AP | LP | LW | YP | YP-DU Series

THOMAS
by Gardner Denver

FEATURES

> Oil-less
> Long life
> Low power consumption
> Worldwide service network
> Low sound level/vibration
> Protection class IP54 (AP/LP/LW-Series)
> CE approved (230V 50Hz models with housing and cord with plug)
> Integrated intake filter (AP/LP/LW-Series)
> RoHS compliant

TYPICAL APPLICATIONS

> Sewage aeration
> Aquarium aeration
> Gas/particle analysis
> Air mattress
> Compression therapy
> Battery aeration
> Grey water treatment
> Process water recycling

BASE MODEL

AP
LP
LW
YP
YP-DU













Linear

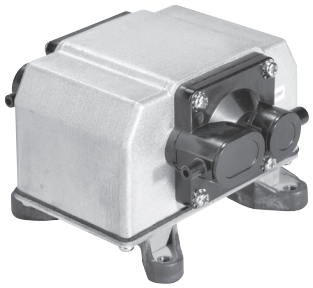
Linear Diaphragm Pumps

PRODUCT OVERVIEW

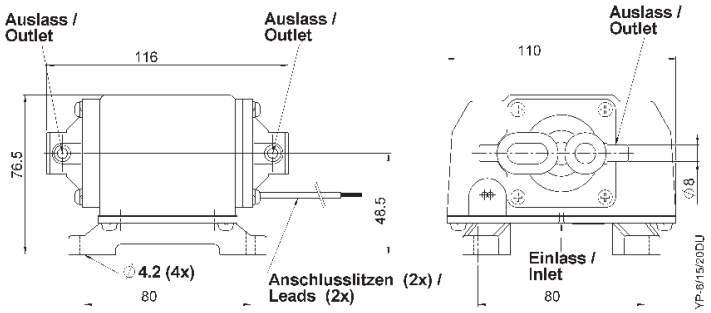
Model		Pressure	Vacuum	without housing	with housing	Flow at rated pressure 0 50 100 150 200 250 300 400(l/min)	Page
	YP-15DU	•		•		15 l/min @ 100 mbar	3
	YP-50DU	•		•		50 l/min @ 120 mbar	4
	YP-40VC	•	•		•	43 (39) l/min @ 120 (-120) mbar	
	YP-70VC	•	•		•	73 (64) l/min @ 120 (-180) mbar	5
	AP-40	•			•	45 l/min @ 120 mbar	
	AP-60N	•			•	47 l/min @ 200 mbar	
	AP-60/80	•			•	60 l/min @ 200 mbar	
	AP-80H	•			•	82 l/min @ 200 mbar	
	AP-100	•			•	108 l/min @ 200 mbar	
	AP-120	•			•	125 l/min @ 200 mbar	6,7
	LP-150HN	•			•	150 l/min @ 200 mbar	
	LP-200HN	•			•	200 l/min @ 200 mbar	8
	LW-240	•			•	240 l/min @ 200 mbar	
	LW-300	•			•	350 l/min @ 200 mbar	
	LW-400	•			•	425 l/min @ 200 mbar	9

Linear Diaphragm Pumps **YP-15DU**

Flow at rated pressure	**15 l/min at 100 mbar**



Oil-less



PNEUMATIC DATA

Description	YP-15DU
Part number	**52500016**
Flow at rated pressure	15 l/min
Rated pressure	100 mbar
Operating range	20 to 200 mbar

ELECTRICAL DATA

Motor type	Linear drive
Voltage	230V 50Hz
Power consumption at rated pressure	13 W

