



DX-PX

INSDX_TEMP 091610 C



Meltric Corporation
4640 Ironwood Drive
Franklin, WI 53132
(800)433-7642
www.meltric.com

GENERAL

The DX (PX) is designed for use in explosive atmospheres.

The DX (PX) is a plug and socket-outlet for industrial purposes as defined in IEC/EN 60309-1 standard.

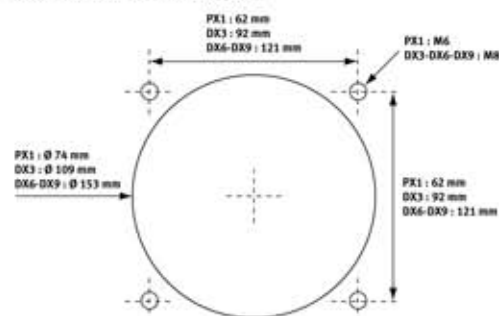
Live socket contacts are protected, according to IEC/EN 60529 standard, against standard contact test finger (IP2X).

INSTALLATION

! The DX (PX) must be installed by a certified electrician.

Assembly

To achieve IP65, respect the sketches for the assembly of socket-outlets or inlets on 'e' increased safety boxes, panels or enclosures:



- Either drill four M6 or M8 blind threaded holes with a minimum depth of 16 mm for cylindrical CHc (??) screw,
- Or drill 4 unthreaded holes Ø 6,2 mm or 8,2 mm.

Fixing screws

An appropriate tool must be used for each type of screws.

Wiring screws

The table hereunder indicates the recommended torques and tools.

| | Torque | Flat screwdriver |
|-------------|---------|------------------|
| PX1 (20 A) | 0,6 N.m | 3 x 0,7 mm |
| DX3 (32 A) | 0,7 N.m | 4 x 1 mm |
| DX6 (63 A) | 3 N.m | 6 x 1,2 mm |
| DX9 (125 A) | 5 N.m | 6 x 1,2 mm |

Wiring

! Be sure power is off before starting.

| Cross section (mm ²) | Main contacts | |
|----------------------------------|---------------|----------------|
| | Flexible | Rigid/stranded |
| PX1 | 6 | 6 |
| DX3 | 10 | 10 |
| DX6 | 50 | 50 |
| DX9 | 70 | 70 |

Other sizes can be used with the help of wiring ferrules.

| Tightening range | |
|------------------|---------------------------------|
| For PX | Built-in cable gland 8 to 12 mm |
| For DX range | M20 7 to 12 mm |
| | M25 10 to 18 mm |
| | M32 14 to 24 mm |
| | M40 22 to 30 mm |

Wiring must be made according to applicable national installation standards.

- Respect conductor coding and terminal markings,
- Select conductors with appropriate cross-section,
- Back out terminal screws far enough (but not completely) to allow a complete insertion of conductors
- All metal parts must be connected to Earth. An Earth connection is supplied with all metal accessories, with screw and washers.

! DX (PX) wiring terminals are spring assisted to prevent loosening due to strand settlement, vibration or thermal cycling. **Respect recommended torques.**

e) Plug and connector :

Insert cable through handle (connector) or remove plug interior moulding from the front and insert cable through plug body (plug). Strip conductors to adequate length (see table) and twist strands of each conductor together. Alternatively, place a wiring ferrule onto the conductor. Insert conductors fully into their respective terminals and tighten the wiring screws manually with an appropriate tool (see recommended torques and tools). After assembly, the cable sheath must extend into the handle. Assemble handle with screws and gasket (connector) or assemble interior moulding into plug casing (plug) and tighten cable gland. Whilst clamping or anchoring, the portion of cable inside the handle must not be tight.

