

6410 Series

THOMAS
by Gardner Denver

FEATURES

- > High efficiency
- > Smooth, continuous liquid flow with minimized pulses
- > Bubble-free transfer of media
- > Excellent reliability and durability even with corrosive and abrasive media
- > Flexible design for customized solutions

TYPICAL APPLICATIONS

- > Continuous Inkjet (CIJ)
- > Drop-on-Demand Inkjet (DOD)
- > In-Vitro Diagnostics (IVD)

BASE MODEL

6410 DC Performance
6410 BLDC



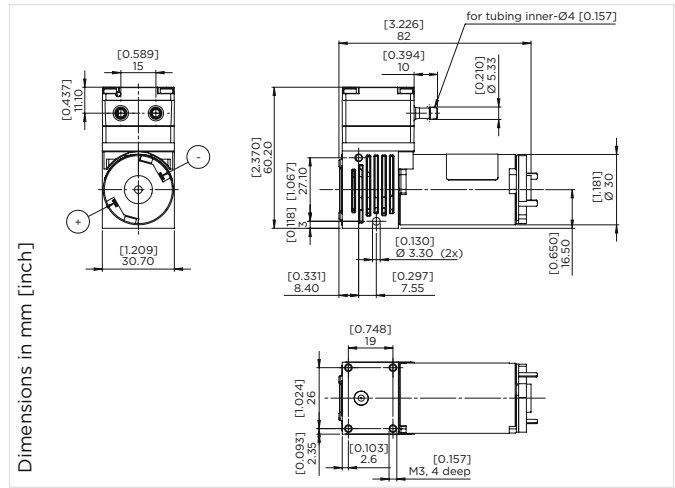
Diaphragm

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Diaphragm Liquid Pump 6410 DC Performance

Flow	760 ml/min
Pressure height	10 m H₂O
Suction height	3 m H₂O



HYDRAULIC DATA

Description	6410 DC PP/EPDM/EPDM	6410 DC PP/PTFE/FFKM
Part number	12 V DC 24 V DC 6410 0101 6410 0001	6410 0103 6410 0003
Free flow	760 ml/min	740 ml/min
Max. continuous pressure height	10 m H ₂ O	10 m H ₂ O
Max. suction height	3 m H ₂ O	3 m H ₂ O

ELECTRICAL DATA

Motor type	Permanent magnet	Permanent magnet
Nominal speed @ 10 m H ₂ O	3100 rpm	3100 rpm
Nominal voltage	12/24 V DC	12/24 V DC
Max. nominal power consumption @ 10 m H ₂ O	6 W	6 W
Motor insulation class	E	E
Protection class	IP20	IP20
EMC protection	Yes	Yes

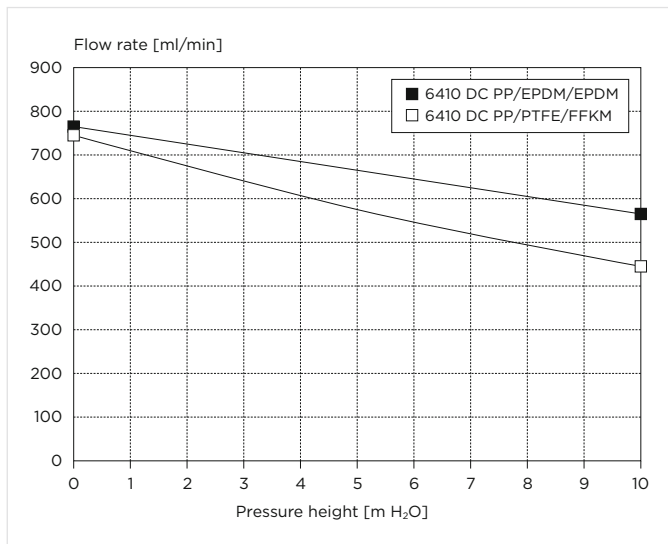
GENERAL DATA

Ambient temperature	5 to 40°C	5 to 40°C
Media temperature	5 to 80°C	5 to 80°C
Weight	190 g	190 g

WETTED PARTS

Pump head	PP with hose barbs	PP with hose barbs
Diaphragm	EPDM	PTFE
Valve plate	EPDM	FFKM
Resonating diaphragm	PTFE	PTFE

