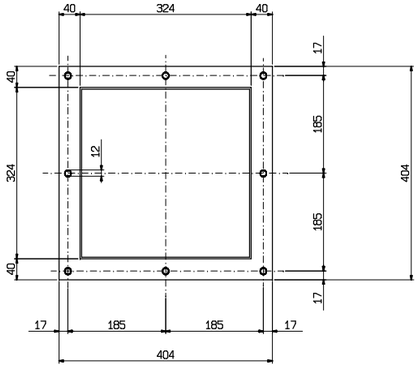
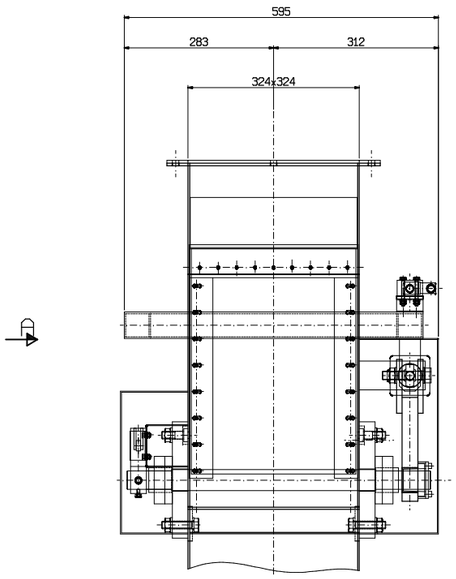
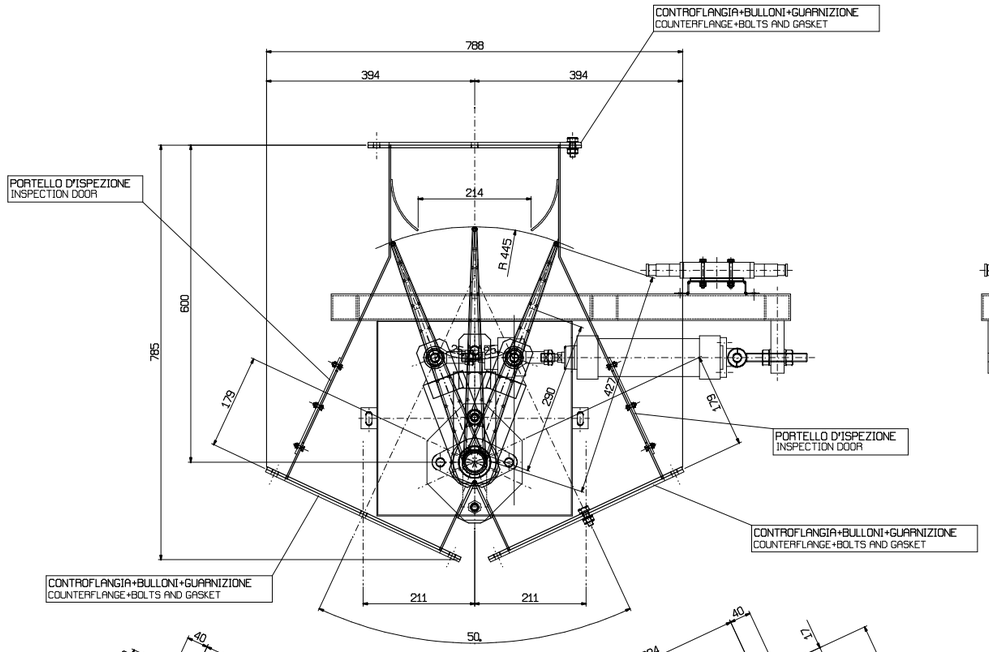
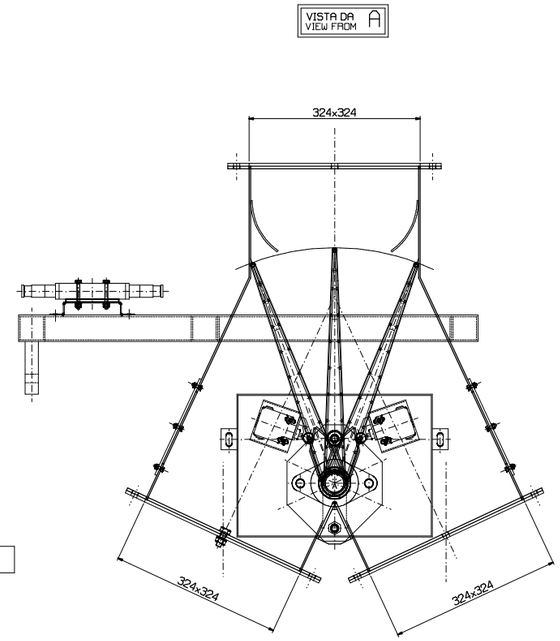
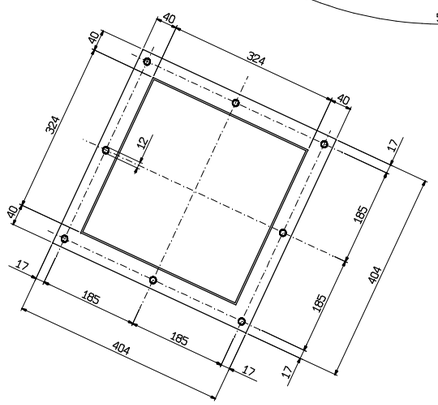
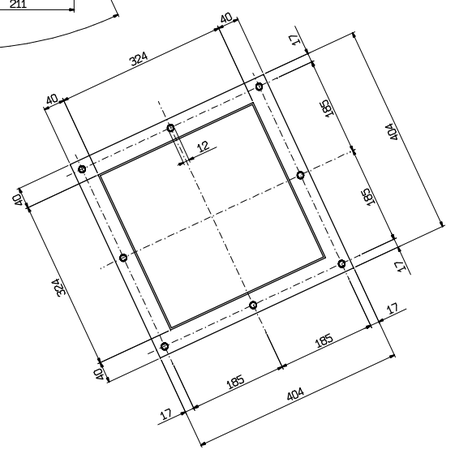












FINAL ISSUE

PESO KG. WEIGHT KG. .	NPEZZI NPIECES 1	MATERIALE/ MATERIAL .	CODICE/ CODE	ITEM 62W3

COMM. JOBN. 2F11A

BARBIERI MODENA COSTRUZIONI MECCANICHE ITALY

DATA DATE 29-10-2012

SCALA SCALE 1:4

DISEGN. DRAWN FZ/M.W.

TITOLO VALVOLA DEVIATRICE A 2 VIE A 50, CON COMANDO PNEUMATICO

TITLE 2 WAY 50, DEFLECTION VALVE WITH PNEUMATIC DRIVE

SOST.IL N. .

SOST.DAL N.

DISEGNO N. DRAWING N. 012-87-000

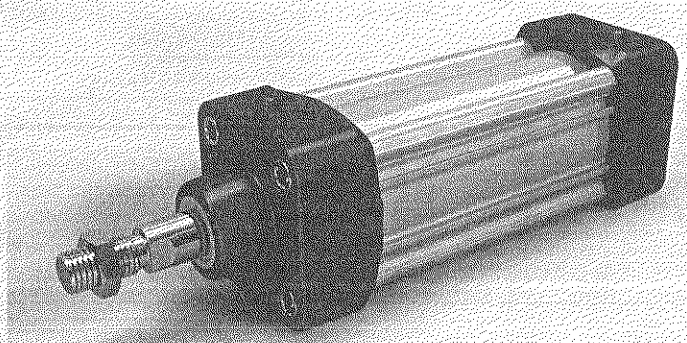
NOTE . .

P1D

Insert item part number prior to installation
Inscrire la référence de l'appareil avant installation
Vor Einbau Bestell Nr. eintragen
Inserire il codice prima dell'installazione
Rellenar referencia antes del montaje
Fyll i artikelnummer före installationen

9127007796 Issue 02

P(e)max = 1 MPa (10 bar)
Standard temp: t = -20 °C +80 °C
High temp: t = -10 °C +150 °C
Low temp: t = -40 °C +40 °C



CE Ex

Summary / Table des matières / Inhaltsverzeichnis / Indice / Índice / Innehåll

Disconnect air and electrical supplies before attempting repair or maintenance.
See ISO 4414-1982 for safety requirements covering the installation and use of pneumatic equipment.

Débrancher les connexions pneumatiques et électriques avant réparation ou maintenance.
Voir ISO 4414-1982 pour les règles de sécurité des installations et utilisation des équipements pneumatiques.

Vor Reparatur- oder Wartungsarbeiten sind alle pneumatischen und elektrischen Versorgungsleitungen von der Pneumatikkomponente zu trennen.
Siehe ISO 4414-1982 bzw. DIN 24 558 bezüglich den Sicherheitsvorschriften für Installation und Einsatz von Pneumatikkomponenten.

Prima di effettuare interventi di manutenzione verificare che sia l'alimentazione elettrica che quella pneumatica siano disattivate.
Attenersi alla normativa ISO 4414-1982 che regola l'installazione e l'uso di componenti pneumatici.

Desconectar las conexiones neumáticas y eléctricas antes de efectuar cualquier reparación o mantenimiento.
Ver ISO 4414-1982 para reglas de seguridad de las instalaciones y utilización de equipos neumaticos.

Koppla ifrån luft och elektriska anslutningar innan reparations- och underhållsarbeten påbörjas.
Se ISO 4414-1982 för säkerhetsbestämmelser täckande installation och användning av pneumatisk utrustning.

UK

CE Ex

Safety instructions for the P1D-S cylinder with accessories

Supplementary safety instructions for P1D-S cylinders installed in Ex-areas

Serious, even fatal, damage or injury may be caused by the hot moving parts of the P1D cylinders in the presence of explosive gas mixtures and concentrations of dust.