! For a proper clamping the use of PVC cables is not recommended.

f) Socket-outlet and appliance inlet on box :

Insert cable through surface box glanding arrangement and strip conductors to adequate length (see table). Insert conductors fully into their respective terminals and tighten the wiring screws manually with an appropriate tool (see recommended torques and tools). Assemble socket-outlet or inlet on adapter or box, using gaskets and screws supplied, and tighten cable gland. Ensure that blanking cap supplied with the surface box for unused entry, if any, is properly tightened.



| Stripping length A | Phase and Neutral contact | Earth contact |
|--------------------|---------------------------|---------------|
| | mm | mm |
| PX1 | 13 | 13 |
| DX3 | 20 | 20 |
| DX6 | 27 | 30 |
| DX9 | 35 | 30 |

OPERATION

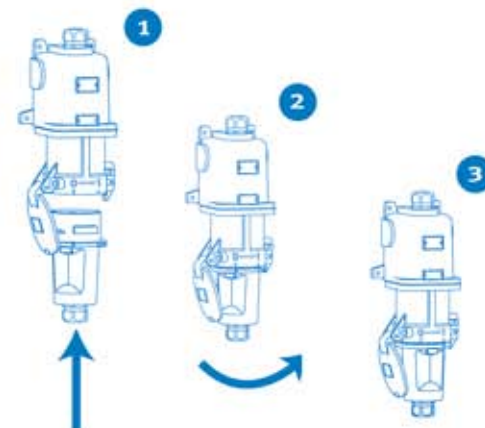
To ensure a safe and reliable operation, the DX (PX) must be used according to its designed destination, and in particular its assigned ratings, in terms of current, voltage, endurance and IP according to IEC/EN 60309-1. Respect its Ex rating.

The plug and the socket-outlet must have compatible ratings (pin configuration, voltage, rated current...) to be connected together.

When not in use, the socket-outlet is shielded by a protective lid preventing the entry of dust and moisture. This is held in the closed position by a latch.

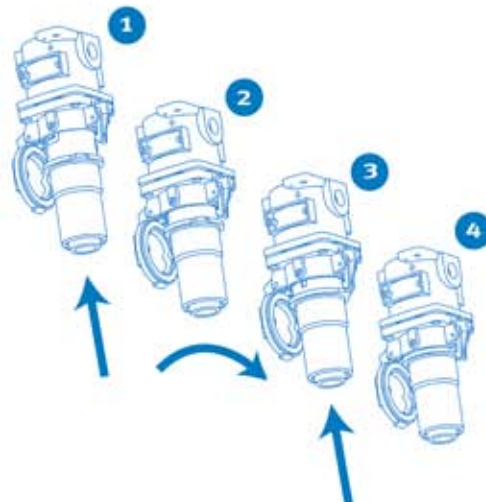
DX RANGE

To connect the plug, align the plug bayonets and the hollow parts of the socket-outlet, and push the plug in (Fig.1). The plug is then retained in the rest position by the socket-outlet latch, circuit open (Fig.2).



To close the circuit, turn the plug clockwise (Fig.3). To release the plug, depress the latch and turn the plug anticlockwise. This breaks the load. The plug can then be withdrawn. The socket-outlet cover must then be closed.

To connect the plug, align the plug bayonet and the hollow part of the socket-outlet, push the plug partially, latching catch facing upward (fig.1), and turn clockwise (fig.2). The plug is then in the rest position, circuit open.



To close the circuit, push the plug fully home until it is held in place by the latch (fig.3).

To release, simply depress the latch and pull the plug simultaneously, which breaks the circuit, then twist and withdraw the plug. The socket-outlet lid must then be shut.

Socket-outlet padlocking and plug lock-out :

Triangular or hexagonal screw locking : plug inserted or lid closed, turn the screw with a triangular key until it reaches the bottom. Do not over tighten.

- The triple padlocking (optional) of the socket-outlet alone is achieved by inserting the shaft into the hole provided in the locking latch. The shaft can accommodate up to three padlocks of 3 mm.
- To deny access of a plug to any socket-outlet, place a padlock or a lockout through the (optional) hole provided in the plug skirt.

ACHIEVING RATED WATERTIGHTNESS

Rated ingress protection applies to the device when the plug and receptacles are mated and latched together. It also applies to the receptacle when the lid is latched closed.

Proper steps must be taken to maintain watertightness at NPT fittings on the plug handles or at the junction box. Use of a sealer tape is recommended.

From time to time, the fastening screws should be checked for tightness. Care should be taken that the weight of the cable is taken by the glanding arrangement and not the terminals themselves. Contact surfaces may be checked for cleanliness: any deposit of dust can be rubbed off with a clean cloth. Sprays should not be used, as they tend to collect dirt. Check regularly the electrical continuity of the ground circuit. (missing in French) Depending on prevailing conditions, the pitting of plug and socket-outlet contacts should be regularly monitored. In case of serious pitting or damage, contact your supplier to have them replaced by the manufacturer. IP gaskets between plug and socket-outlet bodies should be inspected periodically.

