

REGULATORS

HBS 200-10-3.5



- Korkeapaine säädin - Kaksivaiheinen
- Asennus 200 bar kaasupullo - Tarkka säätelyn
- Sopivat puhtaat kaasut ja seokset, ei syövyttävä
- Kromattua messinkiä

Laser, Laboratoriot ja analyysit

Domains of applications

HBS-säätimet on suunniteltu sovelluksiin, joissa tarvitaan erittäin tarkkaa paineen säätöä. Käytetään laboratorioissa ja tuotantolaitoksissa kalibrointikaasuihin, kanto-kaasuihin, ilmakehän luomiseen ...

Designed for implementation of:

Syövyttämättömät puhtaita kaasuja jopa N60 lukien Alphagaz™ 1 & 2, Ei-syövyttäviä seoksia pitoisuus on suurempi kuin 1 ppm

Specifications

Maximal inlet pressure at 15°C 200 bar
 Outlet Pressure..... 0,5 to 10 bar
 Nominal nitrogen flow 3.5 Nm³/h*
 Set pressure 16 bar

Sisäinen/ulkoinen vuoto nopeus ≤ 3x10⁻⁷ mbar.l/s Heliumia, Käyttölämpötila: -20 °C + 50 °C: ssa.

*Takuu enimmäislähtöpaineella P2 enintään tulopaineeseen P3 = 2P2 + 1 bar.

Materials

Body Kromi messinkipäällysteinen
 Ensimmäinen vaihe PCTFE, Messinkinen 2. liipaisin
 Seat
 Ensimmäinen vaihe Brass, Messinki EPDM 2. liipaisin
 Main valve.....
 Bellow Pronssi
 Filter Monel® 400
 Kupari metalliseos mekanismi, Ø
 Pressure gauge 50mm, Seal PA 6.6
 Tiiviste EPDM, Lautasventtiilin pronssista, Elin 303 ruostumaton-
 Relief valve ta terästä

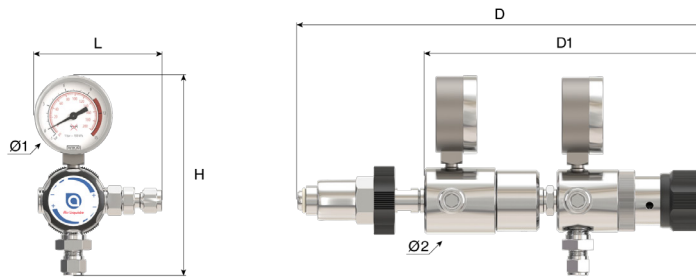
Monel® on tavaramerkki Special Metals Oy.

Safety Alert

⚠ Varoitus! Jos käytetään palavien kaasujen, kaikki tyhjennys- ja ylivuoto venttiilit on kerättävä.

Dimensions

Length (L) : 90 mm
Height (H) : 129 mm
Depth (D) : 265 mm
Depth (D1) : 183 mm
Ø1 : 50 mm
Ø2 : 44 mm
Net weight : 1.22 kg



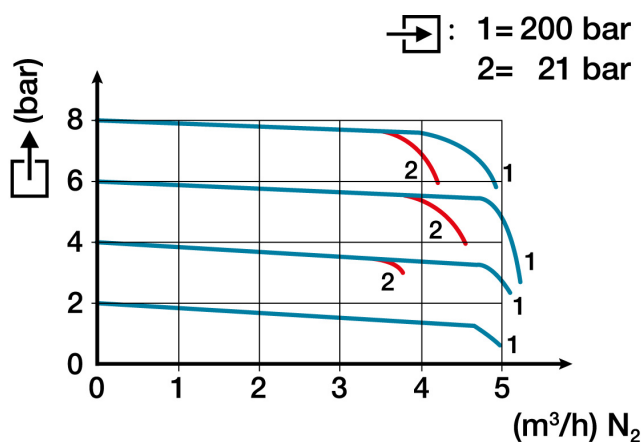
Operating instructions

OP 150 - HBS

Connection

Inlet connection: HP sylinteri mukaisen liittimen kaasun
Outlet connection: 2 pakoaukkojen G 3/8 BSPP naaras
Relief valve connection: Op-Brass puristusliitin 6mm, Brass Puristusholkit

