                                   | IP30 (Cooling fan option) (option ventilée)   |
|                                   |   |
| <u>Electrical / electricité</u>   |   |
| Power supply: Alimentation:       | 48VDC nominal (43.0VDC to 48.5VDC)<br>Note: voltages above 49.0V destroys internal surge protection<br>Note: tensions supérieures à 49.0V détruiront la protection interne. |
| Insulation category               | ^   |
| Catégorie d'isolation:            | Class III (III)   |
| Consumption                       | 200m A may be 700m A may Communication by abandard  |
|                                   |   |



300mA max to 700mA max.Communication bus standard RS-485 ,2 wires (half-duplex) / RS-485 , 2 fils (semi-duplex)



#### Inputs (options) / Entrées (options)

| Insulation<br>Isolation                    | 3Kv max. |
|--|----------|
| <b>Driving current</b> Courant de commande | 7mA typ. |

| Outputs (options) / Sorties (options) |                    |
|---------------------------------------|--------------------|
| Insulation<br>Isolation               | 3KV max.           |
| Voltage                               |                    |
| Tension                               | 48Vdc / 30Vac max. |
| Current                               |                    |
|                                       |                    |
| Courrant                              | 600mA max.         |

#### LED display / Affichage LED

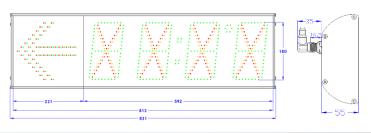
#### The LED display of the signs uses high intensity surface mounted LED with lens. Color and intensity can change slightly between productions due to components tolerances.

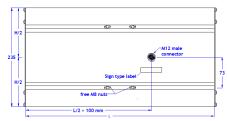
L'affichage de l'enseigne utilise des LED's de haute intensité. La couleur ainsi que l'intensité des LED's peuvent changer légèrement suivant la production en raison de la tolérance des composants.

| <b>Character height</b><br>Hauteur des caractères: | 180mm      |
|--|------------|
| Display type                                       |            |
| Type d'affichage:                                  | 7 segments |
| LED's per segment                                  |            |
| LED's par segment:                                 | 7 to 9     |
| Red crosses  |            |
| Croix rouge  | Yes / Oui  |
| Amber crosses                                      |            |
| Croix ambrée                                       | Yes / Oui  |
| Viewing angle (half intensity):                    |            |
| Angle de vue (semi- intensité)                     | 30°        |
| Viewing angle                                      |            |
| Angle de vue                                       | 180°       |
| Viewing distance                                   |            |
| Distance lisible                                   | 60m        |









# SP2-641 / 180mm

Order N°Article: 3696 / 3696 V (cooling fan option)

#### Technical Specifications / Caracteristiques techniques

| <b>Size</b><br>Taille:            | L610mm x H235mm x P55mm (without connectors)  |
|-----------------------------------|---|
| <b>Weight</b><br>Poids:           | ЗКд   |
| Haveton make stall                |   |
| Housing material                  |   |
| Boîtier:                          | Anodized aluminum<br>Lateral cap: ABS, grey RAL7040<br>Front: PMMA (Plexiglas® XT)<br>UL94-V0 compliant plastics (plastiques conformes)                                 |
| Operating temperature range       |   |
| Temperature de fonctionnement:    | -25°C to 55°C (-13°F to +131°F)   |
| Storage temperature range:        |   |
| Plage de temperature de stockage: | -40°C to 85°C (-40°F to +185°F)   |
| Relative humidity                 |   |
| Humidté relative:                 | 5-95%RH (not condensing) (sans condensation)  |
| Degree of protection              |   |
| Degré de protection:              | IP44 (IP67 for M12 connectors) (IP67 avec connecteurs M12)  |
|                                   | IP30 (Cooling fan option) (option ventilée)   |
|                                   |   |
| Electrical / electricité          |   |
| Power supply:                     | (0.175  |
| Alimentation:                     | 48VDC nominal (43.0VDC to 48.5VDC)  Note: voltages above 49.0V destroys internal surge protection  Note: tensions supérieures à 49.0V détruiront la protection interne. |
| Insulation category               | ^   |
| Catégorie d'isolation:            | Class III 💮   |
| Consumption Consommation:         | 300mA max to 700mA max.Communication bus standard RS-485 ,2 wires (half-duplex) / RS-485, 2 fils (semi-duplex)  |





#### Inputs (options) / Entrées (options)

| Insulation Isolation                | 3Kv max. |
|-------------------------------------|----------|
| Driving current Courant de commande | 7mA typ. |

| Outputs (options) / Sorties (options) |                    |  |
|---------------------------------------|--------------------|--|
| Insulation<br>Isolation               | 3KV max.           |  |
| Voltage                               |                    |  |
| Tension                               | 48Vdc / 30Vac max. |  |
| Current                               |                    |  |
|                                       |                    |  |
| Courrant                              | 600mA max.         |  |

#### LED display / Affichage LED

#### The LED display of the signs uses high intensity surface mounted LED with lens. Color and intensity can change slightly between productions due to components tolerances.

L'affichage de l'enseigne utilise des LED's de haute intensité. La couleur ainsi que l'intensité des LED's peuvent changer légèrement suivant la production en raison de la tolérance des composants.

| <b>Character height</b><br>Hauteur des caractères: | 180mm      |
|--|------------|
| Display type                                       |            |
| Type d'affichage:                                  | 7 segments |
| LED's per segment                                  |            |
| LED's par segment:                                 | 7 to 9     |
| Red crosses  |            |
| Croix rouge  | Yes / Oui  |
| Amber crosses                                      |            |
| Croix ambrée                                       | Yes / Oui  |
| Viewing angle (half intensity):                    |            |
| Angle de vue (semi- intensité)                     | 30°        |
| Viewing angle                                      |            |
| Angle de vue                                       | 180°       |
| Viewing distance                                   |            |
| Distance lisible                                   | 60m        |

