

Installation, Operating & Maintenance Instructions
Montage-, Inbetriebsetzungs- und Wartungsanleitung
Instruction de montage, mise en service & maintenance
Инструкция по установке, эксплуатации и техническому обслуживанию

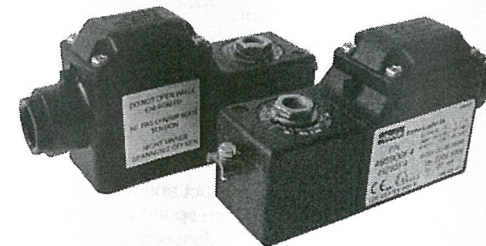
Rev. 11 Page 1/24
Date: 02.05.2012



Explosionproof solenoids with flameproof enclosure / encapsulation "db mb"
Explosiongeschützte Steuermagnete mit druckfester Kapselung und Vergusskapselung "db mb"
Parties électriques anti-explosion avec enveloppe antidéflagrante / encapsulage "db mb"
Взрывозащищенные электромагнитные клапаны с корпусом во взрывобезопасном исполнении/герметизированной оболочкой "db mb"

495900... & 495905...

II 2 G Ex db mb IIC T4 / T5 / T6
II 2 D Ex tb IIIC T130 / 95 / 80°C



EN

Precautions in use

We request that you read these instructions before using our equipment.

We waive all liability and responsibility in the event of usage not in compliance with our recommendations and/or any unauthorised intervention to the interior of our equipment.

- ◆ Always switch off the voltage supply of the installation before carrying out any installing or removal operations.
- ◆ Voltage supply and tolerance ; check that the voltage indicated on the product corresponds to the source of supply and take into account the tolerances detailed in § 4 – Types and characteristics
- ◆ Ambient and fluid temperatures ; ensure that these temperatures indicated on the product correspond to the application and its environment.
- ◆ Tightness of the connection box : verify that the protection degree meets with application including cleaning process for complete insulation
- ◆ Never use the valve and/or the electrical part as a lever arm on installing and using the product.
- ◆ Only competent and trained personnel are to use the products listed in these instructions
- ◆ The electrical circuit must satisfy the standards of the country in which it is installed.
- ◆ The electrical part **must not be connected to the voltage supply** unless it is mounted on the valve.

These electrical parts may only be used for the application for which they are intended ; any other use not falling within the area of application is the responsibility of the user.

The specifications detailed in the catalogues of Parker also all adequate protection measures must be complied with in order to avoid accidents during the installation and period of operation of the product.

Attention: This guarantee is waived if the customer or a third person undertakes modifications or repair work without authorisation.

Installation and placing in operation

Make certain that the valve and the electrical part correspond to your application.

In case of need, contact your nearest Parker agent

If the two elements are delivered separately, the electrical part must be fitted to the valve. The ATEX EC type examination certificate covers the electrical part as well as the recommended Lucifer valve

Next proceed with the connection of the valve. The installer is to establish the electrical connections between the electrical part and the voltage source by inserting the protection elements required by the standards and/or the usage.

The installer is to refer to the data marked on the product and the EC type Examination certificate to ensure that the electrical parameters (voltage, frequency) correspond to his installation and that the product environment (zone, temperature, gas and/or dust) conforms with the stipulated limits.

Marking

The marking is in conformity with the EC type examination certificate and the IECEx Certificate .

For all complaints, mention the type, tension and date of manufacturing (example codes D 10 for 2004, week 10) marked on the solenoid label.

Each product is identified by the name of the manufacturer, the CE mark followed by the code of the notified body, the community symbol "Ex" , the group of devices and the category, with type of application (gas and/or dust)

The marking is supplemented with the type of protection with the certified temperature classes, plus the EC type certification and the IECEx certificate number.