GENERAL DATA

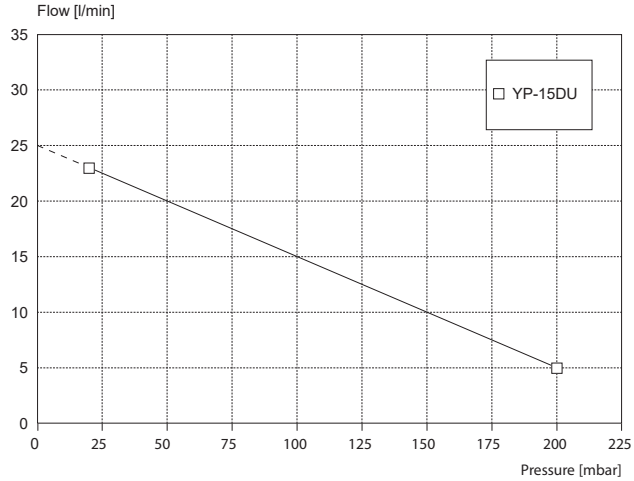
Ambient temperature	-10 to 40 °C
Weight	1.2 kg
Outlet diameter	2 x 8 mm
Average sound level	38 dB (A)

SERVICE PARTS

Chamber block set [1)]	700017

All listed values are measured at standard atmospheric conditions.
If 230V 60Hz is required, please consult factory.
1) Denotes that service part is only available for trained service personnel.

FLOW CURVES



Note: Operation outside specified operating range is not recommended.
All listed values are measured at standard atmospheric conditions.

SUPPLIED AS STANDARD

2 x Leads (30 cm)
for power supply
1 x Lead (10 cm)
for earth/ground

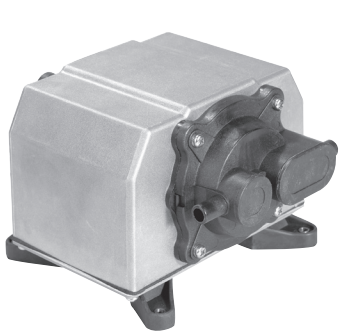
SERVICE PARTS

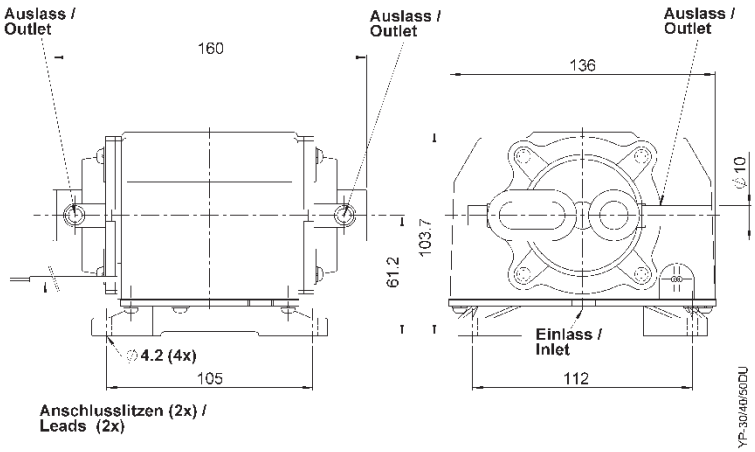
Chamber block set [1)] consists of:
2 x Pump head with valves
2 x Diaphragm assembly
2 x Diaphragm nut
2 x Diaphragm washer

5250... Stock programme

Linear Diaphragm Pump **YP-50DU**

Flow at rated pressure	50 l/min at 120 mbar





PNEUMATIC DATA

Description	YP-50DU
Part number	**52500052**
Flow at rated pressure	50 l/min
Rated pressure	120 mbar
Operating range	50 to 200 mbar

ELECTRICAL DATA

Motor type	Linear drive
Voltage	230V 50Hz
Power consumption at rated pressure	45 W

GENERAL DATA

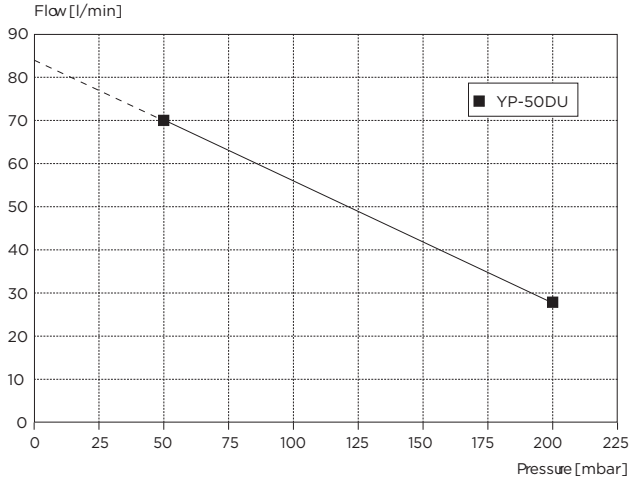
Ambient temperature	-10 to 40 °C
Weight	2.8 kg
Outlet diameter	2 x 10 mm
Average sound level	50 dB (A)

