

# **Quality Registration Technical specification**

QR 0022 Created: 08/07/2013

# Technical specifications P82 (Pendant)



Finishing:	Duplex							
Product	Number	Height	Width	Length	Dim A	Fmax	Unit	Packaging
		(mm)	(mm)	(mm)	(mm)	(kN)		(unit)
P82-0400-DU	10652	0	0	400	400	14	ST	1
P82-0600-DU	10653	0	0	600	600	14	ST	1
P82-0800-DU	10654	0	0	800	800	14	ST	1
P82-1000-DU	10655	0	0	1000	1000	14	ST	1
P82-1200-DU	10656	0	0	1200	1200	14	ST	1
P82-1500-DU	10657	0	0	1500	1500	14	ST	1

Finishing:	Dipped galva	ınized						
Product	Number	Height	Width	Length	Dim A	Fmax	Unit	Packaging
		(mm)	(mm)	(mm)	(mm)	(kN)		(unit)
P82-0400-DG	10242	0	0	400	400	14	ST	1
P82-0600-DG	10243	0	0	600	600	14	ST	1
P82-0800-DG	10244	0	0	800	800	14	ST	1
P82-1000-DG	10245	0	0	1000	1000	14	ST	1
P82-1200-DG	10246	0	0	1200	1200	14	ST	1
P82-1500-DG	10247	0	0	1500	1500	14	ST	1

#### Mounting instructions:

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#### Load capacity:

Standard: IEC61537

Max. load: 14 kN / 1400 Nm

Load diagram: -

### Information:

Coupler: -

Equipotential bonding: IEC61537

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EC declaration: EC directive 2006/95/EC (Low voltage) as modified by directive 93/68/EEC (CE marking)

DU

#### **Duplex coats DU**

For applications where a very high corrosion resistance is required, such as the petrochemical industry or maritime applications, we advise our customers to use a duplex coating. A duplex coating is composed of a hot-dip galvanizing, followed by a powder coating (in two coats or one). Research has showed that galvanized parts with an (epoxy) powder coating, afford corrosion resistance that is up to 2.5 times higher than the sum of the wear life of both systems separately.

For example: the wear life of hot-dip galvanizing is 10 years while that of an epoxy coating is 5 years. So, in combination, this gives a wear life of up to 37 years. Usually, the added cost of a duplex coating is easily outweighed by the cost price of regularly recurring maintenance every few years. (see underneath 'hot-dip galvanizing').

#### DC

Hot-dip galvanized (EN ISO 1461) DG (dipped-galvanised)

Whenever cable support systems are exposed to the elements and/or caustic substances (such as petrochemical applications), they are given an additional treatment in the form of hot-dip galvanizing.

Hot-dip galvanizing is a materials science process designed to render the steel non-corroding. If this coating is breached, the zinc will act as a sacrificial anode, so that the iron is protected by the zinc (aka cathodic protection). During galvanization, three alloys are formed: an iron-zinc alloy, a zinc-iron alloy and also a zinc alloy. The pre-treatment of the steel is crucially important in order to achieve a good bond.

The following process steps are involved: degreasing, rinsing, pickling, re-rinsing, fl uxing, drying and hot-dipping. The coating thickness depends on the steel composition, the material thickness and the time spent in the zinc bath. In the galvanizing standard NEN-EN-ISO 1461, the minimum coating thickness are prescribed (as shown in following overview), just as the zinc shrinkage per year which will depend on environmental factors (see table entitled 'Corrosion classes'). In addition, the zinc coating forms an excellent substrate for other post-treatments, such as applying a powder coating and coats of paint (better known as the duplex system).

An added advantage of hot-dip galvanizing is that along the edges and pointy bits, where objects are usually extra susceptible to corrosion, the zinc coating is thicker because of the behaviour of the liquid.

Minimum thicknesses of the zinc coating according to ISO 1461

- Using the hot-dip method

Material thickness ≥ 6 mm = min. zinc coating thickness (average) 85μm

Material thickness ≥ 3 mm to < 6 mm = min. zinc coating thickness (average) 70μm

Material thickness ≥ 1,5 mm to < 3 mm = = min. zinc coating thickness (average) 55μm

Material thickness < 1,5 mm = min. zinc coating thickness (average)  $45\mu m$ 

- Using the drum method

Material thickness ≥ 3 mm = min. zinc coating thickness (average) 55μm

Material thickness < 3 mm = min. zinc coating thickness (average)  $45\mu m$ 

#### Field of application according to resistance against corrosion:

Corrosion Atmospheric class corrosion		Indoor environment	Outdoor environment	Surface treatments	
C1	< 0,1μm	Heated buildings with neutral atmospheres: offices, shops, schools, hotels.		Electro-galvanised (EG) EN ISO 2081	
C2	0,1 - 0,7μm	Unheated buildings where condensation may occur: sports halls, warehouses, shops.	ensation may occur: Rural areas. Atmosphere shalls, warehouses, with low impurities.		
C3	0,7 - 2μm	Production facilities with high moisture levels and some air impurities due to industrial processes: production plants.	City and industrial atmosphere, some impurities, coastal areas with low salt loads.	Dipped-galvanised (DG) EN ISO 1461	
C4	2 - 4µm	Production facilities with high moisture levels and high air impurities due to industrial processes: swimming pools, Chemical industru.	Industrial areas and coastal areas with low salt load.	Dipped-galvanised (DG) EN ISO 1461 Polyester coating ( CO) EN ISO 12944	
C5-I	4 - 8μm	Polyester coating (CO)	Industrial areas with high moisture level and aggressive atmosphere.	Duplez (DU) (Dipped galvanised • Polyester coating)	
C5-M	4 - 8 µm	EN ISO 12944	Coastal or offshore areas with salt load.	Duplez (DU) (Dipped galvanised • Polyester coating)	

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