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D

Luft-Magnetventil VR

3.2.1 Edition 05.07

DK S N P GR

TR CZ PL RUS H

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**Betriebsanleitung**

- Bitte lesen und aufbewahren

Zeichenerklärung

- 1, 2, 3... = Tätigkeit
- = Hinweis

Alle in dieser Betriebsanleitung aufgeführten Tätigkeiten dürfen nur von autorisiertem Fachpersonal ausgeführt werden!

WARNUNG! Unsachgemäßer Einbau, Einstellung, Veränderung, Bedienung oder Wartung kann Verletzungen oder Sachschäden verursachen. Anleitung vor dem Gebrauch lesen. Dieses Gerät muss nach den geltenden Vorschriften installiert werden.

**Konformitätserklärung****Produkt**

Luft-Magnetventil

Handelsbezeichnung

Luft-Magnetventil

Typ, Ausführung

VR 25-VR 100

EU-Richtlinien

73/23/EEG

89/336/EEG in Verbindung mit EN 55014

Qualitätsmanagement

DIN EN ISO 9001, Bureau Veritas Quality International Ltd. (BVQI), Erstzertifizierung 22.04.1991

Wir erklären als Hersteller:

Die entsprechend gekennzeichneten Produkte erfüllen die Anforderungen der aufgeführten Richtlinien und Normen. Die Herstellung unterliegt dem genannten Qualitätsmanagementsystem.

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GB

Solenoid valve for air VR**Operating instructions**

- Please read and keep in a safe place

Explanation of symbols

- 1, 2, 3... = Action
- = Instruction

All the work set out in these operating instructions may only be completed by authorised trained personnel!

WARNING! Incorrect installation, adjustment, modification, operation or maintenance may cause injury or material damage. Read the instructions before use. This unit must be installed in accordance with the regulations in force.

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F

Electrovanne air VR**Instructions de service**

- A lire attentivement et à conserver

Légendes

- 1, 2, 3... = action
- = remarque

Toutes les actions mentionnées dans les présentes instructions de service doivent être exécutées par des spécialistes formés et autorisés uniquement !

ATTENTION ! Un montage, un réglage, une modification, une utilisation ou un entretien inadaptsés risquent d'engendrer des dommages matériels ou corporels. Lire les instructions avant utilisation. Cet appareil doit être installé en respectant les règlements en vigueur.

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NL

Luchtmagneetklep VR**Bedieningsvoorschrift**

- Lezen en goed bewaren a.u.b.

Légendes

- 1, 2, 3... = werkzaamheden
- = aanwijzing

Alle in deze bedrijfshandleiding vermelde werkzaamheden mogen alleen door technici worden uitgevoerd!

WAARSCHUWING! Ondeskundige inbouw, instelling, wijziging, bediening of onderhoudswerkzaamheden kunnen persoonlijk letsel of materiële schade veroorzaken. Aanwijzingen voor het gebruik lezen. Dit apparaat moet overeenkomstig de geldende regels worden geïnstalleerd.

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I

Valvola elettromagnetica per aria VR**Istruzioni d'uso**

- Si prega di leggere e conservare

Spiegazione dei simboli

- 1, 2, 3... = Operazione
- = Avvertenza

Tutte le operazioni indicate nelle presenti istruzioni d'uso devono essere eseguite soltanto dal personale esperto autorizzato.

ATTENZIONE! Se montaggio, regolazione, modifica, utilizzo o manutenzione non vengono eseguiti correttamente, possono verificarsi infortuni o danni. Si prega di leggere le istruzioni prima di utilizzare il prodotto che dovrà venire installato in base alle normative vigenti.

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E

Válvula electromagnética para aire VR**Instrucciones de utilización**

- Se ruega que las lean y conserven

Explicación de símbolos

- 1, 2, 3... = Actividad
- = Indicación

¡Todas las actividades indicadas en estas Instrucciones de utilización, sólo deben realizarse por una persona formada y autorizada!

¡ADVERTENCIA! La instalación, ajuste, modificación, manejo o mantenimiento incorrecto puede ocasionar daños personales o materiales. Leer las instrucciones antes de usar. Este dispositivo debe ser instalado observando las normativas en vigor.

Declaration of conformity**Product**

Solenoid valve for air

Trade name

Solenoid valve for air

Type, model

VR 25-VR 100

EU Directives

73/23/EEC

89/336/EEC in conjunction with EN 55014

Quality management

DIN EN ISO 9001, Bureau Veritas Quality International Ltd. (BVQI), initial certification 22 April 1991

In our capacity as manufacturer, we hereby declare:

Products labelled accordingly meet the requirements of the listed directives and standards. The production is subject to the aforesaid Quality System.

Déclaration de conformité**Produit**

Electrovanne air

Dénomination commerciale

Electrovanne air

Type, modèle

VR 25 - VR 100

Directives UE

73/23/CEE

89/336/CEE en association avec EN 55014

Gestion de la qualité

DIN EN ISO 9001, Bureau Veritas Quality International Ltd. (BVQI), première certification 22.04.1991

Déclaration du constructeur :

Les produits portant les désignations et marquages ci-dessus satisfont aux exigences des Directives et Normes citées. La fabrication est soumise au système qualité indiqué.

Verklaring van overeenstemming**Product**

Luchtmagneetklep

Handelsnaam

Luchtmagneetklep

Type, uitvoering

VR 25 - VR 100

EU-richtlijnen

73/23/EEG

89/336/EEG in combinatie met EN 55014

Kwaliteitsmanagement

DIN EN ISO 9001, Bureau Veritas Quality International Ltd. (BVQI), eerste certificatie 22-04-1991

Wij verklaren als fabrikant:

De overeenkomstig gekenmerkte producten voldoen aan het gestelde in de vermelde richtlijnen en normen. De fabricage is onderworpen aan het bovenstaande kwaliteitsborgingssysteem.

Dichiarazione di conformità**Prodotto**

Valvola elettromagnetica per aria

Denominazione commerciale

Valvola elettromagnetica per aria

Tipo, modello

VR 25-VR 100

Directive UE

73/23/CEE

89/336/CEE in unione con EN 55014

Gestione della qualità

DIN EN ISO 9001, Bureau Veritas Quality International Ltd. (BVQI), Prima certificazione 22.04.1991

Dichiarazione del produttore:

I prodotti opportunamente marcati rispondono ai requisiti delle norme e delle direttive indicate. La produzione è sottoposta al sistema menzionato per la gestione della qualità.

Declaración de conformidad**Producto**

Válvula electromagnética para aire

Denominación comercial

Válvula electromagnética para aire

Tipo, versión

VR 25 - VR 100

Directivas UE

73/23/CEE

89/336/CEE en relación con EN 55014

Gestión de la calidad

DIN EN ISO 9001, Bureau Veritas Quality International Ltd. (BVQI), Primera certificación 22.04.1991

Nosotros, el fabricante, declaramos que:

Los productos, marcados adecuadamente, cumplen los requisitos de las Directivas y Normas. La fabricación está sometida al citado Sistema de Gestión de la Calidad.

VR

→ Luft-Magnetventil zum Sichern, Regeln und Steuern von Luft an Luftverbrauchseinrichtungen.