SERVICE PARTS

Chamber block set [1)]	**700020**

All listed values are measured at standard atmospheric conditions.
If 230v 60Hz is required, please consult factory.
1) Denotes that service part is only available for trained service personnel.

FLOW CURVES



Note: Operation outside specified operating range is not recommended.
All listed values are measured at standard atmospheric conditions.

SUPPLIED AS STANDARD

2 x Leads (30 cm)
for power supply
1 x Lead (10 cm)
for earth/ground

SERVICE PARTS

Chamber block set [1)] consists of:
2 x Pump head with valves
2 x Diaphragm assembly
2 x Diaphragm nut
2 x Diaphragm washer

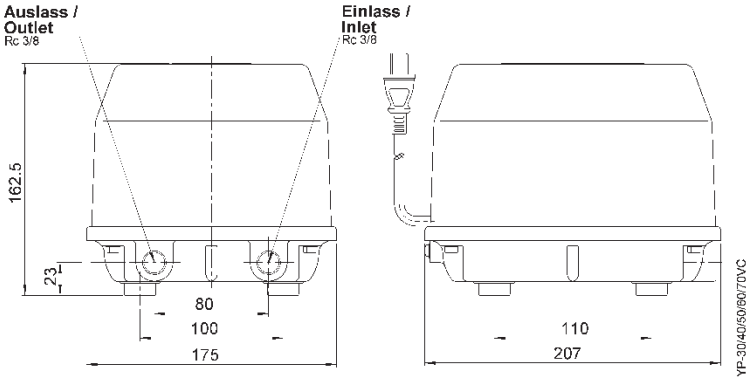
5250... Stock programme

Linear Diaphragm Pumps **YP-40VC, YP-70VC**

Flow at rated pressure	43 to 73 l/min at 120 to 200 mbar



Oil-less



PNEUMATIC DATA

Description	YP-40VC	YP-70VC
Part number	**52500402**	**52500073**
Flow at rated pressure	43 l/min	73 l/min
Rated pressure	±120 mbar	±120 mbar
Operating range	-200 to 200 mbar	-200 to 200 mbar

ELECTRICAL DATA

Motor type	Linear drive	Linear drive
Voltage	230V 50Hz	230V 50Hz
Power consumption at rated pressure	40 W	85 W

GENERAL DATA

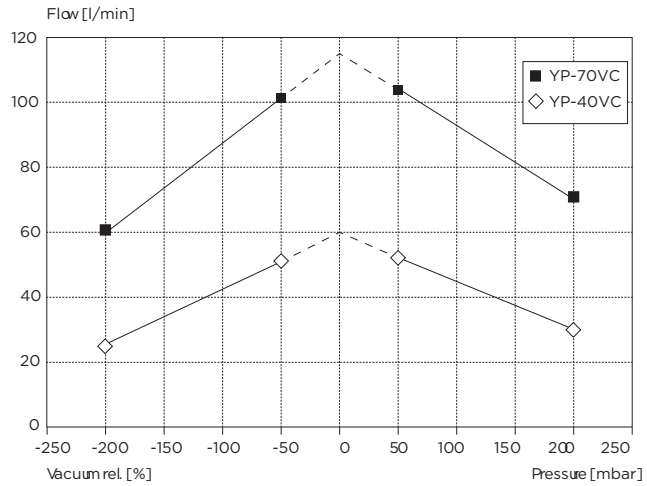
Ambient temperature	-10 to 40 °C	-10 to 40 °C
Weight	5.1 kg	6.2 kg
Inlet / Outlet diameter	Rc 3/8	Rc 3/8
Average sound level	39 dB (A)	48 dB (A)

SERVICE PARTS

Chamber block set [1]	**700020**	**700038**

All listed values are measured at standard atmospheric conditions.
If 230V 60Hz is required, please consult factory.
1) Denotes that service part is only available for trained service personnel.
Please refer to the operation manual for additional information.

