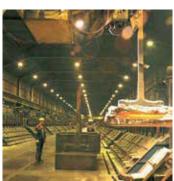


J*J Air Systems





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climate control
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hydraulics
pneumatics
process control
sealing & shielding





ATEX

Pneumatic Components for ATEX environments

Catalogue PDE2584TCUK November 2015





PRODUCTS	ORDER CODES	LABELS	ZONES	CERTIFICATION N°	PAGE
Air motor	P1V-S *	II 2 GD c IIC T6 (80 °C) X	1, 2, 21, 22	IBEXU04ATEXB004X	8
	F1V-5	II 2 GD c IIC T5 (95 °C) X	1, 2, 21, 22	IBEXUU4AI EABUU4A	to 10
Air motor	P1V-M	II 2 GD c IIC T6 (80 °C) X	1, 2, 21, 22	IBExU14ATEXB017X	11 to 12
Rodless cylinder	OSP-P SLIDELINE BASIC GUIDE	II 2 GD c T4 T135°C -10°C ≤Ta≤+60°C	1, 2, 21, 22		13
Pneumatic cylinder	P1S	II 2 GD c T4 120 °C	1, 2, 21, 22	CEF501005 (Avtal/«cert» nr 399801) (quality Véritas : 98-SKM-AQ-010)	14
Pneumatic cylinder	P1D-S	II 2 GD c T4 120 °C	1, 2, 21, 22	CEF501005 (Avtal/«cert» nr 399801) (quality Véritas : 98-SKM-AQ-010)	15
Pneumatic cylinder	P1D-T	II 2 GD c T4 120 °C	1, 2, 21, 22	CEF501005 (Avtal/«cert» nr 399801) (quality Véritas : 98-SKM-AQ-010)	16 to 17
Pneumatic valve	DX1, DX2, DX3 **	II 2 GD c 85 °C	1, 2, 21, 22	LCIE 04 ATEX 6165X	18 to 19
Pneumatic valve	PVL-C	II 2 GD c 135 °C	1, 2, 21, 22	Acknowledgement of file deposit LCIE 06 AR 018 NM	20 to 21
Viking Xtreme valve	P2L	II 2 GD c 135 °C	1, 2, 21, 22	Acknowledgement of file deposit LCIE 07 AR 069 NM	22 to 25
Sensor	RS-K & ES-K P8S-GPFLX/EX	II 3 G EEx nA II T4 X II 3 D T135 °C IP67	2 22	Not exist (internal product inspection VIII)	17
Solenoid 30 mm	P2FS	II 2 GD Ex mb II T5 or T4 IP66 T100 °C ou T135 °C	1, 2, 21, 22	CESI 05 ATEX 085 X (quality Amisco : TÜV IT13 ATEX030) (quality Parker : LCIE 03 ATEX Q 8037)	19
Solenoid 22 mm	P2FS	II 2 GD Ex e II T4 Ex tD A21 T135 °C IP65	1, 2, 21, 22	LCIE 03 ATEX 6278X (quality Parker : LCIE 03 ATEX Q 8037)	21
Viking Xtreme solenoid	P2FS	II 2G EEx m II T4 II 2D IP65 T130 °C IEC Ex m II T4 IP65 DIP A21 T130 °C	1, 2, 21, 22	PTB 00 ATEX 2001X IECEX PTB 05.0006X	25
Limit switch	PXC-M	II 2 GD c 85 °C	1, 2, 21, 22	Acknowledgement of file deposit LCIE 06 AR 064 NM	26
Control duty	PXV-F1 PXB-B3 PXB-B4	II 2 GD c 85 °C II 2 GD c T6 80° II 2 GD c T6 80°	1, 2, 21, 22 1, 2, 21, 22 1, 2, 21, 22	Acknowl. of file deposit LCIE 06 AR 007 NM Acknowl. of file deposit LCIE09ATEX1032X	27 to 30
Logic	PLL-, PLK-, PLN-, PLJ-, PLM-, PRD-, PRF-, PRT-, PSM-, PSV-A1	II 2 GD c 85 °C	1, 2, 21, 22	LCIE 04 ATEX 6164X	31 to 32
Air Preparation	P31 P32 P33 P3Y P3Z	Can be used in a Group II Categoty 2 environment	1.21	Parker self declaration. Not withing the scope of Directive 94/9/EC.	33 to 37
Cylinder control	PWR-H PWR-HB PWS-P111	II 2 GD c 85 °C	1, 2, 21, 22	Acknowledgement of file deposit LCIE 08 AR018NM	38 to 39

* For power P1V-S012, 20, 30, 60, 120
** Operators: EV3000200, EV3001200, EV3003200, EV3000100, EV3001100, EV3003100, 1EV0.310, 1EV1.310, 1EV3.310

3

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Atmosphère explosible = Hazardous atmosphere



WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyse all all aspects of your application and review the information concerning the product or system in the current product catalogue. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, products features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

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Parker Hannifin Corporation Pneumatic Division - Europe



Introduction to the European ATEX directive Explosive atmospheres

Directive 94/9/EC defines an explosive atmosphere as a mixture of :

- a) flammable substances gases, vapours, mists or dusts
- b) with air
- c) under specific atmospheric conditions
- d) in which, after ignition has occurred, combustion spreads to the entire flammable mixture

(NB: with regard to dust, it may be that not all dust is combusted after ignition has occurred)

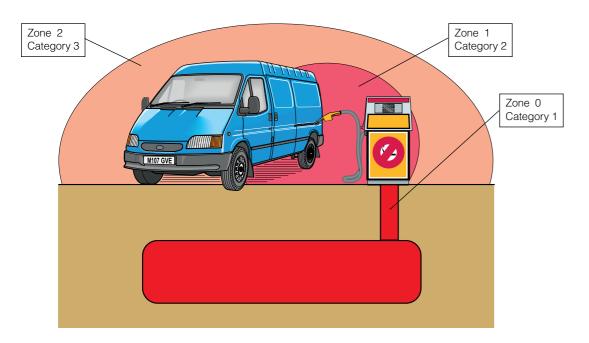
An atmosphere with the potential to become an explosive atmosphere during operating conditions and/or under the influence of the surroundings is defined as a **potentially explosive atmosphere**. Products covered by directive 94/9/EC are defined as intended for use in potentially explosive atmospheres.

Harmonised European ATEX standard

The European Union has adopted two harmonised directives in the field of health and safety. The directives are known as ATEX 100a and ATEX 137.

Directive ATEX 100a (94/9/EC) lays down minimum safety requirements for products intended for use in potentially explosive atmospheres in European Union member states. Directive ATEX 137 (99/92/EC) defines minimum requirements for health and safety at the workplace, for working conditions and for the handling of products and materials in potentially explosive atmospheres. This directive also divides the workplace into **zones** and defines criteria by which products are **categorised** within these zones.

The table below describes the **zones** in an installation where there is a potential for explosive atmospheres. The **owner** of the installation must analyse and assess the area in which the explosive gas/dust mixture may occur, and if necessary must divide it into **zones**. This process of zoning then allows the correct plant and equipment to be selected for use in the area.



Zo Gas G	nes Dust D	Presence of potentially explosive atmosphere	Type of risk
0	20	Present continuously or for long periods.	Permanent.
1	21	Likely to occur in normal operation occasionally.	Potential.
2	22	Not likely to occur in normal operation but, if it does occur, will persist for a short period only.	Minimal.

The ATEX directive has been in force throughout the European Union since 1 July 2003, replacing the existing divergent national and European legislation relating to explosive atmospheres.

Please note that for the first time, the directive covers mechanical, hydraulic and pneumatic equipment and not just electrical equipment as before

With regard to the **machinery directive** 98/37/EC, note that a number of external requirements in 94/9/EC refer to hazards arising from potentially explosive atmospheres, where the Machinery directive only contains general requirements relating to explosion safety (Annex I 1.5.7).

As a result, directive 94/9/EC (ATEX 100a) takes precedence over the Machinery directive with regard to explosion protection in potentially explosive atmospheres. The requirements in the Machinery directive are applicable to all other risks relating to machinery.

In most cases full certification is not required, a much more simple "Risk Assessment" as detailed in the Directive, for the products to be supplied will suffice. At the moment we are conducting "Risk Assessments" in accordance with the Directive, on a broad range of core products which will be published on the web site. A more limited range of products will have the full ATEX certification where this is deemed necessary.



Parker Hannifin Corporation Pneumatic Division - Europe

ATEX = "**AT**mosphère **EX**plosible"

Levels of protection for the various equipment categories

The various equipment categories must be capable of operating in accordance with the manufacturer's operating specifications at defined levels of protection.

Level of protection	Cate Group	gory Group II	Type of protection	Operating specifications
Very high	M1		Two independent means of protection or safety, ensuring that the equipment remains functional even in the event of two faults occurring independently of each other.	The equipment remains energised and functional even with an explosive atmosphere present.
Very high		1	Two independent means of protection or safety, ensuring that the equipment remains functional even in the event of two faults occurring independently of each other.	The equipment remains energised and functional in zones 0, 1, 2 (G) and/or zones 20, 21, 22 (D).
High	M2		Protection suitable for normal operation and severe operating conditions.	The equipment is de-energised in the event of an explosive atmosphere.
High		2	Protection suitable for normal operation and frequent faults, or equipment in which faults normally have to be taken into account.	The equipment remains energised and functional in zones 1, 2 (G) and/or zones 21, 22 (D).
Normal		3	Protection suitable for normal operation.	The equipment remains energised and functional in zones 2 (G) and/or zones 22 (D).

Definition of groups (EN 1127-1)

Group I Equipment intended for use in underground parts of mines as well as those parts of surface installations of such mines likely to be endangered by flammable vapours and/or flammable dusts.

Group II Equipment intended for use in other places exposed to explosive atmospheres.

Group	mines, combu	l stible vapours	ot	her potential	ly explosive	=	s (gases, du	st)
Category	M1	M2		1	2	2	;	3
Atmosphere*			G	D	G	D	G	D
Zone			0	20	1	21	2	22

^{*} G = gas and D = dust

Temperature classes

Classification of flammable gases and vapours on the basis of ignition temperature.

Temperature class	Max. allowed temperature on the surface of the material (°C)
T1	450
T2	300
T3	200
T4	135
T5	100
T6	85

Parker components out of scope of the ATEX Directive :

Essential elements with the reliable use of the products and protection systems, but not having an autonomous function nor an own ignition source.

Note:

Sample instruction leaflets are illustrated in the ATEX catalogue PDE2584TC** $\,$

in French, English, German, Italian, Spanish and Swedish. For other languages please consult your local Parker Sales Office.

Declaration of conformity

The product catalogues contain copies of the declaration of conformity demonstrating that the product meets the requirements of directive 94/9/EC.

The declaration is only valid in conjunction with the instructions contained in the installation manual relating to the safe use of the product throughout its service life.

The instructions relating to the conditions in the surrounding area are particularly important, as the certificate is invalidated if the instructions are found not to have been adhered to during operation of the product. If there is any doubt as to the validity of the certificate of conformity, contact Parker Hannifin customer service.

Operation, installation and maintenance

The product installation manual contains instructions relating to the safe storage, handling, operation and servicing of the product. The manual is available in different languages, and can be downloaded from www.parker.com/euro_pneumatic.

This document must be made accessible in a suitable place near where the product is installed. It is used as a reference for all personnel authorised to work with the product throughout its service

We, the manufacturer, reserve the right to modify, extend or improve the installation manual in the interests of the users.

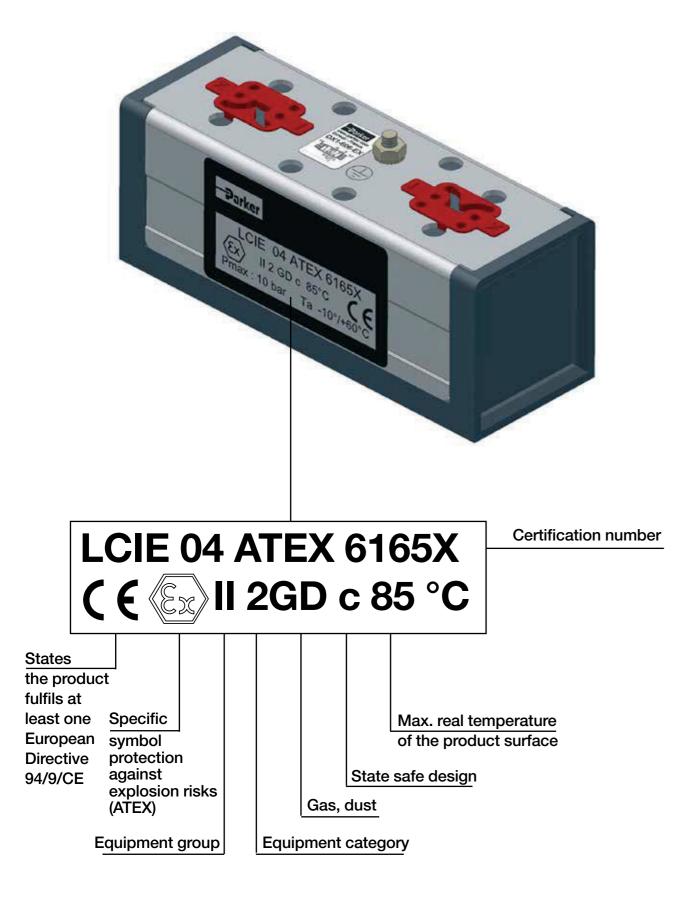
For more information about ATEX see EUs homepage: http://europa.eu.int/comm/enterprise/atex/

5



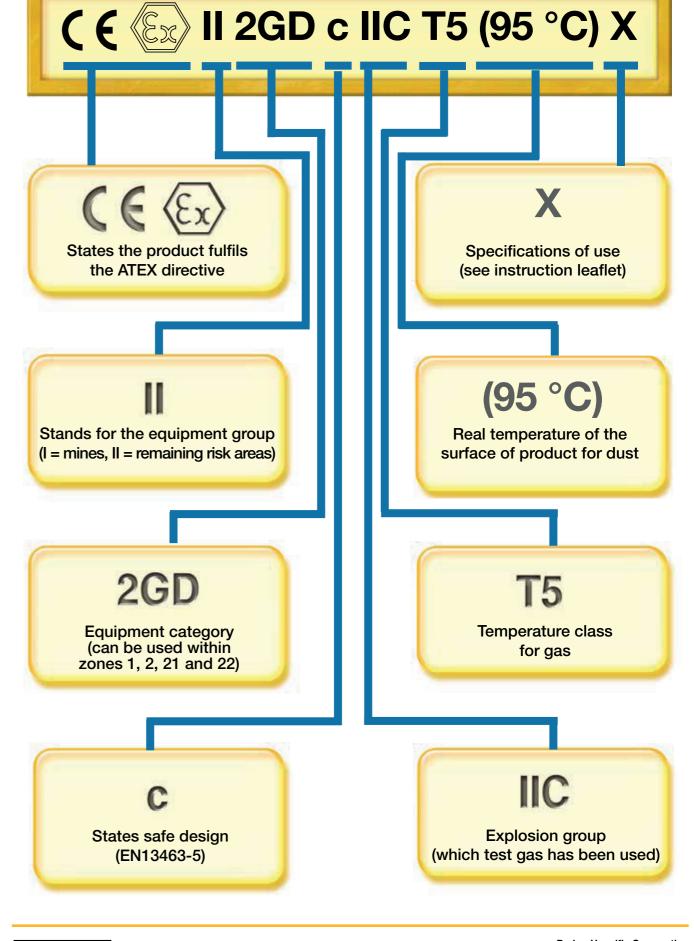
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ATEX products identification - Label example and significations



See complete chart next page





ATEX stainless steel air motors P1V-S

P1V-S is a range of air motors with all external components made of stainless steel, which means that they can be used in food grade applications, and in all other applications where there is a risk of corrosion.

- Power from 0.02 kW to 1.2 kW
- ATEX CE Ex approved from 0.12 kW to 1.2 kW
- Designed for arduous applications
- No-lube intermittent operation as standard





Operating information

Working pressure: Max 6 bar in Ex area
Working temperature: -20° to +40°C in Ex area
Fluid: Compressed air with ISO 8573-1 Quality class 3.4.3
(no-lube operation) and 3.-.5 (lube operation)

Note: All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%

For details, see technical catalogue on web site : www.parker.com/euro_pneumatic

Keyed shaft, P1V-S012A series,	120 watt - (G1/8)
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(€€	II2GD	cIIC T6	(80°C))
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Free speed rpm	Speed at max output r/min	Torque at max output Nm	Min start torque Nm	Air consumption at max output I/s	Conn.	Min pipe ID	Order code
22000	11000	0.10	0.15	5.0	G1/8	6	P1V-S012A0N00
5500	2750	0.40	0.60	5.0	G1/8	6	P1V-S012A0550
3600	1800	0.60	0.90	5.0	G1/8	6	P1V-S012A0360
1400	700	1.60	2.40	5.0	G1/8	6	P1V-S012A0140
900	450	2.50	3.80	5.0	G1/8	6	P1V-S012A0090
600	300	3.80	5.00*	5.0	G1/8	6	P1V-S012A0060
100	50	5.00*	5.00*	5.0	G1/8	6	P1V-S012A0010
	speed rpm 22000 5500 3600 1400 900 600	speed rpm max output r/min 22000 11000 5500 2750 3600 1800 1400 700 900 450 600 300	speed rpm max output r/min max output Nm 22000 11000 0.10 5500 2750 0.40 3600 1800 0.60 1400 700 1.60 900 450 2.50 600 300 3.80	speed rpm max output r/min max output Nm torque Nm 22000 11000 0.10 0.15 5500 2750 0.40 0.60 3600 1800 0.60 0.90 1400 700 1.60 2.40 900 450 2.50 3.80 600 300 3.80 5.00*	speed rpm max output r/min max output Nm torque Nm at max output Nm 22000 11000 0.10 0.15 5.0 5500 2750 0.40 0.60 5.0 3600 1800 0.60 0.90 5.0 1400 700 1.60 2.40 5.0 900 450 2.50 3.80 5.0 600 300 3.80 5.00* 5.0	speed rpm max output r/min max output Nm torque Nm at max output I/s 22000 11000 0.10 0.15 5.0 G1/8 5500 2750 0.40 0.60 5.0 G1/8 3600 1800 0.60 0.90 5.0 G1/8 1400 700 1.60 2.40 5.0 G1/8 900 450 2.50 3.80 5.0 G1/8 600 300 3.80 5.00* 5.0 G1/8	speed rpm max output r/min max output Nm torque Nm at max output I/s ID 22000 11000 0.10 0.15 5.0 G1/8 6 5500 2750 0.40 0.60 5.0 G1/8 6 3600 1800 0.60 0.90 5.0 G1/8 6 1400 700 1.60 2.40 5.0 G1/8 6 900 450 2.50 3.80 5.0 G1/8 6 600 300 3.80 5.00* 5.0 G1/8 6

Threaded	shaft, P1V-	S012D seri	es, 120 watt	- (G1/8)				(€ (II2GD cIIC T6 (80°C) X
0.12	22000	11000	0.10	0.15	5.0	G1/8	6	P1V-S012D0N00
0.12	5500	2750	0.40	0.60	5.0	G1/8	6	P1V-S012D0550
0.12	3600	1800	0.60	0.90	5.0	G1/8	6	P1V-S012D0360
0.12	1400	700	1.60	2.40	5.0	G1/8	6	P1V-S012D0140
0.12	900	450	2.50	3.80	5.0	G1/8	6	P1V-S012D0090
0.12	600	300	3,80	5.00*	5.0	G1/8	6	P1V-S012D0060
0.12	100	50	5.00*	5.00*	5.0	G1/8	6	P1V-S012D0010

0.12	100	50	5.00*	5.00*	5.0	G1/8	6	P1V-S012D0010
Keyed sha	ıft, P1V-S02	OA series,	200 watt - (0	G1/8)				C €
0.20	14500	7250	0.26	0,40	6.2	G1/8	10	P1V-S020A0E50
0.20	4600	2300	0.80	1,20	6.2	G1/8	10	P1V-S020A0460
0.20	2400	1200	1.60	2,40	6.2	G1/8	10	P1V-S020A0240
0.20	1400	700	2.70	4,10	6.2	G1/8	10	P1V-S020A0140
0.20	700	350	5.40	8,20	6.2	G1/8	10	P1V-S020A0070
0.20	320	160	12.00	18,00	6.2	G1/8	10	P1V-S020A0032
0.10	180	90	10.50	15,00	4.5	G1/8	10	P1V-S020A0018
0.18	50	25	20.00*	20,00*	6.2	G1/8	10	P1V-S020A0005
0.18	20	-	20.00*	20,00*	6.2	G1/8	10	P1V-S020A0002
0.18	10	-	20.00*	20,00*	6.2	G1/8	10	P1V-S020A0001
0.18	5	-	20.00*	20,00*	6.2	G1/8	10	P1V-S020A00005

^{*} Max allowed torque



Parker Hannifin Corporation Pneumatic Division - Europe ATEX stainless steel air motors P1V-S