VR

→ Solenoid valve for air for safeguarding, regulating and controlling air on various appliances.

VR

→ Electrovanne pour air assurant la sécurité, la régulation et la commande de l'air sur les équipements consommant de l'air.

VR

→ Luchtmagneetklep voor het beveiligen, regelen en besturen van lucht aan luchttoestellen.

VR

→ Valvola elettromagnetica per aria per regolare, controllare e garantire la sicurezza dell'aria negli apparecchi per utenze aria.

VR

→ Válvula electromagnética para aire, para asegurar, regular y controlar el aire en dispositivos de consumo de aire.

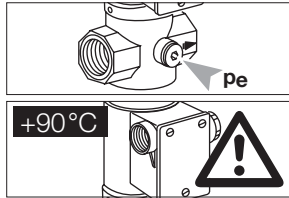
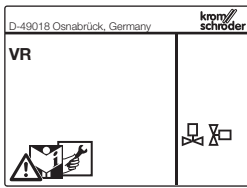
Prüfen

- Luft-Magnetventil für Kaltluft.
- Netzspannung, elektrische Leistung, Eingangsdruck p_e , Umgebungstemperatur, Schutzart und Einbaulage – siehe Typenschild.
- VR..N
Ausführung ohne Dämpfung.
Schnell öffnend: ca. 0,5 s.
Schnell schließend: < 1 s.
- VR..R
Ausführung mit Dämpfung.

Achtung:
VR..R, Dämpfung nicht verdrehen.

- Langsam öffnend: ca. 3 s.
Langsam schließend: ca. 3 s.
- Bei VR 25-40/32 kann der Eingangsdruck p_e am Mess-Stutzen abgegriffen werden.

- Der Magnetkörper wird beim Betrieb warm – je nach Umgebungstemperatur und Spannung bis zu 90 °C.



Testing

- Solenoid valve for cold air.
- Mains voltage, electrical power rating, inlet pressure p_e , ambient temperature, enclosure and fitting position – see type label.
- VR..N
Version without damping.
Quick opening: approx. 0.5 s.
Quick closing: < 1 s.
- VR..R
Version with damping.

Caution:
VR..R, do not twist damping unit.

- Slow opening: approx. 3 s.
Slow closing: approx. 3 s.
- On VR 25-40/32, the inlet pressure p_e can be measured at the pressure test point.

- The solenoid body heats up during operation – up to 90 °C depending on ambient temperature and voltage.

Vérifier

- Electrovanne pour air froid.
- Tension du secteur, puissance électrique, pression amont p_e , température ambiante, indice de protection et position de montage – voir la plaque signalétique.
- VR..N
Modèle sans amortisseur.
→ ouverture rapide : env. 0,5 s
A fermeture rapide : < 1 s
- VR..R
Modèle avec amortisseur.

Attention :
VR..R, ne pas tourner l'amortisseur.

- A ouverture lente : env. 3 s
A fermeture lente : env. 3 s
- Pour VR 25 – 40/32, la pression amont p_e peut être mesurée au niveau du raccord de mesure.

- Pendant le fonctionnement, la bobine chauffe – elle peut atteindre 90 °C selon la température ambiante et la tension.

Controleren

- Luchtmagneetklep voor koude lucht.
- Netspanning, elektrisch vermogen, inlaatdruk p_e , omgevingstemperatuur, beschermingsklasse en inbouwpositie – zie typeplaatje.
- VR..N
Uitvoering zonder demping.
Snel openend: ca. 0,5 s.
Snel sluitend: < 1 s.
- VR..R
Uitvoering met demping.

Attentie:
VR..R, de demper niet verdraaien.

- Langzaam openend: ca. 3 s.
Langzaam sluitend: ca. 3 s.
- Bij VR 25-40/32 kan de inlaatdruk p_e op de meetnippel worden afgetakt.

- De magneetspoel wordt tijdens bedrijf warm – afhankelijk van de omgevingstemperatuur en spanning tot 90 °C.

Controllo

- Valvola elettromagnetica per aria fredda.
- Per tensione di rete, potenza elettrica, pressione di entrata p_e , temperatura ambiente, tipo di protezione e posizione di montaggio si rimanda alla targhetta dati.
- VR..N
Esecuzione senza smorzatore.
Ad apertura rapida: circa 0,5 s.
A chiusura rapida: < 1 s.
- VR..R
Esecuzione con smorzatore.

Attenzione:
VR..R, non invertire lo smorzatore.

- Ad apertura lenta: circa 3 s.
A chiusura lenta: circa 3 s.
- Per VR 25-40/32 la pressione di entrata p_e può essere misurata sulla presa di misura.

- Durante il funzionamento la bobina può riscaldarsi fino a 90 °C a seconda della temperatura ambiente e della tensione.

Comprobar

- Válvula electromagnética para aire frío.
- Para la tensión de red, conexión eléctrica, presión de entrada p_e , temperatura ambiente, clase de protección y posición de montaje – véase placa de características.
- VR..N
Ejecución sin amortiguación.
Apertura rápida: aprox. 0,5 s.
Cierre rápido: < 1 s.
- VR..R
Ejecución con amortiguación.

¡Atención!
VR..R, no forzar el amortiguador.

- Apertura lenta: aprox. 3 s.
Cierre lento: aprox. 3 s.
- En VR 25-40/32 la presión de entrada p_e se puede medir en la toma de presión.

- El actuador electromagnético se calienta durante el funcionamiento, según sea la temperatura ambiente y la tensión, casi hasta los 90 °C.

Wird die Anlage mit Grundlast gefahren, ist ein Bypass nötig

Wenn der Bypass im Werk gebohrt wurde:
Der Durchmesser der Bohrung ist auf dem Gehäuse eingestempelt.

Wenn der Bypass vom Anwender gebohrt wird:
1 Anlage spannungsfrei schalten.
2 Luftzufuhr absperren.

A bypass is required if the installation is operated with low fire

If the bypass has been drilled at the works:
The diameter of the bore is stamped on the housing.

If the bypass is drilled by the user:
1 Disconnect the system from the electrical power supply.
2 Shut off the air supply.

Si l'installation fonctionne au débit minimum, un by-pass est nécessaire.

Si le by-pass a été percé en usine : le diamètre de l'alésage est marqué sur le corps de vanne.

Si le by-pass est percé par l'utilisateur :
1 Mettre l'installation hors tension.
2 Fermer l'alimentation air.

Wanneer de installatie continu wordt belast, is een bypass nodig.

Als de bypass in de fabriek is geboord:
De diameter van het boorgat is op de behuizing gestempeld.

Als de bypass door de gebruiker wordt geboord:
1 Installatie spanningsvrij maken.
2 Luchttoevoer afsluiten.