All installation, connection, commissioning, servicing and repair work on P1D cylinders must be carried out by qualified personnel taking account of the following

- These instructions
- Markings on the cylinder
- All other planning documents, commissioning instructions and connection diagrams associated with the application.
- Provisions and requirements specific to the application
- National/international regulations (explosion protection, safety and accident prevention)

Real life applications

P1D cylinders are designed to provide linear movement in industrial applications, and should only be used in accordance with the instructions in the technical specifications in the catalogue, and within the operating range indicated on the rating plate. The cylinders meet the applicable standards and requirements of directive 94/9/EC (ATEX)

The cylinders must not be used underground in mines susceptible to firedamp and/or flammable dusts. The cylinders are intended for use in areas in which explosive atmospheres caused by gases, vapours or mists of flammable liquids, or air/dust mixtures may be expected to occur during normal use (infrequently)

Checklist

Before using the cylinders in an Ex-area, you should check the following:

Do the specifications of the P1D-S cylinder match the Ex-classification of the area of use in accordance with directive 94/9/EC (previously ATEX 100a)

- Equipment group
- Ex-equipment category
- Ex-zone
- Temperature class
- Max. surface temperature

1. When installing the P1D-S cylinder, is it certain that there is no potentially explosive atmosphere, oil, acids, gases, vapours or radiation?
2. Is the ambient temperature as specified in the technical data in the catalogue at all times?
3. Is it certain that the P1D-S cylinder is adequately ventilated and that no forbidden additional heat is added?
4. Are all the driven mechanical components ATEX certified?
5. Check that the P1D-S cylinder is safely earthed.
6. Check that the P1D-S cylinder is supplied with compressed air. Explosive gas mixtures must not be used for driving the cylinder.
7. Check that the P1D-S cylinder is not equipped with a metal scraper ring (special version).

Installation requirements in Ex-areas

- The temperature of the supply air must not exceed the ambient temperature.
- The P1D-S cylinder may be installed in any position.
- An air treatment unit must be attached to the inlet of the P1D-S cylinder.
- The P1D-S cylinder must be connected to earth at all times, through its support, a metallic tube or separate conductor.
- The outlet of the P1D-S cylinder must not open within an Ex-area, but must be passed to the silencer or, preferably, removed and released outside the Ex-area.
- The P1D-S cylinder may only drive units that are ATEX certified.
- Ensure that the P1D-S cylinder is not exposed to forces greater than those permitted in accordance with the catalogue
- The P1D-S cylinder must be supplied with compressed air. Explosive gas mixtures must not be used
- P1D-S cylinders with metal scraper rings must not be used in Ex-areas

Inspecting cylinders during operation

The P1D cylinder must be kept clean on the outside, and a layer of dust/dirt thicker than 1 mm must never be allowed to form. Strong solvents should not be used for cleaning, because they can cause the seal (material PUR) around the piston rod to swell, potentially increasing the temperature. Inspect and verify that the cylinder, with attachments, compressed air fittings, hoses, tubes, etc. meet the standards of "safe" installation.

Marking of cylinder P1D-S Standard (P1D-S***MS-****)

CE Ex II 2GD c T4 120 °C

CE	Communauté Européenne = EU CE on the product shows that Parker Hannifin products meet one or more EU directives
Ex	Ex means that this product is intended for use in potentially explosive atmospheres
II	Stands for the equipment group (I = mines and II = other hazardous areas)
2GD	Stands for equipment category 2G means the equipment can be used in zones 1 and 2 where there is a risk involving gases, vapours or mists of combustible liquids and 2D in zones 21 and 22 where there is a risk involving dusts. 2GD Means the equipment can be used in zones 1, 2, 21 and 22.
c	Safe design (prEN 13463-5)
T4	If equipment is in temperature class T4, the maximum surface temperature must not exceed 135 °C. (To guarantee this, the product has been tested to ensure that the maximum is 130 °C. This provides a safety margin of 5 °K.)
120 °C	Maximum permitted surface temperature on P1D-S cylinder in atmospheres containing potentially explosive dusts.

UK

Supplementary safety instructions for P8S- GPFLX/EX sensors installed in Ex-areas

Serious, even fatal, damage or injury may be caused by the hot moving parts of the P1D cylinders in the presence of explosive gas mixtures and concentrations of dust.

Instructions for use

Safety instructions

- Cylinder sensor ATEX classed for category II3G and II3D
- Ambient temperature Ta = -20 °C to +45 °C
- Temperature class T4, or max. surface temperature of T = 135 °C
- Protection class IP67
- Read installation instructions before startup
- Installation, connection and commissioning must be carried out by trained personnel

Applications

- This sensor is designed for use in the T-groove of cylinders, and detects the magnetic field in potentially explosive areas. The sensor can only be installed in the T-groove of these cylinders.
- The sensor may also be installed on round cylinders by means of the following attachments:

  P8S-TMC01 Suitable for P1S and P1A diameter 10 - 25 mm

  P8S-TMC02 Suitable for P1S diameter 32 - 63 mm

  P8S-TMC03 Suitable for P1S diameter 80 - 125 mm

  The following data applies to these attachments:

  Ambient temperature Ta = 0 °C to 45 °C

  Low energy absorption to EN 50 021
- The sensor may also be installed on tie-rod cylinders or profile cylinders by means of this attachment:

  P8S-TMA0X Suitable for P1D-T diameter 32 - 125 mm, P1E-T diameter 160 – 200 mm and C41 diameter 160 – 200 mm

Installation

General: The sensor must be protected from UV radiation. The cable must be installed such that it is protected from external influences, for example it may be necessary to attach an external strain relief to the cable.

Technical data for sensor

Operating voltage Ub = 18 to 30 V DC
Max. load current Ia d" ¡Ú 70 mA
Ambient temperature: -20 °C to 45 °C

Commissioning

When connecting the sensor to a power source, please pay attention to the following
a) the load data (operating voltage, continuous load current)
b) the wiring diagram for the sensor.

Maintenance

Our P8S-GPFLX/EX cylinder sensor is maintenance free, but the cable connections should be checked at regular intervals.
The sensor must be protected from UV radiation. The sensor must be kept clean on the outside, and a layer of dirt thicker than 1 mm must never be allowed to form. Strong solvents should not be used for cleaning as they may damage the sensor.

P8S-GPFLX/EX cylinder sensor

CE Ex II3G EEx nA II T4X
II3D 135 °C IP67

CE	Communauté Européenne = EU CE on the product shows that Parker Hannifin products meet one or more EU directives
Ex	Ex means that this product is intended for use in potentially explosive atmospheres
II	Stands for the equipment group (I = mines and II = other hazardous areas)
3G	Stands for the equipment category 3G means the equipment can be used in zone 2 where there is a risk involving gases, vapours or mists of combustible liquids
EEx	EEx means that this is an electrical product intended for use in Ex-areas
nA II	n Not ignitable to EN50021. A Explosion group tested with acetone, ethanol, toluene and xylene; II Not for use in the mining industry
T4 X	If equipment is in temperature class T4, the maximum surface temperature must not exceed 135 °C. (To guarantee this, the product has been tested to ensure that the maximum is 130 °C. This provides a safety margin of 5 °K.) X Must be installed in accordance with the installation manual
3D	Stands for equipment category 3D in zone 22 where there is a risk involving dusts.
135 °C	Maximum permitted surface temperature on the motor in atmospheres containing potentially explosive dusts.
IP67	Satisfies protection class IP67

Components such as cylinder attachments, tube fittings, tubes, etc.

Components

Parker Hannifin guarantees that our cylinder attachments, tube fittings, tubes, etc. are not subject to the provisions of the ATEX directive.

A component means any item essential to the safe functioning of equipment and protective systems but with no autonomous function.

Components intended for incorporation into equipment or protective systems which are accompanied by an attestation of conformity with the ATEX directive, including a statement of their characteristics and how they must be incorporated into products, are considered to conform to the applicable provisions of directive 94/9/EC. Ex-components as defined in the European standard EN 50014 are components in the sense of the ATEX directive 94/9/EC as well. Components must not have the CE marking affixed unless otherwise required by other directives.

Examples of components:

- terminals
- push buttons assemblies
- relays
- empty flameproof enclosures
- ballasts for fluorescent lamps
- meters (e.g. moving coil)
- encapsulated relays and contactors, with terminals and/or flying leads

IT

Istruzioni di sicurezza per il cilindro P1D-S con accessori

Norme di sicurezza aggiuntive per l'installazione del cilindro P1D-S in ambienti Ex

Miscele di gas o concentrazioni di polveri esplosive, in combinazione a parti calde e mobili del cilindro P1D, possono provocare lesioni gravi o mortali.
Installazione, collegamento, messa in funzione, assistenza e riparazione del cilindro P1D devono essere eseguiti da personale specializzato in conformità a quanto segue:

- Presente documentazione
- Marcatura del cilindro
- Altra documentazione relativa a progettazione, istruzioni per la messa in funzione e schemi di collegamento dell'applicazione
- Norme e requisiti specifici per l'applicazione
- Norme nazionali e internazionali vigenti (protezione dalle esplosioni, sicurezza e prevenzione degli infortuni)

Applicazioni a uso limitato
Il cilindro P1D-S è progettato per creare un movimento lineare in ambito industriale e deve essere utilizzato esclusivamente nel rispetto delle indicazioni fornite dalle specifiche tecniche del catalogo e nell'ambiente indicato sulla targhetta del prodotto. Il cilindro soddisfa le norme vigenti e le disposizioni della direttiva macchine 94/9/CE (ATEX).

È vietato utilizzare i cilindri sotto terra in miniere in presenza di grisou e/o polveri infiammabili. I cilindri sono progettati per l'utilizzo in ambienti in cui è prevista la presenza di una miscela di aria e gas, vapori o nebbia di liquidi infiammabili o una miscela di polveri/aria durante il normale utilizzo (saltuaria).

Lista di controllo
Prima della messa in funzione in ambienti Ex, controllare quanto segue:
Le indicazioni sul cilindro P1D-S sono conformi alla classificazione Ex per l'ambiente di inserimento effettuata secondo la direttiva 94/9/CE (ex ATEX 100a)?

