Price Summary

All amounts quoted in currency: CZK

Pos	Product number Description	Qty	Unit Price	Total
100	**A73601983** **nXDS10i 100-127/200-240V 1ph 50/60Hz** Current availability: Out of Stock	2	82.881,00	165.762,00
110	**A50506000** **PWR CABLE 2M, EU SCHUKO-C13, 10A** Current availability: In Stock	2	348,00	696,00
200	**B8N4A0F00** **nEXT1230H CF200 NW40** Current availability: Out of Stock	1	241.822,00	241.822,00
210	**D39721000** **TICTurbo & Inst Controller 100W RS232** Current availability: Out of Stock	1	23.865,00	23.865,00
215	**D40013030** **Linecord 2M North Euro Plug** Current availability: In Stock	1	281,00	281,00
220	**B8J200819** **EPS 800 - Edwards Power Supply 800** Current availability: Out of Stock	1	10.307,00	10.307,00
225	**B8J200829** **3m EU (Mains cable) EPS 800** Current availability: Out of Stock	1	704,00	704,00

Atlas Copco Services s.r.o.
Holandska 1006/10
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exportsales@edwardsvacuum.com
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Company Reg. No. 27764907
VAT Reg. No. CZ27764907

230	**B8J200824** **EXTENSION CABLE nEXT 3M** Current availability: In Stock	**1**	**1.374,00**	**1.374,00**
250	**B65553000** **GVC080P Gate Valve 10" Od CF** Current availability: Out of Stock	**1**	**224.298,00**	**224.298,00**
255	**B28703055** **SOLENOID VALVE KIT 24V DC** Current availability: In Stock	**1**	**6.731,00**	**6.731,00**

Net Price	**675.840,00**
Freight	**4.900,00**
Grand Total	**680.740,00**

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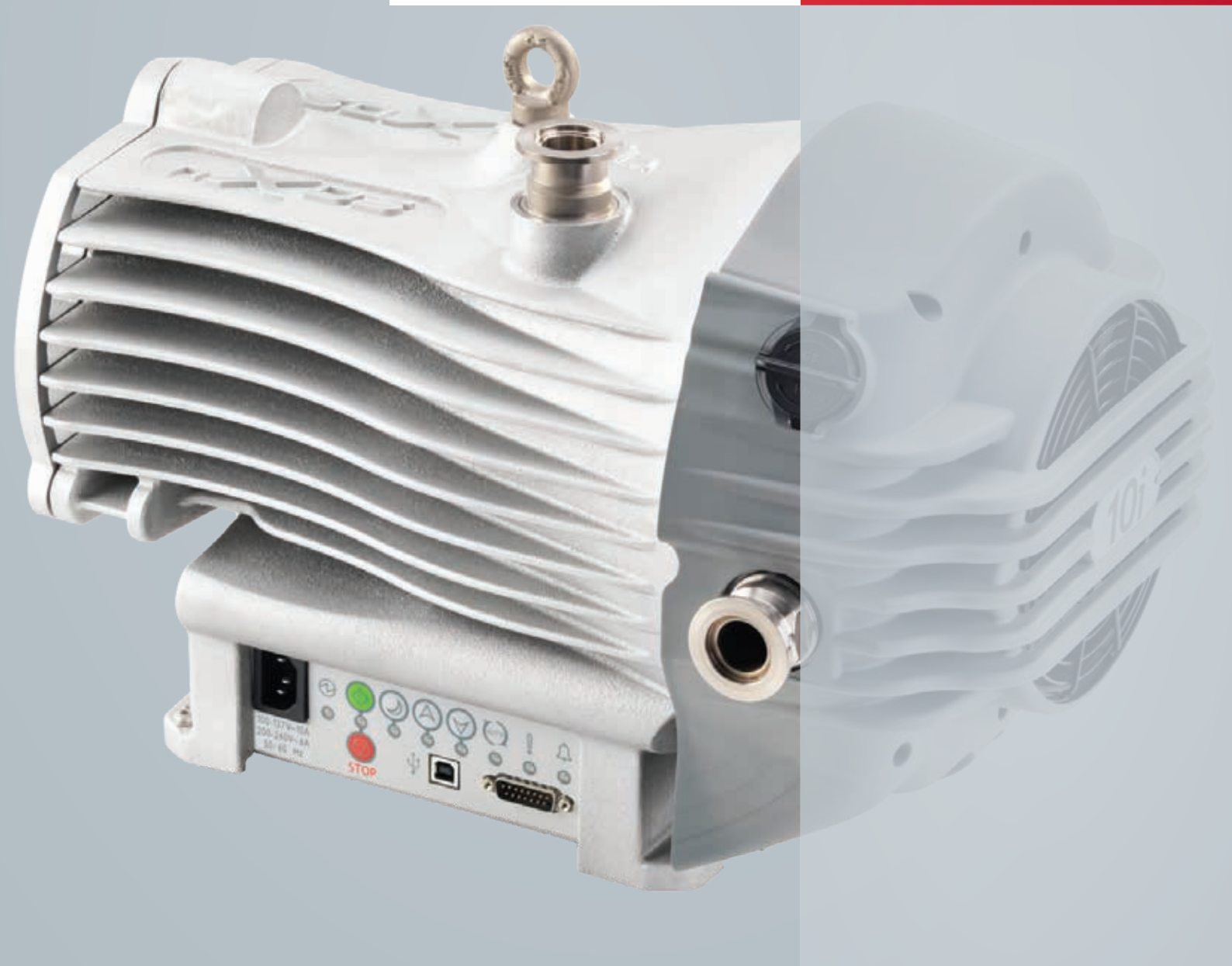
nXDS
DRY SCROLL PUMPS

EDWARDS



EDWARDS
THE PARTNER OF CHOICE

Edwards is a world leader in the design, technology and manufacture of vacuum pumps with over 95 years' history and more than 75 years' manufacturing experience.

Edwards believes in delivering results that bring value to our customers by using our breadth of industry experience to identify and apply solutions to your problems. Using the most innovative and up-to-date modelling techniques, we can optimise the pumping configuration for customers to provide a system design giving the maximum performance in the most reliable and cost-effective way.

THE INTELLIGENT CHOICE

Edwards nXDS is the great new shape of dry vacuum pumping

The nXDS has taken scroll vacuum technology to the next level. Improved performance, exceptional pumping capability, quiet operation and extended service intervals make nXDS the ultimate dry choice.

Quiet operation
Better working environment

Hermetically sealed for a lubricant-free vacuum environment
Contamination free process and no oil to dispose of

Low power consumption
Low cost of ownership

Intelligent and easy to use controls
Flexibility of operation

Superior vapour handling
Wider range of applications

Long service intervals
Maximised up-time

Applications

You can be assured Edwards has the application expertise and the vacuum pump or integrated system solution to meet your needs.