Marking example :

Manufacturer	CH 1227 Carouge Switzerland
IECEX Certificate	IECEX LCI 06.0004 X
EC type examination certificate	LCIE 03 ATEX 6451 X
Type of product	495900 VAC
Group and category	CE 0081 Ex II 2 GD
Mode of protection	Ex db mb IIC T4 / T5 / T6 Ex tb IIIC T130 / 95 / 80°C
T. ambient:	from - 40°C to 80-65 / 65-55 / 40°C
Degree of protection	IP67
Nominal voltage	Un :V - In : mA
Other indication	DO NOT OPEN WHILE ENERGIZED
Date of manufacture	XXX

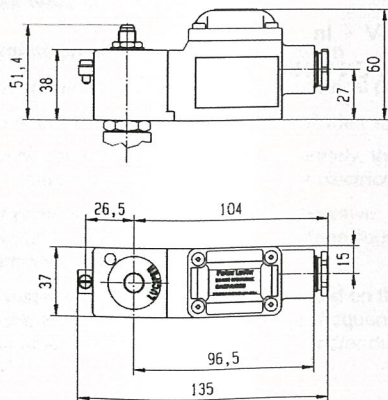
Types and characteristics

495900 (Compatible with all Lucifer valves ending in... 97)

495905 (suitable with all Lucifer valves compatible with the coil 481865 9W)

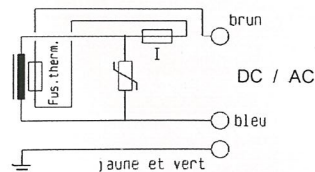
Reference	495900 VDC	495900 VAC	495905 & 495905.05*		
Certificate	LCIE 03 ATEX 6451 X – IECEx LCI 06.0004 X				
Type of protection	II 2 G	Ex db mb IIC T4 / T5 / T6	Ex db mb IIC T4		
	II 2 D	Ex tb IIIC T130 / 95 / 80°C	Ex tb IIIC T130 °C		
Degree of protection	IP67				
Ambiant temperature	-40 à +80 / 65°C / 55°C	-40 à +80°C / 55°C / 40°C	-40 à +80 °C		
The application is limited also by the temperature range of the valve					
Insulation Class	H (180 °)				
Electrical connection	Electric connection is done in the connection box on an easily accessible connector terminals. The introduction of the cable (Ø min 5 mm, Ømax. 11 mm, section max. 2.5 mm ²) in the connection box passes by the built in M20x1.5 cable gland				
Elect. Power	DC	Pn (hot)	2 W	-	8 W
		P (cold) 20°C	2.5 W	-	9 W
	AC	Pn (holding)	-	2.5 W	8 W
		Attraction cold	-	3W	9 W
Nominal voltage	6 to 110 VDC	12 to 240 VAC	6 to 110 VDC 12 to 240 VAC		
Voltage tolerance	± 10 % of the nominal voltage				
Solenoid duty	Continuous duty solenoid (ED 100%)				

Dimension drawing

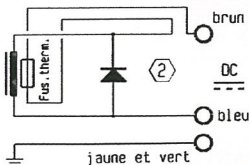


Schema

495900 & 495905



*495905.05



Mounting and removal (Refer to Fig.1)

Mounting :

It is imperative to disconnect the voltage supply before mounting the solenoid.

Connect the pipes to the valve (1). Remove the cable gland screw (12) and the 4 cover fixing screws (8). If necessary remove the cover with help of the a screw driver No. 4 on the slots on the cover. **Attention:** Do not damage the surfaces inside the connection box (zone B) and the surfaces of the cover (zone A) which build the flameproof joint when assembled.

Cable (13): Only cables with min. 5 to 11mm outside diameter and with PVC or PUR insulation must be used. (consult Standard EN 60079-0). When using coil 495905 (8W), use only cables resisting at a minimum temperature of 85°C. Remove cable sheath on a length of 25mm and the insulation of the conductors on 5mm. (s. sketch). Introduce the cable in the cable gland components (12). Take care not to damage the outside diameter of the cable (zone C) and the inside dia. of the joint disc (zone D) which build the flameproof joint when assembled. **Attention: Only the original joint disc must be used.** Connect the end of the wires 2P+E (max. 2.5mm²) to the terminals (11). That fuse can be exchanged when needed (s. table 1). In this case, the pins have to be shorted to 12.6mm. Push the cable into the housing if necessary, until approx. 5mm cable sheath has entered in the housing. Tighten the cable gland screw M20x1.5 with a torque of 2-3Nm. Refit the cover (9) with correct positioned **original sealing ring (10)** by help of the 4 screws (8) and torque of 1.5 to 2Nm. Before doing this, verify zone B of the housing and zone A of the cover on damages or dirt (if necessary clean carefully the surfaces). Assure the correct mounting of the central O-rings (14) and (15). Mount the solenoid (3) on the pilot part of the valve (2), add nameplate (6), washer and screw (7), mount correctly the solenoid on the valve and tighten it with a torque of 4-6 Nm. If required, connect the external grounding on the screw terminal (5) with wire (M4, 4mm²) for potential compensate.