FLOW CURVES



Note: Operation outside specified operating range is not recommended.
All listed values are measured at standard atmospheric conditions.

SUPPLIED AS STANDARD

Cable/Euro-plug

SERVICE PARTS

Chamber block set [1] consists of:
2 x Pump head with valves
2 x Diaphragm assembly
2 x Diaphragm nut
2 x Diaphragm washer

ACCESSORIES

Tube connector I.D. 14 mm
(part number 31644)

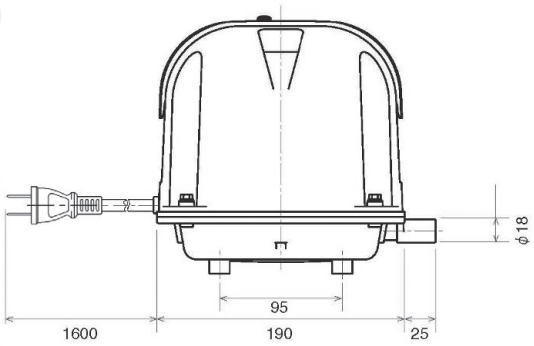
5250... Stock programme

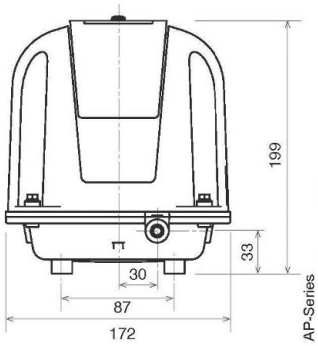
Linear Diaphragm Pump **AP-40**

Flow at rated pressure	45 l/min at 120 mbar



Oil-less





PNEUMATIC DATA

Description	AP-40
Part number	**52500453**
Flow at rated pressure	45 l/min
Rated pressure	120 mbar
Operating range	50 to 200 mbar

ELECTRICAL DATA

Motor type	Linear drive
Nominal Voltage	230V 50Hz
Consumption at rated pressure	0.34 A / 29 W
Efficiency at rated pressure	0.64 W/l

GENERAL DATA

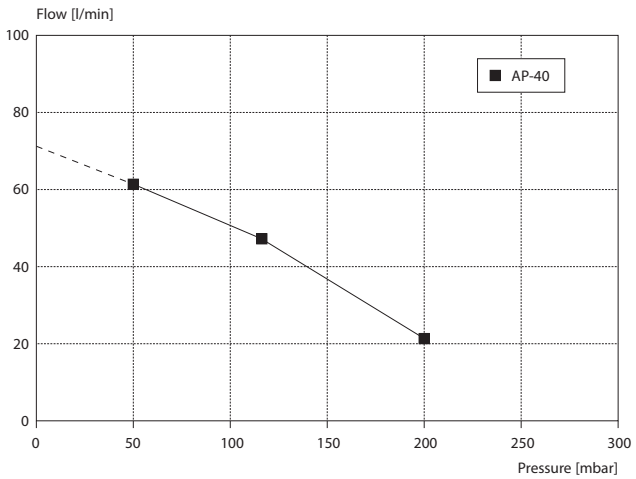
Ambient temperature	-10 to 40 °C
Weight	4.3 kg
Outlet diameter	18 mm
Average sound level	34 dB (A)

SERVICE PARTS

Chamber block set [1)]	**700580**
Air filter and gasket kit	**700582**
Air filter kit	**700583**

All listed values are measured at standard atmospheric conditions.
If 230V 60Hz is required, please consult factory.
1) Denotes that service part is only available for trained service personnel.
Please refer to the operation manual for additional information.