Se l'impianto viene fatto funzionare con portata iniziale, è necessario un bypass

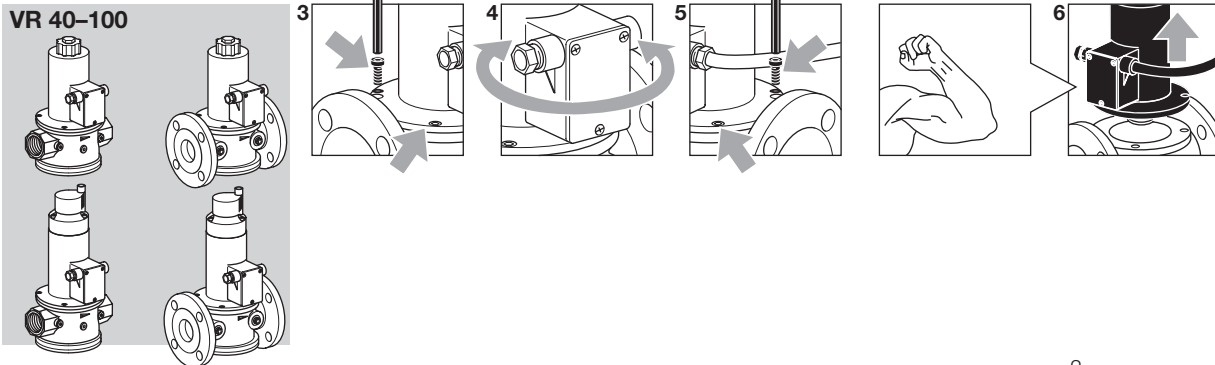
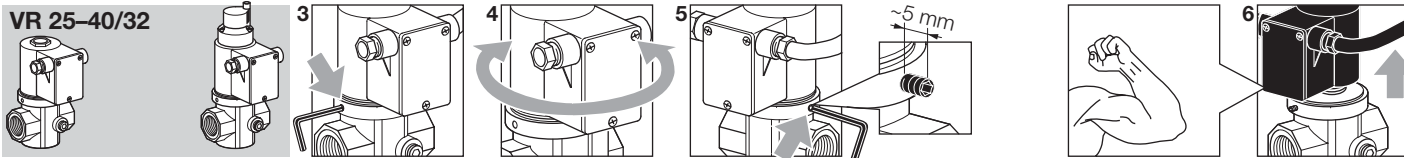
Se il foro del bypass è stato realizzato in fabbrica:
il diametro del foro è stampigliato sulla valvola.

Se il foro del bypass viene realizzato dall'utente:
1 Togliere la tensione dall'impianto.
2 Interrompere l'alimentazione dell'aria.

Si la instalación opera con una etapa mínima, es necesario un bypass

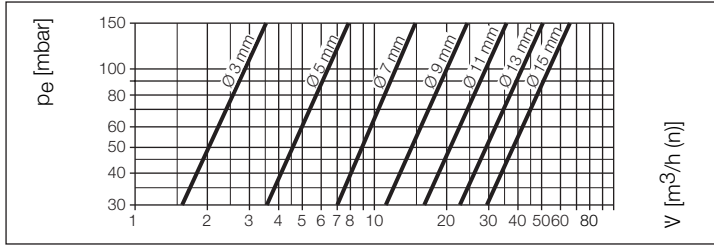
Cuando el bypass ha sido taladrado en fábrica:
El diámetro del agujero está estampado en el cuerpo.

Cuando el bypass es taladrado por el usuario:
1 Desconectar la instalación dejándola sin tensión.
2 Cortar el suministro de aire.



VR 25-100

i



- 10** Zusammenbau in umgekehrter Reihenfolge.
11 Bypass-Durchmesser auf dem Typenschild eintragen.

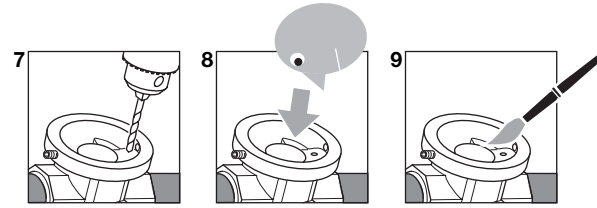
- 10** Follow the reverse procedure when reassembling.
11 Enter the bypass diameter on the type label.

- 10** Assemblage dans l'ordre inverse.
11 Incrire le diamètre du by-pass sur la plaque signalétique.

- 10** Montage in omgekeerde volgorde.
11 Bypass-diameter op het typeplaatje noteren.

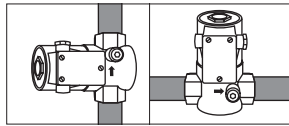
- 10** Assemblaggio in sequenza inversa.
11 Riportare il diametro del bypass sulla targhetta dati.

- 10** Montaje en sucesión inversa
11 Anotar el diámetro del bypass en la placa de características.



Einbauen

- Einbaulage senkrecht oder waagrecht, nicht über Kopf.
- Das Gehäuse darf kein Mauerwerk berühren. Mindestabstand 20 mm.
- Dichtmaterial und Späne dürfen nicht in das Ventilgehäuse gelangen.
- Wir empfehlen vor jede Anlage einen Filter einzubauen.
- Passenden Schraubenschlüssel verwenden.



Installation

- Fitting position vertical or horizontal, not upside down.
- The housing may not be in contact with masonry. Minimum clearance 20 mm.
- Sealing material and swarf must not be allowed to enter the housing.
- Fit a filter or dirt trap upstream of each system.
- Use an appropriate spanner.

Montage

- Position de montage verticale ou horizontale, pas à l'envers.
- Le boîtier ne doit toucher aucun mur. Distance minimale de 20 mm.
- Le matériau d'étanchéité et les copeaux ne doivent pas pénétrer dans le corps de la vanne.
- En amont de chaque installation, monter un filtre.
- Utiliser les clés appropriées.

Inbouwen

- Inbouwpositie verticaal of horizontaal, niet onderste boven.
- Het huis mag geen muur aanraken. Minimale afstand 20 mm.
- Afdichtingsmateriaal en spanen mogen niet in het klephuis terecht komen.
- Wij raden u aan, voor elke installatie een filter in te bouwen.
- Bijpassende sleutel gebruiken.

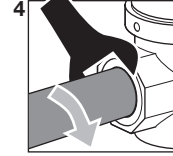
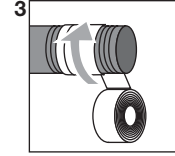
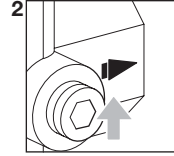
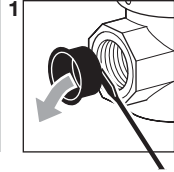
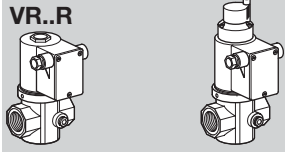
Montaggio

- Posizione di montaggio verticale o orizzontale – non capovolta.
- La valvola non deve toccare la muratura. Distanza minima 20 mm.
- Il materiale sigillante ed i trucioli non devono entrare nella valvola.
- A monte di ogni impianto installare un filtro.
- Utilizzare la chiave adatta.