- Gruppo di attrezzature
- Categoria di attrezzature Ex
- Zona Ex
- Classe di temperatura
- Max. temperatura superficie

1. All'installazione del cilindro P1D-S è stato accertato che non vi sono atmosfera, olio, acidi, gas, vapori o raggi esplosivi?
2. La temperatura ambiente rientra sempre nei dati tecnici indicati dal catalogo?
3. È stato accertato che il cilindro P1D-S riceve una ventilazione sufficiente e non vi sono apporti di calore supplementare non consentiti?
4. Tutte le parti meccaniche azionate presentano certificazione ATEX?
5. Controllare che il cilindro P1D-S sia collegato a massa correttamente.
6. Controllare che il cilindro P1D-S sia alimentato con aria compressa. Non utilizzare miscele di gas esplosive per l'azionamento del cilindro.
7. Controllare che il cilindro P1D-S non sia dotato di raschiaolio metallico (versione speciale).

Requisiti di installazione in ambienti Ex

- La temperatura dell'aria in entrata non deve superare la temperatura ambiente.
- Il cilindro P1D-S può essere installato in qualsiasi posizione.
- È richiesto un gruppo FR sull'entrata del cilindro P1D-S.
- Il cilindro P1D-S deve essere sempre collegato a massa tramite un supporto, un flessibile metallico o una condotta separata.
- Lo scarico del cilindro P1D-S non deve essere aperto all'interno degli ambienti Ex. Deve essere collegato al silenziatore o, preferibilmente, convogliato all'esterno degli ambienti Ex.
- Il cilindro P1D-S deve azionare solamente unità con certificazione ATEX.
- Deve essere accertato che il cilindro P1D-S non è soggetto a forze superiori a quelle consentite secondo il catalogo.
- Il cilindro P1D-S deve essere alimentato con aria compressa. Non utilizzare miscele di gas esplosive.
- Non utilizzare il cilindro P1D-S con raschiaolio metallico all'interno degli ambienti Ex.

Controllo del cilindro durante l'esercizio
L'esterno del cilindro P1D deve essere mantenuto pulito. Evitare strati di polvere/sporcizia superiori a 5 mm.
Per la pulizia, non utilizzare solventi forti che potrebbero fare rigonfiare la tenuta (in PUR) attorno allo stelo del pistone e provocare un aumento di temperatura. Controllare che il cilindro e i relativi attacchi, raccordi per il collegamento dell'aria compressa, flessibili, tubi ecc. siano installati correttamente.

Marcatura del cilindro P1D-S Standard (P1D-S***MS-****)

CE Ex II 2GD c T4 120 °C

CE	Communauté Européenne = UE Il marchio CE sul prodotto attesta che i prodotti Parker Hannifin soddisfano una o più direttive UE
Ex	Ex indica che il prodotto può essere utilizzato in ambienti esplosivi
II	Indica il gruppo di attrezzature (I = miniere; II = altri ambienti a rischio)
2GD	Indica la categoria di attrezzature: 2G si riferisce ad attrezzature utilizzabili nelle zone 1 e 2 laddove possano essere presenti gas, vapori o nebbia di liquidi infiammabili; 2D si riferisce ad attrezzature utilizzabili nelle zone 21 e 22 laddove possano essere presenti polveri. 2GD si riferisce ad attrezzature utilizzabili nelle zone 1, 2, 21 e 22.
c	Struttura sicura (prEN 13463-5)
T4	Per le attrezzature della classe di temperatura T4 non è consentito superare una temperatura max della superficie di 135°C (a tal fine, il prodotto è stato testato in modo da non superare un valore massimo di 130°C; resta così un margine di 5°K).
120 °C	Temperatura max. consentita della superficie del cilindro P1D-S in ambienti con presenza di polveri esplosive.

Norme di sicurezza aggiuntive per l'installazione del sensore P8S- GPFLX/EX in ambienti Ex

Miscele di gas o concentrazioni di polveri esplosive, in combinazione a parti calde e mobili del cilindro P1D, possono provocare lesioni gravi o mortali.

Istruzioni per l'uso

Norme di sicurezza

- Il sensore per cilindri a norma ATEX rientra nelle classi II3G e II3D
- Temperatura ambiente Ta: da -20 a +45°C
- Classe di temperatura T4 ovvero max. temperatura superficie T di 135°C
- Classe di protezione IP67
- Leggere le istruzioni per l'installazione prima dell'uso
- Installazione, collegamento e messa in funzione devono essere effettuati da personale addestrato

Applicazioni

- Questo sensore viene installato nella scanalatura a T dei cilindri per rilevare il campo magnetico in ambienti esplosivi. Su questi cilindri il sensore deve essere installato esclusivamente nella scanalatura a T.
- Il sensore può anche essere installato su cilindri rotondi per mezzo degli appositi attacchi:
  P8S-TMC01 per l'installazione su P1S e P1A con diametro 10-25 mm;
  P8S-TMC02 per l'installazione su P1S con diametro 32-63 mm;
  P8S-TMC03 per l'installazione su P1S con diametro 80-125 mm.

Per i suddetti attacchi vale quanto segue:

- Temperatura ambiente Ta: da 0 a 45°C
- Sollecitazioni inferiori a quelle previste dalla norma EN 50021

- Il sensore può anche essere installato su cilindri con tiranti o tubi profilati per mezzo dell'apposito attacco:
  P8S-TMA0X per l'installazione su P1D-T con diametro 32-125 mm, P1E-T con diametro 160-200 mm e C41 con diametro 160-200 mm.

Installazione

Generalità: Il sensore deve essere protetto dai raggi UV. Il cavo deve essere installato in posizione protetta, ad es. applicando un pressacavo.

Dati tecnici del sensore

Tensione di esercizio U_b = 18-30 V DC
Max. corrente di carico $I_e \leq 70$ mA
Temperatura ambiente: da -20 a 45°C

Messa in funzione

In sede di collegamento del sensore a un generatore di tensione, prestare attenzione a quanto segue:
a) dati di carico (tensione di esercizio, corrente di carico continua);
b) schema di collegamento del sensore.

Manutenzione

Il sensore per cilindri P8S-GPFLX/EX non richiede manutenzione, ma si consiglia di controllare regolarmente il raccordo del cavo. Il sensore deve essere protetto dai raggi UV. L'esterno del sensore deve essere mantenuto pulito. Evitare strati di sporcizia superiori a 1 mm. Per la pulizia, non utilizzare solventi forti che potrebbero danneggiare il sensore.

Sensore per cilindri P8S-GPFLX/EX

CE Ex II3G EEx nA II T4X
II3D 135 °C IP67

CE	Communauté Européenne = UE Il marchio CE sul prodotto attesta che i prodotti Parker Hannifin soddisfano una o più direttive UE
Ex	Ex indica che il prodotto può essere utilizzato in ambienti esplosivi
II	Indica il gruppo di attrezzature (I = miniere; II = altri ambienti a rischio)
3G	Indica la categoria di attrezzature: 3G si riferisce ad attrezzature utilizzabili nella zona 2 laddove possano essere presenti gas, vapori o nebbia di liquidi infiammabili
EEx	EEx indica un prodotto elettrico destinato all'utilizzo in ambienti EX
nA II	n: Non infiammabile ai sensi della direttiva EN50021; A: Gruppo di esplosione testato con acetone, etanolo, toluene e xilene; II: Non destinato all'utilizzo nel settore minerario
T4 X	Per le attrezzature della classe di temperatura T4 non è consentito superare una temperatura max della superficie di 135°C (a tal fine, il prodotto è stato testato in modo da non superare un valore massimo di 130°C, resta così un margine di 5°K); X indica che il prodotto deve essere installato seguendo le istruzioni per l'installazione
3D	Indica la categoria di attrezzature: 3D si riferisce ad attrezzature utilizzabili nella zona 22 laddove possano essere presenti polveri.
135 °C	Temperatura max. consentita della superficie del sensore in ambienti con presenza di polveri esplosive.
IP67	Classe di protezione IP67

Componenti quali attacchi per cilindri, raccordi per tubi, tubi ecc.

Componenti

Parker Hannifin garantisce che gli attacchi per cilindri, i raccordi per tubi, i tubi e prodotti simili forniti non sono soggetti alla direttiva ATEX.

Per componente si intende ogni unità di importanza essenziale per il corretto funzionamento di attrezzature o dispositivi di protezione ma che non funziona autonomamente.

I componenti progettati per l'installazione in attrezzature o sistemi di protezione accompagnati dalla dichiarazione di conformità alla direttiva ATEX, compresa una perizia sulle caratteristiche dei componenti stessi e sulle modalità di installazione sui prodotti, soddisfano le norme applicabili della direttiva 94/9/CE. I componenti Ex definiti nella norma europea EN50014 comprendono anche i componenti descritti nella direttiva ATEX 94/9/CE. Se non è richiesto da altre direttive, tali componenti non hanno l'obbligo di marchio CE.