FLOW CURVES



Note: Operation outside specified operating range is not recommended.
All listed values are measured at standard atmospheric conditions

SERVICE PARTS

Chamber block set [1)] consists of:
2 x Pump head with valves
2 x Diaphragm assembly
2 x Diaphragm gasket
2 x Nut
2 x Washer

Air filter and gasket kit consists of:
1 x Air cleaner element
1 x Air cleaner gasket
1 x Cover plate gasket
1 x Noise absorbing net
1 x Tank gasket

Air filter kit consists of:
5 x Air cleaner element
5 x Air cleaner gasket

SUPPLIED AS STANDARD

Cable/Euro-plug
Air connector consists of (part number 700073)
1 x Outlet hose, angled, 170/50 mm
2 x Hose clamp

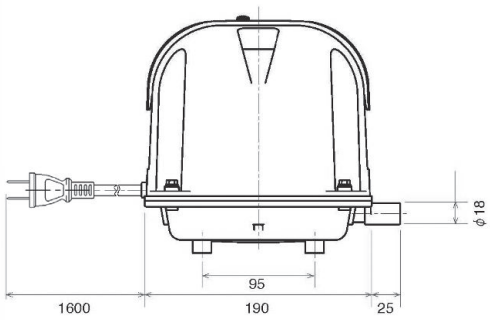
5250... Stock programme

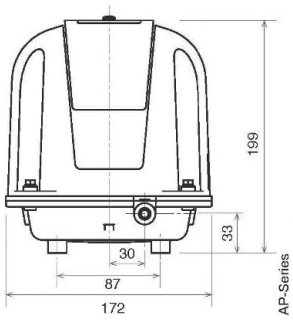
Linear Diaphragm Pumps **AP-60N, AP-60/80, AP-80H, AP-100, AP-120**

Flow at rated pressure	47 to 125 l/min at 200 mbar



Oil-less





PNEUMATIC DATA

Description	AP-60N	AP-60/80	AP-80H	AP-100	AP-120
Part number	**52500478**	**52500485**	**52500480**	**52500472**	**52500473**
Flow at rated pressure	47 l/min	60 l/min	82 l/min	108 l/min	125 l/min
Rated pressure	200 mbar	200 mbar	200 mbar	200 mbar	200 mbar
Operating range	100 to 300 mbar	100 to 300 mbar	100 to 300 mbar	140 to 300 mbar	160 to 300 mbar

ELECTRICAL DATA

Motor type	Linear drive	Linear drive	Linear drive	Linear drive	Linear drive
Nominal Voltage	230V 50Hz	230V 50Hz	230V 50Hz	230V 50Hz	230V 50Hz
Consumption at rated pressure	0.26 A / 31 W	0.34 A / 41 W	0.8 A / 73 W	1.06 A / 99 W	1.45 A / 128 W
Efficiency at rated pressure	0.66 W/l	0.68 W/l	0.89 W/l	0.92 W/l	1.02 W/l

GENERAL DATA

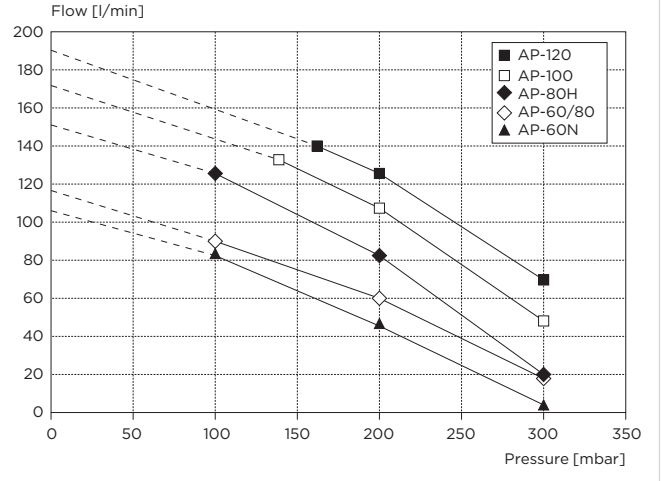
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C
Weight	5.8 kg	5.8 kg	6.1 kg	6.1 kg	6.1 kg
Outlet diameter	18 mm	18 mm	18 mm	18 mm	18 mm
Average sound level	34 dB (A)	34 dB (A)	35 dB (A)	37 dB (A)	38 dB (A)