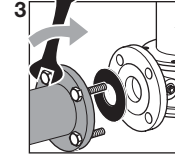
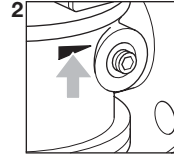
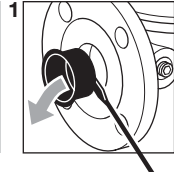
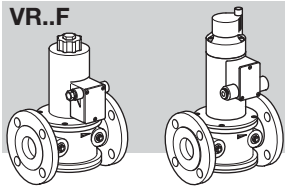
Montaje

- Posición de montaje vertical u horizontal, no con el actuador en posición invertida.
- El cuerpo no debe tener ningún contacto con las paredes. Distancia mínima 20 mm.
- Evitar la entrada de material sellante y de viruta en el cuerpo de la válvula.
- Montar aguas arriba de cada instalación un filtro.
- Emplear las herramientas apropiadas.

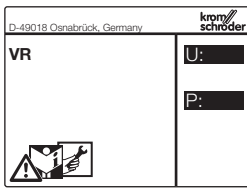
VR..R



VR..F



Verdrahten



- 1 Anlage spannungsfrei schalten.
- 2 Luftzufuhr absperren.

Wiring

- 1 Disconnect the system from the electrical power supply.
- 2 Shut off the air supply.

Câblage

- 1 Mettre l'installation hors tension.
- 2 Fermer l'alimentation air.

Bedraden

- 1 Installatie spanningsvrij maken.
- 2 Luchttoevoer afsluiten.

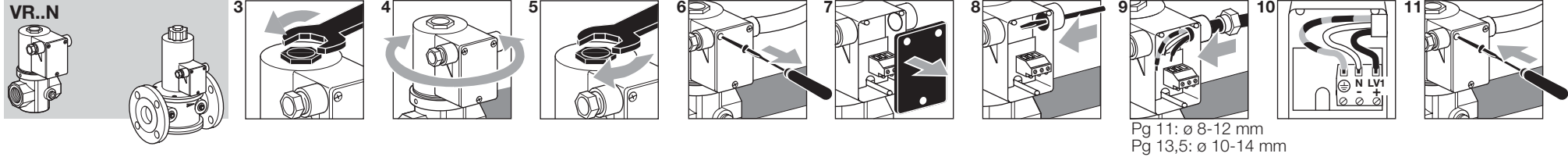
Cablaggio

- 1 Togliere la tensione dall'impianto.
- 2 Interrompere l'alimentazione dell'aria.

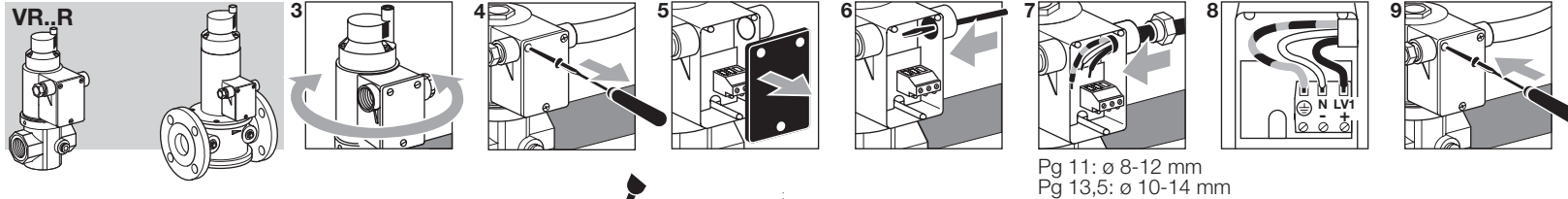
Cableado

- 1 Desconectar la instalación dejándola sin tensión.
- 2 Cortar el suministro de aire.

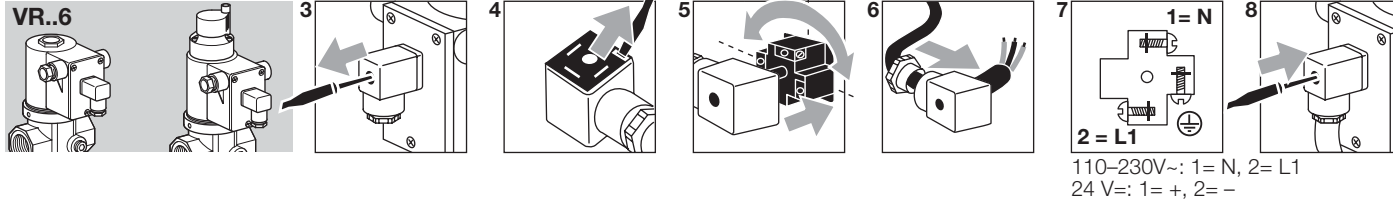
VR..N



VR..R



VR..6



Meldescharter CPS, CPS6 verdrarten

- 12–24 V AC/DC
I = 0,1 A, cos φ = 1,
I = 0,05 A, cos φ = 0,6;
- 250 V AC
I = 5 A, cos φ = 1,
I = 1 A, cos φ = 0,6.
- Wenn der CPS einmal eine Spannung >24 V und einen Strom >0,1 A geschaltet hat, ist die Goldschicht an den Kontakten weggebracht. Danach kann er nur noch mit dieser oder höherer Leistung betrieben werden.

Wiring the position indicator CPS, CPS6

- 12–24 V AC/DC
I = 0,1 A, cos φ = 1,
I = 0,05 A, cos φ = 0,6;
- 250 V AC
I = 5 A, cos φ = 1,
I = 1 A, cos φ = 0,6.
- If the CPS has switched a voltage > 24 V and a current > 0,1 A once, the gold plating on the contacts will have been burnt through. It can then only be operated at this power rating or higher power rating.

Câblage de l'indicateur de position CPS, CPS6

- 12–24 V~ /V=
I = 0,1 A, cos φ = 1,
I = 0,05 A, cos φ = 0,6 ;
- 250 V~
I = 5 A, cos φ = 1,
I = 1 A, cos φ = 0,6.
- Si le CPS est soumis une fois à une tension > à 24 V et à un courant > à 0,1 A, la couche d'or sur les contacts est détruite. Ensuite, il ne peut fonctionner qu'à cette valeur de tension ou à une valeur de tension supérieure.

Eindschakelaar bedraden CPS, CPS6

- 12–24 V~ /V=
I = 0,1 A, cos φ = 1,
I = 0,05 A, cos φ = 0,6;
- 250 V~
I = 5 A, cos φ = 1,
I = 1 A, cos φ = 0,6.
- Als de CPS ooit een spanning van >24 V en een stroom van >0,1 A geschakeld heeft, is de gouden laag op de contacten weggebracht. Daarna kan de CPS alleen nog maar voor dat vermogen of voor hogere vermogens worden gebruikt.

Cablaggio fine corsa CPS, CPS6

- 12–24 V~ /V=
I = 0,1 A, cos φ = 1,
I = 0,05 A, cos φ = 0,6;
- 250 V~
I = 5 A, cos φ = 1,
I = 1 A, cos φ = 0,6.
- Se il CPS commuta una tensione > 24 V e una corrente > 0,1 A lo strato dorato si deteriora. Successivamente può ancora essere azionato solo con potenza pari a questa o superiore.

Cablear el indicador de posición CPS, CPS6

- 12–24 V ca/cc
I = 0,1 A, cos φ = 1,
I = 0,05 A, cos φ = 0,6;
- 250 V ca
I = 5 A, cos φ = 1,
I = 1 A, cos φ = 0,6.
- Cuando el CPS se conecta a una tensión > 24 V y una corriente > 0,1 A, se quema la capa dorada en los contactos. Después sólo podrá funcionar con esta tensión o una superior.