Mass spectrometry
- GCMS, LCMS, ICPMS, MALDI, RGA, surface science, leak detectors

Electron microscopy
- TEM, SEM, sample coaters

Sample preparation
- Gel dryers, glove boxes, rotary evaporators, centrifuges

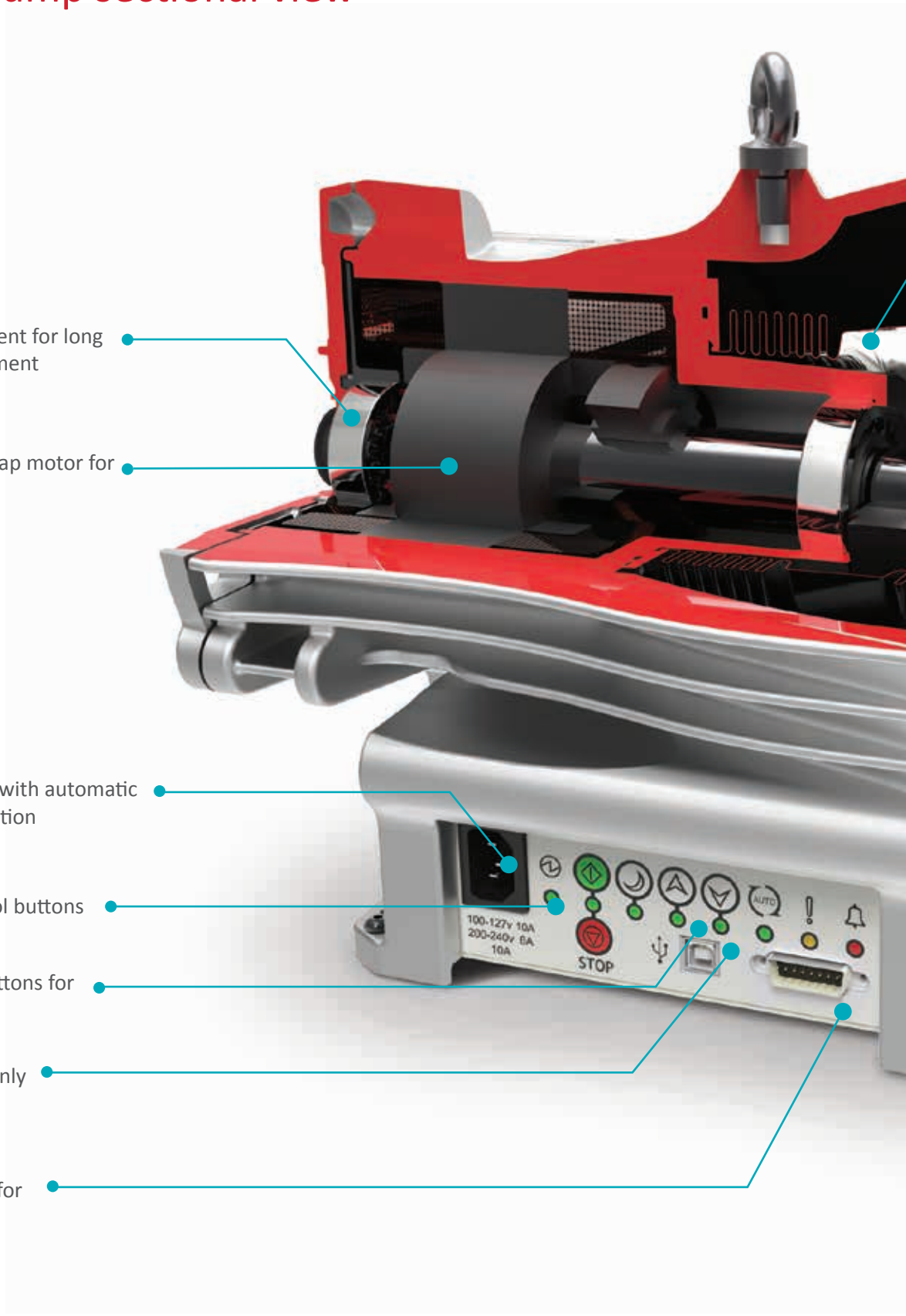
Research and development
- Chamber evacuation, coating systems, turbopump backing

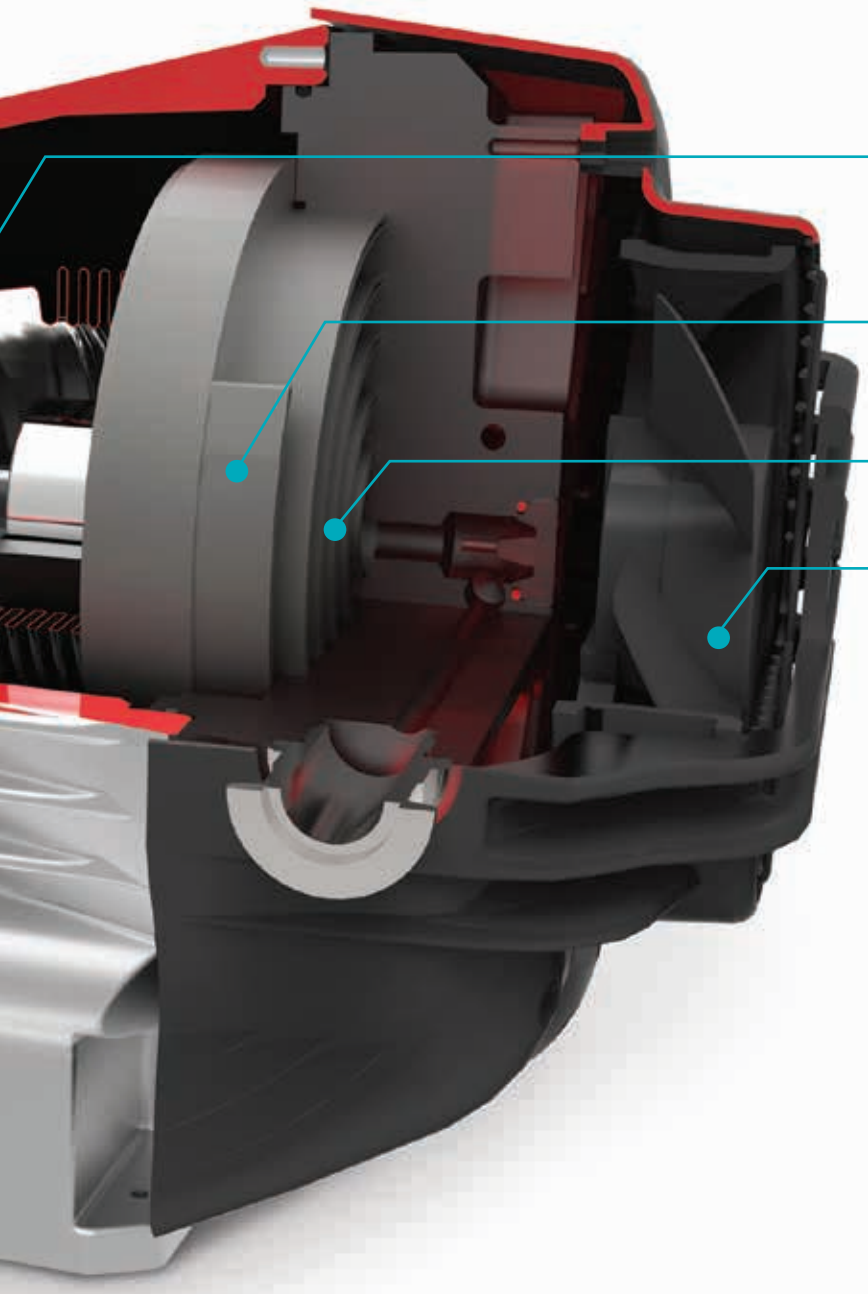
High energy physics
- Beam lines, accelerators, mobile pump carts, turbopump backing, laser evacuation

Industrial
- Gas recovery and recirculation, glove boxes, brake line and air conditioning evacuation, coating systems, freeze drying, gas bottle filling/emptying, refrigeration system manufacture, degassing/curing (oil, epoxy resin)

Chemical
- Gel dryers, glove boxes, rotary evaporators, centrifuges, solvent recovery, distillation/extraction/filtration

nXDS scroll pump sectional view





Hermetic bellows sealing for contamination free vacuum

Optimised scroll profiles for each model to maximise performance

Advanced tip-seal technology for long service lifetime

Thermally controlled fan for reduced noise

Performance

nXDS has been designed to combine the latest advances in scroll technology with an intelligent drive coupled with the long established, truly dry, hermetically sealed mechanism of the XDS series.