SERVICE PARTS

Air filter and gasket kit	**700582**	**700582**	**700582**	**700582**	**700582**
Air filter kit	**700583**	**700583**	**700583**	**700583**	**700583**
*Chamber block set	**700581**	**700581**	**700585**	**700585**	**700585**
**Protective switch	**700578**	**700578**	**700578**	**700578**	**700578**

All listed values are measured at standard atmospheric conditions.
If 230V 60Hz is required, please consult factory
***Chamber block set** denotes part is only available for trained service personnel. Contact your local sales representative.
****Protective Switch** denotes that switch replacement can only be done at factory. Contact your local sales representative.
Please refer to the operation manual for additional information.

FLOW CURVES



Note: Operation outside specified operating range is not recommended.
All listed values are measured at standard atmospheric conditions

SERVICE PARTS

Air filter kit consists of
5 x Air cleaner element
5 x Air cleaner gasket

Air filter and gasket kit consists of
1 x Air cleaner element
1 x Air cleaner gasket
1 x Cover plate gasket
1 x Noise absorbing net
1 x Tank gasket

*Chamber block set consists of
2 x Pump head with valves
2 x Diaphragm assembly
2 x Diaphragm gasket
2 x Nut
2 x Washer

**Protective switch consists of
1 x Microswitch
2 x Nut
2 x Washer
1 x Cover plate gasket

SUPPLIED AS STANDARD

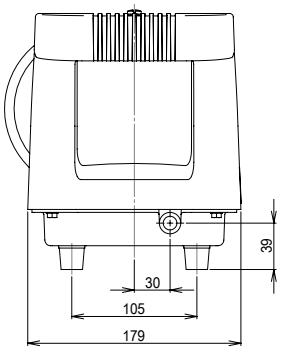
Cable/Euro-plug
Air connector consists of (part number 700073)
1 x Outlet hose, angled, 170/50 mm
2 x Hose clamp

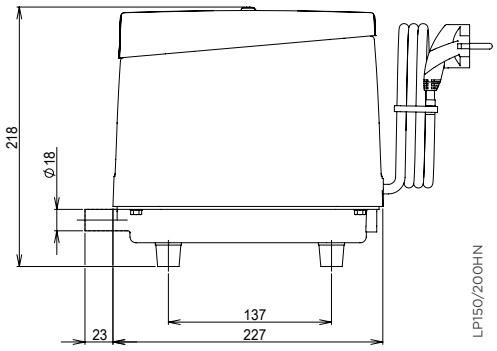
5250... Stock programme

Linear Diaphragm Pumps **LP-150HN, LP-200HN**

Flow at rated pressure	150 to 200 l/min at 200 mbar







PNEUMATIC DATA

Description	LP-150HN	LP-200HN
Part number	**52500151**	**52500202**
Flow at rated pressure	150 l/min	200 l/min
Rated pressure	200 mbar	200 mbar
Operating range	100 to 300 mbar	100 to 300 mbar

ELECTRICAL DATA

Motor type	Linear drive	Linear drive
Nominal Voltage	230V 50Hz	230V 50Hz
Consumption at rated pressure	0.85 A/130 W	1.15 A/200 W

GENERAL DATA

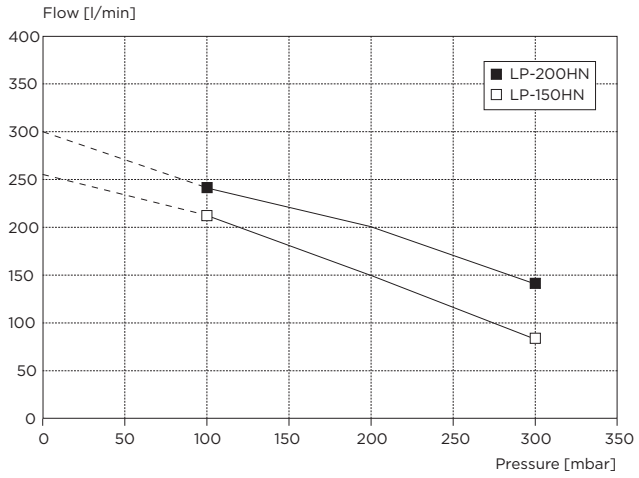
Ambient temperature	-10 to 40 °C	-10 to 40 °C
Weight	8.6 kg	8.6 kg
Outlet diameter	18 mm	18 mm
Average sound level	43 dB (A)	44 dB (A)