CPS

- 1 Anlage spannungsfrei schalten.
- 2 Luftzufuhr absperren.

CPS

- 1 Disconnect the system from the electrical power supply.
- 2 Shut off the air supply.

CPS

- 1 Mettre l'installation hors tension.
- 2 Fermer l'alimentation air.

CPS

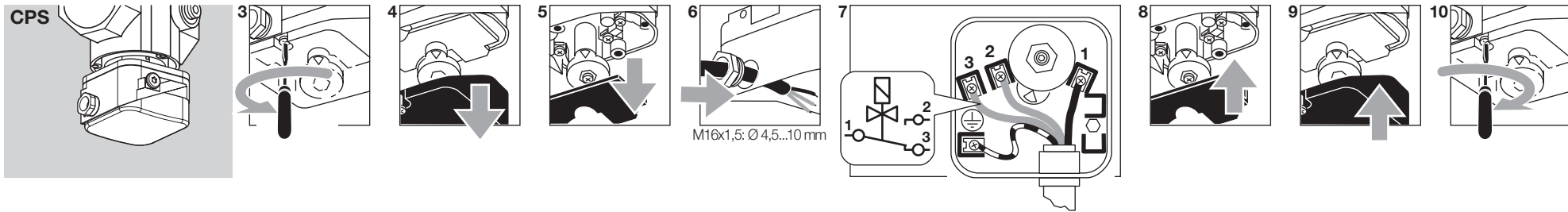
- 1 Installatie spanningsvrij maken.
- 2 Luchttoevoer afsluiten.

CPS

- 1 Togliere la tensione dall'impianto.
- 2 Interrompere l'alimentazione dell'aria.

CPS

- 1 Desconectar la instalación dejándola sin tensión.
- 2 Cortar el suministro de aire.



CPS6 mit Gerüststeckdose

- 1 Anlage spannungsfrei schalten.
- 2 Luftzufuhr absperren.

CPS6 with socket

- 1 Disconnect the system from the electrical power supply.
- 2 Shut off the air supply.

CPS6 avec connecteur

- 1 Mettre l'installation hors tension.
- 2 Fermer l'alimentation air.

CPS6 met stopcontact

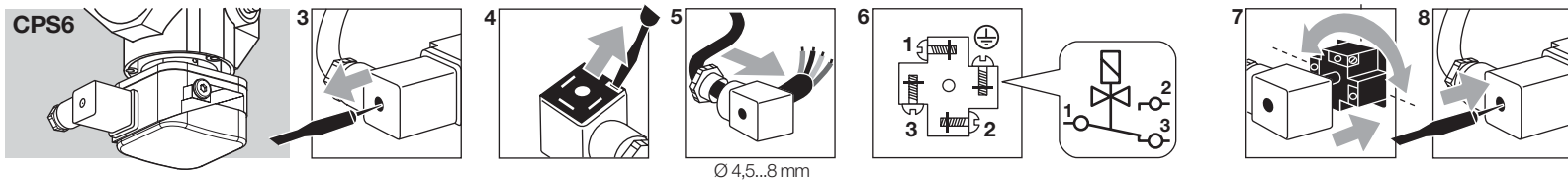
- 1 Installatie spanningsvrij maken.
- 2 Luchttoevoer afsluiten.

CPS6 con presa

- 1 Togliere la tensione dall'impianto.
- 2 Interrompere l'alimentazione dell'aria.

CPS6 con base de conector

- 1 Desconectar la instalación dejándola sin tensión.
- 2 Cortar el suministro de aire.



Volumenstrom einstellen

VR 25-40/32

→ Volumenstrom mit 1/2 Umdrehung einstellbar.

VR 40-100

→ Volumenstrom mit ca. 20 Umdrehungen einstellbar.

Achtung:

VR..R, Dämpfung nicht verdrehen.

Setting the flow rate

VR 25-40/32

→ The flow rate can be set with 1/2 of a turn.

VR 40-100

→ The flow rate can be set with approx. 20 turns.

Caution:

VR..R, do not twist damping unit.

Régler le débit

VR 25-40/32

→ Le débit peut être réglé en tournant un 1/2 tour.

VR 40-100

→ Le débit peut être réglé en tournant de 20 tours environ.

Attention :

VR..R, ne pas tourner l'amortisseur.

Volumestroom instellen

VR 25-40/32

→ Volumestroom met 1/2 slag instelbaar.

VR 40-100

→ Volumestroom met ca. 20 omwentelingen instelbaar.

Attentie:

VR..R, de demper niet verdraaien.

Regolazione della portata

VR 25-40/32

→ Portata regolabile con 1/2 giro.

VR 40-100

→ Portata regolabile con circa 20 giri.

Attenzione:

VR..R, non invertire lo smorzatore.

Ajustar el caudal

VR 25-40/32

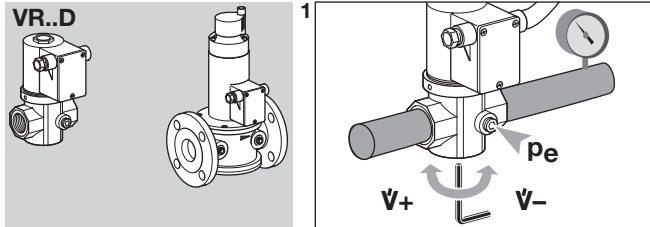
→ Caudal ajustable con 1/2 vuelta.

VR 40-100

→ Caudal ajustable con 20 vueltas aprox.

Atención:

VR..R, no forzar el amortiguador.



Magnetkörper wechseln

1 Luftzufuhr absperren.

Changing the solenoid body

1 Shut off the air supply.

Magneetspoel wisselen

1 Luchttoevoer afsluiten.

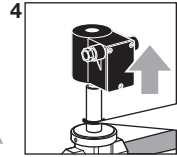
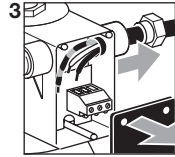
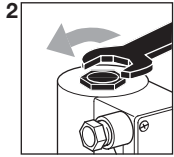
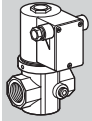
Sostituzione della bobina

1 Interrompere l'alimentazione dell'aria.

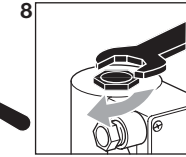
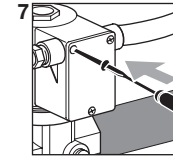
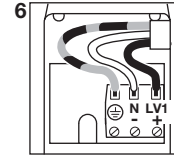
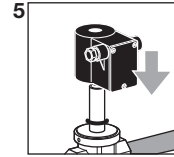
Cambiar el actuator electromagnético

1 Cortar el suministro de aire.

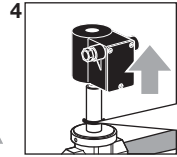
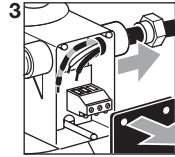
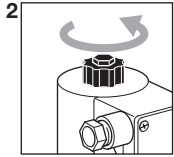
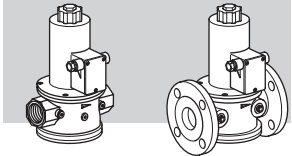
VR 25-40/32..N



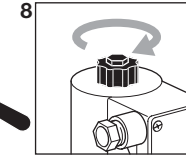
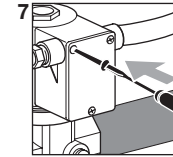
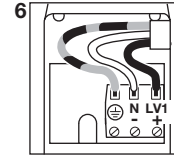
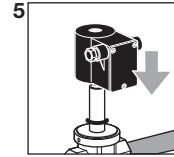
O-Ring ca. 10 mm hoch schieben.
Slide the O-ring approx. 10 mm up.
Pousser le joint torique de 10 mm environ vers le haut.
O-ring ca. 10 mm omhoog duwen.
Spingere l'O-ring verso l'alto per circa 10 mm.
Desplazar la junta tórica unos 10 mm hacia arriba.