Esempi di componenti

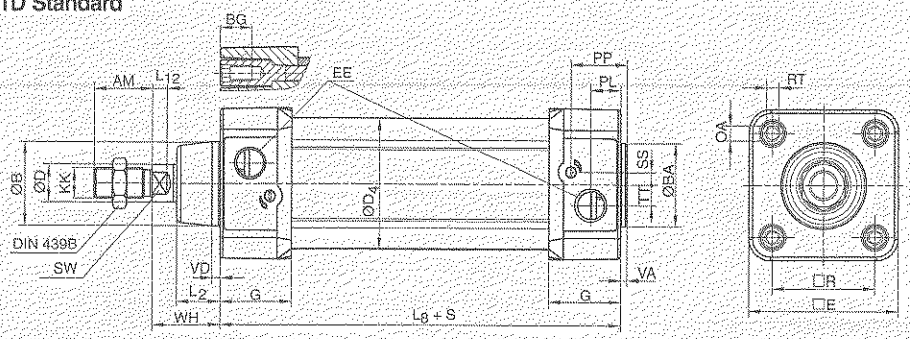
- Fascette di collegamento
- Pulsanti
- Relè
- Involucri vuoti a prova di esplosione
- Reattori per tubi al neon
- Contatori (ad es. bobine rotanti)
- Relè e contattori rivestiti con fascette di collegamento o capicorda

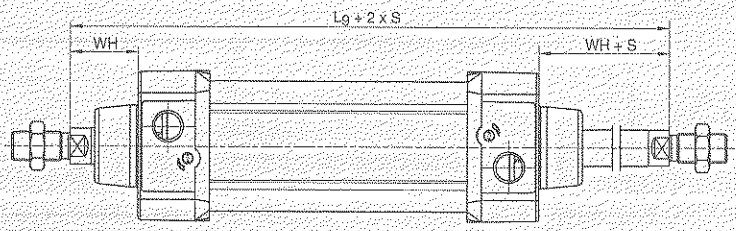
CAD drawings on the Internet

Our home page www.parker.com/euro_pneumatic includes the AirCad Drawing Library with 2D and 3D drawings for the main versions.

AirCad™ Drawing Library

P1D Standard





Dimensions

Cylinder bore mm	AM mm	B mm	BA mm	BG mm	D mm	D4 mm	E mm	EE mm	G mm	KK	L2 mm	L8 mm	L9 mm	L12 mm
32	22	30	30	16	12	45,0	50,0	G1/8	28,5	M10x1,25	16,0	94	146	6,0
40	24	35	35	16	16	52,0	57,4	G1/4	33,0	M12x1,25	19,0	105	165	6,5
50	32	40	40	16	20	60,7	69,4	G1/4	33,5	M16x1,5	24,0	106	180	8,0
63	32	45	45	16	20	71,5	82,4	G3/8	39,5	M16x1,5	24,0	121	195	8,0
80	40	45	45	17	25	86,7	99,4	G3/8	39,5	M20x1,5	30,0	128	220	10,0
100	40	55	55	17	25	106,7	116,0	G1/2	44,5	M20x1,5	32,4	138	240	14,0
125	54	60	60	20	32	134,0	139,0	G1/2	51,0	M27x2	45,0	160	290	18,0

Cylinder bore mm	OA mm	PL mm	PP mm	R mm	RT	SS mm	SW mm	TT mm	VA mm	VD mm	WH mm
32	6,0	13,0	21,8	32,5	M6	4,0	10	4,5	3,5	4,5	26
40	6,0	14,0	21,9	38,0	M6	8,0	13	5,5	3,5	4,5	30
50	8,0	14,0	23,0	46,5	M8	4,0	17	7,5	3,5	5,0	37
63	8,0	16,4	27,4	56,5	M8	6,5	17	11,0	3,5	5,0	37
80	6,0	16,0	30,5	72,0	M10	0	22	15,0	3,5	4,0	46
100	6,0	18,0	35,8	89,0	M10	0	22	20,0	3,5	4,0	51
125	8,0	28,0	40,5	110,0	M12	0	27	17,5	5,5	6,0	65

S=Stroke

Tolerances

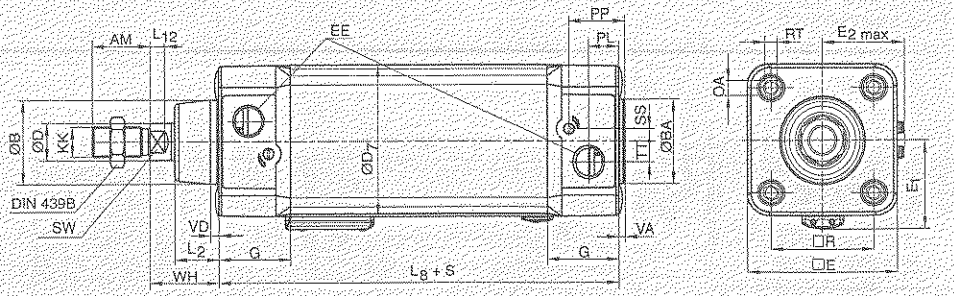
Cylinder bore mm	B	BA	L_8 mm	L_9 mm	R mm	Stroke tolerance up to stroke 500 mm	Stroke tolerance for stroke over 500 mm
32	d11	d11	±0,4	±2	±0,5	+0,3/+2,0	+0,3/+3,0
40	d11	d11	±0,7	±2	±0,5	+0,3/+2,0	+0,3/+3,0
50	d11	d11	±0,7	±2	±0,6	+0,3/+2,0	+0,3/+3,0
63	d11	d11	±0,8	±2	±0,7	+0,3/+2,0	+0,3/+3,0
80	d11	d11	±0,8	±3	±0,7	+0,3/+2,0	+0,3/+3,0
100	d11	d11	±1,0	±3	±0,7	+0,3/+2,0	+0,3/+3,0
125	d11	d11	±1,0	±3	±1,1	+0,3/+2,0	+0,3/+3,0

CAD drawings on the Internet

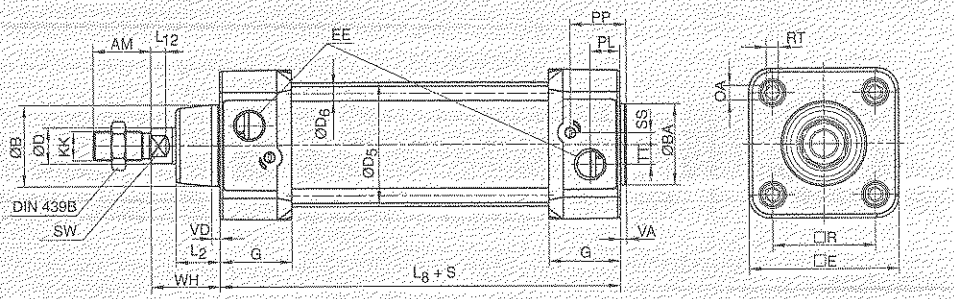
Our home page www.parker.com/euro_pneumatic includes the AirCad Drawing Library with 2D and 3D drawings for the main versions.

AirCad™ Drawing Library

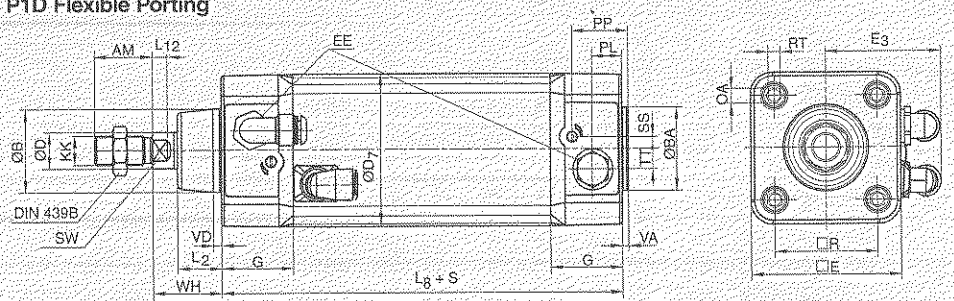
P1D Clean



P1D Tie-Rod



P1D Flexible Porting



Dimensions

Cylinder bore						Elbow fittings, tubing Ømm				Straight fittings, tubing Ømm			
						4	6	8	10	4	6	8	10
	D5	D6	D7	E1	E2max	E3	E3	E3	E3	E3	E3	E3	E3
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
32	36	5,3	49,6	32	30,0	42	44	-	-	38	40	-	-
40	44	5,3	57,3	36	34,7	46	48	-	-	42	44	-	-
50	55	7,1	69,3	42	40,7	-	-	56	76	-	-	48	50
63	68	7,1	82,3	49	46,2	-	-	64	83	-	-	55	75
80	86	8,9	99,3	57	54,7	-	-	-	-	-	-	-	-
100	106	8,9	117,6	68	64,0	-	-	-	-	-	-	-	-
125	132	10,8	142,8	81	75,5	-	-	-	-	-	-	-	-

Other dimensions, see opposite page

P1D Flexible Porting Ø80 - Ø125 can be ordered with threaded ports only or with factory-fitted elbow or straight push-in fittings (see position 20 in the order code key page 32)

CAD drawings on the Internet

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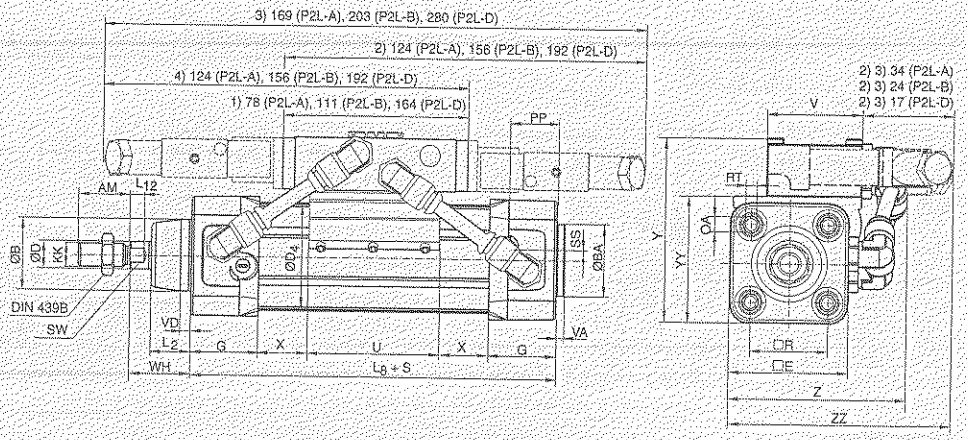
AirCad™ Drawing Library