Reversible air motors

hreaded s	haft, P1V	-S020D serie	es, 200 watt -	(G1/8)				(€ (E) II2GD cIIC T6 (80°)
lax output kW	Free speed rpm	Speed at max output r/min	Torque at max output Nm	Min start torque Nm	Air consumption at max output //s	Conn.	Min pipe ID	Order code
0.20	14500	7250	0.26	0.40	6.2	G1/8	10	P1V-S020D0E
0.20	4600	2300	0.80	1.20	6.2	G1/8	10	P1V-S020D046
0.20	2400	1200	1.60	2.40	6.2	G1/8	10	P1V-S020D024
0.20	1400	700	2.70	4.10	6.2	G1/8	10	P1V-S020D014
0.20	700	350	5.40	8.20	6.2	G1/8	10	P1V-S020D007
0.20	320	160	12.00	18.00	6.2	G1/8	10	P1V-S020D003
0.10	180	90	10.50	15.00	4.5	G1/8	10	P1V-S020D00
0.18	50	25	20.00*	20.00*	6.2	G1/8	10	P1V-S020D000
eyed shaf	t, P1V-S0	30A series,	300 watt - (G	1/4)				(€
0.30	14500	7250	0.40	0.60	7.8	G1/4	10	P1V-S030A0E
0.30	4600	2300	1.20	1.90	7.8	G1/4	10	P1V-S030A04
0.30	2400	1200	2.40	3.60	7.8	G1/4	10	P1V-S030A02
0.30	1400	700	4.10	6.10	7.8	G1/4	10	P1V-S030A01
0.30	600	300	9.60	14.30	7.8	G1/4	10	P1V-S030A00
0.30	340	170	16.90	25.30	7.8	G1/4	10	P1V-S030A00
0.30	230	115	24.00	36.00	7.8	G1/4	10	P1V-S030A00
0.13	180	90	13.80	21.00	4.7	G1/8	10	P1V-S030A00
0.30	100	50	57.00	85.50	7.8	G1/4	10	P1V-S030A00
0.30	50	25	36.00*	36.00*	7.8	G1/4	10	P1V-S030A00
		-S030D serie				G. 17 .		(€ (II2GD cIIC T6 (80°
0.30	14500	7250	0.40	0.60	7.8	G1/4	10	P1V-S030D0E
0.30	4600	2300	1.20	1.90	7.8	G1/4	10	P1V-S030D04
0.30	2400	1200	2.40	3.60	7.8	G1/4	10	P1V-S030D04
())()	2400	1200	2.40	3.00	7.0	G 1/4	10	F 1V-3030D02
	1400		4.10	6 10	7.0	C1/4	10	D4V 6020D04
0.30	1400	700	4.10	6.10	7.8	G1/4	10	
0.30 0.30	600	700 300	9.60	14.30	7.8	G1/4	10	P1V-S030D00
0.30 0.30 0.30	600 340	700 300 170	9.60 16.90	14.30 25.30	7.8 7.8	G1/4 G1/4	10 10	P1V-S030D00 P1V-S030D00
0.30 0.30	600	700 300	9.60	14.30	7.8	G1/4	10	P1V-S030D00 P1V-S030D00 P1V-S030D00
0.30 0.30 0.30 0.13 0.30	600 340 180 50	700 300 170 90	9.60 16.90 13.80 36.00*	14.30 25.30 21.00 36.00*	7.8 7.8 4.7	G1/4 G1/4 G1/8	10 10 10	P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00
0.30 0.30 0.30 0.13 0.30 eyed shaf	600 340 180 50 't, P1V-S0	700 300 170 90 25 960A series, 6	9.60 16.90 13.80 36.00*	14.30 25.30 21.00 36.00*	7.8 7.8 4.7 7.8	G1/4 G1/4 G1/8 G1/4	10 10 10 10	P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 C € □ II2GD cIIC T6 (803
0.30 0.30 0.30 0.13 0.30 eyed shaf	600 340 180 50 *t, P1V-S0	700 300 170 90 25 260A series, 6	9.60 16.90 13.80 36.00* 600 watt - (G :	14.30 25.30 21.00 36.00* 3/8)	7.8 7.8 4.7 7.8	G1/4 G1/4 G1/8 G1/4	10 10 10 10 10	P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 C € □ I2GD cliC T6 (80°
0.30 0.30 0.30 0.13 0.30 eyed shaf 0.60 0.60	600 340 180 50 't, P1V-S0 14000 3500	700 300 170 90 25 260A series, 6 7000 1750	9.60 16.90 13.80 36.00* 600 watt - (G : 0.82 3.20	14.30 25.30 21.00 36.00* 3/8)	7.8 7.8 4.7 7.8 14.2 14.2	G1/4 G1/4 G1/8 G1/4 G3/8 G3/8	10 10 10 10 10	P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 C € ★ II2GD clic T6 (80° P1V-S060A0E P1V-S060A03
0.30 0.30 0.30 0.13 0.30 eyed shaf 0.60 0.60 0.60	600 340 180 50 't, P1V-S0 14000 3500 2700	700 300 170 90 25 260A series, 6 7000 1750 1350	9.60 16.90 13.80 36.00* 600 watt - (G : 0.82 3.20 4.20	14.30 25.30 21.00 36.00* 3/8) 1.23 4.80 6.40	7.8 7.8 4.7 7.8 14.2 14.2 14.2	G1/4 G1/4 G1/8 G1/4 G3/8 G3/8 G3/8	10 10 10 10 10	P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 C € ★ II2GD clic T6 (80° P1V-S060A0E P1V-S060A03 P1V-S060A02
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0.30 0.30 0.30 0.13 0.30 eyed shaf 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60	600 340 180 50 tt, P1V-S0 14000 3500 2700 1700 630 480 300 150	700 300 170 90 25 260A series, 6 7000 1750 1350 850 315 240	9.60 16.90 13.80 36.00* 600 watt - (G: 0.82 3.20 4.20 6.70 18.00 23.90 38.20 38.20	14.30 25.30 21.00 36.00* 3/8) 1.23 4.80 6.40 10.10 27.00 36.00 57.00 57.00	7.8 7.8 4.7 7.8 14.2 14.2 14.2 14.2 14.2 14.2 14.2	G1/4 G1/4 G1/8 G1/4 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8	10 10 10 10 10 12 12 12 12 12 12 12	P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S060A00 P1V-S060A02 P1V-S060A01 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00
0.30 0.30 0.30 0.13 0.30 eyed shaft 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.90	600 340 180 50 it, P1V-S0 14000 3500 2700 1700 630 480 300 150 it, P1V-S0	700 300 170 90 25 060A series, 6 7000 1750 1350 850 315 240 150 75 090A series, 9	9.60 16.90 13.80 36.00* 600 watt - (G: 0.82 3.20 4.20 6.70 18.00 23.90 38.20 38.00 900 watt - (G: 1.40	14.30 25.30 21.00 36.00* 3/8) 1.23 4.80 6.40 10.10 27.00 36.00 57.00 57.00 3/8)	7.8 7.8 4.7 7.8 14.2 14.2 14.2 14.2 14.2 14.2 14.2 14.2 14.2	G1/4 G1/4 G1/8 G1/4 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8	10 10 10 10 10 11 12 12 12 12 12 12 12 12	P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 C € □ II2GD clic T6 (80° P1V-S060A03 P1V-S060A02 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00
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0.30 0.30 0.30 0.13 0.30 eyed shaft 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.90 0.90 0.90	600 340 180 50 it, P1V-S0 14000 3500 2700 1700 630 480 300 150 it, P1V-S0 12000 3500 2700	700 300 170 90 25 060A series, 6 7000 1750 1350 850 315 240 150 75 090A series, 9 6000 1750 1350	9.60 16.90 13.80 36.00* 600 watt - (G: 0.82 3.20 4.20 6.70 18.00 23.90 38.20 38.00 900 watt - (G: 1.40 4.90 6.30	14.30 25.30 21.00 36.00* 3/8) 1.23 4.80 6.40 10.10 27.00 36.00 57.00 57.00 3/8) 2.10 7.30 9.50	7.8 7.8 4.7 7.8 14.2 14.2 14.2 14.2 14.2 14.2 14.2 14.2 14.2 14.2 14.2 14.2	G1/4 G1/4 G1/8 G1/4 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8	10 10 10 10 10 11 12 12 12 12 12 12 12 12 12 12	P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S060A00 P1V-S060A002 P1V-S060A001 P1V-S060A000
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0.30 0.30 0.30 0.30 0.30 0.13 0.30 eyed shaf 0.60 0.60 0.60 0.60 0.60 0.30 eyed shaf 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.	600 340 180 50 14000 3500 2700 1700 630 480 300 150 12000 3500 2700 1700 630 480 300 1700 630 480 300	700 300 170 90 25 060A series, 6 7000 1750 1350 850 315 240 150 75 090A series, 9 6000 1750 1350 850 315 240 150 1350 850 315 240 150 1350 850 315 240 150	9.60 16.90 13.80 36.00* 600 watt - (G: 0.82 3.20 4.20 6.70 18.00 23.90 38.20 38.00 900 watt - (G: 1.40 4.90 6.30 10.10 27.00 35.00 57.00 1200 watt - (G: 2.50	14.30 25.30 21.00 36.00* 3/8) 1.23 4.80 6.40 10.10 27.00 36.00 57.00 57.00 3/8) 2.10 7.30 9.50 15.20 40.00 53.00 85.00 85.00	7.8 7.8 4.7 7.8 14.2 14.2 14.2 14.2 14.2 14.2 14.2 14.	G1/4 G1/4 G1/8 G1/8 G1/4 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8	10 10 10 10 10 11 12 12 12 12 12 12 12 12 12 12 12 12	P1V-S030D01 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S060A0E P1V-S060A02 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S090A002 P1V-S090A003
0.30 0.30 0.30 0.30 0.30 0.13 0.30 eyed shaf 0.60 0.60 0.60 0.60 0.60 0.30 eyed shaf 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.	600 340 180 50 14000 3500 2700 1700 630 480 300 150 12000 3500 2700 1700 630 480 300 1700 630 480 300 1700 630 480 300	700 300 170 90 25 060A series, 6 7000 1750 1350 850 315 240 150 75 090A series, 9 6000 1750 1350 850 315 240 150 1350 850 315 240 150 120A series, 1	9.60 16.90 13.80 36.00* 600 watt - (G: 0.82 3.20 4.20 6.70 18.00 23.90 38.20 38.00 000 watt - (G: 1.40 4.90 6.30 10.10 27.00 35.00 57.00 1200 watt - (G: 2.50 8.20	14.30 25.30 21.00 36.00* 3/8) 1.23 4.80 6.40 10.10 27.00 36.00 57.00 57.00 3/8) 2.10 7.30 9.50 15.20 40.00 53.00 85.00 33/4) 3.80 13.70	7.8 7.8 4.7 7.8 4.7 7.8 14.2 14.2 14.2 14.2 14.2 14.2 14.2 14.	G1/4 G1/4 G1/8 G1/8 G1/4 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8	10 10 10 10 10 110 12 12 12 12 12 12 12 12 12 12 12 12 12	P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A000 P1V-S090A000 P1V-S090A000 P1V-S090A000 P1V-S090A000 P1V-S090A000
0.30 0.30 0.30 0.30 0.30 0.13 0.30 eyed shaf 0.60 0.60 0.60 0.60 0.60 0.30 eyed shaf 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.	600 340 180 50 14000 3500 2700 1700 630 480 300 150 12000 3500 2700 1700 630 480 300 150 12000 3500 2700 1700 630 480 300	700 300 170 90 25 060A series, 6 7000 1750 1350 850 315 240 150 75 090A series, 9 6000 1750 1350 850 315 240 150 150 1350 850 315 240 150 20A series, 1	9.60 16.90 13.80 36.00* 600 watt - (G: 0.82 3.20 4.20 6.70 18.00 23.90 38.20 38.00 000 watt - (G: 1.40 4.90 6.30 10.10 27.00 35.00 57.00 1200 watt - (C: 2.50 8.20 21.00	14.30 25.30 21.00 36.00* 3/8) 1.23 4.80 6.40 10.10 27.00 36.00 57.00 57.00 3/8) 2.10 7.30 9.50 15.20 40.00 53.00 85.00 33/4) 3.80 13.70 31.00	7.8 7.8 4.7 7.8 4.7 7.8 14.2 14.2 14.2 14.2 14.2 14.2 14.2 14.	G1/4 G1/4 G1/8 G1/8 G1/4 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8 G3/8	10 10 10 10 10 11 12 12 12 12 12 12 12 12 12 12 12 12	P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S030D00 P1V-S060A00 P1V-S060A02 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S060A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A00 P1V-S090A000



^{*} Max permitted torque to not damage the gearbox

ATEX Robust air motors P1V-S

The high torque motors of the P1V-S type are small in size but provide extremely high output. Our high torque motors are also less apt to stall. These drive solutions are particularly suitable for use in industrial agitators and mixers as used in the paint industry, food industry or pharmaceutical industry.





- Power 0.28, 0.57 and 0.86 kW
- Designed for arduous applications
- No-lube intermittent operation as standard

Operating information

Working pressure Working temperature Fluid Max 6 bar in Ex area -20° to +40°C in Ex area Compressed air with ISO 8573-1 Quality class 3.4.3 (no-lube operation) and 3.-.5 (lube operation)

Note : All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower. Data tolerance accuracy -+10%

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For details, see technical catalogue on web site:

Keyed shaft, P1V-S028A series, 285 watt - (G3/8)

Max power	Free speed*	Nominal speed	Nominal torque	Min start	Air con- sumption at	Conn.	Min pipe ID	Weight	Order code
kW	rpm	rpm	Nm	torque Nm	max power		mm	Kg	
0.285	170	85	32	47	7.8	G3/8	10	2.700	P1V-S028A0017
0.285	80	40	62	92	7.8	G3/8	10	2.600	P1V-S028A0008
0.285	50	25	110	162	7.8	G3/8	10	2.900	P1V-S028A0005
0.280	26	13	210	320	7.8	G3/8	10	3.500	P1V-S028A0003
0.280	14	7	410	615	7.8	G3/8	10	3.500	P1V-S028A0002

Keyed shaft, P1V-S057A series, 570 watt - (G1/2)

Max power	Free speed*	Nominal speed	Nominal torque	Min start torque	Air con- sumption at max power	Conn.	Min pipe ID	Weight	Order code
kW	rpm	rpm	Nm	Nm	I/s		mm	Kg	
0.570	150	75	72	108	14.2	G1/2	10	3.600	P1V-S057A0015
0.570	110	55	98	147	14.2	G1/2	10	3.600	P1V-S057A0011
0.570	74	37	150	225	14.2	G1/2	10	3.600	P1V-S057A0007
0.565	40	20	265	400	14.2	G1/2	10	4.400	P1V-S057A0004

Keyed shaft, P1V-S086A series, 860 watt - (G1/2)

Order code	Weight	Min pipe ID	Conn.	Air con- sumption at max power	Min start torque	Nominal torque	Nominal speed	Free speed*	Max power
	Kg	mm		I/s	Nm	Nm	rpm	rpm	kW
P1V-S086A0015	3.800	10	G1/2	23.3	110	160	75	150	0.860
P1V-S086A0011	3.900	10	G1/2	23.3	150	220	55	110	0.860
P1V-S086A0007	3.900	10	G1/2	23.3	225	335	35	70	0.860
P1V-S086A0004	4.700	10	G1/2	23.3	400	600	20	40	0.850

^{*} maximum admissible speed (idling)



Parker Hannifin Corporation Pneumatic Division - Europe P1V-M is a series of air motors, with or without gear box. They are made of grey casted iron and its robustness makes it suitable for all industrial air motor applications.

The range contains five different sizes with power ratings of 200, 400, 600, 900 and 1200 Watts,

The motor and gearbox are built to be extremely strong, making the motors suitable for applications requiring considerable robustness. The gearbox is of the planetary type, permanently lubricated with grease. The flange mounting is cast as an integral part of the case, and give, together with the foot bracket, plenty of opportunity for simple and robust installation.

- Power 0.2 kW, 0.4 kW, 0.6 kW, 0.9 kW & 1.2 kW
- Patented method for simple change of vanes
- Free speeds from 32 up to 10000 rpm
- Torque from 0.38 Nm up to 120 Nm by max output power
- Standard equipped with flange mounting
- Foot mountings as accessories



Operating information

Working pressure Working temperature Fluid Max 6 bar in Ex area -20° to +40°C in Ex area Compressed air with ISO 8573-1 Quality class 3.4.3 (no-lube operation) and 3.-.5

(lube operation)

Note: All technical data are based on a working pressure of 6 bar and with oil. For oil-free performances are -10 to 15% lower.

Data tolerance accuracy -+10%

For details, see technical catalogue on web site :

www.parker.com/euro_pneumatic

(€ (Example 2) II 2 GD c IIC T4 (130°C)

Keyed shaft, P1V-M***B series, without gear boxes

Max power	Free speed*	Nominal speed	Nominal torque	Min start torque	Air consumption at max power	Conn.	Min pipe ID	Weight	Order code
kW	rpm	rpm	Nm	Nm	l/s		mm	Kg	
0.200	10 000	5 000	0.38	0.57	5	G1/8	10	1.00	P1V-M020B0A00
0.400	10 000	5 000	0.76	1.10	10	G3/8	12	1.40	P1V-M040B0A00
0.600	10 000	5 000	1.10	1.70	15	G3/8	13	1.60	P1V-M060B0A00
0.900	10 500	5 250	1.60	2.40	36.7	G1/2	13	3.10	P1V-M090B0A00
1.200	10 500	5 250	2.20	3.30	43.3	G1/2	13	3.80	P1V-M120B0A00

^{*} maximum admissible speed (idling)

Keyed shaft, P1V-M020C series, 200 watt - (G1/8)

Order code	Weight	Min pipe ID	Conn.	Air consumption at max power	Min start torque	Nominal torque	Nominal speed	Free speed*	Max power
	Kg	mm		l/s	Nm	Nm	rpm	rpm	kW
P1V-M020C0230	2.40	10	G1/8	5	2.40	1.60	1 150	2 300	0.200
P1V-M020C0146	2.40	10	G1/8	5	3.90	2.60	730	1 460	0.200
P1V-M020C0054	2.80	10	G1/8	5	10.50	7.00	270	540	0.200
P1V-M020C0034	2.80	10	G1/8	5	16.80	11.20	170	340	0.200
P1V-M020C0021	2.80	10	G1/8	5	27.30	18.20	105	210	0.200
P1V-M020C0012	3.20	10	G1/8	5	47.70	31.80	60	120	0.200
P1V-M020C0008	3.20	10	G1/8	5	71.70	47.80	40	80	0.200
P1V-M020C0003	3.20	10	G1/8	5	80**	80**	16	32	0.200

^{*} maximum admissible speed (idling) / ** gear box restriction



P1V-M

Keyed shaft, P1V-M040C series, 400 watt - (G3/8)

Max power	Free speed*	Nominal speed	Nominal torque	Min start	Air consumption at	Conn.	Min pipe ID	Weight	Order code
kW	rpm	rpm	Nm	torque Nm	max power l/s		mm	Kg	
0.400	2 300	1 150	3.20	4.80	10	G3/8	12	2.80	P1V-M040C0230
0.400	1 460	730	5.20	7.80	10	G3/8	12	2.80	P1V-M040C0146
0.400	540	270	14.00	21.00	10	G3/8	12	3.20	P1V-M040C0054
0.400	340	170	22.40	33.60	10	G3/8	12	3.20	P1V-M040C0034
0.400	210	105	36.40	54.60	10	G3/8	12	3.20	P1V-M040C0021
0.400	120	60	63.60	80**	10	G3/8	12	3.60	P1V-M040C0012
0.400	80	40	80**	80**	10	G3/8	12	3.60	P1V-M040C0008

^{*} maximum admissible speed (idling) / ** gear box restriction

Keyed shaft, P1V-M060C series, 600 watt - (G3/8)

Order code	Weight	Min pipe ID	Conn.	Air consumption at	Min start	Nominal torque	Nominal speed	Free speed*	Max power
	Kg	mm		max power l/s	torque Nm	Nm	rpm	rpm	kW
P1V-M060C0230	3.00	13	G3/8	15	7.50	5.00	1 150	2 300	0.600
P1V-M060C0146	3.00	13	G3/8	15	11.70	7.80	730	1 460	0.600
P1V-M060C0054	3.40	13	G3/8	15	31.50	21.00	270	540	0.600
P1V-M060C0034	3.40	13	G3/8	15	50.40	33.60	170	340	0.600
P1V-M060C0021	3.40	13	G3/8	15	80**	54.50	105	210	0.600
P1V-M060C0012	3.80	13	G3/8	15	80**	80**	60	120	0.600

 $^{^{\}star}$ maximum admissible speed (idling) / ** gear box restriction

Keyed shaft, P1V-M090C series, 900 watt - (G1/2)

Max power	Free speed*	Nominal speed	Nominal torque	Min start torque	Air consumption at max power	Conn.	Min pipe ID	Weight	Order code
kW	rpm	rpm	Nm	Nm	l/s		mm	Kg	
0.900	2 450	1 225	7.00	10.50	36.7	G1/2	13	4.90	P1V-M090C0245
0.900	1 560	780	11.00	16.50	36.7	G1/2	13	4.90	P1V-M090C0156
0.900	580	290	30.00	45.00	36.7	G1/2	13	5.60	P1V-M090C0058
0.900	360	180	47.00	71.00	36.7	G1/2	13	5.60	P1V-M090C0036
0.900	230	115	75.00	112.00	36.7	G1/2	13	5.60	P1V-M090C0023
0.900	134	67	120**	120**	36.7	G1/2	13	6.30	P1V-M090C0013
0.900	90	45	120**	120**	36.7	G1/2	13	6.30	P1V-M090C0009
0.900	40	20	120**	120**	36.7	G1/2	13	6.30	P1V-M090C0004

 $^{^{\}star}$ maximum admissible speed (idling) / ** gear box restriction

Keyed shaft, P1V-M120C series, 1200 watt - (G1/2)

Max power	Free speed*	Nominal speed	Nominal torque	Min start torque	Air consumption at max power	Conn.	Min pipe ID	Weight	Order code
kW	rpm	rpm	Nm	Nm	l/s		mm	Kg	
1.20	2 450	1 225	9.40	14.00	43.3	G1/2	13	5.60	P1V-M120C0245
1.20	1 560	780	14.70	22.00	43.3	G1/2	13	5.60	P1V-M120C0156
1.20	580	290	40.00	60.00	43.3	G1/2	13	6.30	P1V-M120C0058
1.20	360	180	63.00	94.00	43.3	G1/2	13	6.30	P1V-M120C0036
1.20	230	115	100.00	120**	43.3	G1/2	13	6.30	P1V-M120C0023

 $^{^{\}star}$ maximum admissible speed (idling) / ** gear box restriction



Parker Hannifin Corporation Pneumatic Division - Europe

Components for EX-Areas

Information for ATEX-Directives

The rodless pneumatic cylinders of Parker Origa are the first linear drive unit, for that Ex range in the group of equipment II, Category 2 GD are certified. For more detailed information about the OSP series please consult catalogue P-A4P011GB.