Class leading pumping speeds are an improvement over previous XDS models and, with the drive, are of course consistent worldwide. Likewise, ultimate vacuum pressures which are below 10^{-2} mbar are now comparable with those of oil-sealed rotary vane pumps – without the inconvenience of oil.

Hermetic sealing ensures that the vacuum environment is not contaminated by bearing lubricant and, conversely, the bearings are not contaminated by any process gas being pumped.

Quiet running

The modern laboratory is often a busy place with many other appliances running, all contributing to the background noise. With its low noise power level of 52 dB(A), the nXDS pump makes only a very small contribution to the total noise. This level is up to twenty times less than those of competitor products.

nXDS is available in four sizes:

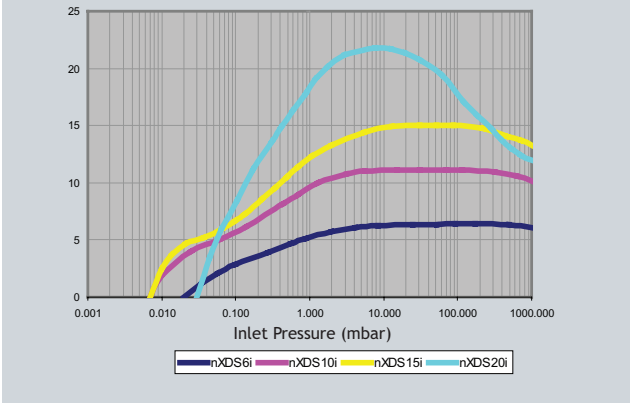
- nXDS6i
- nXDS10i
- nXDS15i
- nXDS20i

Other variants

For more aggressive applications, ‘C’ Variants are available which feature Chemraz® internal valves and stainless steel fittings for extra protection from the pumped media.

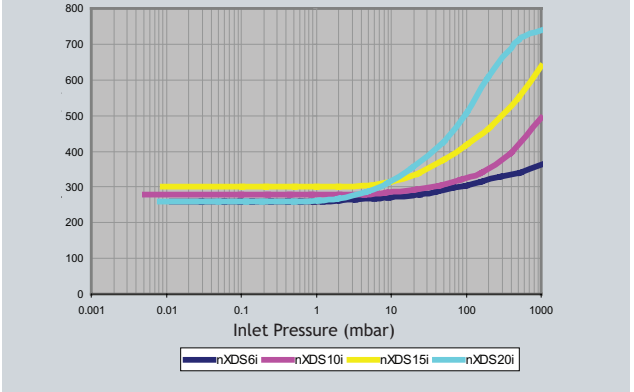
R variants are available for specialist applications such as gas recirculation, rare gas pumping and recovery or other applications where the dilution of the pumped gas is undesirable, or where sealing is integral to minimising potential gas loss.

Pumping Speed (m^3/h)



Summary of pump speeds

Power W



Summary of input powers

Pump controller

The advanced controller allows for several modes of control:

Manual

Push button START, STOP and STANDBY. Accurate speed control of 1% of maximum running speed.

Parallel remote

From your own control system via the 15 way d-sub connector giving the same START, STOP and STANDBY with the option of analogue speed control.

Serial communication remote

Option of either RS232 or RS485 with a choice of Edwards' proprietary 'DX' protocol or industry standard Modbus protocol. A USB port has been included for service use only.

The pump controller is able to accept voltages from 100-127 and 200-240V (+/- 10%) without the need for intervention.

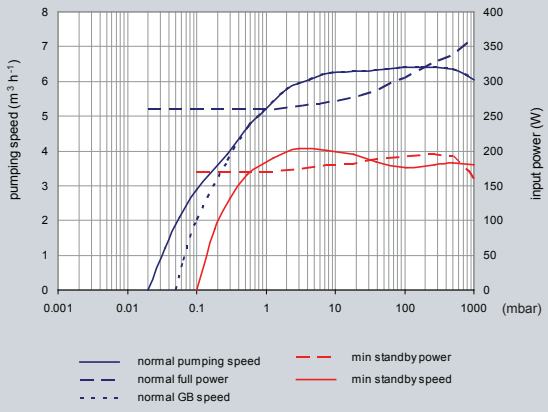
Technical data

		nXDS6i	nXDS10i	nXDS15i	nXDS20i
Nominal rotational speed		1800 rpm			
Displacement	m^3h^{-1} (ft^3min^{-1})	6.8 (4.0)	12.7 (7.5)	17.1 (10.1)	28.0 (16.5)
Peak pumping speed	m^3h^{-1} (ft^3min^{-1})	6.2 (3.6)	11.4 (6.7)	15.1 (8.9)	22.0 (13.0)
Ultimate vacuum (total pressure)	mbar (Torr)	0.020 (0.015)	0.007 (0.005)	0.007 (0.005)	0.030 (0.022)
Minimum standby rotational speed	rpm	1200			
Speed control resolution (percentage of full rotation speed)	%	1			
Max inlet pressure for water vapour	mbar	35	35	35	20
Max water vapour pumping rate	gh^{-1}	110	145	240	220
Maximum continuous inlet pressure	mbar	200	200	200	50
Voltage input	V	100-127, 200-240 (+/-10%)			
Voltage frequency	Hz	50/60			
Motor power 1-ph*	W	260	280	300	260
Power connector 1-ph		IEC EN60320 C13			
Recommended fuse		10A, 250V a.c. rms			
Weight	kg (lb)	26.2 (58)	25.8 (57)	25.2 (56)	25.6 (56)
Inlet flange		NW25			
Exhaust flange		NW25			
Noise level**	dB(A)	52			
Vibration at inlet flange	mms^{-1} (rms)	< 4.5			
Leak tightness (static)	mbar ls^{-1}	< $1x10^{-6}$			
Operating temperature range	°C (°F)	+5 to +40 (+41 to +104)			

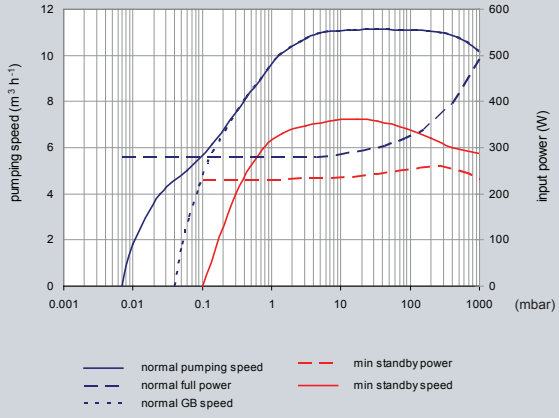
** Typical. See graphs on page 6.*
*** For low fan speed, typical at ultimate end when load/ambient conditions allow.*