Dimensions

Cylinder bore mm	AM mm	B mm	BA mm	BG mm	D mm	D4 mm	E mm	G mm	KK	L2 mm	L8 mm	L12 mm	OA mm
32	22	30	30	16	12	45,0	50,0	28,5	M10x1,25	16,0	94	6,0	6,0
40	24	35	35	16	16	52,0	57,4	33,0	M12x1,25	19,0	105	6,5	6,0
50	32	40	40	16	20	60,7	69,4	33,5	M16x1,5	24,0	106	8,0	8,0
63	32	45	45	16	20	71,5	82,4	39,5	M16x1,5	24,0	121	8,0	8,0
80	40	45	45	17	25	86,7	99,4	39,5	M20x1,5	30,0	126	10,0	6,0
100	40	55	55	17	25	106,7	116,0	44,5	M20x1,5	32,4	138	14,0	6,0
125	54	60	60	20	32	134,0	139,0	51,0	M27x2	45,0	160	18,0	8,0

Cylinder bore mm	PP mm	R mm	RT	SS mm	SW mm	VA mm	VD mm	WH mm	U mm	V mm	X mm
32	21,8	32,5	M6	4,0	10	3,5	4,5	26	55	40	-9+S/2
40	21,9	38,0	M6	8,0	13	3,5	4,5	30	55	40	-8+S/2
50	23,0	46,5	M8	4,0	17	3,5	5,0	37	55	40	-8+S/2
63	27,4	56,5	M8	6,5	17	3,5	5,0	37	55	40	-6,5+S/2
80	30,5	72,0	M10	0	22	3,5	4,0	46	55	54	-2,5+S/2
100	35,8	89,0	M10	0	22	3,5	4,0	51	55	54	-2,5+S/2
125	40,5	110,0	M12	0	27	5,5	6,0	65	55	65	2+S/2

Cylinder bore mm	Y mm	YY mm	Z mm	ZZ mm
32	80	56	80	90
40	88	54	87	96
50	102	78	96	105
63	109	85	107	116
80	136	102	132	125
100	151	117	148	140
125	185	146	183	159

S=Stroke

1) Air actuated 5/2 and 5/3
2) Electrically actuated 5/2 with spring return
3) Electrically actuated 5/2 and 5/3 (2 solenoid valves)
4) Electrically actuated 5/2 with spring return(reverse function)

CAD drawings on the Internet

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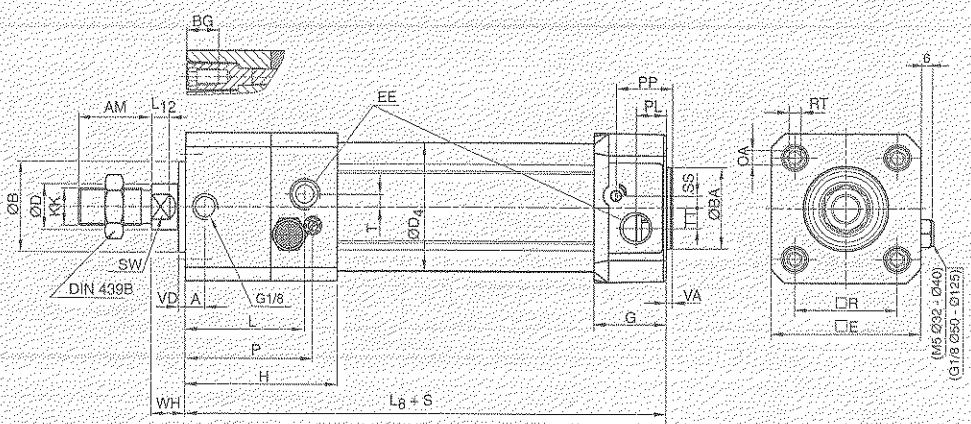
Library with 2D and 3D drawings for the main versions.

AirCad™ Drawing Library



Dimensions

Cylinder bore mm	A mm	AM mm	B mm	BA mm	BG mm	D mm	D4 mm	E mm	EE mm	G mm	H mm	KK mm	L mm	L2 mm
32	18,5	22	30	30	16	12	45,0	50,0	G1/8	28,5	71,0	M10x1,25	53,0	16,0
40	20,0	24	35	35	16	16	52,0	57,4	G1/4	33,0	76,5	M12x1,25	56,0	19,0
50	21,0	32	40	40	16	20	60,7	69,4	G1/4	33,5	80,0	M16x1,5	65,0	24,0
63	30,0	32	45	45	16	20	71,5	82,4	G3/8	39,5	96,0	M16x1,5	76,5	24,0
80	35,0	40	45	45	17	25	86,7	99,4	G3/8	39,5	110,0	M20x1,5	89,0	30,0
100	54,0	40	55	55	17	25	106,7	116,0	G1/2	44,5	132,0	M20x1,5	112,0	32,4
125	65,5	54	60	60	20	32	134,0	139,0	G1/2	51,0	144,5	M27x2	124,5	45,0

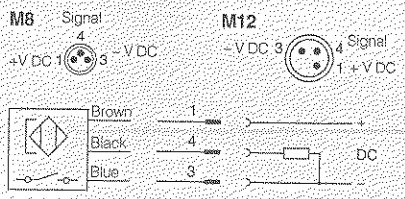
Cylinder bore mm	L8 mm	L12 mm	OA mm	P mm	PL mm	PP mm	R mm	RT	SS mm	SW mm	T mm	TT mm	VA mm	VD mm	WH mm
32	137	6,0	6,0	63,0	13,0	21,8	32,5	M6	4,0	10	4,5	4,5	3,5	4,5	15
40	149	6,5	6,0	67,5	14,0	21,9	38,0	M6	8,0	13	3,0	5,5	3,5	4,5	16
50	153	8,0	8,0	71,0	14,0	23,0	46,5	M8	4,0	17	5,5	7,5	3,5	5,0	17
63	178	8,0	8,0	87,0	16,4	27,4	56,5	M8	6,5	17	3,0	11,0	3,5	5,0	17
80	199	10,0	6,0	101,0	16,0	30,5	72,0	M10	0	22	6,0	15,0	3,5	4,0	20
100	226	14,0	6,0	122,0	18,0	35,8	89,0	M10	0	22	6,0	20,0	3,5	4,0	20
125	254	18,0	8,0	134,5	28,0	40,5	110,0	M12	0	27	6,0	17,5	5,5	6,0	27

S=Stroke

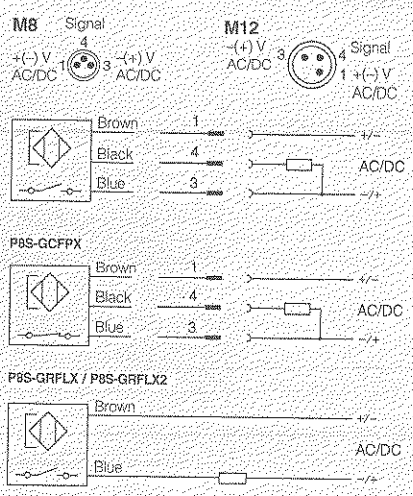
Tolerances

Cylinder bore mm	B	BA mm	L_8 mm	L_0 mm	R mm	Stroke tolerance up to stroke 500 mm	Stroke tolerance for stroke over 500 mm
32	d11	d11	±0,4	±2	±0,5	+0,3/+2,0	+0,3/+3,0
40	d11	d11	±0,7	±2	±0,5	+0,3/+2,0	+0,3/+3,0
50	d11	d11	±0,7	±2	±0,6	+0,3/+2,0	+0,3/+3,0
63	d11	d11	±0,8	±2	±0,7	+0,3/+2,0	+0,3/+3,0
80	d11	d11	±0,8	±3	±0,7	+0,3/+2,0	+0,3/+3,0
100	d11	d11	±1,0	±3	±0,7	+0,3/+2,0	+0,3/+3,0
125	d11	d11	±1,0	±3	±1,1	+0,3/+2,0	+0,3/+3,0

Electronic sensors

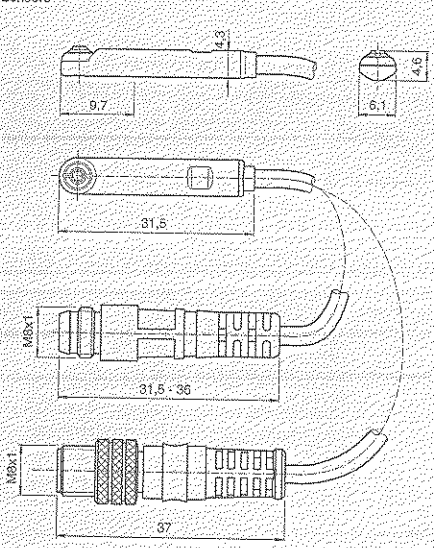


Reed sensors

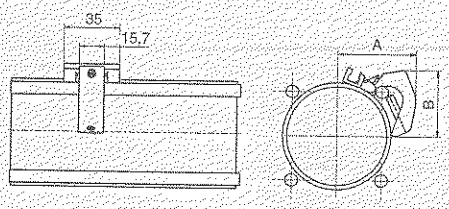


Dimensions

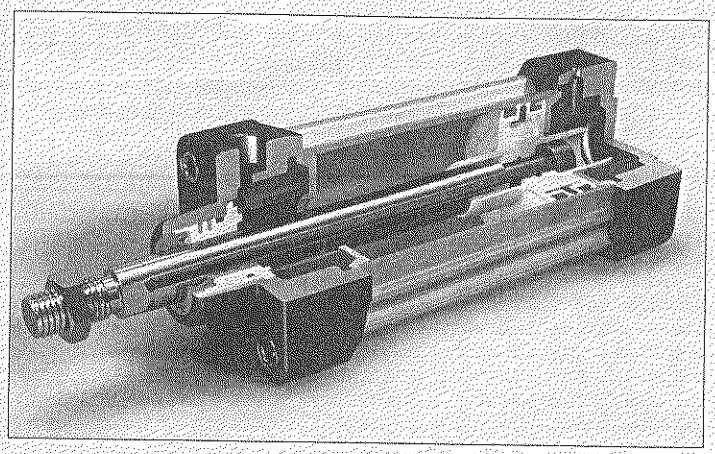
Sensors



Adapter for P1D-T



Cyl. bore mm	A mm	B mm
32	35	26
40	39	30
50	44	30
63	50	42
80	54	52
100	62	60
125	74	69