Rodless Cylinder Ø 10-80 mm Basic Cylinder - Series: OSP-P ... ATEX



Basic Guide Ø 25-50 mm Basic Guide - Series: BG ... ATEX



Plain Bearing Guide Ø 16-80 mm SLIDELINE - Series: SL ... ATEX



Technical Data (deviant to the Standard Cylinder)

Characteristics	Description
General Features	
Ambient temperature range T _{min}	-10 °C
T _{max}	+60 °C
Max. switching frequency	1 Hz (double stroke/s) Basic cylinder 0.5 Hz (1stroke/s) Cylinder with guid
Operating pressure range p _{max}	Max. 8 bar
Max. speed v _{max}	3 m/s (Basic cylinder) 2 m/s (Cylinder with guide SLIDELINE and cylinder with guide BASIC GUIDE)
Medium	Filtered, unlubricated compressed air – free from water and dirt to ISO 8573-1 Solids: Class 7 particle size < 40 µm for Gas Water content: pressure dew point +3 °C, class 4, but at least 5 °C below minimum operating temperature
Noise level	70 dB (A)
Information for materials	
Aluminium	See data sheet "Material"
Lubrication	See security data sheet "Grease for use in Cylinder with guides"
Sealing bands	Corrosion resistant steel

Equipment Group II Category 2GD

Rodless cylinder: ⊗ II 2GD c T4 T135°C -10°C≤Ta≤+60°C

Series	Size	Stroke range	Accessories
OSP-P	Ø 10 to 80	1– 6000 mm	Mountings programme
BASIC GUIDE	Ø 25 to 50	1– 6000 mm	Mountings programme
SLIDELINE	Ø 16 to 80	1– 5500 mm	Mountings programme



This range of stainless steel cylinders has been specially designed for use in difficult environments. Hygienic design, external seals of flourianted rubber and prelubricated with our food-industry-approved grease according to USDA-H1 make the cylinders particularly suitable for food industry use. All cylinders have magnetic pistons for proximity position sensing. Fixing dimensions to ISO 6431 simplify installation and make the cylinders physically interchangeable throughout the world.

- Round cylinder to ISO 6431
- All stainless steel
- Clean, smooth washdown design
- Magnetic piston as standard
- Adjustable cushioning for long service life
- Complete range of mountings and sensors





Operating information

Max 10 bar Working pressure: -20°C to +70°C Temperature range: CE Ex II 2GD c T4 120 °C ATEX approval:

Prelubricated, further lubrication is not normally necessary. If additional lubrication is introduced it must be continued.

For details, see technical catalogue on web site:

www.parker.com/euro_pneumatic

Ø32mm - (G1/8)

	•
Stroke mm	Order code
25	P1S-D032MS-0025-EXNN
50	P1S-D032MS-0050-EXNN
80	P1S-D032MS-0080-EXNN
100	P1S-D032MS-0100-EXNN
125	P1S-D032MS-0125-EXNN
160	P1S-D032MS-0160-EXNN
200	P1S-D032MS-0200-EXNN
250	P1S-D032MS-0250-EXNN
320	P1S-D032MS-0320-EXNN
400	P1S-D032MS-0400-EXNN
500	P1S-D032MS-0500-EXNN

Ø40mm - (G1/4)

Stroke mm	Order code
25	P1S-D040MS-0025-EXNN
50	P1S-D040MS-0050-EXNN
80	P1S-D040MS-0080-EXNN
100	P1S-D040MS-0100-EXNN
125	P1S-D040MS-0125-EXNN
160	P1S-D040MS-0160-EXNN
200	P1S-D040MS-0200-EXNN
250	P1S-D040MS-0250-EXNN
320	P1S-D040MS-0320-EXNN
400	P1S-D040MS-0400-EXNN
500	P1S-D040MS-0500-EXNN

Ø50mm - (G1/4)

troke mm	Order code
25	P1S-D050MS-0025-EXNN
50	P1S-D050MS-0050-EXNN
80	P1S-D050MS-0080-EXNN
100	P1S-D050MS-0100-EXNN
125	P1S-D050MS-0125-EXNN
160	P1S-D050MS-0160-EXNN
200	P1S-D050MS-0200-EXNN
250	P1S-D050MS-0250-EXNN
320	P1S-D050MS-0320-EXNN
400	P1S-D050MS-0400-EXNN
500	P1S-D050MS-0500-EXNN

Ø63mm - (G3/8)

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Stroke mm	Order code
25	P1S-D063MS-0025-EXNN
50	P1S-D063MS-0050-EXNN
80	P1S-D063MS-0080-EXNN
100	P1S-D063MS-0100-EXNN
125	P1S-D063MS-0125-EXNN
160	P1S-D063MS-0160-EXNN
200	P1S-D063MS-0200-EXNN
250	P1S-D063MS-0250-EXNN
320	P1S-D063MS-0320-EXNN
400	P1S-D063MS-0400-EXNN
500	P1S-D063MS-0500-EXNN

Ø80mm - (G3/8)

Stroke mm	Order code
25	P1S-L080MS-0025-EXNN
50	P1S-L080MS-0050-EXNN
80	P1S-L080MS-0080-EXNN
100	P1S-L080MS-0100-EXNN
125	P1S-L080MS-0125-EXNN
160	P1S-L080MS-0160-EXNN
200	P1S-L080MS-0200-EXNN
250	P1S-L080MS-0250-EXNN
320	P1S-L080MS-0320-EXNN
400	P1S-L080MS-0400-EXNN
500	P1S-L080MS-0500-EXNN

Ø100mm - (G1/2)

(4.17=)
Order code
P1S-L100MS-0025-EXNN
P1S-L100MS-0050-EXNN
P1S-L100MS-0080-EXNN
P1S-L100MS-0100-EXNN
P1S-L100MS-0125-EXNN
P1S-L100MS-0160-EXNN
P1S-L100MS-0200-EXNN
P1S-L100MS-0250-EXNN
P1S-L100MS-0320-EXNN
P1S-L100MS-0400-EXNN
P1S-L100MS-0500-EXNN

Ø125mm - (G1/2)

Stroke mm	Order code
25	P1S-L125MS-0025-EXNN
50	P1S-L125MS-0050-EXNN
80	P1S-L125MS-0080-EXNN
100	P1S-L125MS-0100-EXNN
125	P1S-L125MS-0125-EXNN
160	P1S-L125MS-0160-EXNN
200	P1S-L125MS-0200-EXNN
250	P1S-L125MS-0250-EXNN
320	P1S-L125MS-0320-EXNN
400	P1S-L125MS-0400-EXNN
500	P1S-L125MS-0500-EXNN

Parker Hannifin Corporation Pneumatic Division - Europe

The innovative P1D is a future-proof generation of ISO/VDMA cylinders. The cylinders are double-acting, with a new design of air cushioning.

The P1D complies with the current ISO 6431, ISO 15552, VDMA 24562 and AFNOR installation dimension standards.

- Available in 32 to 125 mm bores
- PUR seals for long service life
- Drop-in sensors
- Corrosion resistant design
- Magnetic piston as standard
- Lubricated with food grade grease



Operating information

Working pressure Seals / Temperature options Standard:

ATEX approval

-20°C to +80°C

Max 10 bar

www.parker.com/euro_pneumatic

CE Ex II 2GD c T4 120 °C

For details, see technical catalogue on web site:

Ø32mm - (G1/8)

Stroke mm	Order code
25	P1D-S032MS-0025
40	P1D-S032MS-0040
50	P1D-S032MS-0050
80	P1D-S032MS-0080
100	P1D-S032MS-0100
125	P1D-S032MS-0125
160	P1D-S032MS-0160
200	P1D-S032MS-0200
250	P1D-S032MS-0250
320	P1D-S032MS-0320
400	P1D-S032MS-0400
500	P1D-S032MS-0500

Ø40mm - (G1/4)

Stroke mm	Order code
25	P1D-S040MS-0025
40	P1D-S040MS-0040
50	P1D-S040MS-0050
80	P1D-S040MS-0080
100	P1D-S040MS-0100
125	P1D-S040MS-0125
160	P1D-S040MS-0160
200	P1D-S040MS-0200
250	P1D-S040MS-0250
320	P1D-S040MS-0320
400	P1D-S040MS-0400
500	P1D-S040MS-0500
GEO (01/)	

Ø50mm - (G1/4)

Stroke mm	Order code
25	P1D-S050MS-0025
40	P1D-S050MS-0040
50	P1D-S050MS-0050
80	P1D-S050MS-0080
100	P1D-S050MS-0100
125	P1D-S050MS-0125
160	P1D-S050MS-0160
200	P1D-S050MS-0200
250	P1D-S050MS-0250
320	P1D-S050MS-0320
400	P1D-S050MS-0400
500	P1D-S050MS-0500

Ø63mm - (G3/8)

~ • • • • • • • • • • • • • • • • • • •	(, -,	
Stroke mm		Order code
25		P1D-S063MS-0025
40		P1D-S063MS-0040
50		P1D-S063MS-0050
80		P1D-S063MS-0080
100		P1D-S063MS-0100
125		P1D-S063MS-0125
160		P1D-S063MS-0160
200		P1D-S063MS-0200
250		P1D-S063MS-0250
320		P1D-S063MS-0320
400		P1D-S063MS-0400
500		P1D-S063MS-0500

Ø80mm - (G3/8)

•	•
Stroke mm	Order code
25	P1D-S080MS-0025
40	P1D-S080MS-0040
50	P1D-S080MS-0050
80	P1D-S080MS-0080
100	P1D-S080MS-0100
125	P1D-S080MS-0125
160	P1D-S080MS-0160
200	P1D-S080MS-0200
250	P1D-S080MS-0250
320	P1D-S080MS-0320
400	P1D-S080MS-0400
500	P1D-S080MS-0500

Ø100mm - (G1/2)

Stroke mm	Order code
25	P1D-S100MS-0025
40	P1D-S100MS-0040
50	P1D-S100MS-0050
80	P1D-S100MS-0080
100	P1D-S100MS-0100
125	P1D-S100MS-0125
160	P1D-S100MS-0160
200	P1D-S100MS-0200
250	P1D-S100MS-0250
320	P1D-S100MS-0320
400	P1D-S100MS-0400
500	P1D-S100MS-0500

Ø125mm - (G1/2)

Stroke mm	Order code
25	P1D-S125MS-0025
40	P1D-S125MS-0040
50	P1D-S125MS-0050
80	P1D-S125MS-0080
100	P1D-S125MS-0100
125	P1D-S125MS-0125
160	P1D-S125MS-0160
200	P1D-S125MS-0200
250	P1D-S125MS-0250
320	P1D-S125MS-0320
400	P1D-S125MS-0400
500	P1D-S125MS-0500

The cylinders are supplied complete with a zinc plated steel piston rod nut.





P1D-T

P1D-T Large Bore Cylinders

The P1D-T range of tie rod cylinders is intended for use in a wide range of applications. Careful design and high quality manufacture throughout ensure long service life and optimum economy. Mounting dimensions fully in accordance with ISO 15552 (ISO 6431 and CETOP RP52P) greatly simplifies installation and world-wide interchangeability.

- Bore sizes Ø160 Ø320mm
- Stroke lengths 10mm 2000mm
- Magnetic piston as standard
- Adjustable cushioning as standard
- High temperature version
- Special version on request





Operating information

Working pressure: Seals / Temperature options Max 10 bar

Standard:

-20°C to +80°C

High temperature: -10°C to +140°C

ATEX approval: CE Ex IIGD c T4 120°C

For details, see technical catalogue on web site:

www.parker.com/euro_pneumatic

Ø160mm

Stroke mm	Order code
50	P1D-T160MS-0050-EXNN
80	P1D-T160MS-0080-EXNN
100	P1D-T160MS-0100-EXNN
125	P1D-T160MS-0125-EXNN
160	P1D-T160MS-0160-EXNN
200	P1D-T160MS-0200-EXNN
250	P1D-T160MS-0250-EXNN
320	P1D-T160MS-0320-EXNN
400	P1D-T160MS-0400-EXNN
500	P1D-T160MS-0500-EXNN
800	P1D-T160MS-0800-EXNN
1000	P1D-T160MS-1000-EXNN

Ø320mm

Stroke mm	Order code
50	P1D-T320MS-0050-EXNN
30	P1D-T320MS-0080-EXNN
100	P1D-T320MS-0100-EXNN
125	P1D-T320MS-0125-EXNN
160	P1D-T320MS-0160-EXNN
200	P1D-T320MS-0200-EXNN
250	P1D-T320MS-0250-EXNN
320	P1D-T320MS-0320-EXNN
400	P1D-T320MS-0400-EXNN
500	P1D-T320MS-0500-EXNN
300	P1D-T320MS-0800-EXNN
1000	P1D-T320MS-1000-EXNN

Ø200mm

Stroke mm	Order code
50	P1D-T200MS-0050-EXNN
80	P1D-T200MS-0080-EXNN
100	P1D-T200MS-0100-EXNN
125	P1D-T200MS-0125-EXNN
160	P1D-T200MS-0160-EXNN
200	P1D-T200MS-0200-EXNN
250	P1D-T200MS-0250-EXNN
320	P1D-T200MS-0320-EXNN
400	P1D-T200MS-0400-EXNN
500	P1D-T200MS-0500-EXNN
800	P1D-T200MS-0800-EXNN
1000	P1D-T200MS-1000-EXNN

Ø250mm

Stroke mm	Order code
50	P1D-T250MS-0050-EXNN
80	P1D-T250MS-0080-EXNN
100	P1D-T250MS-0100-EXNN
125	P1D-T250MS-0125-EXNN
160	P1D-T250MS-0160-EXNN
200	P1D-T250MS-0200-EXNN
250	P1D-T250MS-0250-EXNN
320	P1D-T250MS-0320-EXNN
400	P1D-T250MS-0400-EXNN
500	P1D-T250MS-0500-EXNN
800	P1D-T250MS-0800-EXNN
1000	P1D-T250MS-1000-EXNN

The cylinders are supplied complete with a zinc plated steel piston rod nut.

Parker Hannifin Corporation

Pneumatic Division - Europe

ATEX P8S Sensors

Drop-in sensors

The completely new "drop-in" P1D sensors can easily be installed from the side in the sensor groove, at any position along the piston stroke. The sensors are completely recessed and thus mechanically protected. Choose between electronic or reed sensors and several cable lengths and 8 mm and M12 connectors.

The same standard sensors are used for all P1D versions, i.e. even for P1D Clean with the patent applied system of integrated sensors. Please note that the sensors with 8 mm and M12

connector should have cable lengths 1 m for P1D Clean to allow flexible positioning of the sensors, including longer stroke lengths. There is a double jointed adapter for the tie-rod version, which offers simple and flexible use of standard sensors.

Electronic sensors

The new electronic sensors are "Solid State", i.e. they have no moving parts at all. They are provided with short-circuit protection and transient protection as standard. The built-in electronics make the sensors suitable for applications with high on and off switching frequency, and where very long service life is required.





Ordering data

Output/function	Cable/connector		Weight kg	Order code
Electronic sensor , 18-30 V DC				
ATEX Certified	CE Ex II3G EEx nA II T4X II3D T135°C IP67			
PNP type, normally open	3 m PVC-cable without connector	(((Ex)	0,030	P8S-GPFLX/EX





ATEX ISOMAX ISO 5599/1 valves DX1, 2, 3

Ceramic slide valves for maximum operational life. Solenoid or air pilot operated with a wide choice of bases and manifolds. Vacuum to 10 bar applications.

- Size1, 2 and 3
- Ceramic technology for long life operation
- From vacuum up to 10 bar applications
- Internal or external pilot supply with same valves
- Pressure supply possible on exhaust ports











ISO 5599-1

Operation information

Working pressure: Working temperature :

-10 to +60°C DX1 DX2 DX3

Flow (Qmax.): Flow (Qn.): ATEX approval:

6420 I/min 1680 I/min 3640 I/min 1150 l/min 2330 l/min 4050 l/min CE Ex II 2GD c 85 °C

For details, see technical catalogue on web site: www.parker.com/euro_pneumatic

Electrically actuated 5/2 and 5/3 valves for CNOMO 06-05-10 solenoid supplied without solenoid, refer to page 19 to select solenoid

Symbol	Description	Size	Actuator	Return	P min bar	Flow (Qn) I/min	Order Code No Solenoid
	5/2 Single Solenoid	1 2 3	Solenoid	Spring	2.5 2.0 2.0	1000 2280 3950	DX1-621-EX DX2-621-EX DX3-621-EX
	5/2 Single Solenoid differential	1 2 3	Solenoid	Internal air	2.0 2.0 2.0	1030 2280 3840	DX1-651-EX DX2-651-EX DX3-651-EX
14 12 12 12 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5/2 Double Solenoid	1 2 3	Solenoid	Solenoid	1.0 1.0 1.0	1150 2330 4050	DX1-606-EX DX2-606-EX DX3-606-EX
	5/2 Double Solenoid 14 prioritised	1 2 3	Solenoid	Solenoid	1.0 1.0 1.0	1150 2330 4050	DX1-656-EX DX2-656-EX DX3-656-EX
14 12 12 12 12 12 50 July 3	5/3 Double Sol. APB	1 2 3	Solenoid	Solenoid	3.0 2.5 2.5	820 2100 3550	DX1-616-EX DX2-616-EX DX3-616-EX
	5/3 Double Solenoid CE	1 2 3	Solenoid	Solenoid	3.0 2.5 2.5	1030 1950 3470	DX1-611-EX DX2-611-EX DX3-611-EX
	5/3 pressurised centre	1 2	Solenoid	Solenoid	2.5 2.5	1100 1970	DX1-613-EX DX2-613-EX

APB = All Ports Blocked CE = Center Open to Exhaust

Parker Hannifin Corporation Pneumatic Division - Europe

ATEX ISOMAX ISO 5599/1 valves DX1, 2, 3

Pneumatically actuated 5/2 and 5/3 valves

Symbol	Description	Size	Actuator	Return	P min bar	Flow (Qn) I/min	Order Code
14 4 2 12	5/2 Single Pilot	1	Air pilot	Spring	2.5	1000	DX1-421-EX
	_	2			2.0	2280	DX2-421-EX
5 \$\frac{1}{2}\frac{1}{2}3		3			2.0	3950	DX3-421-EX
4 4 2 12	5/2 Single Pilot	1	Air pilot	Internal	2.0	1030	DX1-451-EX
村八二八日	differential	2	·	air	2.0	2280	DX2-451-EX
5443		3			2.0	3840	DX3-451-EX
442 12	5/2 Double Pilot	1	Air pilot	Air pilot	1.0	1150	DX1-406-EX
`\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		2			1.0	2330	DX2-406-EX
24743		3	Air pilot	Air pilot	1.0	4050	DX3-406-EX
4 4 2 12	5/2 Double Pilot	1	Air pilot	Air pilot	1.0	1150	DX1-456-EX
`₩₹₩₩	14 prioritised	2	1	1	1.0	2330	DX2-456-EX
5 ∳ <u>√</u> 3	•	3			1.0	4050	DX3-456-EX
4 12 12	5/3 Double Pilot APB	1	Air pilot	Air pilot	3.0	820	DX1-416-EX
vr î¹⁺ 'fi 7 ½″	0,0 = 000000 1 11000 11 =	2			2.5	2100	DX2-416-EX
21.1 11.7 11 1.1 12 5 1 1 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		3	Air pilot	Air pilot	2.5	3550	DX3-416-EX
4 2 12	5/3 Double Pilot CE	1	Air pilot	Air pilot	3.0	1030	DX1-411-EX
∰\tll_tll/%	3/3 Double Filot CL	2	VII bilor	VII bilot	2.5	1950	DX1-411-EX DX2-411-EX
54 43		3	Air pilot	Air pilot	2.5	3470	DX3-411-EX
			, iii piiot	, iii piiot	2.0	0-110	DAO TII EA
WY 11 /11 / W	5/3	1	Air pilot	Air pilot	2.5	1100	DX1-413-EX
50 43	pressurised centre	2	·	•	2.5	1970	DX2-413-EX

APB = All Ports Blocked CE = Center Open to Exhaust



Complete solenoid coils and CNOMO operator

Voltage	Temperature class ° C	Order code Manual override non locking	Order code Manual override locking

EV310-2.5 W DC, 4.5 VA AC solenoids with CNOMO 06-05-10 interface and cable plug DIN 43650 form A (supplied with 3 m flying lead)





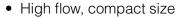
24 V DC	T4	P2FSB3A3L549	-
24 V DC	T5	P2FSB3A3LT49	P2FSB3A3C549
24 V AC	T5	P2FSB3A3LT42	P2FSB3A3CT42
48 V AC	T5	P2FSB3A3LT69	P2FSB3A3CT69
230 V AC	T5	P2FSB3A3LT57	P2FSB3A3CT57

Stacking high flow valves with air pilot or solenoid actuation. Lightweight plastic bodies feature push-in or threaded connections. Stacking valves feature modular inlet and exhaust facility.