Flow curve









Products

Product Number	Short Designation	Gas	Inlet Pressure	Outlet Pressure	Flow	Inlet Fitting	Inlet Fitting Form	Outlet Fitting	Material
122940	REG HBS 200-10-3,5 DIN 14 - CF 6MM	Ei-reaktiivinen mix	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 14		CF 6mm	Messinki
213330	REG HBS 200-10-3,5 DIN-9	seokset	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 9	Jakoavain Cr-Brass	G 3/8 BSPP naaras	Messinki
122935	REG HBS 200-10-3,5 DIN 1/B8 - CF 1/8"	H2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 1		CF 1/8"	Messinki
122936	REG HBS 200-10-3,5 DIN 1/B8 - CF 6MM	H2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 1		CF 6mm	Messinki
122937	REG HBS 200-10-3,5 DIN 1/B8 - HN 4MM	H2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 1		HF 4 / 6mm	Messinki
122927	REG HBS 200-10-3,5 DIN 10 - CF 1/8"	N2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 10		CF 1/8"	Messinki
122928	REG HBS 200-10-3,5 DIN 10 - CF 6MM	N2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 10		CF 6mm	Messinki
122929	REG HBS 200-10-3,5 DIN 10 - HN 4MM	N2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 10		HF 4 / 6mm	Messinki
122947	REG HBS 200-10-3,5 DIN 11 - CF 1/8"	N2O	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 11		CF 1/8"	Messinki
122948	REG HBS 200-10-3,5 DIN 11 - CF 6MM	N2O	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 11		CF 6mm	Messinki
122949	REG HBS 200-10-3,5 DIN 11 - HN 4MM	N2O	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 11		HF 4 / 6mm	Messinki
122943	REG HBS 200-10-3,5 DIN 13 - CF 1/8"	ilma	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 13		CF 1/8"	Messinki
122944	REG HBS 200-10-3,5 DIN 13 - CF 6MM	ilma	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 13		CF 6mm	Messinki

Product Number	Short Designation	Gas	Inlet Pressure	Outlet Pressure	Flow	Inlet Fitting	Inlet Fitting Form	Outlet Fitting	Material
122945	REG HBS 200-10-3,5 DIN 13 - HN 4MM	ilma	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 13		HF 4 / 6mm	Messinki
122939	REG HBS 200-10-3,5 DIN 14 - CF 1/8"	Ei-reaktiivinen mix	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 14		CF 1/8"	Messinki
122941	REG HBS 200-10-3,5 DIN 14 - HN 4MM	Ei-reaktiivinen mix	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 14		HF 4 / 6mm	Messinki
122931	REG HBS 200-10-3,5 DIN 6/B5 - CF 1/8"	CO2, O2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 6	Jakoavain Cr-Brass	CF 1/8"	Messinki
122932	REG HBS 200-10-3,5 DIN 6/B5 - CF 6MM	CO2, O2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 6	Jakoavain Cr-Brass	CF 6mm	Messinki
122933	REG HBS 200-10-3,5 DIN 6/B5 - HN 4MM	CO2, O2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 6	Jakoavain Cr-Brass	HF 4 / 6mm	Messinki
192192	REG HBS 200-10-3,5 DIN 10		200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 10	Jakoavain Cr-Brass	G 3/8 BSPP naaras	Messinki
193414	REG HBS 200-10-3,5 DIN 1	H2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 1		G 3/8 BSPP naaras	Messinki
193417	REG HBS 200-10-3,5 DIN 11	N2O	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 11		G 3/8 BSPP naaras	Messinki
193416	REG HBS 200-10-3,5 DIN 13	ilma	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 13		G 3/8 BSPP naaras	Messinki
193415	REG HBS 200-10-3,5 DIN 14	Ei-reaktiivinen mix	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 14	Jakoavain Cr-Brass	G 3/8 BSPP naaras	Messinki
193413	REG HBS 200-10-3,5 DIN 6	CO2, O2	200 bar	10 bar	3.5 Nm³/h	DIN 477-1 Nr. 6	Jakoavain Cr-Brass	G 3/8 BSPP naaras	Messinki