Pumping speed and power curves

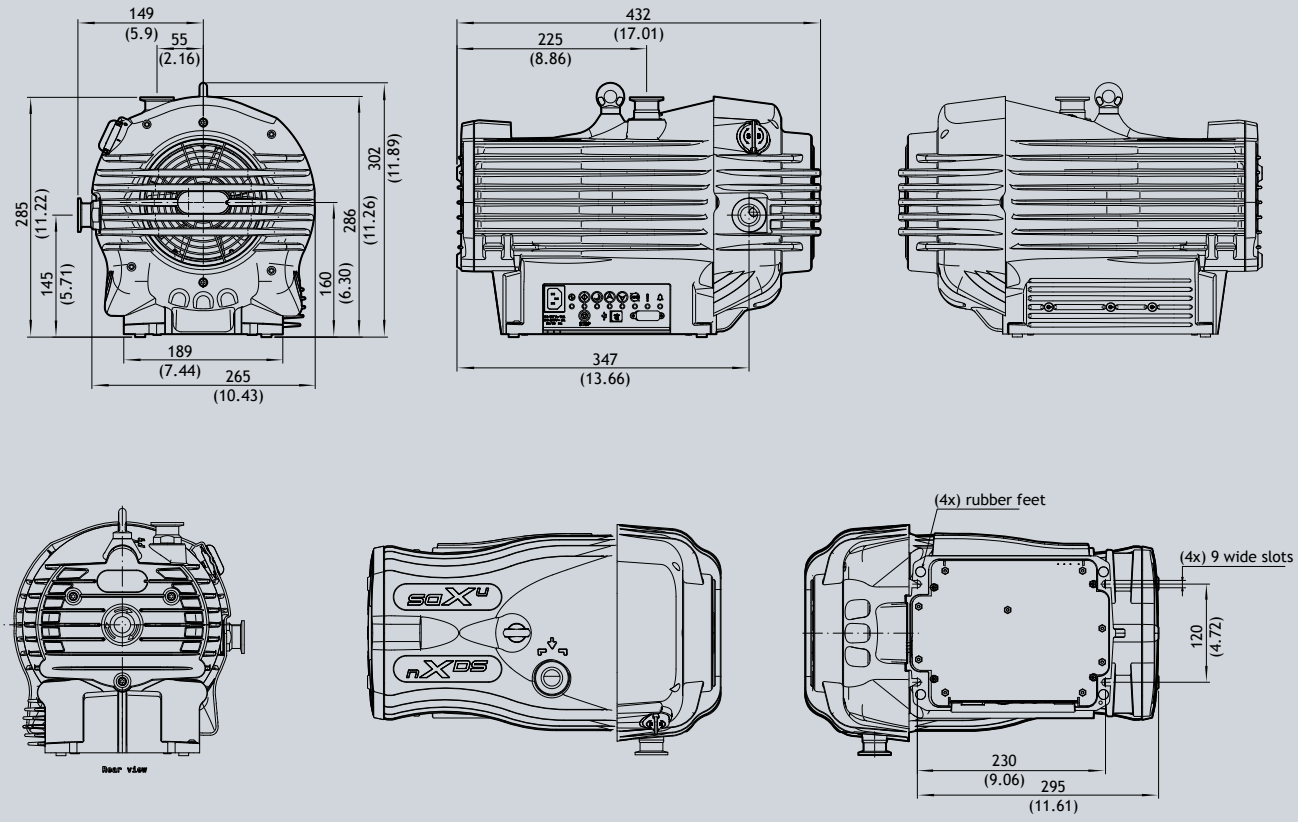
nXDS6i



nXDS10i

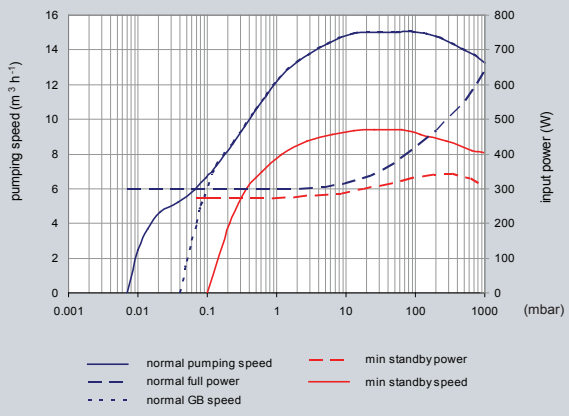


Dimensions

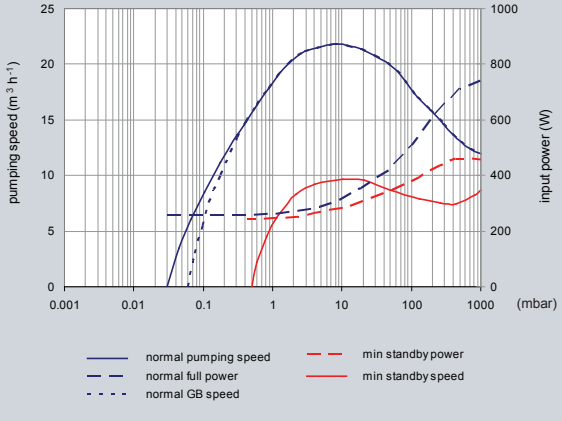


All variants are the same Dimensions in mm (in)

nXDS15i



nXDS20i

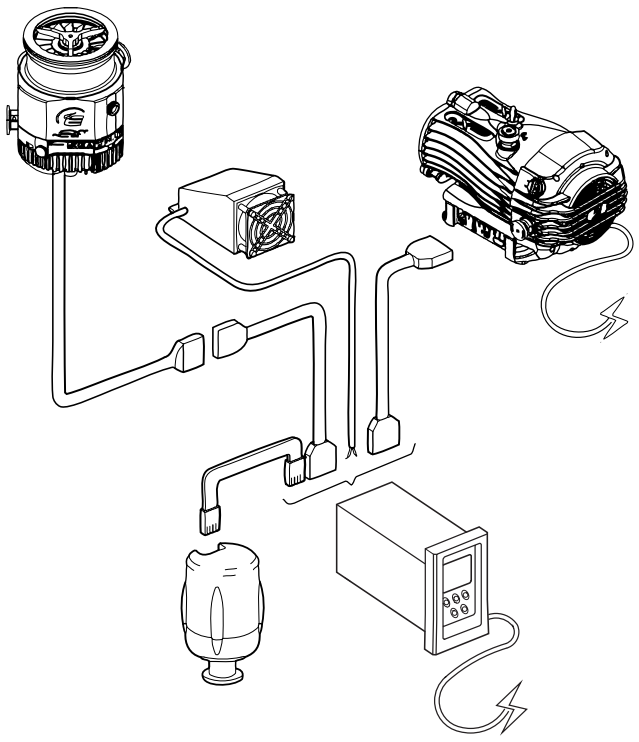


Controllers

The **TIC (Turbo and Instrument Controller)** automatically recognises the nXDS pump when connected to the backing pump connector as the controller adopts serial communications mode when connected to the nXDS. There is no need to use a relay box to interface to nXDS.

Speed control and pump run hours etc can be readily accessed from the display. The TIC can also control an nEXT turbopump plus, up to three gauges at the same time as a nXDS pump.

Customers already owning a TIC can upgrade their software to enable interfacing to nXDS.



Ordering information

Standard product	
nXDS6i	A735 01 983
nXDS10i	A736 01 983
nXDS15i	A737 01 983
nXDS20i	A738 01 983

Corrosion resistant (C) variants	
nXDS6iC	A735 02 983
nXDS10iC	A736 02 983
nXDS15iC	A737 02 983
nXDS20iC	A738 02 983

(R) Variants without gas ballast	
nXDS6iR	A735 03 983
nXDS10iR	A736 03 983
nXDS15iR	A737 03 983
nXDS20iR	A738 03 983

Spares and accessories

TIC (Turbo) 200W	D397 12 000
TIC (Turbo and Instruments) 200W	D397 22 000
Gas ballast adaptor blank (nXDS)	A735 01 806
Gas ballast adaptor (nXDS) 0.25 mm hole	A735 01 809
Gas ballast adaptor blank (nXDS) no restriction	A735 01 811
Silencer (NW25)	A505 97 000
Inlet/outlet filter 5µm (NW25/NW25)	A505 97 805
Tip seal service kit	A735 01 801
Bearing service kit	A735 01 802

nXDS exhaust and gas ballast kit	A735 01 803
Electrical supply cable 2m, UK	A505 05 000
Electrical supply cable 2m, North Europe	A505 06 000
Electrical supply cable 2m, North America/Japan	A505 07 000
Electrical supply cable 2m, no plug	A505 08 000
TIC interface cable 1.0m	D397 00 835
TIC interface cable 2.0m	D397 00 836
TIC interface cable 5.0m	D397 00 837

Service

Your business success depends on maximum equipment uptime and minimum total cost of ownership, and we constantly strive to support those objectives. As a global leader in vacuum technology and processes, we understand how vacuum pumps and systems perform in real life. Our wide portfolio of services is designed with you in mind: to help keep your processes and equipment running in the most economical and environmentally efficient manner.