FLOW CURVES



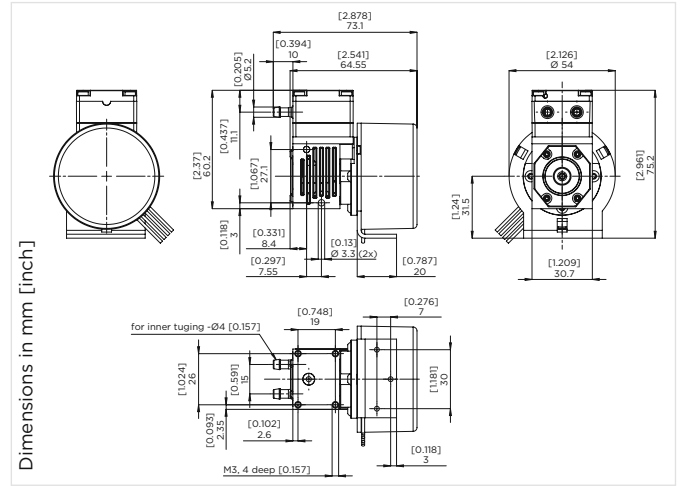
OPTIONS

- Compression fittings (tubing ID 4 mm / OD 6 mm)
- Diaphragm material FFKM
- Pump head optimized for low UV-light transmittance

6410... Stock programme

Diaphragm Liquid Pump 6410 BLDC

Flow	800 ml/min
Pressure height	10 m H ₂ O
Suction height	3 m H ₂ O



HYDRAULIC DATA

Description	6410 BLDC PP/EPDM/EPDM	6410 BLDC PP/PTFE/FFKM
Part number	12 V DC 24 V DC 6410 0102 6410 0002	6410 0104 6410 0004
Free flow	800 ml/min	770 ml/min
Max. continuous pressure height	10 m H ₂ O	10 m H ₂ O
Max. suction height	3 m H ₂ O	3 m H ₂ O

ELECTRICAL DATA

Motor type	Brushless DC	Brushless DC
Nominal speed @ 10 m H ₂ O	3500 rpm	3500 rpm
Nominal voltage	12/24 V DC	12/24 V DC
Max. nominal power consumption @ 10 m H ₂ O	6 W	6 W
Motor insulation class	F	F
Protection class	IP30	IP30
EMC protection	Yes	Yes

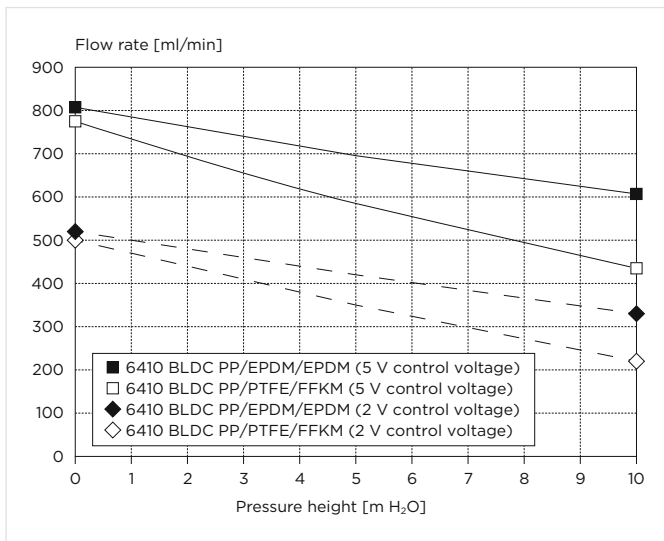
GENERAL DATA

Ambient temperature	5 to 40°C	5 to 40°C
Media temperature	5 to 80°C	5 to 80°C
Weight	295 g	295 g

WETTED PARTS

Pump head	PP with hose barbs	PP with hose barbs
Diaphragm	EPDM	PTFE
Valve plate	EPDM	FFKM
Resonating diaphragm	PTFE	PTFE

FLOW CURVES



Pin	Function	Color	Control
1	V Supply	Red	12 V DC (10 - 18 V DC, reverse polarity protected) 24 V DC (14 - 28 V DC, reverse polarity protected)
2	Ground	Blue	Ground for V Supply (Pin 1) and Speed control (Pin 3)
3	Speed control	White	Analogue: 0... 5 VDC (max. 30 V) Speed voltage input threshold: 1.0 V
4	Tacho out	Green	Output level "LOW": 0 / max. 0.5 V Output level "HIGH": min. 4.2 V / max. 5.5 V