Seal kits for P1D cylinder

Cyl. bore mm	P1D Cylinder version			
	Standard P1D-S, P1D-T, P1D-C, P1D-F	High-temperature P1D-S	Low-temperature P1D-S	Low pressure hydraulic P1D-S
32	P1D-6KRN	P1D-6KRF	P1D-6KRL	P1D-6KRH
40	P1D-6LRN	P1D-6LRF	P1D-6LRL	P1D-6LRH
50	P1D-6MRN	P1D-6MRF	P1D-6MRL	P1D-6MRH
63	P1D-6NRN	P1D-6NRF	P1D-6NRL	P1D-6NRH
80	P1D-6PRN	P1D-6PRF	P1D-6PRL	P1D-6PRH
100	P1D-6QRN	P1D-6QRF	P1D-6QRL	P1D-6QRH
125	P1D-6RRN	P1D-6RRF	P1D-6RRL	P1D-6RRH

Cyl. bore mm	P1D Option
	Through piston rod Standard temperature P1D-S, P1D-T, P1D-C, P1D-F
32	P1D-6KRNF
40	P1D-6LRNF
50	P1D-6MRNF
63	P1D-6NRNF
80	P1D-6PRNF
100	P1D-6QRNF
125	P1D-6RRNF

Grease

Standard	30g	9127394541
High-temperature	30g	9127394521
Low-temperature	30g	9127394541

Prelubricated, further lubrication is not normally necessary.
If additional lubrication is introduced it must be continued.
The following oils are recommended.

Pré-lubrifié, une lubrification ultérieure n'est pas nécessaire.
Si une lubrification additionnelle est effectuée, elle doit obligatoirement être renouvelée périodiquement.
Les huiles suivantes sont recommandées.

Vorgefettet. Geeignet für den Betrieb mit ungeölter Druckluft.
Nach Betrieb mit geölter Druckluft müssen Zylinder weiterhin mit geölter Luft betrieben werden. Folgenden Ölsorten werden empfohlen.

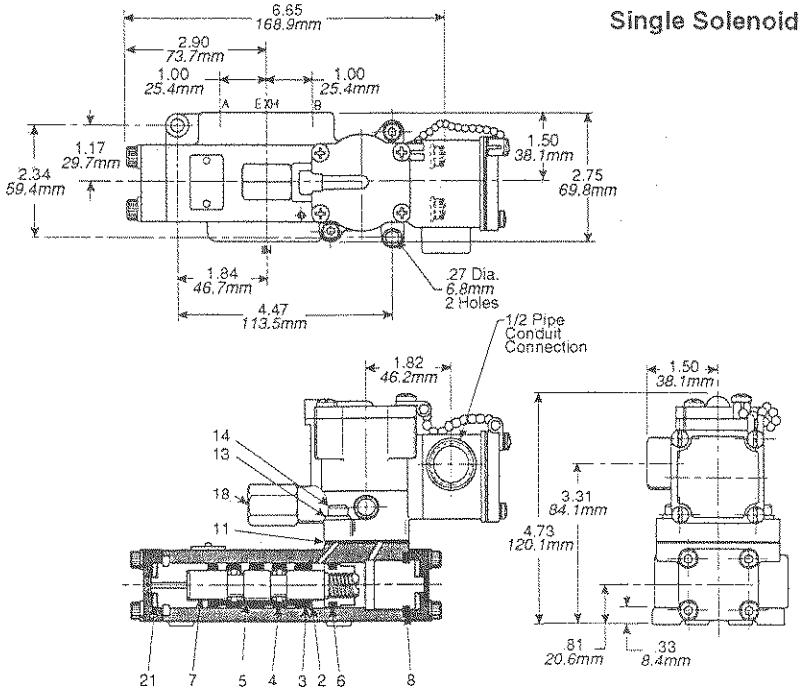
Prelubrificato, non necessita di ulteriore lubrificazione. Nel caso di lubrificazione aggiuntiva, questa dovra essere continua.
Sono raccomandati i seguenti lubrificanti.

Lubricado de fábrica. No necesita lubricación.
Si se lubrica, es necesario seguir haciéndolo
Se recomiendan los siguientes aceites.

Initialsmord, behöver normalt inte tillsatssmörjas.
Påbörjad tillsatssmörjning måste dock fortsätta.
Följande oljor rekommenderas.

Oil company	Designation	Grade
Century Oils	P.W.L.A	32
Alexander Duckham	Zurcon 4	32
Gulf	Harmony 43AW	32
Shell (UK) Oil	Tellus 37	37
Burmah Castrol	Hyspin AWS32	32
Edgar Vaughan	Hydrodrive HP100	32
Esso Petroleum	NUTO H32	32
BP	HLP 32	32
Mobile Oil Company	DTE Oil - Light	32
Mobile	VPI-A	32
Silkolene	Derwent 32	32

Single Solenoid

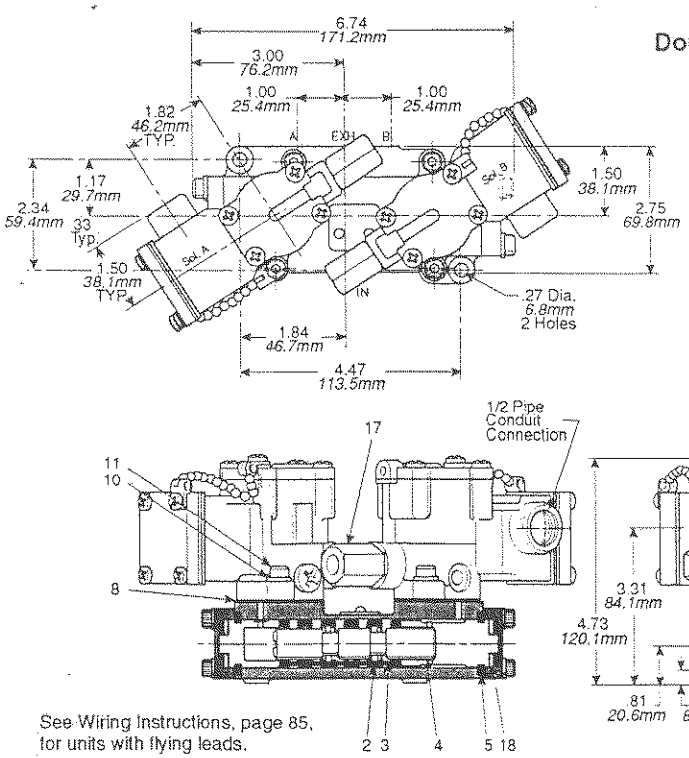


Parts List

Item No.	Part No.	Description
2	K18R311093	Retaining Ring
3	K453 006	Spacer
* 4	—	O-Ring
5	K453 005	Spacer
* 6	—	Seal
7	K232 018	Spool Assy.
* 8	—	Seal
*11	—	Gasket
13	H175 12	Lockwasher
14	H100 60	Cap Screw
18	K152 003	Override Assy.
21	K983 001	Shock Pad

* Standard Service Kit: K352 150
* Special Service Kit: K352 350 (Continuous Duty)

Double Solenoid



See Wiring Instructions, page 85, for units with flying leads.

Parts List

Item No.	Part No.	Description
* 2	—	O-Ring
3	K453 005	Spacer
4	K493 005	Spool
* 5	—	Seal
* 8	—	Gasket
10	H175 12	Lockwasher
11	H100 60	Cap Screw
17	K152 003	Override Assy.
18	K983 001	Shock Pad

* Standard Service Kit: K352 151
* Special Service Kit: K352 351 (Continuous Duty)

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatic

Pneumatic Division North America
Richland, MI 49083

Installation Instructions: V-531P

1/4" SK-200 Double Operated Valves
2-Position

ISSUED: May, 2001
Supersedes: November, 1998

ECN #9369 Rev. 6

⚠ WARNING

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Disconnect electrical supply before installation, servicing or conversion.
- Operate within the manufacturer's specified pressure, temperature, voltage and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed on these instructions.
- Installation, service and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

INSTALLATION / OPERATING INSTRUCTIONS

Valve should be installed with reasonable accessibility for service whenever possible -- repair service kits are available. Keep pipe or tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe -- never into the female port. Do not use PTFE tape to seal pipe joints -- pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction. Mounting bolt torque 80-90 in-lb. for manifold and subbase mounting valves.

⚠ **CAUTION:** Mount the valve so that the main valve spool is horizontal. When the valve is depressurized the spool could shift due to the effects of gravity and/or vibration.

Air applied to the valve must be filtered to realize maximum component life.

Life Expectancy - Normal multi-million cycle life expectancy of these valves is based on the use of properly filtered and lubricated air at room temperature. However , these valves contain o-rings specially compounded with 12% molybdenum disulfide to assure long wear in applications where air line lubrication is undesirable.

Factory Pre-Lubrication - Valves are pre-lubricated at assembly with Sunaplex 781 or equivalent (Petroleum Base - Lithium Content) grease. Valves specified for vacuum service are lubricated with Dow Corning Valve Seal A.

In-Service Lubrication - F442 oil is recommended for in-service lubrication. This oil is specially formulated to provide peak performance and maximum service life from all air operated equipment. Otherwise, use an air line lubricant (compatible with Nitrile & Polyurethane seals) which will readily atomize and be of the medium aniline type. Aniline point range must be between 180° and 220° F. Viscosity at 100° F: 140 - 170 SUS.

⚠ **CAUTION:** Do not use synthetic, reconstituted, or oils with an alcohol content or detergent additive.

Override Operation - To operate override push and turn to a full stop (at least 90°).

APPLICATION LIMITS

These products are intended for use in general purpose compressed air systems only.

Operating pressure range:	**PSIG**	**Bar**	**kPa**
Minimum	35	2.41	241
Maximum	**PSIG**	**Bar**	**kPa**
Solenoid Operated Std Service	140	9.65	965
Solenoid Operated Spl Service*	200	13.79	1379
Remote Operated - Main Valve	250	17.24	1724
Remote Operated - Pilot Signal	200	13.79	1379

*(9th digit of model number is a "3", i.e. L4152810353).