SERVICE PARTS

Chamber block set [1)]	**700533**	**700533**
Air filter and gasket kit	**700550**	**700550**
Air filter kit	**700551**	**700551**
Protective switch [1)]	**700552**	**700552**

All listed values are measured at standard atmospheric conditions.
If 230v 60Hz is required, consult factory
1) Denotes that service part is only available for trained service personnel.
Please refer to the operation manual for additional information.

FLOW CURVES



Note: Operation outside specified operating range is not recommended.
All listed values are measured at standard atmospheric conditions

SERVICE PARTS

Chamber block set [1)] consists of:
2 x Pump head with valves
2 x Diaphragm assembly
2 x Diaphragm nut
2 x Diaphragm washer

Air filter and gasket kit consists of:
1 x Air cleaner element
1 x Air cleaner gasket
1 x Cover plate gasket
1 x Noise absorbing net
1 x Tank gasket
2 x L-Hose
2 x L-Clamp

Air filter kit consists of:
5 x Air cleaner element
5 x Air cleaner gasket

Protective switch [1)] consists of:
1 x Microswitch complete with cover plate
1 x Cover plate gasket

SUPPLIED AS STANDARD

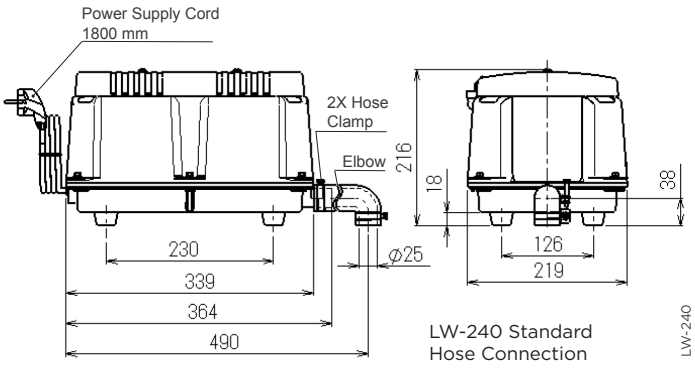
Cable/Euro-plug
Air connector (part number 700073) consists of:
1 x Outlet hose, angled, 170/50 mm
2 x Hose clamp

5250... Stock programme

Linear Diaphragm Pumps **LW-240, LW-300, LW-400**

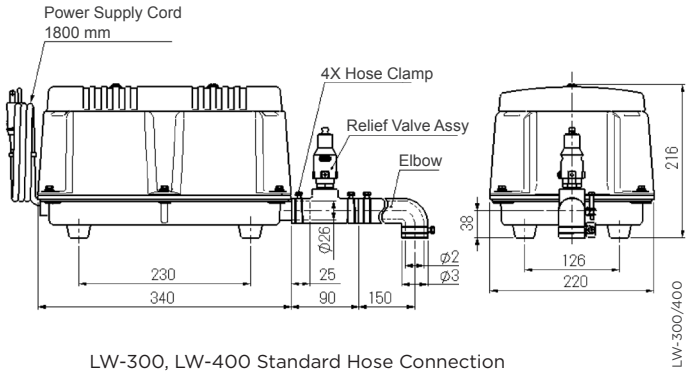
Oil-less

Flow at rated pressure	425 l/min at 200 mbar



LW-240 Standard Hose Connection

LW-240



LW-300, LW-400 Standard Hose Connection

LW-300/400

PNEUMATIC DATA

Description	LW-240	LW-300	LW-400
Part number	**52500410**	**52500411**	**52500414**
Flow at rated pressure	240 l/min	350 l/min	425 l/min
Rated pressure	200 mbar	200 mbar	200 mbar
Operating range	100 to 250 mbar	100 to 250 mbar	100 to 250 mbar