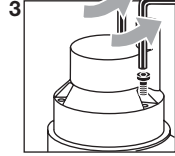
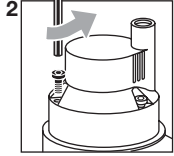
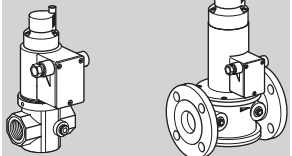
VR 40-100..N



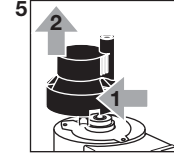
O-Ring ca. 10 mm hoch schieben.
Slide the O-ring approx. 10 mm up.
Pousser le joint torique de 10 mm environ vers le haut.
O-ring ca. 10 mm omhoog duwen.
Spingere l'O-ring verso l'alto per circa 10 mm.
Desplazar la junta tórica unos 10 mm hacia arriba.



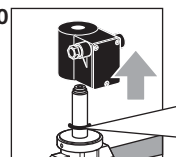
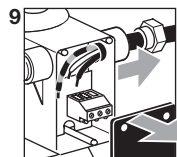
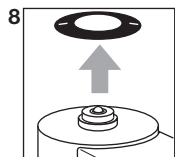
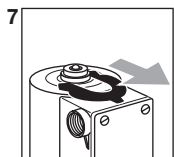
VR..R



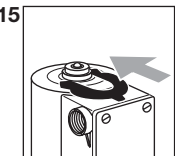
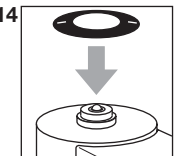
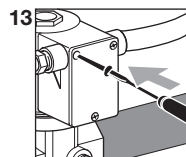
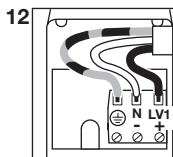
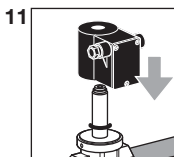
4 VR elektrisch einschalten. Die Dämpfung springt ca. 1 cm nach oben.
Switch on the electrical supply to the VR. The damping unit moves abruptly up approx. 1 cm.
Mettre la VR sous tension. L'amortisseur saute de 1 cm environ vers le haut.
VR elektrisch inschakelen. De demper springt ca. 1 cm naar boven.
Attivare l'alimentazione elettrica di VR. Lo smorzatore scatta verso l'alto per circa 1 cm.
Conectar eléctricamente la VR. El amortiguador se desliza aprox. 1 cm hacia arriba.



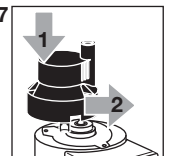
6 VR ausschalten.
Switch off the VR.
Mettre la VR hors tension.
VR uitschakelen.
Disattivare VR.
Desconectar la VR.



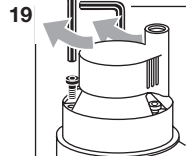
O-Ring ca. 10 mm hoch schieben.
Slide the O-ring approx. 10 mm up.
Pousser le joint torique de 10 mm environ vers le haut.
O-ring ca. 10 mm omhoog duwen.
Spingere l'O-ring verso l'alto per circa 10 mm.
Desplazar la junta tórica unos 10 mm hacia arriba.



16 VR einschalten.
Switch on the VR.
Mettre la VR sous tension.
VR inschakelen.
Attivare VR.
Conectar la VR.

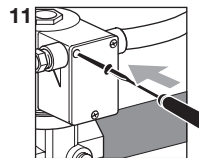
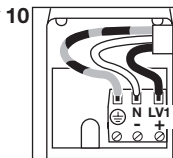
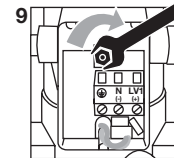
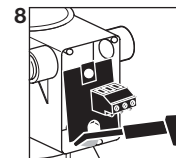
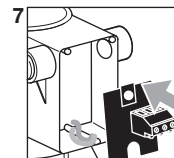
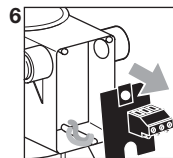
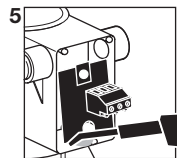
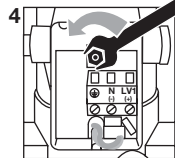
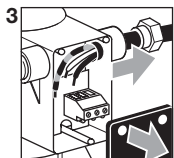
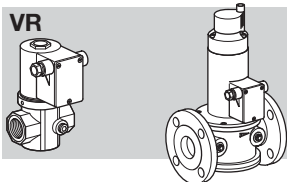


18 VR ausschalten. Die Dämpfung wird nach unten gezogen.
Switch off the VR. The damping unit is pulled downwards.
Mettre la VR hors tension. L'amortisseur est tiré vers le bas.
VR uitschakelen. De demper wordt naar beneden getrokken.
Disattivare VR. Lo smorzatore viene tirato verso il basso.
Desconectar la VR. El amortiguador se desliza hacia abajo.



Gleichrichterplatine wechseln

- 1 Anlage spannungsfrei schalten.
- 2 Luftzufuhr absperren.



Changing the rectifier board

- 1 Disconnect the system from the electrical power supply.
- 2 Shut off the air supply.

Remplacer la platine à redresseur

- 1 Mettre l'installation hors tension.
- 2 Fermer l'alimentation air.

Print van de gelijkrichter wisselen

- 1 Installatie spanningsvrij maken.
- 2 Luchttoevoer afsluiten.

Sostituzione della scheda del raddrizzatore

- 1 Togliere la tensione dall'impianto.
- 2 Interrompere l'alimentazione dell'aria.

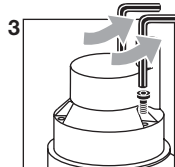
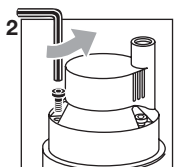
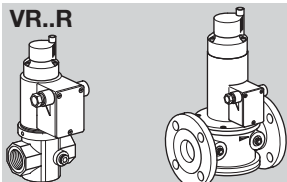
Cambiar el circuito rectificador

- 1 Desconectar la instalación dejándola sin tensión.
- 2 Cortar el suministro de aire.