- Push-in or threaded connection
- DIN rail or block mounting
- Light weight construction



Operating information

Working pressure

Pneumatically operated : 2-10 bar
Electrically operated, bistable : 2-10 bar
Electrically operated, monostable : 3-10 bar
Working temperature : -15 °C to +60 °C

 PVL-C

 Flow (Qmax):
 1800 l/min

 Flow Qn:
 1100 l/min

Flow measured with valve stacked in island. ATEX approval : II 2GD c 135 $^{\circ}$ C

For details, see technical catalogue on web site:

www.parker.com/euro_pneumatic

PVL-C directional control valves - Stand-alone version

Symbol	Connec- tion Push-in/ Threade	,	Return	Signal pres. min, bar at 6 bar actua./return	Changeover time, ms at 6 bar actua./return	Order code
Size G1/4 - Pneumat For use with air-pilot c	-	d 5/2 valves				
4 2	Ø8 mm	Air	Air	0.9/0.9	17/17	PVL-C112608-EX *
	G1/4	Air	Air	0.9/0.9	17/17	PVL-C112619-EX
	Ø8 mm	Air	Spring	2.8/1.0	25/60	PVL-C111608-EX *
	G1/4	Air	Spring	2.8/1.0	25/60	PVL-C111619-EX
	G3/8	Air	Spring	2.8/1.0	25/60	PVL-C111613-EX
Size G1/4 -Pneumati	-	d 5/3 valves				
	G1/4	APB	Air-Self centering	-	-	PVL-C117619-EX
Size G1/4 - Electrica For use with 6 W / 8,5	-	-				
	G1/4	Electric or air	Electric or air	0.9/0.9	15/15	PVL-C112419-EX
	G1/4	Electric or air	Spring	2.8/1.0	20/50	PVL-C111419-EX

*: NPT version PVL-C1126097-EX, PVL-C1116097-EX,

Threaded G1/4 version **PVL-C117419-EX** APB = All Ports Blocked

The above valve operation can be either:

- Pneumatic, with the addition of one or two pilot connectors complete with Ø4 mm Push-in connections: PVA-P111, PVA-P121, or PVA-P125.

- Electrical, with the addition of one or two solenoid actuators, only 6 W / 8.5 VA, P2FS ATEX certified type, (see page 19).

Mounting

The valves have integral mounting holes suitable for M4 screws and can be directly mounted onto any suitable surface. The pipework connections will be either use of threaded fittings or direct Push-in depending on the body selected.



Parker Hannifin Corporation Pneumatic Division - Europe

ATEX compact valves PVL-C

PVL-C directional control valves - Stackable version

Symbol	Connec- tion Push-in/ Threade	,	Return	Signal pres. min, bar at 6 bar actua./return	Changeover time, ms at 6 bar actua./return	Order code
Size G1/4 - Pneum For use with air-pilot	•	d 5/2 valves				
	Ø8 mm	Air	Air	0.9/0.9	17/17	PVL-C122608-EX
1 2 mm	G1/4	Air	Air	0.9/0.9	17/17	PVL-C122619-EX *
	Ø8 mm	Air	Spring	2.8/1.0	25/60	PVL-C121608-EX *
	G1/4	Air	Spring	2.8/1.0	25/60	PVL-C121619-EX *
Size G1/4 - Pneum For use with air-pilot	atically actuate		Эрппу	2.0(1.0	20,00	
	atically actuated	d 5/3 valves		-	-	
	atically actuate		Self centering Self centering			PVL-C127619-EX PVL-C128619-EX
or use with air-pilot	atically actuate connector G1/4 G1/4 cally / Pneumatically	d 5/3 valves APB	Self centering Self centering valves	-		PVL-C127619-EX
or use with air-pilot	atically actuate connector G1/4 G1/4 cally / Pneumatically	d 5/3 valves APB CE cally actuated 5/2	Self centering Self centering valves	-		PVL-C127619-EX
or use with air-pilot	atically actuated connector G1/4 G1/4 cally / Pneumati 5 VA solenoid actuated connector	d 5/3 valves APB CE cally actuated 5/2 ctuator or air-pilot co	Self centering Self centering valves	-	-	PVL-C127619-EX PVL-C128619-EX
or use with air-pilot	atically actuated connector G1/4 G1/4 cally / Pneumati 5 VA solenoid actuated with the solenoid act	d 5/3 valves APB CE cally actuated 5/2 ctuator or air-pilot co	Self centering Self centering valves connector Electric or air	0.9/0.9	15/15	PVL-C127619-EX PVL-C128619-EX PVL-C122408-EX

*: NPT version PVL-C1126197-EX, PVL-C1216097-EX, PVL-C1216197-EX

APB = All Ports Blocked, CE = Centre Open to Exhaust

Each valve is supplied with two tie rods for use in the "stacking" system.

The above valve operation can be either:

- Pneumatic, with the addition of one or two pilot connectors complete with Ø4 mm Push-in connections: PVA-P111, PVA-P121, or PVA-P125.
- Electrical, with the addition of one or two solenoid actuators, only 6 W / 8.5 VA, P2FS ATEX certified type, (see below).
- Standard head and tail sets (not submitted for ATEX approval) are associable with the stackable version :

Omega rail mountingorSurface mountingSingle air supply: PVL-C1713Single air supply: PVL-C1819Dual air supply: PVL-C1723Dual air supply: PVL-C1829

Solenoids 6 W / 8,5 VA

Without manual override

With prewired cable connector (22x30 mm)



Voltage	Cable length m	Order code
24 V DC	3	P2FS53A3AM49
24 V DC	5	P2FS53A3AM4905
24 V DC	10	P2FS53A3AM4910
24 V DC	5	P2FS53A3AM495R



Versions available for use in explosive atmospheres :

- conforming to certification LCIE 03 ATEX 6278X
- electrical equipment conforming to harmonised European standards EN60079-0 (2009)

EN60079-18 (2009) EN60079-31 (2009)

- marking code CE E II 2 GD

Ex mb IIC T4

Ex mb tb IIICT130°C IP65



Viking Xtreme ATEX metal spool valves

Rugged metal bodied valve series with high flow and fast switching. Available with manual or automatic actuation and with a wide operating temperature range. The ideal valve for mobile applications.

- 3 sizes: G1/8, G1/4 and G1/2.
- High flow and fast switching.
- Compact design with good corrosion resistance.
- Wide range of 5/2 and 5/3 versions.
- High and low temperature versions available for transport applications.





Operating information

Working pressure, max Working temperature, standard 10 bar

Electrically actuated: Pneumatic actuated:

www.parker.com/euro_pneumatic

-10 °C to +50 °C -40 °C to +60 °C Flow (Qmax): P2LAX P2LXB P2LCX P2LDX

1140 l/min 2280 l/min 4320 l/min 4680 l/min ATEX approval : CE Ex II 2GD c 135 °C

For details, see technical catalogue on web site:

Pneumatic pilot operated valves - Xtreme operating pressure / temperature

Max operating pressure 16 bar (A & B) 12 bar (C & D). temp range -40°C to +60°C

Symbol	Size	Actuation	Return	Min Operating Pressure (bar)	Changeover time (ms) at 6 bar @20°C actua./return	Weight Kg	Order code
/2 valves, temp	erature -40°C	to +60°C					
	G1/8	Air signal	Air signal	1.5	5/5	0.30	P2LAX311PP-EX
*	G1/4			1.5	5/5	0.30	P2LBX312PP-EX
[[]	G3/8			1.5	8/8	0.45	P2LCX313PP-EX
	G1/2			1.5	9/9	0.45	P2LDX314PP-EX
	G1/8	Air signal	Spring	3.2	8/15	0.30	P2LAX311PS-EX
[A] \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	G1/4			3.5	10/20	0.30	P2LBX312PS-EX
{ _ ¹ ¹ ¹	G3/8			3.5	10/30	0.45	P2LCX313PS-EX
	G1/2			3.5	10/30	0.45	P2LDX314PS-EX

Lever operated directional control valves

Max operating pressure 16 bar (A & B) 12 bar (C & D). temp range -40°C to +60°C

Symbol	Size	Actuation	Return	Changeover angle	Changeover Force	Туре	Weight Kg	Order code
3/2 valves, standa	ard temperat	ure / Low temper	rature, lever 90	o to ports				
	G1/8	Lever	Lever	20°	9 N	Std.	0.33	P2LAX311VV-EX
8 1	G1/4	Lever	Lever	20°	9 N	Std.	0.33	P2LBX312VV-EX
ALIJ	G3/8	Lever	Lever	32°	25 N	Std.	0.40	P2LCX313VV-EX
	G1/2	Lever	Lever	32°	25 N	Std.	0.60	P2LDX314VV-EX
	G1/8	Lever	Spring	20°	10N	Std.	0.33	P2LAX311VS-EX
8 ()	G1/4	Lever	Spring	20°	10N	Std.	0.33	P2LBX312VS-EX
<u>L</u>	G3/8	Lever	Spring	32°	15 N	Std.	0.40	P2LCX313VS-EX
	G1/2	Lever	Spring	32°	15 N	Std.	0.60	P2LDX314VS-EX



Viking Xtreme ATEX metal spool valves

Lever actuated 5/2 and 5/3 valves manually actuated



Symbol	Size	Actuator	Return	Changeover angle	Туре	Order code
5/2 valves, temp	perature -40°C to	+60°C, lever 90° t	o ports			
A 2 2 5 1 3	G1/8	Lever	Lever	28°	Std	P2LAX511VV-EX
#\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	G1/8	Lever	Spring	28°	Std	P2LAX511VS-EX
5/3 valves, temp	perature -40°C to	+60°C, lever 90° t	o ports			
A 315 4	G1/8	Lever	Lever	±14°	Std	P2LAX61122-EX
# <u></u>	G1/8	Lever	Lever	±14°	Std	P2LAX81122-EX
4 2 1	G1/8	Lever	Lever	±14°	Std	P2LAX71122-EX
~ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	G1/8	Lever	Lever	±14°	Std	P2LAX61111-EX
1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	G1/8	Lever	Lever	±14°	Std	P2LAX81111-EX
\$\frac{4}{1}\frac{2}{1}\frac{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}\frac{1}{1}\frac{1}\frac{1}\frac{1}{1}\frac{1}\frac{1}{1}	G1/8	Lever	Lever	±14°	Std	P2LAX71111-EX

23

BSP: P2LAX511VV-EX NPT: P2LAX591VV-EX



Pneumatically actuated 5/2 and 5/3 valves

Symbol	Size	Actuator	Return	Signal pressur min. (bar) at 6 bar actua./return	e Changeover time (ms) at 6 bar actua./return	Order code	
5/2 valves, tempe	erature -40°C to	+60°C					
\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	G1/8	Air pilot	Air pilot	1.5/1.5	6/6	P2LAX511PP-EX	
14 513 12	G1/4			1.5/1.5	10/10	P2LBX512PP-EX	
	G3/8			1.5/1.5	12/12	P2LCX513PP-EX	
	G1/2			2.0/2.0	20/20	P2LDX514PP-EX	
		Spring	3.2/-	8/18	P2LAX511PS-EX		
14 513	G1/4			3.5/-	15/25	P2LBX512PS-EX	
	G3/8			3.5/-	10/15	P2LCX513PS-EX	
	G1/2			3.5/- 20/25		P2LDX514PS-EX	
5/3 valves, tempe	erature -40°C to	+60°C					
MM 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	G1/8	Air pilot closed	Air pilot	3.8/-	10/20	P2LAX611PP-EX	
	G1/4	centre position	self centring	3.5/-	5/- 15/25	P2LBX612PP-EX	
	G3/8			3.8/-	20/30	P2LCX613PP-EX	
	G1/2			3.8/-	20/40	P2LDX614PP-EX	
mm 4 2 / mm	G1/8	Air pilot	Air pilot	3.8/-	10/20	P2LAX811PP-EX	
14 313 12	G1/4	vented centre	self centring	3.5/-	15/25	P2LBX812PP-EX	
	G3/8			3.8/-	20/30	P2LCX813PP-EX	
	G1/2			3.8/-	20/40	P2LDX814PP-EX	
₩VIỆŢIM	G1/8	Air pilot	Air pilot	3.8/-	10/20	P2LAX711PP-EX	
14 513 12	G1/4	pressure centre	self centering	3.5/-	15/25	P2LBX712PP-EX	
	G3/8			3.8/-	20/30	P2LCX713PP-EX	
	G1/2			3.8/-	20/40	P2LDX714PP-EX	

BSP: P2LAX511PP-EX NPT: P2LAX591PP-EX

Complete valve

ATEX metal spool valves

Electrically actuated 5/2 and 5/3 valves (supplied with 22 mm solenoid operator and coil)

ymbol	Size	Actuator	Return	Signal pressur min. (bar) at 6 bar actua./return	time (ms) at 6 bar actua./return	Order code
/2 valves, interna	ıl air, temperatu	re -10°C to +50°C				
14 513 12	G1/8 G1/4 G3/8 G1/2	Electric signal	Electric signal	1.5/1.5 1.5/1.5 1.5/1.5 1.5/1.5	10/10 22/22 40/40 40/40	P2LAX511EEADDM** P2LBX512EEADDM** P2LCX513EEADDM** P2LDX514EENDDM**
4 2 Mww 14 513 12	G1/8 G1/4 G3/8 G1/2	Electric signal	Spring	3.2/- 3.5/- 3.7/- 3.7/-	12/30 15/25 25/65 25/65	P2LAX511ESADDM** P2LBX512ESADDM** P2LCX513ESADDM** P2LDX514ESADDM**
4 2 14 513 12	G1/8 G1/4 G3/8 G1/2	Electric signal	Air signal	1.5/1.5 1.5/1.5 1.5/1.5 1.5/1.5	10/6 22/10 25/40 25/40	P2LAX511EPADDM** P2LBX512EPADDM** P2LCX513EPADDM** P2LDX514EPADDM**
'3 valves, interna	ıl air, temperatu	re -10°C to +50°C				
MM 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	G1/8 G1/4 G3/8 G1/2	Electric signal closed centre position	Electric signal self centering	3.8/- 3.5/- 4.0/- 4.0/-	16/34 25/30 90/90 90/90	P2LAX611EEADDM** P2LBX612EEADDM** P2LCX613EEADDM** P2LDX614EEADDM**
MMM 14 513 MMM 12	G1/8 G1/4 G3/8 G1/2	Electric signal vented centre position	Electric signal self centering	3.8/- 3.5/- 4.0/- 4.0/-	16/34 25/30 90/90 90/90	P2LAX811EEADDM** P2LBX812EEADDM** P2LCX813EEADDM** P2LDX814EEADDM**
14 513 12	G1/8 G1/4 G3/8 G1/2	Electric signal pressurised centre position	Electric signal self centering	3.8/- 3.5/- 4.0/- 4.0/-	16/34 25/30 90/90 90/90	P2LAX711EEADDM** P2LBX712EEADDM** P2LCX713EEADDM** P2LDX714EEADDM**

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Note:

Substitute ** with voltage code

12 V DC = 45 24 V DC = 49 110 V AC = 53 230 V AC = 57

BSP: P2LAX511EEADDM** NPT: P2LAX591EEADDM**

Spare parts - 22 mm Solenoid operators complete with coils With non-locking manual override

Coils fitted with prewired 3 m long cable

Voltage	Form	Order code
12 V DC	В	P2FS13A3DM45
24 V DC	В	P2FS13A3DM49
110 V 50 Hz, 120 V 60 Hz	В	P2FS13A3DM53
230 V 50 Hz, 230 V 60 Hz	В	P2FS13A3DM57



IEC Ex m II T4 IP65 DIP A21 T130 °C





Ideal for the process or packaging industry.

- High durability
- Very good repeat accuracy
- Designed for process duty cycle
- Push-in connection
- Versatile and easily maintained
- Miniature size





Operating information

Working pressure : PXC-M
Working temperature :

PXC-M11. PXC-M12. PXC-M52.

3 to 8 bar

-15 °C to +60 °C

PXC-M13.

Flow (Qmax): 60 l/min 85 l/min 250 l/m

ATEX approval : CE Ex II 2GD c 85 °C

For details, see technical catalogue on web site: www.parker.com/euro_pneumatic

Bore Ø 1,5 mm, flow 60 l/min

Symbol	Actuator	Return	Operating forces at 6 bar, N	Connection	Order code
$=$ $\frac{1}{3}$ $\frac{2}{1}$ $\frac{2}{3}$	Steel plunger	Spring	11	Instant. Ø 4 mm	PXC-M111-EX
	Steel plunger	Spring	11	M5	PXC-M115-EX

Bore Ø 1,5 mm, flow 85 l/min

	Symbol	Actuator	Return	Operating forces at 6 bar, N	Connection	Order code
	© J	Plastic roller	Spring	4.5	Instant. Ø 4 mm	PXC-M121-EX
\downarrow		Plastic roller	Spring	4.5	M5	PXC-M125-EX
		Steel roller	Spring	4.5	Instant. Ø 4 mm	PXC-M131-EX
		Steel roller	Spring	4.5	M5	PXC-M135-EX

Bore Ø 2,5 mm, flow 250 l/min

Symbol	Actuator at 6 bar, N	Return	Operating forces	Connection	Order code
©=[J]ZIJww	Plastic roller	Spring	7	Instant. Ø 4 mm	PXC-M521-EX



Designed to fit the standard electrical Ø22mm knock out, they can provide dual pneumatic and electrical output signals. A variety of button and switch actuators are available.

- Facia mounted operation
- 3/2 NO or NC
- Modular construction
- Wide range of actuators
- Dual pneumatic an electrical output signal

Flow characteristics (according to ISO 6358)

 PXB-B3•• :
 Qmax = 60 l/min

 Qn = 30 l/min

 PXB-B4•• :
 Qmax = 240 l/min

 Qn = 120 l/min

Connections: Ø 4 mm push-in



Operating information

Push button valves - Visual indicators

Working pressure PXB-B3••:

 PXB-B3••:
 1 to 9 bar

 PXB-B4••:
 1 to 10 bar

 PXV-••:
 1 to 8 bar

Working temperature -15°C to +60°C
ATEX approval PXB: CE Ex II 2GD c T6 80°C

PXV: CE Ex II 2GD c 85 °C

For details, see technical catalogue on web site : www.parker.com/euro_pneumatic

Spring return push buttons

	_					
Symbol	Flow	Order code	Symbol	Flow	Order code	
	Дw 60 l/min	PXB-B3111BA2-EX	⊨ .1 IZ.w	60 l/min	PXB-B3111BA3-EX	
	240 l/min	PXB-B4131BA2-EX		240 l/min	PXB-B4131BA3-EX	
Black - With	1 NC valve		Green - With	h 1 NC valve		
Symbol	Flow	Order code				
⊭.¶Z.W	60 l/min	PXR-R3111RA4-FX				

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Mushroom head push buttons

240 I/min

Symbo	ol	Flow	Order code
	Œ <mark>ŢŢŢ</mark> W	60 I/min	PXB-B3111BC2-EX *
		240 l/min	PXB-B4131BC2-EX *

PXB-B4131BA4-EX

Black - Spring return - With 1 NC valve

* Replacing 2 by 3 = green, by 4 = red

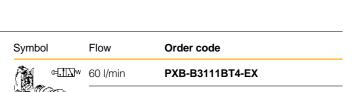
Selector switches

Red - With 1 NC valve

Symbol	Flow	Order code
	60 l/min	PXB-B3111BD2-EX **
	240 l/min	PXB-B4131BD2-EX **

Black - 2 positions - With 1 NC valve

** Replacing 2 by **3** = 3 positions fixed, by **5** = 3 positions centre return



PXB-B4131BT4-EX

Red - Latching - With 1 NC valve

240 I/min



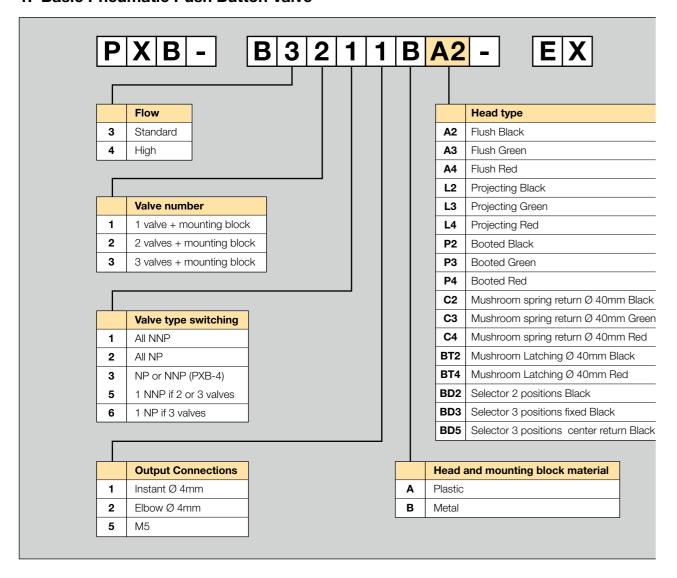




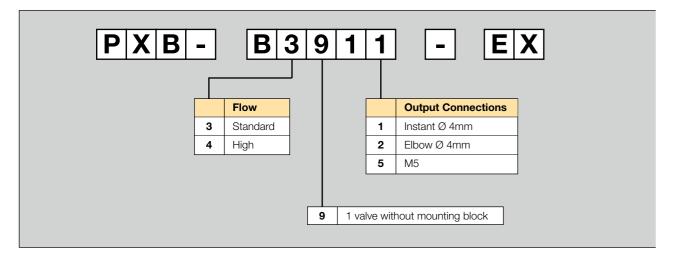
...

Order Key Code

1. Basic Pneumatic Push Button Valve

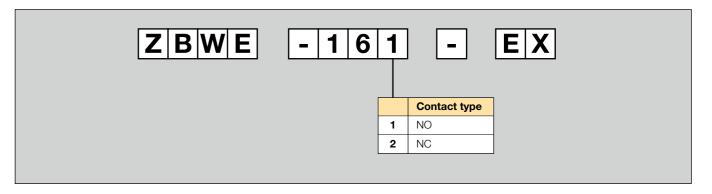


2. Additional Pneumatic Valve

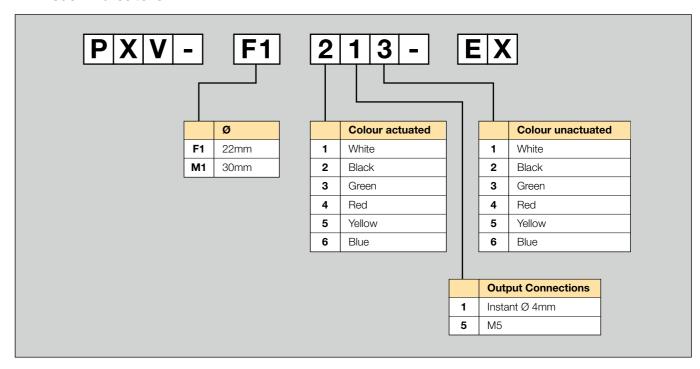


Order Key Code

3. Additional Electrical Contact Block



4. Visual Indicators





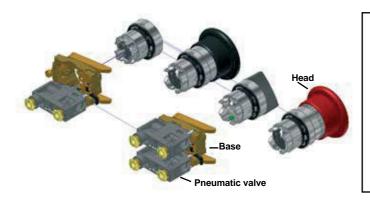


PXB

Additional pneumatic switch valves, and electrical contact block without mounting brackets

Symbol	Flow	Order code	Symbol	Contact	Order code
	Çå, 60 l/min NC	PXB-B3911-EX	The state of the s	Normally (open ZBWE-161-EX
=	Zim 240 l/min NC	PXB-B4931-EX		Normally o	closed ZBWE-162-EX
=[7]	60 I/min NO	PXB-B3921-EX	T 3	1	All PXB-B4 valves can be connected either as normally closed 3/2 valve (NC)
=[].	240 l/min NO	PXB-B4931-EX	1 V 3	2	or normally open 3/2 valve (NO) as required, by connecting the primary air supply to port 1 or port 3.