Services include:

- Overhaul and repair using genuine Edwards OEM parts
- OEM spares and kits available for immediate despatch
- Remanufactured products available for cost-effective expansion and backups
- Global network of expert field service engineers available to respond quickly to unexpected equipment failures
- Extended warranty, to help manage the cost of the unexpected

Our Expert Advantage Service Plans provide you with the on-going support necessary to continuously improve your operational efficiency and meet your business objectives. As service offerings may vary slightly from product to product, please contact your Edwards representative to discuss your specific requirements.

edwardsvacuum.com

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Publication Number: 3601 0088 01

Edwards Ltd, registered in England and Wales No. 6124750, registered office: Innovation Drive, Burgess Hill, West Sussex, RH15 9TW, UK.

Part of the Atlas Copco Group

PRODUCT DATA SHEET

nEXT730, 930 AND 1230 TURBOMOLECULAR PUMP

edwardsvacuum.com

Edwards are proud to offer the nEXT730, nEXT930 and nEXT1230 turbomolecular pumps, these larger pumps offer choices for customers requiring higher pumping speeds from 730 up to 1250 l/s for nitrogen.

As well as addressing the R&D market, where high compression, faster pumping speeds are required, these pumps are also designed to meet the requirements of the coating market and other diffuse market sectors such as Heat treatment, Furnace applications, Ebeam welding, Etch, Ion implant, Degassing and Cylinder evacuation.

For our OEM customers derivative versions of these products can be developed, just like the existing nEXT pumps, and like the existing nEXT pumps split flow variants are possible. This will give benefits for our customers with larger instruments as well as the possibility to reduce the total number of pumps on existing instruments.

The new products offer market leading performance for pumps of their class, and in a compact footprint. The pumps feature bearings with a typical life time of at least 4 years with no maintenance, which can then be replaced simply and economically by the customer themselves when required or customers may choose from our other service support offerings.

The pumps are able to operate in any orientation*, and are supported by a full range of accessories for cooling, venting, powering and control.

* for nEXT1230, inverted option available

FEATURES AND BENEFITS

- Class leading pumping speeds
- Outstanding compression ratios
- Ease of integration and installation
- Assured reliability
- End user service capability
- Full nEXT established communication interface

TECHNICAL DATA

		nEXT730Q	nEXT730D		nEXT730H	
Inlet flange		DN 160 ISO-K	DN 160 ISO-K	DN 160 CF	DN 160 ISO-K	DN 160 CF
Main inlet pumping speed						
Inlet pumping speed ls^{-1}	N_2	730	730	690	720	680
	Ar	665	665	620	655	610
	He	820	820	760	850	790
	H_2	715	715	670	755	710
Gas throughput						
Gas throughput mbar ls^{-1}	N_2	>40	14		4	
	Ar	6.8	3.5		2.6	
	He	>50	21		7	
	H_2	>50	>> 14		17	
Peak compression ratio backing port to main inlet port						
Compression ratio***	N_2	$>1x10^8$	$> 1x10^{11}$		$>1x10^{13}$	
	Ar	$>1x10^8$	$> 1x10^{11}$		$>1x10^{13}$	
	He	$1x10^5$	$1.2x10^8$		$5x10^9$	
	H_2	$1x10^4$	$4.0x10^6$		$3x10^8$	
Ultimate pressure**	mbar	$<1x10^{-7}$	$< 3.5x10^{-9}$	$< 6x10^{-10}$	$<7x10^{-9}$	$<1x10^{-10}$
Max. permissible backing pressure	mbar	6	15		12	
Normal rotational speed	rpm	49200				
Start time to 90% speed (sec)	min	2.5				
Max. power consumption	W	500 (default), 600 (max.)				
Power consumption at ultimate pressure	W	40				
Type of protection	IP	54				
Recommended cooling method		Water*	Convection*			
Optional cooling		n/a	Air or Water*			
Cooling water connection	inch	Plug-in connection for 6x1 hose/alternative G 1/8				
Cooling water consumption	l/h	60				
Critial cooling water pressure	bar(g)	6				
Permissible cooling water temperature	°C	15 to 35				
Mass (kg)	kg	15.4	14.6	19.6	14.6	19.6
Recommended backing pump*		nXRi, XDS35i, E2M28**				
Noise level with convection cooling with radial air cooler	dB(A)	< 40 n/a	< 40 < 55			
Water cooled/forced air cooled max. bake out	°C	n/a	100			
Purge gas flow	mbar · ls^{-1} sccm	0.4 24				
Vent/purge port	inch	G 1/8				

**Depending on the ambient temperature, the gas type and throughput, performance may be limited by the cooling method.*
***Please contact the supplier to discuss your specific system details and the achievement of ultimate pressure.*
****The compression ration of a TMP describes the performance of the TMP design for the compression of a gas type at special conditions. The compression data were measured only using the CF flange variants.*

TECHNICAL DATA

		nEXT930Q	nEXT930D	
Inlet flange		DN 200 ISO-K	DN 200 ISO-K	DN 200 CF
Main inlet pumping speed				
Inlet pumping speed ls^{-1}	N_2	925	925	720
	Ar	865	865	810
	He	905	905	840
	H_2	735	735	690
Gas throughput				
Gas throughput mbar ls^{-1}	N_2	>40	14	
	Ar	6.8	3.5	
	He	>50	21	
	H_2	>50	>> 14	
Peak compression ratio backing port to main inlet port				
Compression ratio***	N_2	$>1x10^8$	$> 1x10^{11}$	
	Ar	$>1x10^8$	$> 1x10^{11}$	
	He	$1x10^5$	$1.2x10^8$	
	H_2	$1x10^4$	$4.0x10^6$	
Ultimate pressure**	mbar	$<1x10^{-7}$	$< 3.5x10^{-9}$	$< 6x10^{-10}$
Max. permissible backing pressure	mbar	6	15	
Normal rotational speed	rpm	49200		
Start time to 90% speed (sec)	min	2.5		
Max. power consumption	W	500 (default), 600 (max.)		
Power consumption at ultimate pressure	W	40		
Type of protection	IP	54		
Recommended cooling method		Water*	Convection*	
Optional cooling		n/a	Air or Water*	
Cooling water connection	inch	Plug-in connection for 6x1 hose/alternative G 1/8		
Cooling water consumption	l/h	60		
Critial cooling water pressure	bar(g)	6		
Permissible cooling water temperature	°C	15 to 35		
Mass (kg)	kg	15.4	15.4	21.7
Recommended backing pump*		nXRi, XDS35i, E2M28**		
Noise level with convection cooling with radial air cooler	dB(A)	< 40 n/a	< 40 <55	
Water cooled/forced air cooled max. bake out	°C	n/a	100	
Purge gas flow	mbar · ls^{-1} sccm	0.4 24		
Vent/purge port	inch	G 1/8		