Defekte Dämpfung austauschen

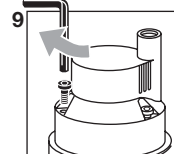
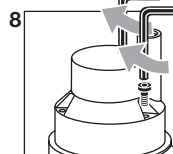
Achtung:
VR..R, Dämpfung nicht verdrehen.

- 1 Luftzufuhr absperren.



4 VR elektrisch einschalten. Die Dämpfung springt ca. 1 cm nach oben.
Switch on the electrical power supply to the VR. The damping unit moves abruptly up approx. 1 cm.
Mette la VR sous tension. L'amortisseur saute de 1 cm environ vers le haut.
VR elektrisch einschakelen. De demper springt ca. 1 cm naar boven.
Attivare l'alimentazione elettrica di VR. Lo smorzatore scatta verso l'alto per circa 1 cm.
Conectar eléctricamente la VR. El amortiguador se desliza hacia arriba.

7 VR ausschalten. Die Dämpfung wird nach unten gezogen.
Switch off the VR. The damping unit is pulled downwards.
Mette la VR hors tension. L'amortisseur est tiré vers le bas.
VR uitschakelen. De demper wordt naar beneden getrokken.
Disattivare VR. Lo smorzatore viene tirato verso il basso.
Desconectar la VR. El amortiguador se desliza hacia abajo.



Exchanging a defective damping unit

Caution:
VR..R, do not twist damping unit.

- 1 Shut off the air supply.

Remplacer un amortisseur défectueux

Attention :
VR..R, ne pas tourner l'amortisseur.

- 1 Fermer l'alimentation air.

Defecte demper vervangen

Attentie:
VR..R, de demper niet verdraaien.

- 1 Luchttoevoer afsluiten.

Sostituzione dello smorzatore guasto

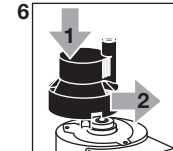
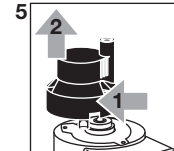
Attenzione:
VR..R, non invertire lo smorzatore.

- 1 Interrompere l'alimentazione dell'aria.

Cambio de un amortiguador defectuoso

Atención:
VR..R, no forzar el amortiguador.

- 1 Cortar el suministro de aire.



Wartung

- 1 Anlage spannungsfrei schalten.
- 2 Luftzufuhr absperren.

Maintenance

- 1 Disconnect the system from the electrical power supply.
- 2 Shut off the air supply.

Maintenance

- 1 Mettre l'installation hors tension.
- 2 Fermer l'alimentation air.

Onderhoud

- 1 Installatie spanningsvrij maken.
- 2 Luchttoevoer afsluiten.

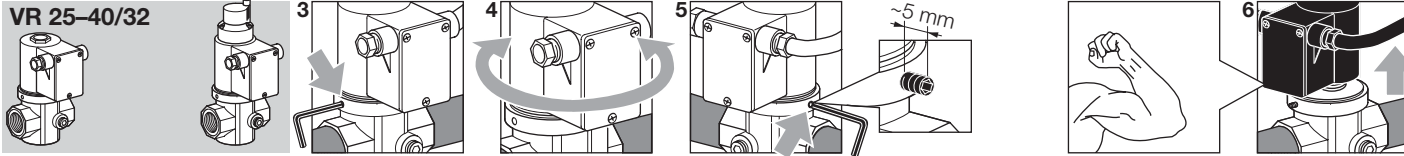
Manutenzione

- 1 Togliere la tensione dall'impianto.
- 2 Interrompere l'alimentazione dell'aria.

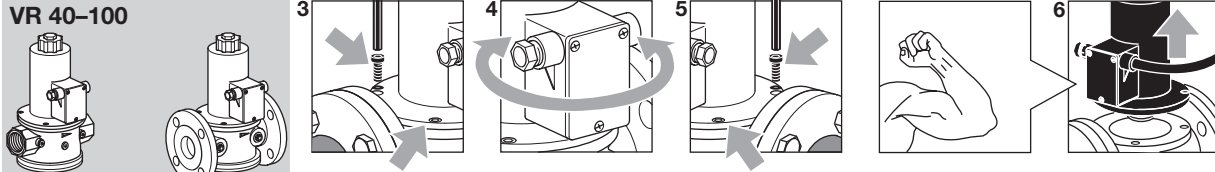
Mantenimiento

- 1 Desconectar la instalación dejándola sin tensión.
- 2 Cortar el suministro de aire.

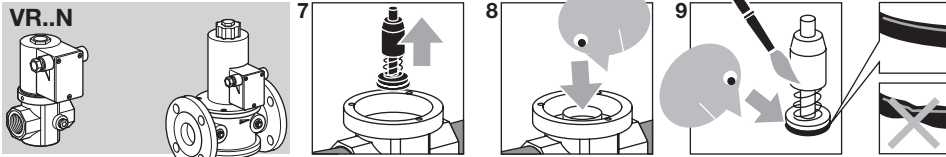
VR 25-40/32



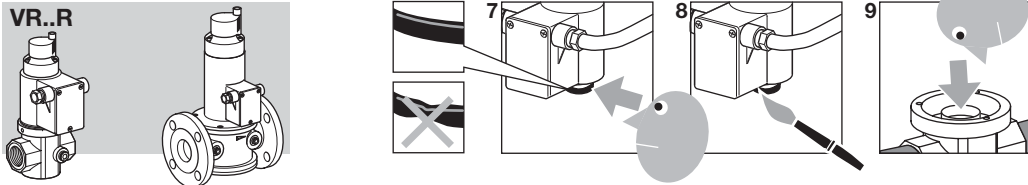
VR 40-100



VR..N



VR..R



- 10 Zusammenbau in umgekehrter Reihenfolge.

- 10 Follow the reverse procedure when reassembling.

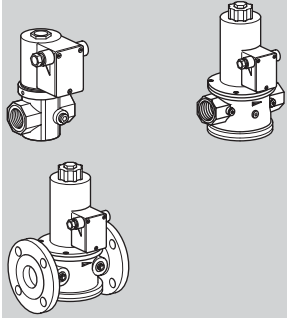
- 10 Assemblage dans l'ordre inverse.

- 10 Montage in omgekeerde volgorde.

- 10 Assemblaggio in sequenza inversa.

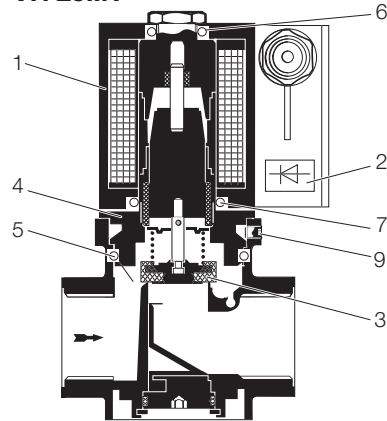
- 10 Montaje en orden inverso.

