



HiPace[®] 10

Small and robust turbopump with a pumping speed of 10 l/s for N₂



Technical Data	HiPace® 10 with TC 110 and power supply OPS 40, DN 25
Bearing	Hybrid
Compression ratio for Ar	$2.5 \cdot 10^7$
Compression ratio for H ₂	$3 \cdot 10^2$
Compression ratio for He	$3 \cdot 10^3$
Compression ratio for N ₂	$3 \cdot 10^6$
Cooling method, standard	Convection
Electronic drive unit	with TC 110
Flange (in)	DN 25
Flange (out)	DN 16 ISO-KF / G 1/8"
Fore-vacuum max. for N ₂	25 hPa 18.75 Torr 25 mbar
Gas throughput at full rotational speed for Ar	0.37 hPa l/s 0.28 Torr l/s 0.37 mbar l/s
Gas throughput at full rotational speed for H ₂	2.78 hPa l/s 2.08 Torr l/s 2.78 mbar l/s
Gas throughput at full rotational speed for He	0.48 hPa l/s 0.36 Torr l/s 0.48 mbar l/s
Gas throughput at full rotational speed for N ₂	0.37 hPa l/s 0.28 Torr l/s 0.37 mbar l/s
Integrated power supply	yes
Interfaces	RS-485, Remote
Mounting orientation	in any orientation
Operating voltage	24 (± 5 %) V DC
Particulate matter	yes
Permissible magnetic field max.	3 mT
Protection category	IP 30
Pumping speed for Ar	11.5 l/s
Pumping speed for H ₂	3.7 l/s
Pumping speed for He	6 l/s
Pumping speed for N ₂	10 l/s
Rotation speed ± 2 %	90,000 min ⁻¹
Rotation speed variable	50-100 %
Run-up time	0.9 min
Sound pressure level	< 50 dB (A)
Ultimate pressure according to PNEUROP	< $5 \cdot 10^{-5}$ hPa < $3.75 \cdot 10^{-5}$ Torr < $5 \cdot 10^{-5}$ mbar
Weight	2 kg 4.41 lb

Order number	
HiPace® 10	PM P03 963

Accessories	
Accessory for TC 110	
TCS 11, adapter for TC 110/120 with RS-485 interface	PM 061 636 -U
TCS 12, adapter for TC 110/120 with interface RS-485, 4 accessory ports and coupling set	PM 061 638 -U
Adapter and control cables	
Control cable for valve	PM 061 687 -T
HiPace - ACP connection cable	PM 071 142 -X
Control and display units	
Accessories package for HPU 001/PC	PM 061 005 -T
DCU 002, Display Control Unit	PM 061 348 -T
HPU 001, Handheld Programming Unit	PM 051 510 -T
RJ 45 interface cable on M12 for HiPace	PM 051 726 -T
DN ISO-KF, mounting kit	
Connection adapter DN 25 ISO-KF	PM 093 315 -T
Mounting kit for HiPace 10, DN 25 ISO-K and claws	PF 104 000 -T
Mounting kit for HiPace 10, DN 25 ISO-KF, including centering ring with claws	PM 016 627 -T
DN ISO-KF, sealings, splinter shields, protection screens	
Centering ring, FPM/Aluminum, DN 25 ISO-KF	PF 110 125 -T
Centering ring with integrated mesh screen, DN 25 ISO-KF	PF 113 225 -T
Fore-vacuum safety valves	
TVV 001 fore-vacuum safety valve, 115 V AC	PM Z01 206
TVV 001 fore-vacuum safety valve, 230 V AC	PM Z01 205
Interface and extension cables	
Interface cable, M12 m straight/ M12 m angled 0.7 m	PM 061 791 -T
Interface cable, M12 m straight / M12 m straight, 3 m	PM 061 283 -T
Mains cables	
Mains cable 115 V AC, NEMA 1-15 to C7, 1.5 m	P 4564 309 OB
Mains cable 230 V AC, XVI EN 50075 to C7, 1.5 m	P 4564 309 OA
Relay boxes	
Relay box, shielded, for backing pumps, 1-phase 7A for TC 110/120 and TCP 350, plug M8	PM 071 282 -X
Relay box for backing pump, single phase 20 A for TC 110/120 and TCP 350, M8 plug	PM 061 373 -T
RS-485	
Connector M12 to RS-485	PM 061 270 -X
Power separator for RS-485	PT 348 132 -T
Termination resistor for RS-485	PT 348 105 -T
USB converter to RS-485 interface	PM 061 207 -T
Y-Connector M12 to RS-485	P 4723 010