Operating Temperature Range:

Operator Type	Duty Cycle	Minimum Ambient Temperature	Maximum Ambient Temperature
Standard Service Solenoid	Intermittent	0°F (-18°C)	125°F (52°C)
	Continuous	0°F (-18°C)	100°F (38°C)
Special Service Solenoid	Intermittent	0°F (-18°C)	125°F (52°C)
	Continuous	0°F (-18°C)	125°F (52°C)
Remote Pilot	Not Applicable	0°F (-18°C)	200°F (93°C)

Voltage Range: +10% to -15% of rating

WIRING INSTRUCTIONS

Units with flying leads

Either wire may be "Hot".

⚠ **CAUTION:** DC solenoids with indicator lights and/or arc suppression coils are polarity sensitive. Use red wire as positive.

Units with plug-in subbases or manifolds

Use wires marked "1" and "2" for Solenoid "A". Use wires marked "2" and "3" for solenoid "B". For units with DC solenoids and indicator lights or arc suppression coils, wire marked "2" is positive.

⚠ **CAUTION:** DC solenoids with indicator lights and/or arc suppression coils are polarity sensitive. Observe polarities indicated above.

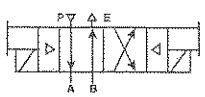
⚠ **CAUTION:** An interruption of 10 milliseconds or greater to the power supplied to the solenoid of a solenoid operated valve may cause the valve to shift. Provision must be made to prevent power interruption of this duration to avoid unintended, potentially hazardous, consequences.

Earth ground: All electrically operated valves must be provided a proper earth ground. Connect to green wire from valve.

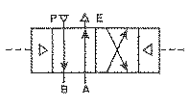
NOTE: In addition to the above instructions, follow all requirements for local and national electrical codes.

ANSI SYMBOLS

Double Solenoid Operated



Double Remote Pilot Operated



INSTALLATION

Manifold and Subbase Mounted Valves

VALVE MOUNTING PROCEDURES

1) Clean top surface of subbase or manifold and bottom surface of valve body of any dirt or dust.
2) Position gasket on top of subbase or manifold, lining up all four mounting holes.
3) Place valve on top of gasket, lining up all four mounting holes. Electrically operated valves also require pressing down on valve to seat electrical plug.
4) Insert (4) valve mounting screws and torque to 80 - 90 in-lb. in progressive steps with a criss-cross pattern.

SUBBASE PORT CONNECTIONS

1) Connect inlet air supply to port "IN".
2) Connect muffler (or plumb exhaust) from exhaust port.
3) Connect cylinder ports "A" and "B" to ends of cylinder or other device to be supplied air.

MANIFOLD PORT CONNECTIONS

1) Connect inlet air supply to manifold inlet gallery by one of the following methods:

   All valves to be supplied with a common pressure: Connect air supply to inlet port on either end of manifold package and plug other inlet port (or connect air supply to both ends for applications requiring a larger volume of air).
   Two groups of valves each requiring a different pressure: Isolate valves into two groups using ***Manifold Isolation Procedures*** below. Connect appropriate air supply to each end of manifold bank at inlet port.

2) Connect mufflers (or plumb exhaust) at exhaust ports.
3) Connect cylinder ports "A" and "B" to ends of cylinder or other device to be supplied air. Connections are commonly made to ports on end of manifold opposite wiring cavity. If bottom ports are more accessible to your application, plug end cylinder ports and remove plugs from bottom ports.

MANIFOLD ISOLATION PROCEDURES

Inlet and exhaust galleries may be isolated from those in neighboring manifolds through the use of flush pipe plugs.

1) Determine gallery and manifold position to be isolated.
2) Apply pipe sealant to threads of pipe plug.
3) Screw pipe plug into threaded end of gallery and tighten.

MANIFOLD APPLICATION / MANIFOLD ASSEMBLY PROCEDURES

See ***Installation Instructions V-533P 1/4" Series Subbases and Manifolds*** packed with subbases and manifolds.

Direct Pipe Ported Valves

PORT CONNECTIONS

1) Connect a single inlet air supply to port "IN".
2) Connect muffler (or plumb exhaust) from port "EXH".
3) Connect cylinder ports "A" and "B" to ends of cylinder or other device to be supplied air.

SERVICE KITS / PARTS

Service Kit (Double Solenoid - Standard Service)	K352151
Service Kit (Double Solenoid - Special Service)	K352351
Service Kit (Double Remote Pilot Operated)	K352357
Pilot Valve / Remote Pilot Gasket	K183001
Body to Base Gasket	K183054
Indicator Light (24VDC - Line Mounting)	H19110
Indicator Light (24VDC - Base Mounting)	H19112
Indicator Light (120V / 60 HZ - Line Mounting)	H19102
Indicator Light (120V / 60 HZ - Base Mounting)	H19105

Direct Pipe Ported Valves

Voltage			Coil	
60 Hz	50 Hz	D. C.	19" Leads	72" Leads
12	--	--	K593007	K593178
24	--	6	K593003	K593179
--	24	--	K593015	K593181
--	36	--	K593016	K593183
--	--	12	K593010	K593182
--	--	24 (Standard)	K593014	K593184
--	--	24 (Arc Suppressed)	K593271	K593272
--	--	48	K593028	K593185
120	110	--	K593025	K593186
240	220	--	K593035	K593187
--	240	--	K593033	K593188
--	--	90	K593020	K593189
--	--	115	K593041	K593190
--	380	--	K593038	K593191

Base Mounting Valves

Voltage			Coil	
60 Hz	50 Hz	D. C.	No Light	With Light
12	--	--	K593052	--
24	--	6	K593048	--
--	24	--	K593061	--
--	36	--	K593062	--
--	--	12	K593055	--
--	--	24 (Standard)	K593060	K593274
--	--	24 (Arc Suppressed)	K593305	K593275
--	--	48	K593074	--
120	110	--	K593071	K593125
240	220	--	K593081	--
--	240	--	K593079	--

BARBIERI COSTRUZIONI MECCANICHE
MODENA ITALY

SCHEDA DI CONTROLLO DIMENSIONALE E PROVA DI FUNZIONAMENTO

DIMENSIONAL CONTROL DATA SHEET AND TEST ACCORDING:

DIS. N° / DRW. N° 012-87-000

CLIENTE / CLIENT DESMET BALLESTRA

COMMESSA N° / JOB 2F11A ITEM 62W3

TIPO MACCHINA / MACHINE TYPE DEVIATORE INOX 324 x 324

MATRICOLA MACCHINA / MACHINE CODE 12220

TEST DATA - DATI RILEVATI

VERIFICA FUNZIONAMENTO A VUOTO / RUNNING TEST EMPTY effettuata ☒ non effettuata ☐

VERIFICA DIMENSIONALE / DIMENSIONAL TEST effettuata ☒ non effettuata ☐

DATA 07/01/2013 FIRMA

Section 14 Diverting valves ITEM 62W3

(Job 2F11A) – ord. 121576

Step	Description	Reference Documents	Inspection						Notes
			Manufacturer		Ballestra		Third Party		
			Test	Report	Attend	Dept	Attend	Report	
1	Construction Drawing Approval	Equipment specification Data sheet	12/07/12		H	MAC			
2	Review of mill certificates	Design Code Ballestra Material Requisition	18/09/12		R				
3	Visual and dimensional check of preassembled machine	Erection drawings Data sheet	03/10/12	Yes	H	COL			
4	Fabricate parts identification marks (if any)	Erection drawings			H	COL			Not applicable
5	Functional test / Running test	Manufacturer procedure	07/01/13	Yes	H	COL			
6	Current Absorption check	Motor nameplate/Data Sheet	07/01/13	Yes	W	COL			
7	Surfaces treatment/ Painting check	Manufacturer specification Ballestra Material Requisition	07/01/13	Yes	W	COL			
8	Nameplate Check	Ballestra Material Requisition	07/01/13		H	COL			"CE" marking if required
9	Accessories and Spare Parts check	Ballestra Material Requisition	07/01/13	Yes	SW	COL			
10	Documents review	Applicable code Ballestra Material Requisition	07/01/13	Yes	R	MAC			

BARBIERI COSTRUZIONI MECCANICHE MODENA ITALY	TABLE N° SRI-012-87	
	JOB N° 2F11A	ITEM 62W3
	CODE 12220	ORD.N° 121576

DIVERTING VALVE 324x324

POS.	DESCRIPTION	Q.TY	CODE
1	PNEUMATIC CYLINDER	1	401.132
2	SOLENOID VALVE	1	402.573
3	BEARING	2	22.988
4	MORTISE-JOINT	1	114.608
5	TEFLON	1	401.032
6	TEFLON	2	401.033
7	LIMIT SWITCH	2	402.574
8			
9			
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DATE 14-11-2012	ISSUED BY M.W.	SHEET N°1

BARBIERI COSTRUZIONI MECCANICHE s.r.l.
SEDE AMMINISTRATIVA E STABILIMENTO
41100 MODENA - ITALIA - VIA MORANE, 264
TEL. 059 30.00.18 - 059 30.00.23
TELEFAX 059 30.00.95
e-mail: info@barbieri-cm.it

REGISTRO IMPRESE TRIB. DI MODENA N. 3190
ALBO NAZIONALE COSTRUTTORI N. 28895/09

Codice Fiscale e Partita I.V.A. **N.° 00178890364**

BARBIERI FBM

S.R.L. - Cap. soc. € 95.000,00

DECLARATION

To Whom It May Concern

The undersigned Barbieri Alberto in his capacity as legal representative at Barbieri Costruzioni Meccaniche srl a company having its registered office at Modena – Via Morane 264, hereby declares that the goods described on the your order:

- n° 121576 dated 28-06-2012

are not included on the list of dual use items and technologies referred to in the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 (setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items); are not, directly or indirectly, in full or in part, military nor originally designed as component of any weapon, instrument or supply for military use.