VR..N



i

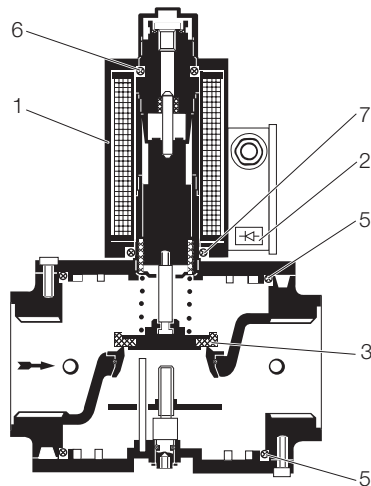
VR 25..N



VR 25..N

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74951913 |
| 1 | 120 V | 74971070 |
| 1 | 24 V | 74951926 |
| 2 | 220/120 V | 74912142 |
| 2 | 24 V | 74912143 |
| 3 | | 35439084 |
| 4 | | 74960043 |
| 5 | | 03110079 |
| 6 | | 03109290 |
| 7 | | 03109292 |
| 9 | | 03563026 |

VR 40-100..N



VR 40..N

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74960020 |
| 1 | 120 V | 74971061 |
| 1 | 24 V | 74960021 |
| 2 | 220/120 V | 74913606 |
| 2 | 24 V | 74913607 |
| 3 | | 35440783 |
| 5 | | 03109274 |
| 6 | | 03109321 |
| 7 | | 03109322 |

VR 50..N

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74960020 |
| 1 | 120 V | 74971061 |
| 1 | 24 V | 74960021 |
| 2 | 220/120 V | 74913606 |
| 2 | 24 V | 74913607 |
| 3 | | 35440784 |
| 5 | | 03109275 |
| 6 | | 03109321 |
| 7 | | 03109322 |

VR 65..N

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74962296 |
| 1 | 120 V | 74971062 |
| 1 | 24 V | 74952589 |
| 2 | 220/120 V | 74913606 |
| 2 | 24 V | 74913607 |
| 3 | | 35440785 |
| 5 | | 03109276 |
| 6 | | 03109321 |
| 7 | | 03109322 |

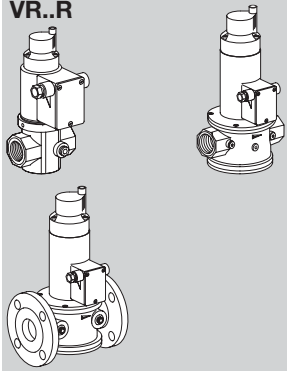
VR 80..N

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74955152 |
| 1 | 120 V | 74971063 |
| 1 | 24 V | 74955164 |
| 2 | 220/120 V | 74913606 |
| 2 | 24 V | 74913607 |
| 3 | | 35441452 |
| 5 | | 03109277 |
| 6 | | 03109321 |
| 7 | | 03109322 |

VR 100..N

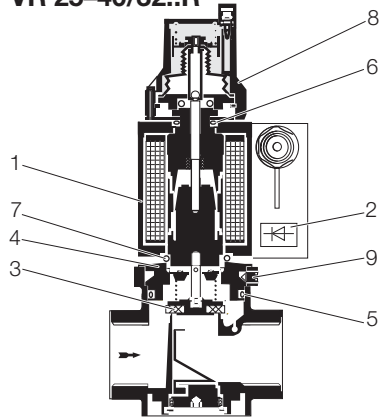
| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74952558 |
| 1 | 120 V | 74971064 |
| 1 | 24 V | 74952591 |
| 2 | 220/120 V | 74913601 |
| 2 | 24 V | 74913607 |
| 3 | | 35441454 |
| 5 | | 03109277 |
| 6 | | 03109321 |
| 7 | | 03109346 |

VR..R



i

VR 25-40/32..R



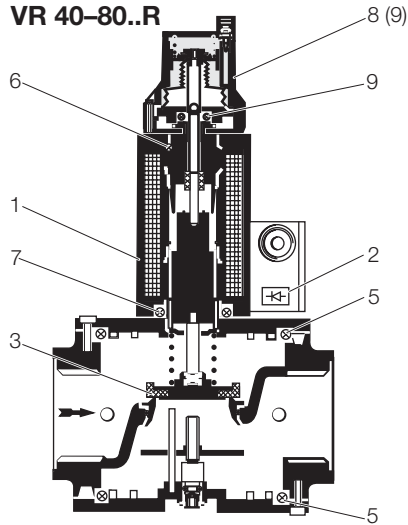
VR 25..R

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74951913 |
| 1 | 120 V | 74971070 |
| 1 | 24 V | 74951926 |
| 2 | 220/120 V | 74912142 |
| 2 | 24 V | 74912143 |
| 3 | | 35439084 |
| 4 | | 74950044 |
| 5 | | 03110079 |
| 6 | | 03109290 |
| 7 | | 03109292 |
| 8 | | 74952731 |
| 9 | | 03563026 |

VR 40/32..R

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74951913 |
| 1 | 120 V | 74971070 |
| 1 | 24 V | 74951926 |
| 2 | 220/120 V | 74912142 |
| 2 | 24 V | 74912143 |
| 3 | | 35439085 |
| 4 | | 74950046 |
| 5 | | 03109219 |
| 6 | | 03109290 |
| 7 | | 03109292 |
| 8 | | 74952731 |
| 9 | | 03563026 |

VR 40-80..R



VR 40..R

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74960020 |
| 1 | 120 V | 74971061 |
| 1 | 24 V | 74960021 |
| 2 | 220/120 V | 74913606 |
| 2 | 24 V | 74913607 |
| 3 | | 35440783 |
| 5 | | 03109274 |
| 6 | | 03109321 |
| 7 | | 03109322 |
| 8 | | 74952546 |

VR 50..R

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74960020 |
| 1 | 120 V | 74971061 |
| 1 | 24 V | 74960021 |
| 2 | 220/120 V | 74913606 |
| 2 | 24 V | 74913607 |
| 3 | | 35440784 |
| 5 | | 03109275 |
| 6 | | 03109321 |
| 7 | | 03109322 |
| 8 | | 74952546 |

VR 65..R

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74952296 |
| 1 | 120 V | 74971062 |
| 1 | 24 V | 74952589 |
| 2 | 220/120 V | 74913606 |
| 2 | 24 V | 74913607 |
| 3 | | 35440785 |
| 5 | | 03109276 |
| 6 | | 03109321 |
| 7 | | 03109322 |
| 8 | | 74952546 |

VR 80..R

| | | |
|---|-----------|----------|
| 1 | 220/240 V | 74955152 |
| 1 | 120 V | 74971063 |
| 1 | 24 V | 74955164 |
| 2 | 220/120 V | 74913606 |
| 2 | 24 V | 74913607 |
| 3 | | 35441452 |
| 5 | | 03109277 |
| 6 | | 03109321 |
| 7 | | 03109322 |
| 8 | | 74952546 |

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Zentrale Kundendienst-Einsatz-Leitung weltweit:
Elster Kromschröder GmbH, Osnabrück
Tel. +49 (0)541 1214-3 65
Tel. +49 (0)541 1214-4 99
Fax +49 (0)541 1214-5 47

Elster Kromschröder GmbH
Postfach 28 09
D-49018 Osnabrück
Strotheweg 1
D-49504 Lotte (Büren)
Tel. +49 (0)541 1214-0
Fax +49 (0)541 1214-3 70
info@kromschroeder.com
www.kromschroeder.de



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