Rules that prevail for Ex-rated products imposes that any repair must be carried out under the control of the manufacturer MARECHAL ELECTRIC S.A

⚠ Any repair or service must be achieved with genuine **Marechal** parts only.

Note : The CE marking does not apply to spare parts and components supplied separately.

⚠ A **Marechal** plug or socket must only be used with a **Marechal** socket or plug. MARECHAL ELECTRIC S.A.'s responsibility cannot be engaged in case **Marechal** products would be associated with socket-outlets, inlets or spare parts other than from **Marechal**. MARECHAL ELECTRIC S.A.'s responsibility is strictly limited to the obligations expressly agreed in its general sales conditions. Any penalty or indemnity provided herein will be considered as lump damages, redeeming from any other sanctions.

DECLARATION OF CONFORMITY

The DX (PX) is a product bearing the **Marechal** Quality Label. It has been designed and is manufactured and controlled in a strict respect of the relevant international and European standards, laws and directives, and particularly of the European ATEX Directive. It bears the CE marking whenever applicable. It also bears its Ex classification.

MARECHAL ELECTRIC S.A. is a member of the international association, BECMA : the Butt-contact Electrical Connectors Manufacturers Association.



MARECHAL
electric

CE – Déclaration de Conformité
EC – Declaration of Conformity

Nous / We

MARECHAL ELECTRIC S.A.
5, avenue de Presles
F-94417 SAINT-MAURICE Cedex – France
Tel : +33 (0)1 45 11 60 00
Fax : +33 (0)1 45 11 60 60
E-mail : sales@marechal.fr

Declérons que nos produits / Declare that our products:

Prises de courant industrielles / Industrial plugs and socket-outlets

| Type | Intensité | Marquage | Et sont conformes aux normes suivantes : |
|------|-----------|-------------------|-----------------------------------------------|
| Type | Current | Marking | And comply with the following standards: |
| DX1 | 20 A | Ex II 2 G / D | Ex de IIC |
| DX3 | 32 A | -25° ≤ Ta ≤ +60°C | T5 |
| | | -25° ≤ Ta ≤ +50°C | T6 |
| | | LCIE 05 ATEX 6127 | T74°C |
| | | | EN 60309-1 (Norme produit / Product standard) |
| DX6 | 63 A | Ex II 2 G / D | Ex de IIC |
| DX9 | 125 A | -40° ≤ Ta ≤ +60°C | T5 |
| | | -40° ≤ Ta ≤ +50°C | T6 |
| | | LCIE 04 ATEX 6038 | T80°C |
| | | | EN 60079-0 |
| | | | EN 60079-1 |
| | | | EN 60079-7 |
| | | | EN 61241-0 |
| | | | EN 61241-1 |
| DX2 | 200 A | Ex II 2 G / D | Ex de IIC |
| | | -40° ≤ Ta ≤ +60°C | T3 |
| | | LCIE 04 ATEX 6038 | T91°C |

Satisfait aux dispositions de la Directive du Conseil : ATEX N° 94/9/CE du 23 mars 1994
Satisfy the measures set in the Council Directive: ATEX N° 94/9/EC March 23rd 1994.

Année d'apposition de marquage CE :
Affixing date of CE marking: 2005

avec les caractéristiques d'étanchéité suivantes / with the following watertightness characteristics: IP65

N° de Notification de l'Évaluation relatif à la Qualité : LCIE 00 ATEX Q 8001 selon l'Annexe IV réalisé par l'organisme notifié N° 0081 : LCIE - 33 avenue du Général Leclerc - 92260 Fontenay-Aux-Roses - France

Quality Assessment Notification Number : LCIE 00 ATEX Q 8001 according to Annex IV carried out by Notified Body N° 0081 : LCIE - 33 avenue du Général Leclerc - 92260 Fontenay-Aux-Roses - France

Saint-Maurice, 17 / 02 / 2009

Karine DAMMAN
Responsable ATEX / ATEX Manager