Barbieri Alberto
(Legal Representative)

Modena, 7 January 2013

BARBIERI COSTRUZIONI MECCANICHE s.r.l.
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Codice Fiscale e Partita I.V.A. N.° 00178890364

BARBIERI FBM

S.R.L. - Cap. soc. € 95.000,00

SPETT.

DESMET BALLESTRA S.P.A.
Via P. Portaluppi, 17
20138 MILANO

07-01-2013

Rif: Vs. ordine n° 121576 del 28-06-2012

Si certifica che la valvola deviatrice di comando ITEM 62W3 commessa N° 2F11A è stata collaudata a vuoto, con esito positivo, presso il nostro stabilimento e che i materiali impiegati per la costruzione sono idonei a tale impiego.

We certify the diverting valve ITEM 62W3 - JOB N° 2F11A has been positively tested without material at our factory.
We further certify that all the materials used for this conveyor are suitable for the use.

BARBIERI COSTRUZIONI MECCANICHE S.R.L. MODENA

BARBIERI COSTRUZIONI MECCANICHE s.r.l.
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Codice Fiscale e Partita I.V.A. **N.° 00178890364**

BARBIERI FBM

S.R.L. - Cap. soc. € 95.000,00

DECLARATION OF CONFORMITY CE

The undersigned **BARBIERI COSTRUZIONI MECCANICHE S.R.L.**
Via Morane, 264 - 41125 MODENA (ITALY) TEL. 059/300018 - FAX 059/300095

Herewith declares that:

THE TWO WAYS VALVE ITEM 62W3

Job : 2F11A

MANUFACTURING YEAR: 2012

SERIES No: 12220

Is in conformity with the provisions of the MACHINERY DIRECTIVE (Directive 2006/42/EC)

HARMONIZED STANDARDS:

EN 12100-1	(SAFETY OF MACHINERY)
EN 12100-2	(SAFETY OF MACHINERY)

IT IS NOT ALLOWED TO PUT THE TWO WAYS VALVE INTO SERVICE UNTIL THE MACHINERY INTO WHICH IT IS TO BE INCORPORATED HAS BEEN FOUND AND DECLARED TO BE IN CONFORMITY WITH THE PROVISIONS OF DIRECTIVE.

Legal representative
Alberto Barbieri

Modena, 07 January 2013

N° Certificato: 57505 Pagina: 1

ACERINOX, S.A.

INSPECTION CERTIFICATE

CERTIFICADO DE INSPECCION 3.1

ACCORDING TO EN 10204 CERTIFICATE N° 56 2011 2094 60001 4

CUSTOMER

DKI ACCIAI INOSSIDABILI SPA
VIA PARADIGNA, 95/A
43122 PARMA

OUR ORDER N° MN 16033

YOUR ORDER N°

TRADE MARK

INSPECTOR'S STAMP

STEELMAKING PROCESS
A.O.D.

REQUIREMENTS	INTERGRANULAR CORROSION	GRADE		FINISH
ASTM-A240Ed10;A480Ed10/ASME secII-A SA240Ed07;SA480Ed07Addenda 2009;DQS-766-D	ASTM-A-262 PRACTICA E	Acx 160	TP-304/304L	2B

COIL / BOX	CONTENT	DIMENSIONS THICKNESS	DIMENSIONS WIDTH	DIMENSIONS LENGTH	MARKS	QUANTITY	TEST N°	
01W2V8 A	01W2V8 A	3,000	1500,00		1	1	01W2V8	C

CHEMICAL ANALYSIS / COMPOSICION QUIMICA (%)

HEAT N°	C	CR	CU	MN	MO	N	NI	P	S	SI
REQUIREMENTS	0,030	18,000 20,000	0,750	2,000	0,750	0,100	8,000 10,500	0,045	0,030	0,750
W2V8	0,025	18,161	0,375	1,777	0,233	0,072	8,074	0,029	0,001	0,329

MECHANICAL PROPERTIES / CARACTERISTICAS MECANICAS

TEST N°	PROBE		Rm N/mm2	Rp 0,2 N/mm2	A5D %	HRB
REQUIREMENTS			515,00 690,00	205,00	40,00	92,00
01W2V8	C	T	644,83	323,99	55,35	84,00

REMARKS / OBSERVACIONES

MATERIAL ACCORDING TO ASME-SA-480;AMS-5511G;ASTM-A-666-03;
MIL-S-4043B.
FREE OF MERCURY CONTAMINATION/SOLUTION ANNEAL 1050 - 1100° C
NO WELD REPAIRS.
The delivery is in accordance with the order

SURFACE AND DIMENSIONAL CONTROL

SATISFACTORY
Satisfactoria

WORK INSPECTOR

A. Heredia

Palmones, 24 MARZO 2011

This to declare that the material as described in here has been cut to
LAM 304 3000X1500X3,0 2B
21-APR-2011 10:36

96%

P.02

USE AND MAINTENANCE MANUAL

TWO WAYS VALVE – PNEUMATIC DRIVE

- General features
- List of safety devices
- Machine plates
- Assembly
- Use
- Maintenance
- Spare parts list

VALVE Serial No. : 12220 ITEM 62W3

Job No. 2F11A

NOTE:

This device cannot be used alone. It must be inserted in a conveyor system.

In the absence of details, refer to the other chapters of the manual of which this manual forms an integral part.

GENERAL FEATURES

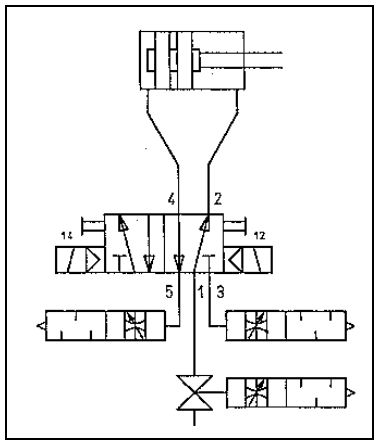
The valve consists of a shaped stainless steel frame and a mobile diverter activated by a pneumatic cylinder with solenoid valve. The valve is used for diverting the product from a feed tube to either of two different outfeeds, depending on the work cycle.

POSITION MICROSWITCHES (IF INCLUDED)
They perform a double function - indicating the position of the diverter and stopping the blade control element when it is at its front or rear dead centre.

SUPPLIES

Solenoid valve power supply	: V. 230 50/60 Hz
Pneumatic system	: Air – 6 atm
Channel dimensions	: 324 x 324 mm.
Transported product	: additives
Weight	: 115 Kg

These devices are supplied without any electric system.



LIST OF SAFETY DEVICES

SUPPLIED WITH THE MACHINE

1. Sheet metal side guards

TO BE SUPPLIED BY INSTALLER

1. Safety panels according to the distance from the hazard points.

2. Emergency switches or pushbuttons; switches for local control

PLATES ON THE MACHINE

WARNING NOTICES

The user must take note of the stickers applied on the machine indicating warnings and/or possible hazard situations.
Make sure these notices are legible and, if necessary, replace them or wipe with a clean cloth; avoid using solvents, petrol, etc.

The **"DANGER OF CRUSHING"** sign on the guards indicates moving parts with danger of crushing.

ASSEMBLY

- The device is completely assembled on the conveyor concerned at the manufacturer's factory.

USE

CAUTION!
During the normal production cycle, DO NOT insert hands in the working area of the moving parts as there is danger of crushing.
The valve can only operate in automatic mode once it is assembled to the conveyor system of which it must form a part.
It is therefore forbidden to operate the machine outside the system mentioned above, since the risk deriving from accessibility to the moving blade through the loading/unloading ports will only be eliminated when the device is connected to the machines upline and downline.

ADJUSTMENT

If adjustment is found to be necessary, make sure the machine is stopped, and take appropriate precautions to prevent accidental start-up in accordance with the instructions of the electrical system design engineer.
Also close the air delivery cocks to the solenoid valves and discharge the air.
The position of the diverter can be adjusted by means of the nuts fitted on the threaded pin on the rear of the pneumatic cylinder or on the cylinder rod fork.

PRELIMINARY OPERATIONS

Before starting up the valve, ensure that:

* All the parts subject to lubrication have been lubricated correctly
* All bolted connections are secured tight
* There are no foreign bodies inside the valve
* The voltage supplied to the control motor or solenoid valves corresponds to that indicated on their rating plates
* All guards provided by the manufacturer are mounted correctly

TEST RUNNING

After carrying out the checks mentioned above, start up the diverter, to carry out an empty test, by pressurizing the cylinder.
This test is meant to ensure that the blade is free to move correctly and that the limit stops (if included) are positioned correctly and therefore get energized to give the required enabling signals.

STARTING UP THE AUTOMATIC WORK CYCLE

After test running of the diverter proceed with final machine start-up according to the system logic.

MAINTENANCE

The device must be subjected to checking and maintenance to keep the operating and safety conditions envisaged by the manufacturer unchanged over time.

Maintenance operations must be carried out by maintenance service personnel.
Tampering by unskilled personnel can affect the working efficiency of the machine and frees the manufacturer of all liability.

CAUTION: before carrying out maintenance, stop the feed conveyor, empty the valve take appropriate precautions to prevent accidental start-up of movements in accordance with the electrical system designer's instructions, close the air inlet cocks to the solenoid valves and discharge the air.

CHECKS REQUIRED:

- Check for oil or air leaks
- Ensure tightening of bolts
- Make sure oil is available in the compressed air line lubricators
- Check for product leaks from the diverter shaft, and replace gasket, if necessary

SPARE PARTS LIST

Cylinder	brand	: Parker
	type	: P1D-T063-MS-0150
	bore	: 63 mm.
	stroke	: 150 mm.
Solenoid valve	brand	: Parker
	type	: P2LCZ513EENDCB57
Switch	brand	: Telemecanique
	type	: SNR.XCKM121TH
Air flow regulator	brand	: Parker
	type	: PTF4 3/8”