**Depending on the ambient temperature, the gas type and throughput, performance may be limited by the cooling method.*
***Please contact the supplier to discuss your specific system details and the achievement of ultimate pressure.*
****The compression ration of a TMP describes the performance of the TMP design for the compression of a gas type at special conditions. The compression data were measured only using the CF flange variants.*

TECHNICAL DATA

		nEXT1230H		
Inlet flange		DN 200 CF	DN 200 ISO-F	DN 200 ISO-K
Main inlet pumping speed				
Inlet pumping speed ls^{-1}	N_2	1250		
	Ar	1150		
	He	1350		
	H_2	1150		
Gas throughput				
Gas throughput mbar ls^{-1}	N_2	9		
	Ar	3		
	He	>20		
	H_2	>20		
Peak compression ratio backing port to main inlet port				
Compression ratio***	N_2	> $1x10^{11}$		
	Ar	> $1x10^{11}$		
	He	$4x10^{8}$		
	H_2	$1x10^{7}$		
Ultimate pressure**	mbar	<$5x10^{-10}$	indicate higher pressure for ISO-K and ISO-F	
Max. permissible backing pressure	mbar	15		
Normal rotational speed	rpm	42000		
Start time to 90% speed (sec) H	min	2.5		
Max. power consumption	W	660 (default), 800 (max.)		
Power consumption at ultimate pressure	W	50		
Type of protection	IP	54		
Recommended cooling method		Water*		
Optional cooling		Forced air cooling*		
Cooling water connection	inch	Plug-in connection for 6x1 hose/alternative G 1/8		
Cooling water consumption	l/h	60		
Critial cooling water pressure	bar(g)	15		
Permissible cooling water temperature	°C	15 to 35		
Mass (kg) H	kg	32.6	24.9	23.7
Recommended backing pump*		nXRi, XDS35i, E2M28**		
Noise level with convection cooling with radial air cooler	dB(A)	<44 <55		<44 <55
Water cooled/forced air cooled max. bake out	°C	100	n/a	
Purge gas flow	mbar · ls^{-1} sccm	0.4 24		
Vent/purge port	inch	G 1/8		

*Depending on the ambient temperature, the gas type and throughput, performance may be limited by the cooling method.
**Please contact the supplier to discuss your specific system details and the achievement of ultimate pressure.
***The compression ration of a TMP describes the performance of the TMP design for the compression of a gas type at special conditions. The compression data were measured only using the CF flange variants.

Publication Number: 3601 0623 01

PRODUCT DATA SHEET

TIC TURBO AND INSTRUMENT CONTROLLER

edwardsvacuum.com

A compact system controller with a large clear graphical display, an intuitive user interface and serial communications, providing full remote control and data logging functions via Windows™ based PC program.

The TIC can automatically control and power 1 turbomolecular pump from the nEXT85 to the nEXT400, and can control the larger nEXT pumps, ie. the nEXT930, when coupled with their dedicated power supply. Cooling and vent valve support is provided directly from the controller. Two different power variants are available, 100W or 200W which determines the ramp speed of the turbomolecular pump. In addition, 200W models have the ability to power and control a 24V d.c. backing pump such as our XDD1, and control a nXDS/nXRi through a 15-way 'D' socket. Other mains pumps (such as RV) are controllable via the separate relay box. Both the 100w and 200w variants have the ability to control and read three active gauges (such as the APG100 or the WRG). This can truly be a mini system controller for small processes.

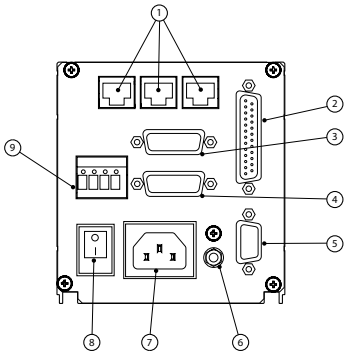
Features and benefits

- TIC automatically recognises and controls one turbomolecular pump from the nEXT range. nEXT turbomolecular pumps have full serial communication with TIC and may be both configured and report status via TIC.
- Both mains and 24V backing pumps may be controlled by TIC. For larger vacuum systems the TIC may control mains backing pumps from the nXDS and nXRi ranges.
- The optional external relay box enables a wider range of backing pumps (such as our RV range) to be controlled and also provides interfaces for a turbo flange heater band, a backing line isolation valve and a logic bypass.
- TIC systems can be simply and quickly configured using the range of standard cables on offer, there is therefore no need for the customer to prepare loom assemblies or relay boxes and special interfaces.
- TIC is packaged in a compact case and can be panel/rack (¼ 19 inch rack 3U) or bench mounted with the included bezel to increase usability.
- The large 128 x 64 pixel backlit graphics LCD, coupled with a simple menu system simplifies programming and with a choice of summary screens excellent visibility of displayed parameters is assured.
- Edwards range of active gauges are compatible with these controllers; APG100, APGX-H, WRG, AIM, AIGX, and ASG2.

TECHNICAL DATA

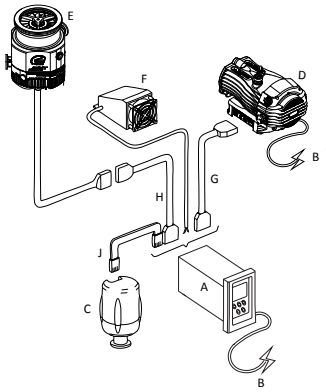
	Units	TIC turbo and instrument controller
Pump/TIC power	W	100/200
nEXT 80 W		Slow/Slow
nEXT 160 W		Slow/Fast
Mains input		
Electrical supply		90 to 264 V a.c. 47 to 63 Hz
Power consumption (max)		215 VA
Peak inrush current		10.3 A @ 110 V a.c./23.0 A @ 230 V a.c.
Earth stud		M4
Auxiliary terminals		
Air cooling fan		24 V d.c. 3 W max, ACX70, ACX75 & ACX250H
Vent valve		24 V d.c. 2 W max, TAV5 & TAV6
Dimensions		
Electronics housing	mm	110 high x 105 wide x 245 deep
Front panel	mm	106 wide x 128 high
Weight	kg	3.5
Operating temp	°C	+0 to +40
Storage temp	°C	-30 to +70
Max ambient operating humidity		90% RH non-condensing at 40 °C
Max operating altitude	m	3000
Electronic design		EN 61010-1
Electromagnetic compatibility		EN 61326 industrial location, class B emissions
Enclosure rating		IP20

DIAGRAMS



TIC Turbo and Instrument Controller – Back view

1. Gauge inputs (FCC68 (RJ45)
2. Logic interface (25-way 'D' socket)
3. Backing pump 24 V (15-way 'D' socket) (TIC200 only)
4. Turbo Pump 24 V (15-way 'D' socket)
5. RS232/485 (9-way 'D' socket)
6. Earth stud (M4)
7. Mains input (CEE/IEC 320 plug)
8. Mains on/off switch
9. Auxiliary vent valve and fan terminals



TIC Turbo and Instrument Configuration

- A TIC turbo and instrument controller, 200 W
- B Mains cable/line cord
- C WRG-S-NW25
- D Backing pump
- E Turbomolecular pump
- F Air-cooler
- G XDD/DX/EXDC extension cable
- H XDD/DX/EXDC extension cable (optional)
- J Active gauge cable

ORDERING INFORMATION

Product description	Order number
TIC turbo & instrument controller, 100 W RS232	D39721000
TIC turbo & instrument controller, 200 W RS232	D39722000
TIC relay box, RV pump/heater band/isolation valve	D39711805