ELECTRICAL DATA

Motor type	Linear drive	Linear drive	Linear drive
Nominal Voltage	230V 50Hz	230V 50Hz	230V 50Hz
Consumption at rated pressure	1.8 A/250 W	1.6 A/280 W	2.4 A/400 W

GENERAL DATA

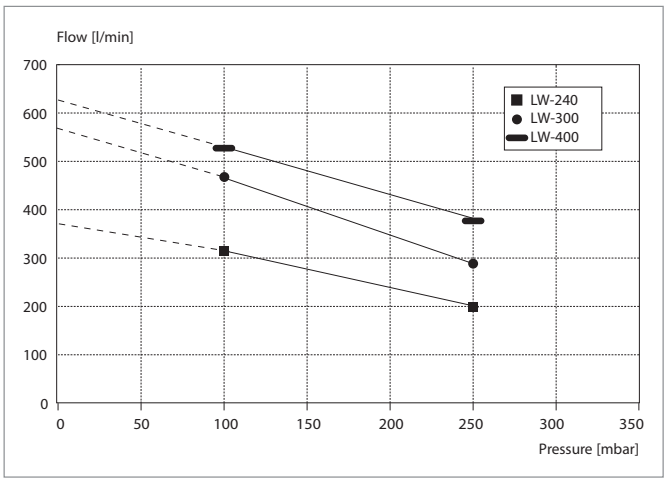
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C
Weight	14.4 kg	16.0 kg	16.0 kg
Outlet diameter	26 mm	26 mm	26 mm
Average sound level	49 db (A)	50 db (A)	51 dB (A)

SERVICE PARTS

Chamber block set [1)]	**700500**	**700597**	**700597**
Air filter and gasket kit	**700502**	**700598**	**700598**
Air filter kit	**700510**	**700510**	**700510**
Protective switch [1)]	**700512**	**700599**	**700599**

All listed values are measured at standard atmospheric conditions.
Please consult factory if 230V 60Hz is needed.
Please refer to the operation manual for additional information.
1) Denotes that part is only available for trained service personnel.

FLOW CURVES



Note: Operation outside specified operating range is not recommended.
All listed values are measured at standard atmospheric conditions

SERVICE PARTS

Chamber block set [1)] consists of:
4 x Pump head with valves
4 x Diaphragm assembly
4 x Diaphragm nut
4 x Diaphragm washer

Air filter and gasket kit consists of:
1 x Air cleaner element
1 x Air cleaner gasket
1 x Noise absorbing net
1 x Tank gasket
1 x Cover gasket
4 x L-Hose

Air filter kit consists of:
5 x Air cleaner element
5 x Air cleaner gasket

5250... Stock programme

Protective switch [1)] consists of:
1 x Microswitch w/cover plate
Please note: One unit is equipped with two protective switches

SUPPLIED AS STANDARD

Cable/Euro with plug
Air connector consisting of
LW-240 (700513)
1 x Outlet hose, angled, 170/50 mm
2 x Hose clamp
LW-300 & LW-400 (P/N 700600)
1 x Outlet hose, angled, 170/50 mm
4 x Hose clamp
1 x Relief valve assembly
1 x Hose connector

Accessory Available:
Air connector, straight type (P/N 700514) consists of
1 x Outlet hose, straight, 150 mm
2 x Hose clamp

PUMP AND COMPRESSOR SOLUTIONS FOR OEMS WORLDWIDE

gd-thomas.com

Gardner Denver Thomas GmbH
Livry-Gargan-Str. 10
82256 Fürstenfeldbruck
Germany
T +49 8141 2280 0
F +49 8141 8892136
thomas.de@gardnerdenver.com

Gardner Denver Thomas Pnuematic Systems (Wuxi) Co. Ltd.
1 New Dong'an Road, Shuofang Town
Xinwu District, Wuxi
Jiangsu, 214142 China
T +86 510 6878 2258
F +86 510 6878 2200
thomas.cn@gardnerdenver.com

Gardner Denver Thomas, Inc.
1419 Illinois Avenue
Sheboygan, WI 53081
USA
T +1 920 4574891
F +1 920 4514276
td.usa@gardnerdenver.com

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