All solenoids have a built in varistor (see table 1) and a thermal fuse.

Removal:

It is imperative to disconnect the voltage supply before removal of the solenoid.

The dismantling of the solenoid has to be made in reversed succession than the mounting.

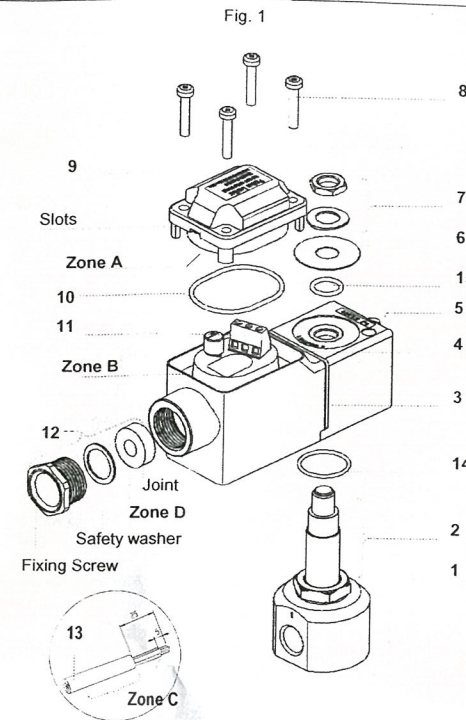


Table 1

Electrical part Ref.	current [mA]	Fuse		Varistor [V]
		Example Type Schurter	Ref. Kit (x10 fuses)	
495900A2	800	0034.6714	496585.05	95
495900A4	400	0034.6711	496585.03	95
495900E5	250	0034.6709	496585.02	385
495900F4	100	0034.6718	496585.01	385
495900K8	250	0034.6709	496585.02	385
495900B8	100	0034.6718	496585.01	385
495900C1	800	0034.6714	496585.05	95
495900C2	400	0034.6711	496585.03	95
495900C4	250	0034.6709	496585.02	95
495900C5	100	0034.6705	496585.01	385
495905A2	2000	0034.6711	496585.07	95
495905E5	400	0034.6711	496585.03	385
495905F4	250	0034.6709	496585.02	385
495905K8	630	0034.6713	496585.04	385
495905B8	250	0034.6709	496585.02	385
495905C2	1600	0034.6717	496585.06	95
495905C4	800	0034.6714	496585.05	95
495905.05C4	X	Diode BY527		
495905.05N7	X			
495905C5	400	0034.6718	496585.03	385

Declaration of conformity



Declaration of Conformity

we: Parker Hannifin Manufacturing Switzerland SA
16, chemin Faubourg de Cruseilles
CH-1227 Carouge – Genève

declare under our sole responsibility that the products:

Solenoidvalves type: ... / 495900...
... / 495905...

and } II 2 G - Ex db mb IIC T4 / T5 / T6
II 2 D - Ex tb IIIC T130 / 95 / 80 °C } LCIE 03 ATEX 6451 X
IECEX LCI 06.0004 X

to which this declaration relates are in conformity with the following standards

- IEC 60079-0 (2007) – IEC 60079-1 (2007) - IEC 60079-18 (2009) – IEC 60079-31 (2008)
- EN 60079-0 (2009) – EN 60079-1 (2007) - EN 60079-18 (2009) – EN 60079-31 (2009)
- EN 13463-5 (2004) if used with compatible Lucifer valve

following the provisions of directive:

- IECEX 02 ; QAR06.0004/03
- ATEX : 94/9/EC ; Notification ATEX : LCIE 02 ATEX Q 8034.
- RoHS : 2011/65/EC

Geneva, 18/12/2012

M. Lamine Bouchakhchoukha
Certification & Patent Manager

The data supplied in the Parker Catalogues are to be consulted, and pertinent accident prevention regulations are to be followed during product installation and use. Any unauthorized work performed on the product by the purchaser or by third parties can impair its function, and relieves us of all warranty claims and liability for any resulting damage.