OPTIONS

- Pump head with compression fittings (tubing ID 4 mm / OD 6 mm)
- Diaphragm FFKM
- Polypropylene pump head optimized for low UV-light transmittance

6410... Stock programme

Diaphragm Liquid Pump 6410 DC Standard

Flow	850 ml/min
Pressure height	10 m H₂O
Suction height	3 m H₂O



HYDRAULIC DATA

Description	6410 BLDC PP/TFM/EPDM	
Part number	12 V DC	6410 0111
	24 V DC	6410 0011
Free flow	850 ml/min	
Max. continuous pressure height	10 m H ₂ O	
Max. suction height	3 m H ₂ O	

ELECTRICAL DATA

Motor type	Brushed DC
Nominal speed @ 10 m H ₂ O	3100 rpm
Nominal voltage	12/24 V DC
Max. nominal power consumption @ 10 m H ₂ O	8 W
Motor insulation class	F
Protection class	IP00
EMC protection	only with correctly paired electrical cables (request product drawing for details)

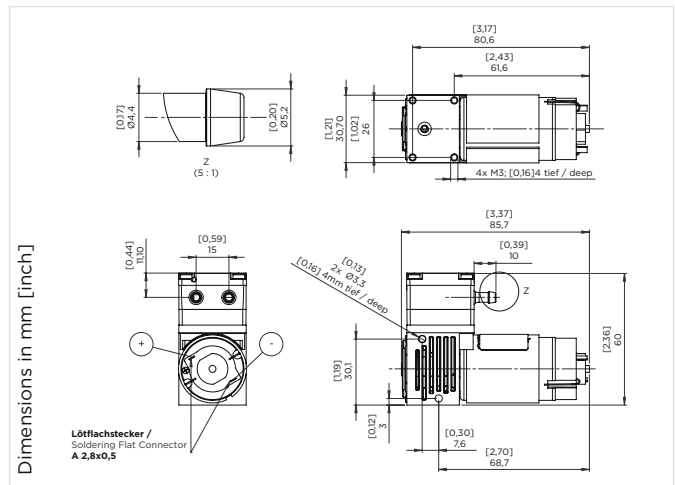
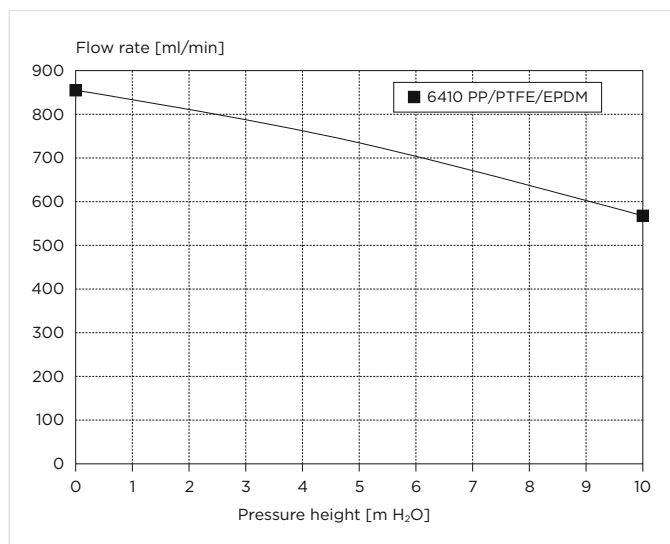
GENERAL DATA

Ambient temperature	5 to 40 °C
Media temperature	5 to 80 °C
Weight	188 g

WETTED PARTS

Pump head	PP with hose barbs
Diaphragm	TFM
Valve plate	EPDM
Resonating diaphragm	PTFE

FLOW CURVES



OPTIONS

- Pump head with compression fittings (tubing ID 4 mm / OD 6 mm)
- Polypropylene pump head optimized for low UV-light transmittance

6410... Stock programme

PUMP AND COMPRESSOR SOLUTIONS FOR OEMS WORLDWIDE



The information presented in this material is based on technical data and test results of nominal units. It is believed to be accurate and reliable and is offered as an aid to help in the selection of Thomas products. It is the responsibility of the user to determine the suitability of the product for the intended use and the user assumes all risk and liability in connection therewith. Thomas does not warrant, guarantee or assume any obligation or liability in connection with this information.

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