Mixed products



Heads cannot be ordered separately. They are integrated into the basic pneumatic push button valve.

Mixed electro-pneumatic products can be built with a combination of a complete basic pneumatic push button valve and an additional electrical contact.

Eg : PXB -B3111BC2-EX + PXB-B4931-EX + ZBWE-161-EX

(€ © II 2GD c 85 °C

Visual indicators

	Colour actuated	Colour unactuated	Order code
\otimes	Green	Black	PXV-F131-EX
	Red	Black	PXV-F141-EX
	Yellow	Black	PXV-F141-EX
	Blue	Black	PXV-F161-EX
	White	Black	PXV-F111-EX
	Green	Red	PXV-F1314-EX
	Black	Green	PXV-F1212-E)
	Black	Red	PXV-F1214-E)

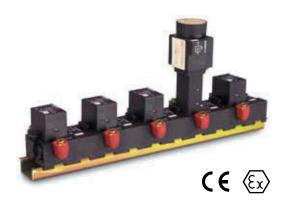


Miniature high-speed valves in stand alone, stackable or combined modules, incorporating standard logic functions. The range also includes timers and impulse modules.

- Complete range
- Stand alone, stackable or combinable modules
- Very fast response time

(€ € II 2GD c 85 °C

- Flexible and highly maintainable system
- DIN rail mounting



Operating information

Working pressure: 3 to 8 bar

Working temperature: -15 °C to 60 °C

Flow (Qmax): 180 l/min (PRD = 90 l/min)

ATEX approval: CE Ex II 2GD c 85 °C

For details, see technical catalogue on web site:

www.parker.com/euro_pneumatic

Logic sequencer

3 1			
Step modules Visual indication of pneumatic output		Interlock Step module	
	Order code		Order code
Without subbase Manual override	PSM-A10-EX	Additional interlock	PSV-A12-EX
With subbase Manual override	PSM-A12-EX		
With subbase	PSM-B12-EX		

Logic elements

Wihtout manual override

Line mounted elements	\$\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	Combinable elements	A A A A A A A A A A A A A A A A A A A	Subbase mounted elements	As A
Logic Function	Order code	Logic Function	Order code	Logic Function	Order code
AND OR	PLL-A11-EX PLK-A11-EX	AND OR	PLL-B12-EX PLK-B12-EX	AND NOT inhibit standard	PLL-C10-EX PLN-C10-EX

PLN-B12-EX

3 port subbase to be ordered separately.

Logic relays

Sensor relays		
	Order code	
With subbase	PRF-A12-EX	
Without subbase	PRF-A10-EX	

Amplifier relay
To be used with
4 port subbase

4 port subbase	
	Order code
With subbase	PRD-A12-EX
Without subbase	PRD-A10-EX

Memory relays
To be used with
4 port subbase

NOT inhibit threshold

YES regenerated

	Order code
With subbase	PLM-A12-EX
Without subbase	PLM-A10-EX









PLN-D10-EX

PLK-C10-EX

PLJ-C10-EX

ATEX logic processing

Time delay relays

To be mounted on 3 port subbase



Function	Timing	Order code
Output after timed period	0.1 to 3s 0.1 to 30s 10 to 180s	PRT-E10-EX PRT-A10-EX PRT-B10-EX
With subbase	0.1 to 30s	PRT-A12-EX
Output during timed period	0.1 to 3s 0.1 to 30s 10 to 180s	PRT-F10-EX PRT-C10-EX PRT-D10-EX



Not elements

Description	Order code
PLNC10 on PZUA12 subbase	PLN-C12-EX
PLND10 on PZUA12 subbase	PLN-D12-EX



Parker Global Air Preparation System

- Space saving integral gauge (P31 size only)
- Manifold style regulators available
- OSHA compliant shut-off valves
- Soft-Start & Quick Dump valves





Operating information		Flow characteristics					
Working pressure : Metal bowl:	17 bar max	40mm body widt 1/4" Ported	h	60mm body widt 1/4", 3/8", & 1/2"		73mm body widt 1/2" & 3/4" Porte	
		Flow	dm³/s	Flow	dm³/s	Flow	dm³/s
Working temperature :		Filter	12	Filter	38	Filter	48
* Metal bowl:	-10°C to +65.5°C	Coalescing Filter	2	Coalescing Filter	11	Coalescing Filter	20
		Regulator	30	Regulator	67	Regulator	100
ATEX: 'Out of Scope' Cer	tificate	Filter Regulator	14	Filter Regulator	64	Filter Regulator	98
* Refer to Technical Catalogue for individual unit temperatures		Lubricator	13	Lubricator	47	Lubricator	68

Filters - 5 µm

Port	Description	Order code
1/4"	Metal bowl - Manual drain	P31FA12EMMN
1/4"	Metal bowl - Pulse drain	P31FA12EMBN
1/4	Metal bowl sight glass - Manual drain	P32FA12ESMN
1/4	Metal bowl sight glass - Auto drain	P32FA12ESAN
3/8	Metal bowl sight glass - Manual drain	P32FA13ESMN
3/8	Metal bowl sight glass - Auto drain	P32FA13ESAN
1/2	Metal bowl sight glass - Manual drain	P32FA14ESMN
1/2	Metal bowl sight glass - Auto drain	P32FA14ESAN
1/2"	Metal bowl sight glass - Manual drain	P33FA14ESMN
1/2"	Metal bowl sight glass - Auto drain	P33FA14ESAN
3/4"	Metal bowl sight glass - Manual drain	P33FA16ESMN
3/4"	Metal bowl sight glass - Auto drain	P33FA16ESAN

Regulators

Port	Description	Order code
1/4"	8 bar relieving	P31RA12BNNP
1/4"	8 bar relieving + gauge	P31RA12BNTP
1/4"	8 bar (125 psi) Relieving	P32RA12BNNP
1/4"	8 bar (125 psi) Relieving + Gauge	P32RA12BNGP
3/8"	8 bar (125 psi) Relieving	P32RA13BNNP
3/8"	8 bar (125 psi) Relieving + Gauge	P32RA13BNGP
1/2"	8 bar (125 psi) Relieving	P32RA14BNNP
1/2"	8 bar (125 psi) Relieving + Gauge	P32RA14BNGP
1/2"	8 bar (125 psi) Relieving	P33RA14BNNP
1/2"	8 bar (125 psi) Relieving + Gauge	P33RA14BNGP
3/4"	8 bar (125 psi) Relieving	P33RA16BNNP
3/4"	8 bar (125 psi) Relieving + Gauge	P33RA16BNGP

Coalescing Filters + Absorbers - 0,01 μm

Port	Description	Order code
1/4"	Metal bowl - 0.01 μ - Manual drain	P31FA12CMMN
1/4"	Metal bowl - 0.01 μ - Pulse drain	P31FA12CMBN
1/4"	Metal bowl - Adsorber	P31FA12AMMN
1/4"	Metal bowl sight glass - 0.01 μ, Man. drain	P32FA12DSMN
1/4"	Metal bowl sight glass - 0.01 μ, Auto drain	P32FA12DSAN
3/8"	Metal bowl sight glass - 0.01 μ, Man. drain	P32FA13DSMN
3/8"	Metal bowl sight glass - 0.01 μ, Auto drain	P32FA13DSAN
1/2"	Metal bowl sight glass - 0.01 μ, Man. drain	P32FA14DSMN
1/2"	Metal bowl sight glass - 0.01 μ, Auto drain	P32FA14DSAN
1/4"	Metal bowl sight glass - Adsorber	P32FA12ASMN
3/8"	Metal bowl sight glass - Adsorber	P32FA13ASMN
1/2"	Metal bowl sight glass - Adsorber	P32FA14ASMN
1/2"	Metal bowl sight glass - 0.01 μ, Man. drain	P33FA14DSMN
1/2"	Metal bowl sight glass - 0.01 μ, Auto drain	P33FA14DSAN
3/4"	Metal bowl sight glass - 0.01 μ, Man. drain	P33FA16DSMN
3/4"	Metal bowl sight glass - 0.01 μ, Auto drain	P33FA16DSAN
1/2"	Metal bowl sight glass - Adsorber	P33FA14ASMN
3/4"	Metal bowl sight glass - Adsorber	P33FA16ASMN

Lubricators

Port	Description	Order code
1/4"	Metal bowl - No drain	P31LA12LMNN
1/4"	Metal bowl - No drain	P32LA12LSNN
3/8"	Metal bowl - No drain	P32LA13LSNN
1/2"	Metal bowl - No drain	P32LA14LSNN
1/2"	Metal bowl - No drain	P33LA14LSNN
3/4"	Metal bowl - No drain	P33LA16LSNN

Accessories

Order code P31 Series	P32 Series	P33 Series
P31KA00CB	P32KA00CB	
P31KA00MT	P32KA00MT	
P31KA00MR	P32KA00MR	P33KA00MR
P31KA00MW		
	P32KA00ML	P32KA00ML
	P31KA00CB P31KA00MT P31KA00MR	P31KA00CB P32KA00CB P31KA00MT P32KA00MT P31KA00MR P32KA00MR P31KA00MW





Filter Regulators - (P31) pressures 2 & 4 bar (P32/P33) pressures 2, 4 & 17 bar available.

Port	Description	Order code	
1/4"	8 bar (125 psi) Relieving - Metal bowl - Manual drain	P31EA12EMMBNTP	
1/4"	8 bar (125 psi) Relieving - Metal bowl - Pulse drain	P31EA12EMBBNTP	
1/4"	8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain	P32EA12ESMBNGP	
1/4"	8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain	P32EA12ESABNGP	
3/8"	8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain	P32EA13ESMBNGP	
3/8"	8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain	P32EA13ESABNGP	
1/2"	8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain	P32EA14ESMBNGP	
1/2"	8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain	P32EA14ESABNGP	
1/2"	8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain	P33EA14ESMBNGP	
1/2"	8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain	P33EA14ESABNGP	
3/4"	8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain	P33EA16ESMBNGP	
3/4"	8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain	P33EA16ESABNGP	

Combined Soft Start Dump Valve and Remote Operated Dump Valve

Port	Description	Order code
1/4	Solenoid operated (not included)	P31TA12SGN0000
1/4	Air pilot operated	P31TA12PPN
1/2	Solenoid operated (not included)	P32TA14SCN0000
1/2	Air pilot operated	P32TA14PPN

Soft Start Valve

Port	Description	Order code
1/4	Solenoid operated (not included)	P31SA12SGN0000
1/4	External air pilot (1/8 threaded)	P31SA12PPN
1/2	Solenoid operated (not included)	P32SA14SCN0000
1/2	Internal air pilot operated	P32SA14Y0N
1/2	External air pilot (1/8 threaded)	P32SA14PPN

Safety Lockout Valves

Port Size	Thread type	Safety Lockout Valve Flow from left to right
1/4	BSPP	P31VA <u>1</u> 2LSAN
3/8	BSPP	P32VA <u>1</u> 3LSAN
1/2	BSPP	P32VA <u>1</u> 4LSAN
1/2	BSPP	P33VA <u>1</u> 4LSAN
3/4	BSPP	P33VA16LSAN
Port Size	Thread type	Safety Lockout Valve Flow from right to left
3/8	BSPP	P32VA <u>1</u> 3LSBN
1/2	BSPP	P32VA14LSBN
1/2	BSPP	P33VA14LSBN
3/4	BSPP	P33VA16LSBN
	1/4 3/8 1/2 1/2 3/4 Port Size 3/8 1/2	1/4 BSPP 3/8 BSPP 1/2 BSPP 1/2 BSPP 3/4 BSPP Port Size Thread type 3/8 BSPP 1/2 BSPP 1/2 BSPP 1/2 BSPP

For thread type: NPT 9

Remote Operated Dump Valve

Port	Description	Order code
1/4	Solenoid operated (not included)	P31DA12SGN0000
1/4	Air pilot operated	P31DA12PPN
1/2	Solenoid operated (not included)	P32DA14SCN0000
1/2	Air pilot operated	P32DA14PPN

Modular Ball Valve

Model type	Port size	Thread type	Flow dm ³ /s (scfm)	Modular Ball Valve Flow from left to right
P31	1/4"	BSPP	20 (42.4)	P31VA <u>1</u> 2LBNN
P32	3/8"	BSPP	90 (190.7)	P32VA <u>1</u> 3LBNN
	1/2"	BSPP	122 (258.5)	P32VA <u>1</u> 4LBNN
P33	1/2"	BSPP	122 (258.5)	P33VA <u>1</u> 4LBNN
	3/4"	BSPP	122 (258.5)	P33VA16LBNN

For thread type: BSPP 1 NPT 9

Manifold Blocks

Model Type	In / Out Port Size	Auxiliary Port Size Top	Auxilliary Port Size Bottom	Thread Type	Order Code
P31	1/4"	1/4"	1/4"	BSPP	P31MA <u>1</u> 2022N
P32	1/2"	1/4"	1/2"	BSPP	P32MA <u>1</u> 4024N
P33	3/4"	1/4"	1/2"	BSPP	P33MA16024N
For threa	ad type: I	BSPP <u>1</u> NPT <u>9</u>			

Gauges

U			
Port	Description		Order code
P31	Square Flush Mounting Gauge	0-4 bar 0-10 bar	K4511SCR04B K4511SCR11B
P31	40mm Round Gauge 1/8"	0-30 psi / 0-2 bar 0-60 psi / 0-4.1 bar 0-160 psi / 0-10 bar	P3D-KAB1AYN P3D-KAB1ALN P3D-KAB1ANN
P32 / P33	50mm Round Gauge 1/4"	0-60 psi / 0-4.1 bar 0-160 psi / 0-10 bar 0-300 psi / 0-20 bar	P6G-ERB2040 P6G-ERB2110 P6G-ERB2200

• Integral 3/4 or 1" ports (BSPP or NPT)

- High efficiency element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminium construction
- Secondary pressure ranges 12 and 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Low temperature -40'C with Regulators/Filters and Filter Regulators using combined manual/semi auto drain as standard without pressure gauge.



Operating information Flow characteristics Working pressure: Max 17.5 bar Flow dm³/s 1" Working temperature: -10 °C to +60 °C 116 119 Filter **Dust Filter** 137 145 Coalescing Filter 59 ATEX: 'Out of Scope' Certificate Adsorber Filter 50 155 321

Regulator

Lubricator

Filter Regulator

Filters - 40 micron element

Acqual drain/Comi outo	
hanuai urain/Senni aulo	P3YFA16GSCN
Auto drain	P3YFA16GSAN
Manual drain / Semi auto	P3YFA18GSCN
Auto drain	P3YFA18GSAN
Mounting bracket	P3YKA00CW
	Manual drain/Semi auto Auto drain Manual drain / Semi auto Auto drain Mounting bracket

Dust Filters - 1 micron element

Port size	Description	Order Code
G3/4	Manual drain/Semi auto	P3YFA162SCN
G3/4	Auto drain	P3YFA162SAN
G1"	Manual drain / Semi auto	P3YFA182SCN
G1"	Auto drain	P3YFA182SAN

Regulators - relieving type - non relieving options available

Port	Description	Order Code
size		
G3/4	12 bar relieving	P3YRA16BNEN
G3/4	12 bar relieving + gauge	P3YRA16BNFN
G1"	12 bar relieving	P3YRA18BNEN
G1"	12 bar relieving + gauge	P3YRA18BNFN
G3/4	12 bar relieving, lockable	P3YRA16BAEN
G3/4	12 bar relieving, lockable + gauge	P3YRA16BAFN
G1"	12 bar relieving, lockable	P3YRA18BAEN
G1"	12 bar relieving, lockable + gauge	P3YRA18BAFN

Pressure Gauges

	Order Code
0 - 10 bar	KG8012-00
0 - 16 bar	KG8013-00

Coalescing Filters - 0.01 micron element

Port size	Description	Order Code
G3/4	Coalescing 0.01µm, manual/semi auto drain	P3YFA16DSCN
G3/4	Coalescing Filter 0.01 µm, auto drain	P3YFA16DSAN
G1"	Coalescing 0.01µm, manual/semi auto drain	P3YFA18DSCN
G1"	Coalescing Filter 0.01 µm, auto drain	P3YFA18DSAN

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Adsorber Filters

Port size	Description	Order Code
G3/4	Adsorber 0.01µm, manual drain	P3YFA16ASCN
G1"	Adsorber 0.01µm, manual drain	P3YFA18ASCN

Lubricators

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Port size	Description	Order Code
G3/4	Oil mist, fill under pressure	P3YLA16LSNN
G1"	Oil mist, fill under pressure	P3YLA18LSNN

Filter/Regulators - relieving type - non relieving options available

Port size	Description	Order Code
G3/4	12 bar, relieving manual/semi auto drain	P3YEA16GSCBNEN
G3/4	12 bar, relieving auto drain	P3YEA16GSABNEN
G3/4	12 bar, relieving manual/semi auto + gauge	P3YEA16GSCBNFN
G3/4	12 bar, relieving auto drain + gauge	P3YEA16GSABNFN
G1"	12 bar, relieving manual/semi auto drain	P3YEA18GSCBNEN
G1"	12 bar, relieving auto drain	P3YEA18GSABNEN
G1"	12 bar, relieving manual/semi auto + gauge	P3YEA18GSCBNFN
G1"	12 bar, relieving auto drain + gauge	P3YEA18GSABNFN







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Proportional Pressure Regulator

Port size	Description	Order Code
G3/4	Normally closed	P3YPA16BD2VA2A
G1"	Normally closed	P3YPA18BD2VA2A

Pilot Operated Regulator

Port size	Description	Order Code
G3/4	Pilot operated regulator	P3YRA16BPPN
G1"	Pilot operated regulator	P3YRA18BPPN

Combined Soft Start Dump Valve and Remote Operated Dump Valve

Port size	Description	Order Code
G3/4	Solenoid operated (not included)	P3YTA16SCN0000
G3/4	24VDC 22mm coil	P3YTA16SCNB2CN
G3/4	Air pilot operated	P3YTA16PPN
G1"	Solenoid operated (not included)	P3YTA18SCN0000
G1"	24VDC 22mm coil	P3YTA18SCNB2CN
G1"	Air pilot operated	P3YTA18PPN

Modular Ball Valve

Port size	Description	Order Code
G3/4	Modular Ball Valve	P3YVA16LBN
G1"	Modular Ball Valve	P3YVA18LBN

Modular Manifold

Port size	Description	Width	Order Code
G3/4	Modular Manifold	(80 mm)	P3YMA1V0N
G1"	Modular Manifold	(80 mm)	P3YMA9V0N
G3/4	Modular Manifold	(35 mm)	P3YMA16024N

Soft Start Valve

Port size	Description	Order Code
G3/4	Soft start valve	P3YSA16Y0N
G1"	Soft start valve	P3YSA18Y0N

Optional Port Block Kits

Port size	Description	Order Code
G1 ¹ / ₄ "	Port block kit - BSPP	P3YKA1ACP
G1 ¹ / ₂ "	Port block kit - BSPP	P3YKA1BCP
G3/4"	Port block kit - BSPP	P3YKA16CP
G1"	Port block kit - BSPP	P3YKA18CP

Neck mounting bracket kit

Description	Order Code
Neck mounting bracket kit	P3YKA00MS

Connector kit

Description	Order Code
Connector kit	P3YKA00CB

Parker Hannifin Corporation Pneumatic Division - Europe

Wall mounting brackets

Description	Order Code	
Wall mounting brackets	P3YKA00CW	

The all metal P3Z Series FRLs are ideal for most medium sized ring main installations.

- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Threaded port flange available to G1-1/2" and G2"
- Proportional oil delivery over a wide range of air flows.