EXTENSION CABLE

Product description	Order number
XDD/DX/EXDC extension cable 1 m	D39700835
XDD/DX/EXDC extension cable 2 m	D39700836
XDD/DX/EXDC extension cable 5 m	D39700837

LINECORD

Product description	Order number
Linecord 2 m UK plug	A50505000
Linecord 2 m north Euro plug	A50506000
Linecord 2 m with US plug	A50507000

COMMUNICATIONS MODULE

Product description	Order number
TIC Profibus Communications Module	D39754000

ACTIVE GAUGE CABLE

Product description	Order number
0.5 m active gauge cable	D40001005
1 m active gauge cable	D40001010
3 m active gauge cable	D40001030
5 m active gauge cable	D40001050
10 m active gauge cable	D40001100

Publication Number: 3601 0650 01

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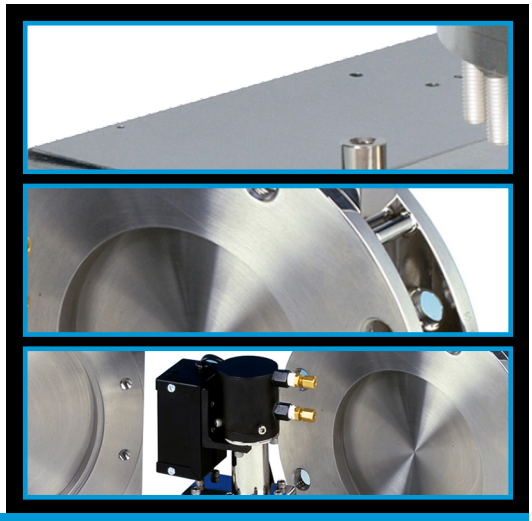
GV MANUAL AND PNEUMATIC GATE VALVES



The Edwards GV range of stainless steel, bellows sealed gate valves is designed for applications requiring overall leak tightness and a minimum of hydrocarbon in the residual atmosphere.

These superior quality valves offer high vacuum integrity coupled with maximum conductance.

The valves are available with flange options of ISO, CF (metal sealed) for applications at ultra high vacuum requiring increased bakeout temperatures.

The stainless steel valve bodies are vacuum brazed, a special process which includes a bakeout at 1100 ˚C. This eliminates any possibility of virtual leaks and ensures a product with low outgassing characteristics.

A laser welded stainless steel bellows effectively seals the actuator from the valve. The concept provides ease of servicing and allows the gate and linkage mechanism to be removed while the valve remains in situ.

Features and benefits

- In situ removal of gate and linkage mechanism for easy servicing.
- Virtual leaks eliminated due to vacuum brazed manufacture.
- Electropolished finish inside and outside.
- Compact design with high conductance.
- Manual or pneumatic options.
- Microswitch position indicator as standard on pneumatic version suitable for magnetic fields
- Long periods of use between maintenance.
- Low vibration and shock.
- Free choice of orientation.
- Wide range from 40 mm/1.56 inch bore up to 320 mm/12.48 inch bore.
- Flange options – ISO, CF (metal sealed)
- Vacuum brazed to 1100 ˚C to eliminate virtual leaks.

Technical Data

	GV Manual and Pneumatic Gate Valves
Pressure range	10^{-9} mbar to 1 bar (absolute)/ 8 x 10^{-10} – 750 Torr
Leak rate	< 10^{-9} mbar ls^{-1}/8 x 10^{-10} Torr ls^{-1}
Maximum differential pressure on the valve plate	1 bar/750 Torr in either direction
Maximum differential pressure on the valve plate at opening	20 mbar/15 Torr
Position indicator switch, breaking capacity	24 V d.c., 5 A
Material of construction:	
Body, valve plate	AISI 304 stainless steel
Mechanism	AISI 304 stainless steel
Bearings	Hardened high carbon chrome steel
Circlips	SS PH 15-7 Mo
Bellows	AM 350 stainless steel
Seals, valve plate	Fluoroelastomer

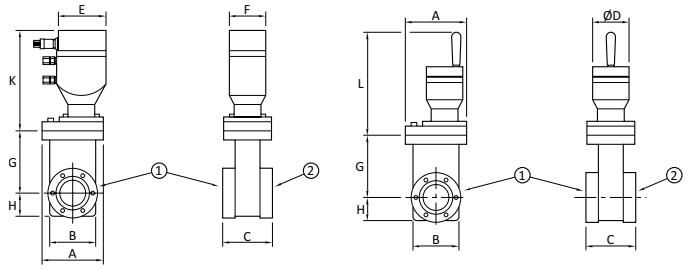
	GV Manual and Pneumatic Gate Valves
Bonnet:	
Metal sealed valves	OFHC
Other valves	Fluoroelastomer
Bakeout temperature:	
Valve body, valve open	150 ˚C (fluoroelastomer bonnet seal)
Valve body, valve open	250 ˚C (metal bonnet seal)
Valve closed	200 ˚C
Actuator, manual	200 ˚C
Actuator, pneumatic	100 ˚C
Average life until first service*	100000 closures
Mounting position	Any orientation
Pneumatic operating pressure	4-5.5 bar/60-80 psi

* Dependent on the vacuum environment and the opening and closing speed

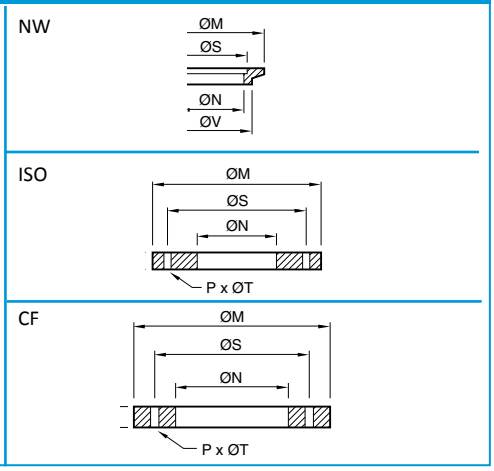
Flange Bore mm	Flange Bore in	Conductance in High Vacuum ls^{-1}	Pneumatic Valve minimum closing & opening time at 5 bar, seconds	Approx mm in Weight, kg
40	1.5	130	0.5	5
50	2	250	0.5	6
63	2.5	520	1	8
100	4	2000	1.5	15
160	6	6300	1.5	23
200	8	15000	2 (close)	34
			3 (open)	
250	10	23000	3 (close)	73
			4 (open)	
320	12	39000	3 (close)	77
			4 (open)	

* Special versions available, including 1 million cycle types, 3 position types, larger valves, and pneumatic versions with reed switch position indicators.