Options

	Product Number	Long designation
	16516	CONN. G3/8 BSPP M NIP. F/PIPE Ø 4-6MM
	16521	Connector Cr-Brass G3/8 BSPP Male *Compression fitting 1/8" OD Brass *Flat seal PTCFE
	16522	CONNECTION G 3/8" Male Compression Fitting 6 MM Br
	16523	Connector Cr-Brass G3/8 BSPP Male *Compression fitting 1/4" OD Brass *Flat seal PTCFE
	16524	Connector Cr-Brass G3/8 BSPP Male *Compression fitting 10mm OD Brass *Flat seal PTCFE
	16526	Connector Cr-Brass G3/8 BSPP Male *Compression fitting 8mm OD Brass *Flat seal PTCFE
	16532	Connector SS G3/8 BSPP Male *Kit N°2 CF 1/8" and 6mm OD SS *Flat seal PTCFE
	16558	Connector SS G3/8 BSPP Male *Compression fitting 6mm OD SS *Flat seal PTCFE

	Product Number	Long designation
	16562	COMP. FITTING G3/8" 8 MM SS
	16564	CONNECTION G 3/8 BSPP Male - CF 3/8" - Stainless S
	16566	Connector SS G3/8 BSPP Male *Compression fitting 1/8" OD SS *Flat seal PTCFE
	16567	Connector SS G3/8 BSPP Male *Compression fitting 10mm OD SS *Flat seal PTCFE
	16569	Connector SS G3/8 BSPP Male *Compression fitting 12mm OD SS *Flat seal PTCFE
	19207	LEAK DETECTOR "1000 BULLES"
	19286	Liitäntä G3/8 BSPP M NIP. Ø 8-10MM BR

Spare parts

Product Number	SP Number	Long designation
122940	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs
	16000	PRESSURE GAUGE (-1) - 1,5 Bar Ø 50mm Lateral Entr
	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8

Product Number	SP Number	Long designation
122940	29226	FLAT SEAL in PTCFE (Kel-F®) 16x9,2x2
213330	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs
	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8

Product Number	SP Number	Long designation
122935	15979	Painemittari 0-200+315 Bar Ø 50mm pystysuora M10x1 Ruostumaton teräs
	16014	PRESSURE GAUGE (-1) - 6 Bar Ø 50mm Lateral Entry
	17141	FLAT SEAL in PTFCE 14,5x10x2 for outlet port G3/8
	17203	FLAT SEAL in PTFCE 18x11,8x2 for inlet connection
	29053	FLAT SEAL in PA 6.6 20x12x2
	29187	PACKNING 18X11,8X2 MM NYLON (Bag of 10)
122936	15979	Painemittari 0-200+315 Bar Ø 50mm pystysuora M10x1 Ruostumaton teräs
	15986	PRESSURE GAUGE (-1) - 12 Bar Ø 50mm S.Steel - Lat
	17141	FLAT SEAL in PTFCE 14,5x10x2 for outlet port G3/8
	17203	FLAT SEAL in PTFCE 18x11,8x2 for inlet connection
	29053	FLAT SEAL in PA 6.6 20x12x2
	29187	PACKNING 18X11,8X2 MM NYLON (Bag of 10)
122937	15979	Painemittari 0-200+315 Bar Ø 50mm pystysuora M10x1 Ruostumaton teräs
	15986	PRESSURE GAUGE (-1) - 12 Bar Ø 50mm S.Steel - Lat
	17141	FLAT SEAL in PTFCE 14,5x10x2 for outlet port G3/8
	17203	FLAT SEAL in PTFCE 18x11,8x2 for inlet connection
	29053	FLAT SEAL in PA 6.6 20x12x2
	29187	PACKNING 18X11,8X2 MM NYLON (Bag of 10)
122927	15979	Painemittari 0-200+315 Bar Ø 50mm pystysuora M10x1 Ruostumaton teräs
	16013	Painemittari -1+3+5 Bar Ø 50mm Pystysuora M10x1 Ruostumatonta terästä
	29053	FLAT SEAL in PA 6.6 20x12x2
	29187	PACKNING 18X11,8X2 MM NYLON (Bag of 10)
122928	15979	Painemittari 0-200+315 Bar Ø 50mm pystysuora M10x1 Ruostumaton teräs
	16020	Painemittari 0+30+40 Bar Ø 50mm Pystysuora M10x1 Ruostumaton teräs
	29053	FLAT SEAL in PA 6.6 20x12x2
	29187	PACKNING 18X11,8X2 MM NYLON (Bag of 10)
122929	15979	Painemittari 0-200+315 Bar Ø 50mm pystysuora M10x1 Ruostumaton teräs
	16021	Painemittari 0+70+100 Bar Ø 50mm Pystysuora M10x1 Ruostumaton teräs M10x1
	29053	FLAT SEAL in PA 6.6 20x12x2
	29187	PACKNING 18X11,8X2 MM NYLON (Bag of 10)
122947	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs

Product Number	SP Number	Long designation
122947	17141	FLAT SEAL in PTFCE 14,5x10x2 for outlet port G3/8
	29053	FLAT SEAL in PA 6.6 20x12x2
	29186	FLAT SEAL PA 6-6 14x9x2
	29187	PACKNING 18X11,8X2 MM NYLON (Bag of 10)
	167800	KIT of Seals flat PA 6.6 for manometer M10x1 (2 s
	122948	17141
18552		PRESSURE GAUGE 0-25 Bar Ø 50mm Vertical Entry G1/4
29053		FLAT SEAL in PA 6.6 20x12x2
29186		FLAT SEAL PA 6-6 14x9x2
29187		PACKNING 18X11,8X2 MM NYLON (Bag of 10)
167800		KIT of Seals flat PA 6.6 for manometer M10x1 (2 s
122949	15979	Painemittari 0-200+315 Bar Ø 50mm pystysuora M10x1 Ruostumaton teräs
	16014	PRESSURE GAUGE (-1) - 6 Bar Ø 50mm Lateral Entry
	17141	FLAT SEAL in PTFCE 14,5x10x2 for outlet port G3/8
	29053	FLAT SEAL in PA 6.6 20x12x2
	29186	FLAT SEAL PA 6-6 14x9x2
	122943	15979
16014		PRESSURE GAUGE (-1) - 6 Bar Ø 50mm Lateral Entry
17141		FLAT SEAL in PTFCE 14,5x10x2 for outlet port G3/8
29053		FLAT SEAL in PA 6.6 20x12x2
29187		PACKNING 18X11,8X2 MM NYLON (Bag of 10)
122944		15979
	15986	PRESSURE GAUGE (-1) - 12 Bar Ø 50mm S.Steel - Lat
	17141	FLAT SEAL in PTFCE 14,5x10x2 for outlet port G3/8
	29053	FLAT SEAL in PA 6.6 20x12x2
	29187	PACKNING 18X11,8X2 MM NYLON (Bag of 10)
	122945	15979
15986		PRESSURE GAUGE (-1) - 12 Bar Ø 50mm S.Steel - Lat
17141		FLAT SEAL in PTFCE 14,5x10x2 for outlet port G3/8
29053		FLAT SEAL in PA 6.6 20x12x2
29187		PACKNING 18X11,8X2 MM NYLON (Bag of 10)

Product Number	SP Number	Long designation
122939	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8
	29053	FLAT SEAL in PA 6.6 20x12x2
	29226	FLAT SEAL in PTCFE (Kel-F®) 16x9,2x2
	167800	KIT of Seals flat PA 6.6 for manometer M10x1 (2 s
122941	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8
	29053	FLAT SEAL in PA 6.6 20x12x2
	29226	FLAT SEAL in PTCFE (Kel-F®) 16x9,2x2
	167800	KIT of Seals flat PA 6.6 for manometer M10x1 (2 s
122931	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs
	16000	PRESSURE GAUGE (-1) - 1,5 Bar Ø 50mm Lateral Entr
	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8
122932	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs
	16000	PRESSURE GAUGE (-1) - 1,5 Bar Ø 50mm Lateral Entr
	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8
122933	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs
	16000	PRESSURE GAUGE (-1) - 1,5 Bar Ø 50mm Lateral Entr
	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8
192192	16001	Painemittari -1+8+12 bar Ø50 pysty M10x1
	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8
	29053	FLAT SEAL in PA 6.6 20x12x2
	167800	KIT of Seals flat PA 6.6 for manometer M10x1 (2 s
193414	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs
	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8
	17203	FLAT SEAL in PTCFE 18x11,8x2 for inlet connection
193417	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs
	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8
	29186	FLAT SEAL PA 6-6 14x9x2
193416	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs
	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8
	29187	PACKNING 18X11,8X2 MM NYLON (Bag of 10)
193415	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs

Product Number	SP Number	Long designation
193415	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8
	29226	FLAT SEAL in PTCFE (Kel-F®) 16x9,2x2
193413	15969	PAINEMITTARI 0- 200/315 Bar Ø 50mm Pystysuora sisäänmeno M10x1 Messinki-Cr - Runko S.Teräs
	17141	FLAT SEAL in PTCFE 14,5x10x2 for outlet port G3/8