Filters

Port size	Description	Order Code
-	40μ auto drain without flange SAE	P3ZFA00HMAN
G1.1/2"	40µ auto drain flange fitted to SAE	P3ZFA1BHMAN
G2"	40µ auto drain flange fitted to SAE	P3ZFA1CHMAN

Dust Filters

Port size	Description	Order Code
-	1μ auto drain (pressure relief) without flange SAE	P3ZFA00MMAN
G1.1/2"	1μ auto drain (pressure relief) flange fitted to SAE	P3ZFA1BMMAN
G2"	1μ auto drain (pressure relief) flange fitted to SAE	P3ZFA1CMMAN

Regulators

Port size	Description	Order Code
-	8 bar, relieving + gauge, without flange SAE	P3ZRA00BNGN
G1.1/2	" 8 bar, relieving + gauge	P3ZRA1BBNGN
G2"	8 bar, relieving + gauge	P3ZRA1CBNGN
-	16 bar relieving + gauge, without flange SAE	P3ZRA00BNJN
G1.1/2	" 16 bar, relieving + gauge	P3ZRA1BBNJN
G2"	16 bar, relieving + gauge	P3ZRA1CBNJN

Options & Accessories

Port size	Description	Order Code
G1.1/2"	Connection flange kit	P3ZKA1BCP
G2"	Connection flange kit	P3ZKA1CCP
-	Wall mounting kit	P3ZKA00MW
-	Coupling kit	P3ZKA00CB
-	Coupling 'O' ring kit (5 off)	P3ZKA0CCY
-	Porting block kit (1", 1/8" & 2 x 1/4" take off)	P3ZMA1V0N



Operating information

Working pressure: 0 - 17.5 bar Working temperature: $0 \circ C$ to $+60 \circ C$

ATEX: 'Out of Scope' Certificate Flow characteristics

Flow	Filter	>666,6 dm ³ /s
	Regulator	>666,6 dm ³ /s
	Lubricator	>666,6 dm ³ /s

Coalescing Filters

Port size	Description	Order Code
-	0.01 micron, auto drain	P3ZFA00DMAN
G1.1/2"	0.01 micron, auto drain, flange fitted to SAE	P3ZFA1BDMAN
G2"	0.01 micron, auto drain, flange fitted to SAE	P3ZFA1CDMAN

Adsorber Filters

Port size	Description	Order Code
-	Adsorber, auto drain	P3ZFA00BMAN
G1.1/2"	Adsorber, auto drain	P3ZFA1BBMAN
G2"	Adsorber, auto drain	P3ZFA1CBMAN

Lubricators

Port iize	Description	Order Code
	Lubricator, without flange SAE	P3ZLA00LSMN
31.1/2"	Lubricator	P3ZLA1BLSMN
32"	Lubricator	P3ZLA1CLSMN
	Lubricator OIL - VG32 - 1 Litre	P3YKA00PPBB

Regulators Pilot Control

Port size	Description	Order Code
-	16 bar, air pilot	P3ZRA00BPPN
G1.1/2"	16 bar, relieving + gauge	P3ZRA1BBPPN
G2"	16 bar, relieving + gauge	P3ZRA1CBPPN





A range of speed controls, flow controls and plug-in sensor designed to be mounted directly onto the cylinder in the optimum position for maximum performance.







Multifunction options

• Fit directly to cylinder ports

Swivelling pilot banjo

Pneumatic back pressure sensor

Operating information

Working pressure:

PWR-H, HB 1-10 bar PWS-P 0-10 bar

Working temperature : -15°C to +60°C

Pilot pressure at 6 bar supply:

PWR-HB

(1/8", 1/4" versions) (1/2" and 3/8" versions)

: 4 bar : 2.9 bar

Parker Hannifin Corporation

Pneumatic Division - Europe

PWS-P111

: 4.4 bar

ATEX approval : CE Ex II 2GD c 85 °C

For details, see technical catalogue on web site:

www.parker.com/euro_pneumatic

(€ (Ex) II 2GD c 85°C

Multifunction speed controls + blockers

Symbol	Connection for pilot port	Thread for cylinder connection	Push-in connection Ø, mm	Tightening torque Nm	Qmax input at 6 bar, I/min*	Order code
With push-in connection						
barrel adjustment and	Push-in, Ø 4 mm	G1/8	4	8	330	PWR-HB1448-EX
locknut			6	8	500	PWR-HB1468-EX
_		G1/4	6	12	500	PWR-HB1469-EX
6	!		8	12	600	PWR-HB1489-EX
	<u> </u>	G3/8	8	30	1200	PWR-HB1483-EX
			10	30	1300	PWR-HB1493-EX
		G1/2	10	35	1400	PWR-HB1492-EX

^{*} Screw closed

ATEX cylinder controls PW

Speed controlers, with adjustable exhaust restriction

For direct port cylinder mounting

	Symbol	Thread for cylinder connection	Push-in connection Ø, mm	Tightening torque Nm	Order code
		G1/8	4	8	PWR-H1448-EX
			6	8	PWR-H1468-EX
		G1/4	6	12	PWR-H1469-EX
	7*7		8	12	PWR-H1489-EX
		G3/8	8	30	PWR-H1483-EX
	≶I≷		10	30	PWR-H1493-EX

Plug-in sensor

For use with banjo sockets

Sensing function	Output function	Push-in connection	Output characteristics	Order code
Exhaust back pressure threshold	Pneumatic	Push-in Ø 4 mm	NO valve flow rate at 6 bar 1.5 l/s	PWS-P111-EX

Banjo sockets for plug-in sensors (not submitted for ATEX approval) With sensor locking clip, for direct port cylinder mounting

Thread size for cylinder port	Female thread	Tool required	Order code
M5	M5	8 mm flat spanner	PWS-B155
G1/8	G1/8	5 mm Allen key	PWS-B188
G1/4	G1/4	8 mm Allen key	PWS-B199
G3/8	G3/8	10 mm Allen key	PWS-B133
G1/2	G1/2	12 mm Allen key	PWS-B122





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Risk assembly

Manufacturer

Particular considerations concerning the association of certified products ATEX constituting of sets, complete equipment or systems:

- cylinders and accessories as sensors, cylinder controls;
- valves assembled with solenoids, connectors, islands;
- FRL(s) combinations;
- logic components in cabinets or housings;
- mixed ATEX and non ATEX concerned components integrated on a single machine or device;

ANY ASSEMBLY IS NOT COMPULSORY ATEX

User

According to 99/92/EC directive, the user (employer) must identify the buildings at the risks and classify them in zones. It defines the equipment adapted to its site.

Thus when it installs a whole equipment incorporating Atex certified apparatuses, and to avoid any risk of explosion, it must take into account the lower level of protection of the whole with regard to: the category, the maximum temperature of surface... and any parmeter indicated on the marking and in the instruction leaflet of each apparatus.



P1V-S Declaration of Conformity acc. ATEX 94/9/EC P1V-S Declaration of Incorporation acc. EC

Machinery Directive 2006/42/EC



Parker Hannifin Manufacturing Germany GmbH & Co. KG Pneumatic Division Europe Industriestrasse 8 70794 Filderstadt Germany

Declare that the following Air Motors have been assessed in accordance with ATEX 94/9/EC (Products for use in potentially explosive atmospheres). Air Motors P1V-S012, P1V-S020, P1V-S030, P1V-S030, P1V-S057, P1V-S060, P1V-S086 and P1V-S090 range are compatible for the use in explosive atmosphere Ex II 2 GD c T6 (T80°C) X. Air Motors P1V-S120 range are compatible for the use in explosive atmosphere Ex II 2 GD c T5 (T95°C) X. All without brake option.

P1V-S is designed for utilization in applications falling under the scope of the ATEX 94/9/EC. These products designed and manufactured in compliance with following elements:

- EN 1127-1:2007 Explosive atmospheres Explosion prevention and protection Part 1: Basic conce, its and
- EN 13463-1:2009 Non electrical equipment for use in potentially explosive atmospheres Pa. ... Basic method and requirements
- EN 13463-5 Non-electrical equipment intended for use in potentially explosive atracby constructional safety 'c'
- EN 983+A1:2008 Safety of machinery Safety requirements for fluid power sys ams and their components Pneumatics

As manufacturer of the partly completed machine we declare that:

- The specified Air motor corresponds to the listed essential aul aments of the EC Machinery Directive
- The relevant technical documentation is complier in acc rance with part B of Annex VII
- The relevant technical documentation in accorda, 'e impart B of Annex VII will be transmitted in response to a reasonable request by the national authorities

Applied and fulfilled essential

Product: Air motors P1V-S **Directives** Date

requirements 2006/42/EC 1.1.2, 1.1.5, 1.3.4, 1.5.3, 1.7.3, 1.7.4

Remark Standards Date **DIN EN ISO 12100** Partly fulfilled

This partly completed (i.e. h) ery must not be put into service until the final machinery into which it is to be incorporates has begin der ared in conformity with the provisions of the Directive 2006/42/EG, were appropriated.



Additional Information This coverage could only be referred to as long as operations needed for final assembling and starting up of theses products comply with standards relating to the above mentioned directive. Each time this will be required for compliance purpose, the user will have to apply for a complete coverage of the final assembled system according to the above mentioned directive and relating standards

Filderstadt, Germany June 2014

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Ing. Franck Roussillon European Product Manager

Actuators Business Unit, Pneumatic Division Europe



P1V-S ATEX_CE Edition 01



Additional safety instructions for installation in explosive atmospheres

Serious, even fatal, damage or injury may be caused by the hot moving parts of the P1V-S motors in the presence of explosive gas mixtures and concentrations of dust.

All installation, connection, commissioning, servicing and repair work on P1V-S motors must be carried out by qualified personnel taking account of the following:

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

Real life applications

P1V-S motors are designed to provide rotary 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 motor housing. The motors meet the applicable standards and requirements of the Machinery Directive 94/9/EC (ATEX).

The motors must not be used as brakes in explosive atmospheres.

Braking involves driving the motor against the direction of rotation for which the motor is supplied with compressed air. The motor is then operating as a compressor, and there is a corresponding increase in temperature.

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

Checklist

Before using the motors in a potentially explosive atmosphere, you should check the following:

Do the motor specifications match the classification of the area of use in accordance with Directive 94/9/EC (previously ATEX 100a)?

- Equipment group.
- Equipment category.
- Zone.
- Temperature class.
- Max. surface temperature.
- 1. When installing the motor, 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 P1V-S motor is adequately ventilated and that no additional heat is added (for example in the shaft connection)?
- 4. Are all the driven mechanical components ATEX certified?

Installation requirements in potentially explosive atmospheres

- The temperature of the supply air must not exceed the ambient temperature.
- The P1V-S may be installed in any position.
- An air treatment unit must be attached to the inlet of the P1V-S air motor.
- In a potentially explosive atmosphere, none of the motor ports may be blocked because this may cause an increase in temperature.
 The air from the port must be taken to the silencer or, preferably, outside the potentially explosive area.
- The P1V-S motor must be connected to ground at all times, through its support, a metallic tube or separate conductor.
- The outlet of the P1V-S motor must not open within a potentially explosive area, but must be passed to the silencer or, preferably, removed and released outside the potentially explosive area.
- The P1V-S motor may only drive units that are ATEX certified.
- Ensure that the motor is not exposed to forces greater than those permitted in accordance with the catalogue.

Measuring the temperature on the outside of the P1V-S motor (only when used in potentially explosive areas)

During the commissioning process, it is essential to measure temperature increases at the indicated positions on the outside of the P1V-S motor.

These measurements can be taken using standard thermometers.

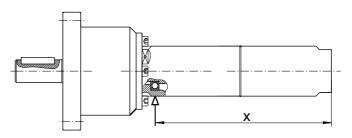
Checking the motor during operation

The motor must be kept clean on the outside, and a layer of dirt thicker than 5 mm must never be allowed to form. Strong solvents should not be used for cleaning, because they can cause the seal (material NBR/FPM) around the drive shaft to swell, potentially increasing the temperature.

The temperature is measured on the metal surface next to the seal around the output shaft on all P1V-S012, P1V-S020, P1V-S028, P1V-S030, P1V-S057, P1V-S060, P1V-S086 and P1V-S090 motors.

Planetary Motor part gearbox

Motors P1V-S030A0023 and P1V-S030A0010



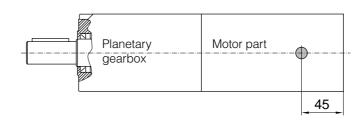
Motor	x [mm]	
P1V-S030A0023	146	
P1V-S030A0010	147,5	

The maximum temperature is reached after approximately 1,5 hours of operation, and the difference in temperature between the motor and the ambient temperature must not exceed 40 °C.

If the temperature difference at the seal of a P1V-S 120 to 900 watts exceeds 40 °C, you should stop the motor immediately and contact Parker Hannifin.

The following applies to the P1V-S120 series:

The temperature is measured on the metal surface at a point 45 mm from the port end of the motor housing, on all P1V-S120.



The maximum temperature is reached after approximately 1,5 hours of operation, and the difference in temperature between the motor and the ambient temperature must not exceed $55\,^{\circ}\text{C}$.

If the temperature difference at this point on a P1V-S120 exceeds 55 °C, you should stop the motor immediately and contact Parker Hannifin.

Marking of products

For all P1V-S 120 to 900 watts



For the P1V-S120 1200 watts



Ce marking shows that as a manufacturer, Parker Hannifin meets the guidelines specified by the EU



Ex means that this product is intended for use in a potentially explosive area

II stands for the equipment group (I = mines and II = other places liable to be endangered)

2GD stands for equipment category

 ${f 2G}$ means the equipment can be used in zones 1 and 2 where there is a risk involving gas, vapour or mist of combustible liquids and ${f 2D}$ in zones 21 and 22 where there is a risk involving dust .

2GD means the equipment can be used in zones 1, 2, 21 and 22.

c Safe design (prEN 13463-5)

IIC Explosion group, P1V-S air motors are tested to the highest standards in terms of test gases, and can be installed in the presence of all gases without restriction.

If equipment is in temperature class **T6**, the maximum surface temperature must not exceed 85 °C. (To guarantee this, the product has been tested to ensure that the maximum is 80 °C. This provides a safety margin of 5 °K.)

If equipment is in temperature class **T5**, the maximum surface temperature must not exceed 100 °C. (To guarantee this, the product has been tested to ensure that the maximum is 95 °C. This provides a safety margin of 5 °K.)

(80 °C) Maximum permitted surface temperature on the motor in atmospheres containing potentially explosive dust.

X Note special conditions

Test certificate number IBExU04ATEXB004 X from IBExU Institut für Sicherheitstechnik GmbH, D-09599 Freiberg, Germany







P10

P1V-M Declaration of Conformity

According to ATEX 94/9/EC

P1V-M Declaration of Incorporation

According to EC Machinery Directive 2006/42/EC



Parker Hannifin Manufacturing We Germany GmbH & Co. KG Pneumatic Division Europe Industriestrasse 8 70794 Filderstadt Germany

Declare that the following Air Motors have been assessed in accordance with ATEX 94/9/EC (Products for use in potentially explosive atmospheres). Air Motors here below from the P1V-M series are compatible for the use in explosive atmosphere Ex II 2 GD c IIC T4 (130°C) X.

And P/Ns with gear boxes are: P1V-M020C*xxx, P1V-M040C*xxx, P1V-M060C*xxx, P1V-M090C*xxx, P1V-M090C*xxxx, P1V-M09 M120C*xxx; * for internal vanes option 0 or Z, xxx for speed range With *: for internal vanes option 0 or Z, xxx: for speed range

P1V-M is designed for utilization in applications falling under the scope of the ATEX 94/5° £C. These products are designed and manufactured in compliance with following elements:

- EN 1127-1:2007 Explosive atmospheres Explosion prevention and production Part 1: Basic concepts and methodology
- EN 13463-1:2009 Non electrical equipment for use in potentially and the atmospheres Part 1: Basic method and requirements
- EN 13463-5 Non-electrical equipment intended for use in prientally explosive atmospheres Part 5: Protection by constructional safety 'c'
- EN 983+A1:2008 Safety of machinery Safety rec. ve. s for fluid power systems and their components -

As manufacturer of the partly completed machine ve heciare that:

- The specified Air motors correspective the listed essential requirements of the EC Machinery Directive 2006/42/EC
- The relevant technical docum, ntauon is complied in accordance with part B of Annex VII
- The relevant technical documentation in accordance with part B of Annex VII will be transmitted in response to a reasonable reque the this national authorities

Product: Air motor 1V- 1 series Applied and fulfilled essential **Directives** requirements 2006-06 1.1.2, 1.1.5, 1.3.4, 1.5.3, 1.7.3, 1.7.4 2006/42/ Date Remark Partly fulfilled DIN : . . ISO 12100 2011-03

This partly completed machinery must not be put into service until the final machinery into which it is to be incorporates has been declared in conformity with the provisions of the Directive 2006/42/EG, were appropriated.

STICKEI

Additional Information This coverage could only be referred to as long as operations needed for final assembling and starting up of theses products comply with standards relating to the above mentioned directive. Each time this will be required for compliance purpose, the user will have to apply for a complete coverage of the final assembled system according to the above mentioned directive and relating standards

Filderstadt, Germany June 2014

Ing. Franck Roussillon European Product Manager Actuators Business Unit, Pneumatic Division Europe

P1V-M ATEX_CE Edition 01



Parker Hannifin Corporation Pneumatic Division - Europe

PDE/Ulricehamn



EC Declaration of Conformity

We.

Parker Hannifin AB Pneumatic Division

P.O. Box 110

S-523 23 ULRICEHAMN

Sweden

hereby declare that the VDMA cylinder P1D-S Standard* range is compatible for use in explosive atmospere Ex II 2 GD c T4 T120°C.

All models from range, Pneumatic cylinder ISO/VDMA P1D-S*, bore 32-125 mm.

P1D-S032MS-XXXX

P1D-S040MS-XXXX

P1D-S050MS-XXXX

P1D-S063MS-XXXX

P1D-S080MS-XXXX

P1D-S100MS-XXXX P1D-S125MS-XXXX

XXXX= All strokes

*Without metal scraper ring

P1D-S are designed for utilization in applications falling under the scope of the Atex directive 94/9/EC. These products are designed and manufactured in compliance with the following elements:

EN 13463-1: 2001; Non-electrical equipment for potentially explosive atmosperes - Part 1: Basic

method and requirements.

EN 13463-5: 2002/Non-electrical equipement intended for use in potentially explosive atmospheres – Part 5: Protection by constructional safety.

EN 983: Safety of machinery Safety of requirements for fluid power systems and their components -Pneumatics.

The P1D complies with the current ISO 69431, ISO 15552, VDMA 24562 and AFNOR installation dimension standards

Parker Hannifin AB has been certified under the ISO 9001 QA standard since 1994.

Additional information:

This coverage could only be referred to as long as operations needed for final-assembling and starting up of theses products comply with standards relating to the above mentioned directive. Each time this will be required for compliance purpose, the user will have to apply for a complete coverage of the final assembled system according to the above mentioned directives and relating standards.

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Sweden Issued at Ulricehamn December 22, 2004

Inge Melkersson

Head of Design Department



ATEX ISO 15552 cylinders P₁D ATEX ISO 15552 cylinders P1D-T



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
- 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
- The P1D-S cylinder may be installed in any position.
- An air treatment unit must be attached to the inlet of the P1D-S
- 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-

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-****)





Communauté Européenne = EU

CE on the product shows that Parker Hannifin products meet one or more EU directives.



Ex means that this product is intended for use in potentially explosive atmospheres.

Stands for the equipment group (I = mines and II = other hazardous areas).

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.

- Safe design (EN 13463-5).
- 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 dust.

Safety instructions for the P1D-T cylinder with accessories

Supplementary safety instructions for installation of ATEX certified cylinders.

The safety instructions in this document are valid for the ATEX certified P1D-T cylinders, bore 160 - 320mm, as per below with reference to the order code key in the product catalogue.

P1D-T***MS-****-EXNN

All strokes in the range 50 - 1000mm

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

All installation, connection, commissioning, servicing and repair work on P1D-T 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-T 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

Do the specifications of the P1D-T 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-T cylinder, is it certain that there is no potentially explosive atmosphere, oil, acids, gases, vapours or
- 2. Is the ambient temperature as specified in the technical data in the catalogue at all times?
- 3. Is it certain that the P1D-T 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-T cylinder is safely earthed.
- 6. Check that the P1D-T cylinder is supplied with compressed air. Explosive gas mixtures must not be used for driving the cylinder.
- 7. Check that the P1D-T 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-T cylinder may be installed in any position.
- The P1D-T cylinder must not be installed where there is a risk of mechanical contact with any surrounding part or component.
- An air treatment unit must be attached to the inlet of the P1D-T cylinder
- The P1D-T cylinder must be connected to earth at all times, through its support, a metallic tube or separate conductor
- The outlet of the P1D-T cylinder must not be open within an Exarea, but must be connected to the silencer or, preferably, piped and released outside the Ex-area.
- The P1D-T cylinder may only drive units that are ATEX certified.
- Ensure that the P1D-T cylinder is not exposed to forces greater than those permitted in accordance with the catalogue
- The P1D-T cylinder must be supplied with compressed air. Explosive gas mixtures must not be used
- P1D-T cylinders with metal scraper rings must not be used in

Inspecting cylinders during operation

The P1D-T cylinder must be kept clean on the outside, and a layer of dust/dirt thicker than 1 mm must never be allowed to form Inspect and verify that the cylinder, with attachments, compressed air fittings, hoses, tubes, etc. meet the standards of "safe" installation.

Spare parts

Only spare parts, kits etc. supplied by Parker Hannifin may be used for repair and maintenance of the P1D-T cylinders.

Marking of ATEX certified P1D-T cylinders

The ATEX certified P1D-T cylinders, bore 160 - 320mm, as per below with reference to the order code key in the product catalogue have an ATEX certification marking as shown further below.

P1D-T***MS-****-EXNN

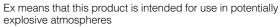
All strokes in the range 50 - 1000mm



Communauté Européenne = EU



CE on the product shows that Parker Hannifin products meet **()** one or more EU directives





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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.

Safe design (prEN 13463-5)

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.







Supplementary safety instructions for P8S- GPFLX/EX P8S-GPFLX/EX cylinder sensor 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 (gas), or max. surface temperature of $T = 135 \,^{\circ}\text{C} \, (\text{dust})$
- 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 la = 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.



Communatuté Européenne = EU

CE on the product shows that Parker Hannifin products meet one or more EU directives



Ex means that this product is intended for use in potentially explosive atmospheres

Stands for the equipment group (I = mines and II = other hazardous areas)

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 means that this is an electrical product intended for use in

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

Stands for equipment category 3D in zone 22 where there is a risk involving dust.

135 °C Maximum permitted surface temperature on the motor in atmospheres containing potentially explosive dust.

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 because they have no proper source of inflamation, nor an own ignition

A component means any item essential to the safe functioning of equipment and protective systems but with no autonomous function. Consequently, they are not marked and not any specific ATEX document will be added.

Examples:

- Tubes
- Fittings
- Fixings
- · Mounting brackets

Panels...