GV Gate Valves Dimensions



① Carriage side
② Seal side



Body mm / Inches	GVI 040	GVI 050	GVI 063	GVI 080	GVI 100	GVI 160	GVI 200	GVI 250	GVI 320
A	84.1	96.8	111.0	125.0	177.8	222.3	285.8	341.1	408.2
B	26.2	75.2	89.4	109.1	143.5	191.8	254.5	303.5	362.7
C	50.5	50.5	51.6	51.6	61.2	67.0	67.6	80.0	80.0
ØD	50.8	50.8	50.8	50.8	50.8	75.5	75.5	88.9	88.9
E	69.3	69.3	69.3	69.3	93.5	93.5	93.5	120.4	120.4
F	50.7	50.7	50.7	50.7	76.2	76.2	76.2	120.4	120.4
G	86.1	104.5	122.1	145.9	206.4	270.5	353.4	460.6	560.5
H	33.0	37.6	43.1	72.8	66.9	87.6	114.6	146.6	174.9
K	134.9	134.9	134.9	134.9	175.6	175.6	175.6	240.7	240.7
L	91.7	91.7	91.7	91.7	201.3	201.3	201.3	231.7	231.7
Flange mm / Inches	GVI 040	GVI 050	GVI 063	GVI 080	GVI 100	GVI 160	GVI 200	GVI 250	GVI 320
ØM	55.0	75.0	130.1	145.1	165.1	225.0	285.8	335.0	425.0
ØN	38.1	50.8	63.5	75.9	101.6	152.4	203.2	254.0	304.8
P	–	–	4	8	8	8	12	12	12
ØS	41.2	52.2	110.0	126.0	145.0	200.0	260.0	310.0	395.0
ØT	–	–	M8	M8	M8	M10	M10	M10	M12
V	12.7	12.7	12.7	12.7	12.7	16.0	15.9	19.0	19.0

Body mm / Inches	GVC 015	GVC 020	GVC 025	GVC 040	GVC 060	GVC 080
A	84.1	96.8	111.0	177.8	222.3	285.8
B	62.5	75.2	89.4	143.5	191.8	254.5
C	51.6	57.9	61.2	75.4	80.5	85.1
ØD	50.8	50.8	50.8	75.9	75.9	75.9
E	69.3	69.3	69.3	93.5	93.5	93.5
F	50.7	50.7	50.7	76.2	76.2	76.2
G	86.1	104.5	122.1	206.4	270.5	353.4
H	33.0	37.6	43.1	66.9	87.6	114.6
K	134.9	134.9	134.9	175.6	175.6	175.6
L	91.7	91.7	91.7	190.6	200.2	200.2
Flange mm / Inches	GVC 015	GVC 020	GVC 025	GVC 040	GVC 060	GVC 080
ØM	69.3	85.7	113.5	151.6	202.4	253.2
ØN	38.1	50.8	63.5	101.9	152.4	203.2
P	6	8	8	16	20	24
ØS	58.7	72.4	92.2	130.3	181.1	231.9
ØT	M6	M8	M8	M8	M8	M8
V	12.7	15.9	17.5	19.8	22.4	24.6

Ordering information

Type	Model	Flange seals	No. seals*	Fixing kit	No. kits†
ISO	GVI 063	B27158170	1	B22417187	1
	GVI 100	B27158171	1	B22417187	2
	GVI 160	B27158172	1	B22417217	2
	GVI 200	B27158081	1	B22417217	2
	GVI 250	B27158143	1	B22417247	2
	GVI 320	B27158166	1	B22417247	2
CF	GVC 015	C10001290	10	B22417157	2
	GVC 020	C10005290	10	B22417187	2
	GVC 025	C10007490	10	B22417188	2
	GVC 040	C10009290	10	B22417189	2
	GVC 060	C10011290	5	B22417190	2
	GVC 080	C10012290	5	B22417190	2

* Number of seals in each pack.
† Number of fixing kits that are needed to mount both flanges of the valve.

Type	Flange	Bore mm/in	Model	Order no:
ISO Manual	NW40	40/1½	GVI040	B65001000
	NW50	50/2	GVI050	B65101000
	ISO63	63/2½	GVI063	B65201000
	ISO80	75/3	GVI080	N03933800
	ISO100	100/4	GVI100	B65301000
	ISO160	160/6	GVI160	B65401000
	ISO200	200/8	GVI200	B65501000
	ISO250	250/10	GVI250	B65601000
	ISO320	320/12	GVI320	B65701000
ISO Pneumatic	NW40	40/1½	GVI040	B65051000
	NW50	50/2	GVI050	B65151000
	ISO63	63/2½	GVI063	B65251000
	ISO80	75/3	GVI080	U30002092
	ISO100	100/4	GVI100	B65351000
	ISO160	160/6	GVI160	B65451000
	ISO200	200/8	GVI200	B65551000
	ISO250	250/10	GVI250	B65651000
	ISO320	320/12	GVI320	B65751000
CF Manual	2.37 inch od CF	40/1½	GVC015	B65003000
	3.37 inch od CF	50/2	GVC020	B65103000
	4.47 inch od CF	63/2½	GVC025	B65203000
	6.00 inch od CF	100/4	GVC040	B65303000
	8.00 inch od CF	160/6	GVC060	B65403000
	10.00 inch od CF	200/8	GVC080	B65503000
CF Pneumatic	2.37 inch od CF	40/1½	GVC015	B65053000
	3.37 inch od CF	50/2	GVC020	B65153000
	4.47 inch od CF	63/2½	GVC025	B65253000
	6.00 inch od CF	100/4	GVC040	B65353000
	8.00 inch od CF	160/6	GVC060	B65453000
	10.00 inch od CF	200/8	GVC080	B65553000

Příloha č. 2 Kupní smlouvy

Minimální technické parametry zboží

Veřejná zakázka: Sada vakuových výměv s příslušenstvím

a) Suché výměvy (2 ks)

název	*parametr*	Nabídka účastníka zadávacího řízení (dále jen ÚZŘ)
napájení	230V, 50 Hz	ANO
čerpání z atmosférického tlaku	ano	ANO
možnost dálkového ovládání (remote control)	ano	ANO
špičková čerpací rychlost	> 10 m^3 h^{-1}	11,4 m^3 h^{-1}
mezní tlak	< 0,01 mbar	0,007 mbar
netěsnost (rychlost natékání)	< 5 x 10^{-6} mbar l s^{-1}	1 x 10^{-6} mbar l s^{-1}
chlazení	vzduchem (konvekce)	ANO

b) Turbomolekulární výměva (1ks) s příslušenstvím

název		*parametr*	Nabídka ÚZŘ
napájení		230 V, 50 Hz	ANO
možnost dálkového ovládání (remote control)		ano	ANO
chlazení		vodou	ANO
spojovací příruba		DN 200 CF (metrická)	ANO
čerpací rychlost	N_2	> 1200 l s^{-1}	1250 l s^{-1}
	He	> 1200 l s^{-1}	1350 l s^{-1}
	H_2	> 1000 l s^{-1}	1150 l s^{-1}
mezní tlak		< 5 x 10^{-9} mbar	< 5 x 10^{-10} mbar
příslušenství 1: kontroler, zdroj + propojovací kabely		ano	ANO
příslušenství 2: deskový ventil		ano (specifikace viz dále)	ANO

příslušenství 2: deskový ventil

název	*parametr*	Nabídka ÚZŘ
UHV kompatibilita	ano	ANO
připojovací příruba	DN 200 CF (metrická)	ANO
elektro-pneumatický aktuátor	zdroj 24 V (DC)	ANO
materiál	nerez ocel	ANO
indikátor polohy	ano	ANO
rozdíl tlaků (udržitelnost)	$\geq$ 1000 mbar	1000 mbar
minimální tlak (jedna strana)	$\leq$ 10^{-9} mbar	10^{-9} mbar
maximální tlak (druhá strana)	$\geq$ 1000 mbar	1000 mbar
vodivost (molekulární tok)	< 16500 l s^{-1}	15000 l s^{-1}

Příloha č. 3 Kupní smlouvy

Seznam poddodavatelů / Čestné prohlášení

1. Název veřejné zakázky
Sada vakuových výměv s příslušenstvím

2. Účastník zadávacího řízení	
Obchodní firma:	Atlas Copco Services, s.r.o.
Sídlo:	Holandská 1006/10, 639 00 Brno
IČO:	277 64 907
Právní forma:	Společnost s ručením omezeným (s.r.o.)

Varianta 2: Účastník zadávacího řízení čestně prohlašuje, že nemá v úmyslu zadat určitou část výše uvedené veřejné zakázky jiné osobě, tj. poddodavateli.