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Global cylinder sensor P8S-GPFLX/EX for pneumatic cylinders

Instructions for use

- Safety instructions

 Cylinder sensor ATEX classed for category II3G and II3D

 Ambient temperature T_a = -20 °C to +45 °C

 Temperature class T4, or max, surface temperature of T = 135 °C
- Protection class IP67
- Protection class IP67
 Read installation instructions before startup
 Installation, connection and commissioning must be carried out by trained personn
- polications

 This sensor is designed for use in the T-groove of cylinders, and detects the magnetic field in explosion hazardous 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:
P85-TMC01 Suitable for P1S and P1A diameter 10 - 25 mm
P85-TMC02 Suitable for P1S diameter 32 - 63 mm
Suitable for P1S diameter 80 - 125 mm

The following data applies to these attach

- Ambient temperature Ts = 0 °C to 45 °C

- High energy absorption to EN 50 021

The sensor may also be installed on tie-rod cylinders or profile cylinders by means of this attachment:

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

U_b = 18 to 30 V DC I_a ≤ 70 mA -20 °C to 45 °C Operating voltage Max. load current

Commissioning

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

Our P8S-GPFLX/EX cylinder sensor is maintenance free, but the should be checked at regular intervals.

The sensor must be protected from for radiation. The sensor must be kept clean on it outside, and a layer of diff thicker from 1 milhamost notice be allowed to form. Strong solvents should not be used for cleaning as they may damage the school.

Global cylindersensor P8S-GPFLX/EX

för pneumatikcylinder Användningsinstruktion

- Cylinder sensor ATEX klassad för kategori II3G och II3D Omgivningstemperatur T_a = -20 °C till +45 °C Temperaturklass T4, eller max yttemperatur på T = 135 °C Skyddsklass IP67
 Läs installationsanvisningen innan unpetant

Läs installationsanvisningen innan uppstart Montering, anslutning och idrifttagande skall göras av utbildad personal

wwindningsområde

Denna sensor för användning i T-spår på cylindrar är för att känna av magnetfältet i explosionsfarliga områden. På dessa cylindrar får sensorn bara monteras i T-spåren. Sensom kan även monteras på rundcylindrar med hjälp av fästera:

P\$S-TMC01 Passar till P1S och P1A med diameter 10 - 25 mm

P\$S-TMC02 Passar till P1S med diameter 30 - 125 mm

P8S-TMC03 Passar till P1S med diameter 80 - 125 mm

por dessa rassen gainer rogande:

- Omgivningstemperatur T_a = 0 °C till 45 °C

- Låg nivå av energiabsorption enligt EN 50 021

Sensorn kan även monteras på cylindrar med dragstänger eller profilrör

med hjälp av fästet P8S-TMA0X Par Passar till P1D-T diameter 32 –125 mm, P1E-T diameter 160 – 200 mm och C41 diameter 160 – 200 mm

Alfmänt: Sensorn måste skyddas mot UV-strålning. Kabeln måste monteras så att den ä skyddad mot yttre påverkan, tex kan en yttre dragavlastning av kabel behöva monteras.

Tekniska data på sensom

Up = 18 till 30 V DC

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Idriftstagande till en spärningskälla i sspänning, kontinuerlig åste hänsyn tas till följande punkter

Vid analything ave a) belostningsdata

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PBS-GPFLX/EX är underhållsfri, dock bör kabelanslutninger

ogimus sensoy 11-05-4817 LVEX är underhällsfri, dock bör kabelanslutningen trillerasjmed jämna mellanrum. Sensorn mäste hållas ren på utsidan och ett isskikk njer än 1 mm skall undvikas. Vid rengöring bör ej starka lösningsmedel indjardå de kan skalta sensorn.

Capteur mondial P8S-GPFLX/EX

pour vérin pneumatique

Instructions de service

tructions de sécurité Capteur ATEX pour vérin, prévu pour les catégories II3G et II3D Température ambiante T_a = -20 °C à +45 °C Classe de température T4 ou température maximale de surface T = 135 °C Indice de protection IP67

- Line le guide d'installation avant la mise en service Le mortage, les connexions et la mise en service doivent être effectués par du personnel dûment formé

- hamps d'utilisation
 Ce capteur qui s'enfiche dans les rainures en T d'un vérin a pour but de détecter le champ magnétique en atmosphère explosive. Le capteur ne peut être monté que dans les rainures en T de ces vérins.
- Le capteur peut également être monté sur des vérins cylindriques au moyen des
- fixations suivarites:

 P8S-TMC01 pour P1S et P1A, 10 à 25 mm de diamètre;

 P8S-TMC02 pour P1S, 32 à 63 mm de diamètre;

 P8S-TMC03 pour P1S, 80 à 125 mm de diamètre.

 Pour ces fixations, les données suivarites s'appliquent:

 Température ambiante T_a = 0 °C à 45 °C

 Ealble plans ut s'absencies describes selon EN 50.023
- Température ambiante T_a = 0 °C à 45 °C
 Faible niveau d'absorption énergétique selon EN 50 021
 Le capteur peut également être monté sur des vérins à tirants ou à tube profilé au moyen de la fixation suivante ;
 P6S-TMA0X
 pour P1D-T, 32 à 125 mm de diamètre ;
 pour P1E-T, 160 à 200 mm de diamètre ;
 pour C41, 160 à 200 mm de diamètre.

Montage
Généralités: Le capteur doit être protégé contre les UV. Le câble doit être monté de taçon à être protégé contre les influences extérieures. Cola pourra nécessiter le montage d'une bride évitant les contraintes sur le câble du capteur.
Caractéristiques techniques du capteur

Tension d'utilisation intensité de charge maxi. Température ambiante : U_b = 18 à 30 V CC I_a ≤ 70 mA -20 °C à 45 °C

Mise en service

Lors de la mise sous tension du capteur, prendre en considération les points suivants a) paramètres de charge (tension d'utilisation, courant de charge continu) b) schéma de câtilage du capteur

La capteur PSS-GPFLX/EX ne nécessite aucun entretien. Toutefois, il convient d'inspecter réculièrement la convente de cable.

d'inspecter régulièrement la connexion du câble.

Le capteur doit être protégé contre les UV. Garder l'extérieur du capteur propre et évite un encrassement frop important (plus de 1 mm). En nettoyant, ne pas utiliser des solvants forts car ils risquent d'endommager le capteur.

Globaler Zylindersensor P8S-GPFLX/EX für Pneumatikzylinder

Anwendungsanle

Zylindersensor, ATEX-zugelassen für die Kategorien IISG und IISD Umgebungstemperatur T_a = -20 °C bis +45 °C Temperaturklasse T4, oder max. Außentemperatur T = 135 °C

Schutzart IP67

Ochitzen in or Vor Inbetriebnahme die Installationsanleitung lesen Montage, Anschluss und Inbetriebnahme muss durch geschultes Personal erfolgen

Inwendungsbereich Dieser Sensor wird in die T-Nut an Zytindern montiert und soll in explosionsgefährdeten Bereichen das Magnetfeld abtasten. An diesen Zylindern darf der Sensor ausschließlich in die T-Nut montiert werden. Der Sensor lässt sich mit Hilfe folgender Befestigungen auch an Rundzylinder

passend für P1S und P1A mit Ø 10 - 25 mm P8S-TMC01

passend für P1S mit Ø 32 -63 mm passend für P1S mit Ø 80 -125 mm

PBS-TMC03 passend for P1S mit Ø 80 -125 mm
Für diese Befestigungen gilt Folgendes:
- Umgebungstemperatur T, = 0 °C bis 45 °C
- Niedriger Gefärdungsgrad bzgl. Schlagenergie nach EN 50021
Der Sensor lässt sich mittels folgender Befestigungen auf Zylinder mit Zugstangen oder Profilirchr mornieren:

montileren: passend für P1D-T, Ø 32 –125 mm, P1E-T, Ø 160 – 200 mm und C41, Ø 160 – 200 mm

Allgemein: Der Sensor ist vor UV-Strahlung zu schützen. Das Kabel so montieren, dass es vor äußeren Einwirkungen geschützt ist. So kann z.B. eine äußere Zugentlastung

Technische Daten des Sensors

U_b = 18 bis 30 V GS I_a ≤ 70 mA -20 °C bis 45 °C Betriebsspannung Max. Belastungsstrom Umgebungstemperatur:

Inbetriebnahme

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Bei Anschluss des Sensors an eine Spannungsquelle sind folgende Punkte zu beachter a) Belastungsdaten (Betriebsspannung, ständiger Belastungsstrom) b) Anschluss-Schallplan des Sensors

Der Zylindersensor P8S-GPFLX/EX ist wartungsfrei. Jedoch sollte der Kabelanschluss Der Zylindersensor PBS-GPFLY(EX ist wartungstrei, Jedoch sollte der Kabelanschluss regelmäßig kontrolliert werden. Der Sensor ist vor UV-Strahlung zu schützen. Die Außenseite des Sensors muss sauber gehalten werden. Eine Schmutzschicht von mehr als 1 mm ist zu vermeiden. Zur Reinigung keine starken Lösungsmittel verwenden. Diese können den Sensor beschädigen.













We hereby declare that sensors P8S-GPFLX/EX comply with the basic requirements of the EC Directive specified under point 1. Parker Hannifin AB, Box 110, S-52323 Ulricehamn, Sweden Producer EC ATEX Directive 94/9/EC EC EMC Directive 89/336/EEC as per 92/31/EEC, 93/68/EEC and 93/465//EEC 1. EC-directive Electrical apparatus for use in the presence Electrical apparatus for use in the presence of combustible dust Low-voltage switchgear and controlgear-Part 5-2: Control circuit devices and switching elements -EMC, after section 7.2.6, 7.2.7 and 8.6 Electrical apparatus for potentially explosive atmospheres – Type of protection "n" EN 50281-1/A1 EN 60947-4-2 EN 60947-4-2/A1 EN 50021 Ed. 99-04 3. Test result (€ 1 3G EEx nA || T4 X The declaration certifies conformance with the listed directives, but does not guarantee product characteristics. The safety instructions contained in the product documentation must be observed. Connection diagram PNP bu -0-Wire colour assign brown + V DC black NO blue - V DC Order code P8S-GPFLX/EX

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-Parker

Parker Hannifin Corporation Pneumatic Division - Europe

ISOMAX VALVES Type DX1, DX2, DX3 DISTRIBUTEURS ISOMA) (€ (ε.) →Parker Instruction de service (€ E.) -Darker Instruction GB Type DX1, DX2, DX3 1 - SPECIFICATIONS - SPECIFICATIONS Taille 2 10 Hz 5 Hz 4 Hz 10 Hz 5 Hz 4 Hz Eréquence de service ma -10°C à + 60°C Operating temperature (Ta) -10°C to +60°C (14°F to 140°F) Température de service (Ta) . -10°C à + 60°C Fluid temperature . Operating pressure ...
 internal pressure ...
 external pressure ... Pression de service 30 to 145 psi alimentation interne 2 à 10 bar .09 à 10 ha ISO 8573-1 : - Air ou gaz neutre filtré classe 5, - Dry air or inert gas class 4 Air sec ou gaz neutre classe 4 Position de fonctionnement Any position 2 - FUNCTIONS 2 - FONCTIONS 5/2 Bistable 5/2 Bistable 14 prioritised 5/3 Pressure exhausted neutral 5/3 Centre ouvert 5/2 Bistable 5/2 Bistable à Cde prioritaire par 14 5/3 Pressure held neutral 5/3 Centre fermé 5/2 Monostable différe 5/3 Centre presi 3 - INSTALLATION 3 - INSTALLATION Montage sur embase selon plan de pose . ISO 5599-1 ISO 5599-1 Mounting interface for sub-bases according to DX1:3 Nm, DX2:4 Nm, DX1:3 Nm, DX2:4 Nm, ended torque on sub-bases Couples de serrage sur embases . DX3:8 Nm DX3:8 Nm par vis étrier M5x10 with M5x10 clamping screw Raccordement électrique terre de protection du carter Connection of the subbase to protective earth Sélection de la pression de pilotage interne ou externe par positionnement du sélecteur de pilotage by positioning the selector plate Selection of internal or external pilot supply Avec pilotage électrique :

Interface pour l'opérateur électrique . Mounting interface for the electric operator CNOMO 06-05-10 CNOMO 06-05-10 · Mounting with one of the following pilot operators: Installation avec un des opérateurs suivants;
 EV3000200, EV3001200, EV3003200, 1EV0°310, 1EV1°310, 1EV3°310 EV3000200, EV3001200, EV3003200, 1EV0*310, 1EV1*310, 1EV3*310 équipé d'une bobine ATEX type equipped with an ATEX solenoid type Le produit doit être installé dans un environnement conforme aux spécifications des chapitres 1 et 3. Conditions for installing the product have to comply with specifications mentioned in chapters 1 and 3. Before maintenance on the product, stop the air and ensure that pipes are exhausted. Then proceed. Avant toute intervention sur le produit, couper l'air comprimé. S'assurer que le circuit est purgé puis procéder à . The replacement of the product or of one of its parts must be done with a product or a part of the same ATEX Le remplacement du produit ou de l'un de ses composants doit être effectué avec un produit ou un composant de Product cleaning should be done by a method complying with the specifications of the ATEX zone, preferably by aspiration and/or utilization of antistatic products. The deposit of dust should not exceed 5 mm.
 The installation and maintenance of the product must be done by qualified personnel. Le nettoyage des produits sera réalisé selon une méthode respectant les spécificités ATEX de l'installation, de préférence par aspiration et/ou par utilisation de produits antistatiques. Le dépôt de poussière ne doit pas excéder 5 mm. même catégorie ATEX. L'installation et la maintenance du produit doivent être effectuées par du personnel qualifie 4 - ATEX CLASSIFICATION 4 - CLASSIFICATION ATEX (ε.) || 2 GD c 85 °C €. II 2 GD c 85 °C Destination : Groupe II (Aswispherals Utilisation en tories 1 et 21 Destination: Group II: Atmospheres other than in mines For use in zones 1 and 21 GD Althospheres le lupe gat ou foussi ne c Mode de protestion, "c", sécurité de constructio 85 °C Classe de température (16) Gas or Dust atmospheres Protection mode: "c", constructional safety 85 °C The maximum ambient temperature (Ta) of the equipment or of the subassembly incorporating ISOMAX valves defined as: (Ta) of the element having the lowest limit if this one is <60°C, 60°C if elements other than the valve have a (Ta) > 60°C. (Tal-ducemposant ayant la limite la plus faible si celle-ci est < 60°C, 60°C, si les constituents autres que le distributeur collune (Tal.) > 60°C. EC DECLARATION of CONFORMITY E. DECLARATION CE de CONFORMITE Parker Hannifin France S.A.S. Parker Hannifin France S.A.S. Nous, Etablissement d'Evreux Rue H. Becquerel – BP 3124 blissement d'Evreux Rue H. Becquerel - BP 3124 27031 EVREUX CEDEX - France 27031 EVREUX CEDEX - France déclarons que les distributeurs pneumatiques ISOMAX référencés : hereby declare that the following ISOMAX pneumatic valves: DX1 ..., DX2..., DX3..., suivis du suffixe "-EX", - DX1 ..., DX2..., DX3..., followed by a "-EX" suffix. sont utilisables en atmosphère explosible II 2 GD (zones 1,2 et 21,22). are compatible for use in explosive atmosphere II 2 GD (zones 1,2 and 21,22). Ces produits sont construits conformément aux dispositions de la directive européenne : These products are designed and manufactured in compliance with the European Directive: 94/9/CF, mars 1994 "ATEX". - 94/9/EC March 1994. "ATEX". The present declaration is based on the compliance with the following standards: La présente déclaration est établie sur la base de la conformité aux normes suivantes : - Standard EN 13463-1, 2001 and AC:2002, Non-electrical equipment for potentially explosive norme EN 13463-1, 2001 et AC:2002, Matériel non électrique pour utilisation en atmosphères atmospheres. Part 1: Basic methods and requirements, explosibles. Partie 1 : prescriptions et méthodes de base. norme EN 13463-5, 2003, Appareils non électriques destinés à être utilisés en atmosphères Standard FN 13463-5, 2003, Non-electrical equipment intended for use in potentially explosive explosibles. Partie 5: Protection par sécurité de construction "c". atmospheres. Part 5: Protection by constructional safety "c". Type examination certificate: LCIE 04 ATEX 6165X Attestation d'examen de type : LCIE 04 ATEX 6165X Delivered by: LCIE Délivrée par : LCIE These products are designed for utilization in applications falling under the scope of the ATEX Directive 94S/EC. This coverage could only be referred to as long as operations required for the installation and the maintenance of these products are complying with related standards. La conception de ces produits permet leur utilisation dans un environnement soumis à l'application de la Directive ATEX 949/CE sous réserve que les opérations nécessaires à leur installation et à leur maintenance solent effectuées en conformité avec les dispositions des nomes en vigueur. L'utilisateur prendra en charge la mise en conformité de l'installation finale conformément à la réglementation en The user will have to comply with procedures for getting an approval of the final assembled system according to related Date: 24 janvier 2007 Fait à Evreux Issued at Evreux Date: January 24th, 2007



CE marked: 2004

Jean-François VISTE

Responsable ATEX

Date d'application marquage CE: 2004













EC DECLARATION of CONFORMITY

Parker Hannifin France S.A.S. Etablissement d'Evreux Rue H. Becquerel – BP 3124 27031 EVREUX CEDEX - France

Hereby declare that the following electro-pneumatic valves:

P2LX...A..... P2LX5....A.....

Are compatible for use in explosive atmosphere If 2 GD (zones 1,2 and 21,22).

These products are designed and manufactured in compliance with the European Directive:

The present declaration is based on the compliance with the following standards, for the products indicated hereafter entering the composition of the unit

> P2L.X.... et P2L.X5.... type valves



- standard EN 13463-1, 2001 and AC : 2002, Non-electrical equipment for potentially explosive atmospheres. Part 1: Basic method and requirements,
- standard EN 13463-5, 2003, Non-electrical equipment intended for use in potentially explosive atmospheres. Part 5: Protection by constructional safety "c".

Technical file: 30018803

33 avenue du Général Lecierc, 92260 Fontenay-Aux-Roses

> 0513 00 to 0513 49 and 1213 00 to 1213 49 solenoid type manufactured by Nass Magnet GmbH company, Hanove

(E.)

II 2G EExm II T4

IP65 DIP A21 T130 *

0

- standard DIN EN 50014, 1997, Electrical apparatus for potentially explosive atr - standard DIN EN 50028, 1987, Electrical apparatus for potentially explosive almo

- standard IEC 60079-0, 2000, Electrical apparatus for explosivy gas atmospheres (Gen

- standard IEC 60079-18, 1992, Electrical apparatus for suplosive gas atmospheres (Enca

- standard DIN EN 59281-1-1, 1999, Electrical apparatus for use in the presente of ex-

standard URC 61641-10, 1959. Electrical apparatus for use in the pleaence of combustible dust
 standard DIN EN60529, 2000, Degleps of projection provided by enclosures (IP Code)

- standard DIN EN 61000.6-4, 2002, plestromagnetic competibility, interference emissions, industrial sector (met by additional circuitry measures)

- standard DIN EN \$1000-6-2, 2002, Electromagnetic competibility, interference immunity, industrial sector

- standard DIN VDE 0580, 2000, Electromagnetic devices and components (General specifications)

Homologation certificates: PTB 00 ATEX 2001X and IECEx PTB 05.0006X

Issued by PTB - id. 0102 Or

> 0515 30 to 0515 59 and 1215 30 to 1215 59 solenoid type manufactured by Nass Magnet GmbH company, Hanover

II 2G EEx m II T5 II 2D IP65 T95 °C IEC Ex m II T5

IP65 DIP A21 T95 °C

Same standards applied as for the above solenoid except standard DIN VDE 0580, 1994, Electromagnetic devices and components (General specifications)

Homologation certificates: PTB 03 ATEX 2018X and IECEx PTB 04.0002X

> 0515 60 to 0515 99 and 1215 60 to 1215 99 solenoid type manufactured by Nass Magnet GmbH company, Hanover

(8.)

II 2G FEx m II TB II 2D IP65 T80 °C IEC Ex m II T6 IP65 DIP A21 T80 °C

Same standards applied as for the above solenoid except standard DIN VDE 0530, 1994, Electromagnetic devices and components (General specifications)

Homologation certificates: PTB 03 ATEX 2018X and IECEx PTB 04:0002X

Issued by PTB - id. 0102

These products are designed for utilization in applications falling under the scope of the ATEX Directive 94%EC. This coverage could only be referred to as long as operations required for the installation and the maintenance of these products are complying with related standards.

The user will have to comply with procedures for getting an approval of the final assembled system according to related regulations.

Issued at Evreux

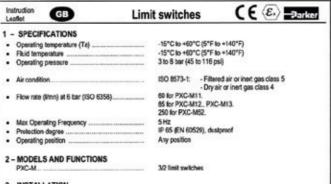
Date: November 27th, 2007

CE marked: 2007

Jean-François Viste ATEX manager



Parker Hannifin Corporation Pneumatic Division - Europe



3 - INSTALLATION

Mounting according to the PARKER catalogue
 The speed of attack must be lower than 1m/s for all the product range.

. The fixing of the product must be firm

. Conditions for installing the components must comply with specifications mentioned in chapters 1 and 3.

Before maintenance operations, stop the air and ensure that pipes are exhausted. Then proceed
 The replacement of a component must be done with a component of the same ATEX category.

Cleaning operations should be done in compliance with the specifications of the ATEX zone, preferably by aspiration and/or utilization of antistatic products. The deposit of dust should not exceed 5 mm.
 The installation and maintenance operations must be done by qualified personnel.

4-ATEX CLASSIFICATION



(ε.)	Specific logo for safety in hazardous atmospheres	
11	Destination : Group II : Atmospheres other than in mines	
2	For use in zones 1 and 21	
GD	Gas or Dust atmospheres	
С	Protection mode : "c", constructional safety	
B5°C	Termoerahun dinta (T6)	

The maximum ambient temperature (Ta) of the equipment or of the subassembly incorporating limit switches will

(Ta) of the element having the lowest limit if this one is < 60°C,
 60°C if elements other than the limit switches have a (Ta) > 50°C.

EC DECLARATION OF CONFORMIT

Parker Hannifin France S.A.S. Etablissement d'Evreux

Rue H. Becquerel - BP 3124 27031 EVREUX CEDEX - France

hereby declare that the following components from the limit switches range:

- PXC-M ... : 3/2 limit switches

are compatible for use in explosive atmosphere II 2 GD (zones 1,2 and 21,22).

These components are designed and manufactured in compliance with the European Directive:

- 94/9/EC. March 1994. "ATEX"

The present declaration is based on the compliance with the following standards:

- Standard EN 13463-1, 2001 and AC: 2002, Non-electrical equipment for potentially explosive atmospheres. Part 1: Basic method and requirements

- Standard EN 13463-5, 2003, Non-electrical equipment intended for use in potentially explosive atmospheres. Part 5: Protection by constructional safety "c".

1509070 X Technical file: Submitted at: LCIE.

33 avenue du général Leclerc, 92260 Fontenay-aux-roses

Additional information:

These products are designed for utilization in applications falling under the scope of the ATEX Directive 949/EC. This coverage could only be referred to as long as operations for the installation and the maintenance of these

The user will have to comply with procedures for getting an approval of the final assembled system according to

Issued at Evreus

Date: January 24th, 2007

ISO 8573-1: - Air ou gaz neutre filtré classe 5 - Air sec ou gaz neutre classe 4 60 pour le PXC-M11. 85 pour le PXC-M12., PXC-M13. Fluide admissible et qualité Débit (en limn) à 6 bar (ISO 6358) ... 250 pour le PXC-M52. Fréquence de service maxi . IP 65 selon EN 60529, étanchéité à la poussière Degré de protection ...
 Position de fonctionner 2 - TYPES ET FONCTIONS Interrupteurs de position 3/2 3 - INSTALLATION

Interrupteurs de position (E E.) Parker

-15°C à 460°C

-15°C à +60°C

Instruction de service

- SPECIFICATIONS

Température de service (Ta)
 Température du fluide

Montage selon description du catalogue PARKER
 La vitesse d'attaque doit être inférieure à 1 m/s pour toute la gamme
 La fixation du produit doit être ferme

· Raccordement à la terre du produit

ATTENTION

(8.)

Les composants doivent être installés dans un environnement conforme aux spécifications des chapitres 1 et 3.

Avant toute opération de maintenance, couper l'air comprimé. S'assurer que le circuit est purgé puis procéder à

Le remplacement d'un composant doit être effectué avec un composant de même catégorie ATEX.

Les opérations de nettoyage seront réalisées conformément aux spécificités ATEX de l'installation, de prétérence par aspiration et/ou par utilisation de produits antistatiques. Le dépôt de poussière ne doit pas excéder 5 mm.
 L'installation et les opérations de maintenance doivent être effectuées par du personnel qualifié.

⟨E.⟩ || 2 GD c 85 °C 4-CLASSIFICATION ATEX



mblanie (Ia) de l'équipement ou de l'ensemble incorporant les interrupteurs de position sera

La innayora empressiona arrounna (2) our pappernent ou de l'ensemble incorporatir les définie écomp suit :

(Ta) du composayit ayeut-infinite la plus faible si celle-ci est < 60°C,

60°C si les conditiuents autres que les interrupteurs de position ont une (Ta) > 60°C.

DECLARATION CE de CONFORMITE (E.)

Parker Hannifin France S.A.S. Etablissement d'Evreux Rue H. Becquerel – BP 3124

déclarons que les composants de la gamme des interrupteurs de position référencés :

PXC-M...: Interrupteurs de position 3/2

sort utilisables en atmosphère explosible II 2 GD (zones 1,2 et 21,22).

27031 FVREUX CEDEX - France

Ces composants sont construits conformément aux dispositions de la directive européenne :

- 94/9/CE, mars 1994. "ATEX"

La présente déclaration est établie sur la base de la conformité aux normes suivantes :

- norme EN 13463-1, 2001 et AC:2002, Matériels non électriques pour utilisation en atmosphères explosibles. Partie 1 : Prescriptions et méthode de base,

- norme EN 13463-5, 2003, Appareils non électriques destinés à être utilisés en atmosphères explosibles. Partie 5 : Protection par sécurité de construction "c".

Dossier technique: 1509070 X

Déposé auprès de : LCIE.

33 avenue du général Leclerc, 92260 Fontenay-aux-roses

Information complimentaire

La conception de ces produits permet leur utilisation dans un environnement soumis à l'application de la Directive ATEX 94/5/CE sous réserve que les opérations nécessaires à leur installation et à leur maintenance acient effectuées en conformité avec les dispositions des normes en vigueur.

L'utilisateur prendra en charge la mise en conformité de l'installation finale conformément à la réglementation en

Fait à Evreux

Date: 24 janvier 2007

Jean-François Viste

Date d'application marquage CE: 2006

Responsable ATEX



CE marked: 2006

Instruction Leaflet	GB	Visual	indicators	CE	(ε.) → ∋arker	Instruction de service	Œ		Voyants		(€ (E.) ∋ _{sirk}
- SPECIF	ICATIONS						FICATIONS				
 Operating 	temperature (Ta)		-15°C to +60°C (5°F to -15°C to +60°C (5°F to					(a)			
	pressure		1 to 8 bar (14,5 to 116 p						1111		
Air conditi	on		ISO 8573-1: - Filtered	air or inert gas	class 5	Fluide at	dmissible et qualit	ó			
Max Open	ating Frequency		- Dry air	or inert gas cla	06.4	Fréquen	ce de service ma:	6		r sec ou gaz i	eutre classe 4
	position		Any position					N			
2 - MODEL: PXV-F1	S AND FUNCTIONS		Visual indicator Ø 22 mr	n		2-TYPES PXVF1.	ET FONCTIO	NS	Voyant Ø 22 mm		
3 - INSTAL • Mounting a	LATION according to the PARKER	catalogue.				3 - INSTA • Montage		du catalogue PARI	KER.		
 Before ma The replace Cleaning of aspiration 	s for installing the compon intenance operations, sto cement of a component m operations should be done and/or utilization of antist litation and maintenance	p the air and ensi- ust be done with a in compliance watic products. The	ure that pipes are exhaur a component of the sam ith the specifications of t deposit of dust should r	ATEX categor to ATEX categor to ATEX zone, tot exceed 5 mm	eed. y. preferably by	Avant to Finterver Le remp Les oper par aspir	posants doivent é ute opération de l ntion. lacement d'un cor rations de nettoya ration et/ou par ut	maintenance, coupe mposant doit être ef ge seront réalisées ilisation de produits	er l'air comprimé. S'assure ffectué avec un composan	t de même ca dités ATEX de poussière n	e l'installation, de préférent e doit pas excéder 5 mm.
4-ATEX	CLASSIFICATION	ε.	112 GD c 85 °C			4-CLAS	SIFICATION A	TEX	€. 12 GD c 85	°C	
(c)	Specific logo for safety in	hazardous atmos	spheres			(0)	Logo de référer	ce pour la sécurité	en atmosphères explosibi	250	
(ε.)	Destination : Group II : Al					⟨ ε ∗⟩		oupe II : Almosphér	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
2	For use in zones 1 and 2	1				2	Utilisation en zo	nes 1 et 21			
	Gas or Dust atmospheres Protection mode: "c", con					GD c		e type gaz ou pouss tion : "c", sécurité d			
85°C	Temperature class (T6)					85°C	Classe de temp	érature (T6)	7.73		
e (Ta) of the	m ambient temperature (T element having the lower ements other than the visu	st limit if this one i	s < 60°C,			suit:	1		e și celle-ci est < 60°C, ler oni une (Ta) > 60°C.		is voyants sera définie com
We,	Parker Hannifin Fra	ince S.A.S.	CONFORMIT	E		Nous,	Parker Ha	nnifin France S	CE de CONFOR	RMITE	€.
	Etablissement d'Evre Rue H. Becquerel – I 27031 EVREUX CEI	BP 3124					Rue H. Be	nent d'Evreux cquerel – BP 312 REUX CEDEX –			
	clare that the following V-F1	components fr	om the visual indicate	vs range :			que les compo	osants de la gami	rne de voyants référen	oés:	
	tible for use in explosit	ve atmosphere	N 2 GD (rones 1.2 a	nd 21.221		sont utilis	ables en atmos	phère explosible	II 2 GD (zones 1,2 et	21,22).	
	ponents are designed				nan Direction	0.73			óment aux dispositions		the autoridance:
			area ar compliance w	er me zurope	an Derocure.	100000000	4/9/CE, mars 19		ornoni asix urspoemore	ue la cirec	ove durupourane.
	9/EC, March 1994, "A					1 3					0000
- Sta atm - Sta	nt declaration is based indard EN 13463-1, 20 nospheres. Part 1: Bas indard EN 13463-5, 20 olosive atmospheres. F	001 and AC: 20 sic methods and 003, Non-electri	02, Non-electrical eq d requirements ical equipment intend	uipment for po		- nx ex - nx	orme EN 13463 cplosibles. Part orme EN 13463	i-1, 2001 et AC:2 ie 1 : prescription i-5, 2003, Appare	ns et méthodes de bas	trique pour e, stinés à être	s suivanfes : utilisation en almosphé utilisés en atmosphén
Technical f	ile: 1509084 X					Dossier te	echnique :	1509084 X			
Submitted		u général Lecle	rc, 92260 Fontenay-	ux-roses		Déposé a	uprès de :	LCIE, 33 avenue du g	jénéral Lederc, 92260	Fontenay-a	ux-roses
		-	,								
	cts are designed for utility					La concept		its permet leur utilis			à l'application de la Direct
	ge could only be referred complying with related str		perations for the install	won and the n	wittenance of these				ions nécessaires à leur les nemes en vigueur.	ristalianon é	t á leur maintenance soi
	I have to comply with pro		ing an approval of the f	nal assembled	system according to					sale conforme	iment à la réglementation
	Issued at Evreux		Date	January 248	2007		Fait à E	i manure		Date : 24	janvier 2007
	issueu di Evreux		Date	January 24 ^e	2001		rat al t			Cate: 24	84
CE marked:	2005					Date d'app	lication marqu	age CE : 2005			ançois Viste



Parker Hannifin Corporation Pneumatic Division - Europe

PL.-

Instruction GB Logic elements (E & Darker	Instruction de service Cellules logiques CE & Parker
Instruction Leaflet CGB Logic elements C (& E) - Safetar	
1 - SPECIFICATIONS • Operating temperature (Ta) -15°C to +60°C (5°F to +140°F) • Fluid temperature -15°C to +60°C (5°F to +140°F)	1 - SPECIFICATIONS • Température de service (Ta)
Operating pressure 3 to 8 par (45 to 116 psi) Air condition. ISO 8573-1: - Filtered air or ine1 gas class 5	Pression de service 3 à 8 ber Fluide admissible et qualité ISO 8573-1 : - Air ou gaz neutre filtré classe 5
Dry air or inert gas class 4 Max Operating Frequency	Fréquence de service maxi
2 - MODELS AND FUNCTIONS PLI / PLK / PUN / PLJ-C10 / PLM / PRD / PRF / PRT / PSIM / PSV-A12 Modular Sequencer.	2 – TYPES ET FONCTIONS PLL / PLK / PUN / PLJ-C10 / PLM / PRD / PRF / PRT / PSM / PSV-A12
INSTALLATION Mounting according to the PARKER catalogue, in conjunction with subbases and input modules:	3 – INSTALLATION • Montage selon description du catalogue PARKER, en association avec les embases et modules d'entrée :
PLE-B1./PZU- for functions and latch memory PZU- for Amplifler, Sensor, Timer, PSE-A1./PSD/PSE-A1. for Modular Sequencer	PLE-B1. / PZU
WARNING Conditions for installing the components must comply with specifications mentioned in chapters 1 and 3. Before maintenance operations, stop the air and ensure that pipes are exhausted. Then proceed. The replacement of a component must be done with a component of the same ATEX category. Cleaning operations should be done in compliance with the specifications of the ATEX zone, preferably by aspiration and/or utilization of antistatic products. The deposit of dust should not exceed 5 mm. The installation and maintenance operations must be done by qualified personnel.	ATTENTION Les composants delvent être installés dans un environnement conforme aux spécifications des chapitres 1 et 3. Avant toute opération de maintenance, couper fair comprimé. S'assurer que le circuit est purgé puis procéder à l'intervention. Le remplacement d'un composant doit être effectué avec un composant de même catégorie ATEX. Les opérations de settoyage seront réalisées conformément aux spécificités ATEX de l'installation, de préférence par aspiration et/ou par utilisation de produits antistatiques. Le dépôt de poussière ne doit pas excèder 5 mm. L'installation et les opérations de maintenance delivent être effectuées par du personnel qualifié.
4-ATEX CLASSIFICATION (E.) 2 GD c.85 °C	4 - CLASSIFICATION ATEX E. II 2 GD c 85 °C
⟨E∗⟩ Specific logo for safety in hazardous atmospheres	Logo de référence pour la sécurité en almosphères explosibles
II Destination : Group II : Atmospheres other than in mines	II Destination : Groupe II : Atmosphères de surface
2 For use in zones 1 and 21 GD Gas or Dust almospheres	2 Utilisation en zones 1 et 21 GD Atmospheret de type gaz ou poussière
c Protection mode : "c", constructional safety 85°C Temperature class (16)	c Mode (se protection / c', securité de construction 65°C Classe de température (16)
The maximum ambient temperature (Ta) of the equipment or of the subassembly incorporating logic elements will be defined as: • (Ta) of the element having the lowest limit if this one is < 60°C, • 60°C if elements other than the logic have a (Ta) > 63°C.	La limiter de température ambiante (Tair de l'écupement ou de l'ensemble incorporant les éléments de logique sera élémeit comme suit : (Ta) du composant ly part la limite la plus-faible si celle ci est < 60°C, 60°C si les constituents autres que la logique cet une (Ta) > 60°C.
EC DECLARATION OF CONFORMITY	DECLARATION CE de CONFORMITE &
We, Parker Hannifin France S.A.S. Etablissement d'Evreux Rue H. Becquerel – BP 3124 27031 EVREUX CEDEX – France	Nous, Parker Hanniffin France S.A.S. Etablissement d'Evreux Rue H. Becquerel – BP 3124 27031 EVREUX CEDEX – France
hereby declare that the following components from the Telepneumatic pneumatic logic range : - PLL / PLK / PLN / PLJ-C10 / Functions AND, OR, NOT, YES, - PLM / PRD / PRT / Latch memory, Amplifier, Sensor, Timer,	déclarons que les composants de la gamme de logique pneumatique Telepneumatic référencés : - PLL/ PLK/ PLN/ PLJ-C10 / Fonctions ET, OU, NON, OUI, - PLM/ PRD/ PRF/ PRT/ mémoire, amplificateur, capteur à fuite, temporisateur,
- PSM / PSV-A1. Modular Sequencer,	- PSM / PSV-A1. séquenceur modulaire,
are compatible for use in explosive atmosphere II 2 GD (zones 1,2 and 21,22). These components are designed and manufactured in compliance with the European Directive:	sont utilisables en almosphère explosible II 2 GD (zones 1,2 et 21,22). Ces composants sont construits conformément aux dispositions de la directive européenne:
- 94/9/EC, March 1994, "ATEX"	- 94/9/CE, mars 1994, "ATEX"
The present declaration is based on the compliance with the following standards: - Standard EN 13463-1, 2001 and AC:2002, Non-electrical equipment for potentially explosive atmospheres. Part 1: Basic methods and requirements - Standard EN 13463-5, 2003, Non-electrical equipment intended for use in potentially explosive atmospheres. Part 5: Protection by constructional safety "c".	La présente déclaration est établie sur la base de la conformité aux normes suivantes : - norme EN 13463-1, 2001 et AC:2002, Matériel non électrique pour utilisation en atmosphère explosibles. Partie 1 : prescriptions et méthodes de base, - norme EN 13463-5, 2003, Appareils non électriques destinés à être utilisés en atmosphères explosibles. Partie 5: Protection par sécurité de construction "c".
Type certificate: LCIE 04 ATEX 6164X	Attestation d'examen de type : LCIE 04 ATEX 6164X
Delivered by: LCIE	Délivrée par : LCIE
Additional information: These products are designed for utilization in applications falling under the scope of the ATEX Directive 94/9EC. This coverage cools only be referred to as long as operations for the installation and the mantenance of these products are complying with related standards. The user will have to comply with procedures for getting an approval of the final assembled system according to related regulations.	Information complémentaire : La conception de ces produits permet leur utilisation dans un environnement soumis à l'application de la Directive ATEX 94/9/CE sous réserve que les opérations nécessaires à leur instatution et à leur maintenance soient effectuées en conformité avec les dispositions des normes en vigueur. L'utilisateur prendra en charge la nisse en conformité de l'installation finale conformément à la réglementation en vigueur.
Issued at Evreux Date: January 24th, 2007	Fait à Evreux Date : 24 janvier 2007
CE marked: 2004	Date d'application marquage CE : 2004 Jean-François Viste Responsable ATEX



Parker Hannifin Corporation Pneumatic Division - Europe

for zone 1, 21

for zone 1, 21

Soft Start Valve

Dump Valve





DECLARATION OF CONFORMITY (ATEX)

We Parker Hannifin Ltd.
Pneumatic Division
Walkmill Lane
Bridgtown
Cannock
Staffs
WS11 0LR

Declare that the following product families are non electrical and have been assessed in accordance with ATEX 94/9/EC (products for use in potentially explosive atmospheres). Electrical items supplied with any of the listed products will have their own Declaration of Conformities: -

Global Air Preparation
Referenced Normative Documents
EN13463 Non-electrical equipment for potential explosive atmospheres
Equipment Group and Category classification
II 3 GD 80 ⁰ C - Self Certification
In addition We have conducted a hazard risk assessment analysis and concluded that the products do not possess their own potential ignition source. The basis of this declaration is the self-ignition hazard assessment on representative test samples

For Parker Pneumatic Division, Cannock

Parker Hannifin Corporation

Pneumatic Division - Europe

David G E Davies

Chief Engineer – Cannock

PH165/A 15-12-06



of the product family.



DECLARATION



Parker Hannifin Manufacturing Ltd Pneumatic Division The Collins Centre Lichfield South Lichfield WS14 0QP UK

Product	Series	Category
Filter*	P31FA, P32FA, P33FA	for zone 1, 21
Regulator	P31RA, P32RA, P33RA	for zone 1, 21
Filter regulator*	P31EA, P32EA, P33EA	for zone 1, 21
Lubricator*	P31LA, P32LA, P33LA	for zone 1, 21
Ball Valve & Slide Valve	P31VA, P32VA, P33VA	for zone 1, 21
Manifold	P31MA, P32MA, P33MA	for zone 1, 21
For non-fitted solenoid product		
Soft Start & Dump Valve	P31TA, P32TA	for zone 1, 21

P31SA, P32SA

P31DA, P32DA

Following Ignition Hazard Assessments performed on the non-electrical products listed above, in accordance with the requirements of EN 13463-1:2009, it was considered that the equipment does not contain its own source of ignition, and therefore is not within the scope of directive 94/9/EC.

The products can be used in a Group II Category 2 environment assuming that the ATEX Directive and the following conditions are complied with:

- Installation and maintenance of the product must be undertaken by qualified personnel.
- Do not mount the products in an area where impact may occur.
- Filters must be used to limit the introduction of particles and to capture particles generated in service.
- Supply air quality must be within ISO 8573-1:2010 Class 1.4.2.
- Maximum working temperature to be as stated on product label.
- WARNING pulsating pressure and/or a closed circuit can generate heat.
- Deposits of dust on the product must not exceed 5mm thickness.

Refer to technical file for surface areas of plastics.

The unit must be earthed via the compressed air supply line.

• The unit must not come into contact with liquid solvents, acids or alkalis.

Refer to technical file for chemicals known to be incompatible.

Product cleaning must be undertaken using a method complying with the specification of the ATEX zone, preferably by using mild soap and water or antistatic products.

• Regulators, Filter Regulators:

Do not use Regulators or Filter Regulators within systems that can create vibration within the Regulator/Filter Regulator unit.

Solenoid Operated Valves:

Are suitable for use in an ATEX environment, (Group II Category 2) providing ATEX approved solenoids are fitted.

• Technical file available on request.

Approved by:

A. MacGuire

Engineering Manager – Air Preparation EMEA

^{*}Filter, Filter Regulator and Lubricator - This evaluation applies to products fitted with metal bowls only.



DECLARATION



Ve Parker Hannifin Manufacturing Austria GmbH
Pneumatic Division
Dr. Alexander Schärfstrasse 12
2700 Wiener Neustadt
Austria

Product Filter Regulator Filter regulator Lubricator Ball Valve Manifold	Series P3YFA P3YRA P3YEA P3YLA P3YVA P3YMA	Category for zone 1, 21
For non-fitted solenoid product Soft Start & Dump Valve Soft Start Valve Dump Valve	P3YTA P3YSA P3YDA	for zone 1, 21 for zone 1, 21 for zone 1, 21

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• Technical file available on request.

Approved by:

E. Baureyer

E. Bauregger (Location Engineering Manager)





DECLARATION



We Parker Hannifin Manufacturing Austria GmbH
Pneumatic Division
Dr. Alexander Schärfstrasse 12
2700 Wiener Neustadt
Austria

Product	Series	Category
Filter	P3ZFA	for zone 1, 21
Regulator	P3ZRA	for zone 1, 21
Lubricator	P3ZLA	for zone 1, 21
Manifold	P3ZMA	for zone 1, 21
For non-fitted solenoid product		
Soft Start & Dump Valve	P3ZTA	for zone 1, 21
Soft Start Valve	P3ZSA	for zone 1, 21
Dump Valve	P3ZDA	for zone 1, 21

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Approved by:

E. Baureyjer

E. Bauregger (Location Engineering Manager)





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J^{*}J Air Systems



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