



Transportation – Railway

Quick Connect Coupling Systems for
Rail Vehicle Applications



ENGINEERING YOUR SUCCESS.

We meet the highest requirements!

Quick connect coupling systems from Parker – a safe solution in the area of rail vehicles

Vibrations, dirt and extreme mechanical and climatic stress are the principal challenges for our quick connect coupling systems in the area of electric and diesel-powered rail vehicles. The functional safety of the systems plays a major role here with the many electronic and pneumatic controls, in addition to the requirements with respect to reliability (failure safety) and availability. Particularly in the area rail, there are specific directives and

safety standards for processes, with which our systems must comply (for example the vibration and shock test in accordance with DIN EN 61373 / IEC 61373).

With over 60 years of experience in the development and sale of high-quality quick connect coupling systems, the Low Pressure Connectors Europe of Parker Hannifin – the world's leading manufacturer in motion and control technologies – now

offers one of the most extensive product ranges of innovative connection solutions. Whether for complete or sub-systems, we always have a tried and tested solution.

From standard product to bespoke systems, our team is available to provide you with competent advice at any time. We are happy to provide detailed advice – please ask us.

Maximum Precision and Reliability

The product advantages at a glance:

- **High resistance to vibrations and dirt** (e.g. 7000-Series).
- Certified safety – vibration and shock test in accordance with DIN EN 61373/IEC 61373.
- **Low pressure drop** for maximum energy efficiency.
- **Compact design** for installation in applications where little space is available.
- **Various sizes** from nominal diameter 3 mm up to 20 mm.
- Broad selection of sealing materials for optimal co-ordination with temperature (-55°C up to +200°C) and flow medium.
- **High resistance to rotation.**
- **No leakage when disconnected** due to the specially developed valve design – even after a long time and pressurisation (all flat-sealing variants).

60 Years of Know-How

We set standards industrywide

Materials

For coupling systems in the area of rail vehicles, the materials brass and stainless steel in particular have proven themselves. Brass is generally used with a nickel plated finish – depending on the series, we offer stainless steel in qualities AISI 303 and AISI 316 L. Other materials are also possible of course, depending on application. Our team is happy to advise you here.



Seals

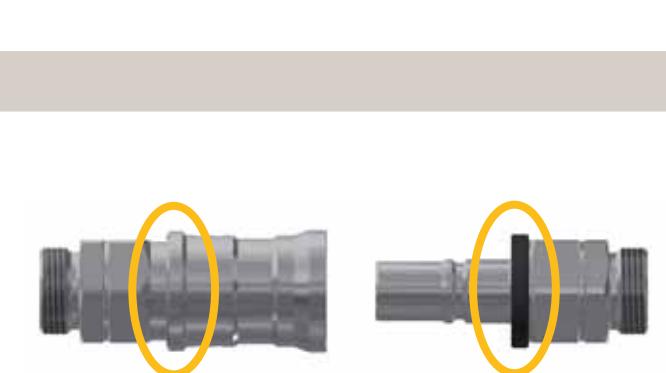
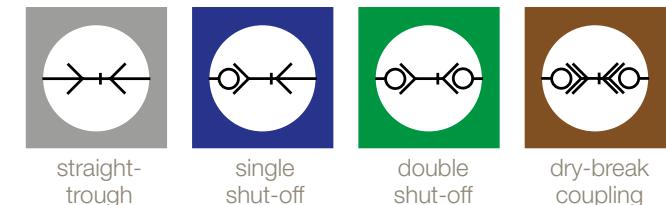
A coupling can only be as good as its sealing components. This is why we rely on EPDM and NBR as standard for our sealing materials – particularly NBR for extremely low temperatures. For challenging requirements, our experts will, of course, offer completely individual advice and develop an optimum solution.

EPDM or NBR seals as standard
Other materials available



Valves

Depending on the application area, Parker LPCE coupling systems are available with straight-through, single or double shut-off, and in clean break design. To ensure fault free operation all valve seals are the same as the main seal choice.



Dirt Protection

For outdoor applications, we have developed coupling systems that have seals integrated both into the unlocking sleeve and into the plug – the complete coupling (incl. locking system) is therefore sealed when coupled and it is effectively protected from dirt and spray water.

Your Reliable Partner

We develop complex quick connect coupling systems for rail vehicle applications

The comprehensive range of critical components from Parker LPCE combined with our ability to develop and produce complex, integrated systems for almost any application makes us a strong partner to planners,

manufacturers and suppliers in the area of rail vehicles.

From the concept and launch of products to production that is sustainable in the long term, we offer intelligent solutions

in the area of cooling, braking systems, plumbing and in many pneumatic applications.

A brief insight into our range of services is provided below.

Cooling

Air Conditioning Systems and Electronic Cooling



Quick connect couplings from Parker LPCE for cooling systems are a reliable and powerful solution. They guarantee optimal cooling of many applications used in diesel-powered or electric rail vehicles.

- Quick connect couplings in the area of air conditioning systems.
- Dissipation of heat arising from electrical power loss.
- We provide efficient cooling quick couplers for transformers, converters, traction motors and virtually all areas of cooling for electronic applications.

Braking Systems

Pneumatic Braking Systems



Our range includes special coupling systems for functional testing of braking systems. These systems are used both in the initial fitting and in continuous regulation braking tests before any use of a rail vehicle.

- Reliable and rapid functional testing with easy handling.
- Maximum compressed air efficiency from functional couplings with blanking plugs.
- Special test couplings control the various braking circuits individually.
- Measurements of the braking signals directly on the rim mounting.
- Developed for temperatures down to -55°C.

Plumbing and Water Treatment

Toilet Systems, Water Treatment and Sprinkler Systems



Quick connect couplings are also used in the area of on-board toilet systems and water treatment in mobile installations. A special system has been developed in the area of vacuum toilets.

- Development of a complete system: series 26 is jointly responsible for filling the water tank; series 21 brings pressure to the toilet in the flushing process so that the water can be flushed out accordingly – until the purge valve is opened.
- Use of non-corroding coupling systems.

Other Applications



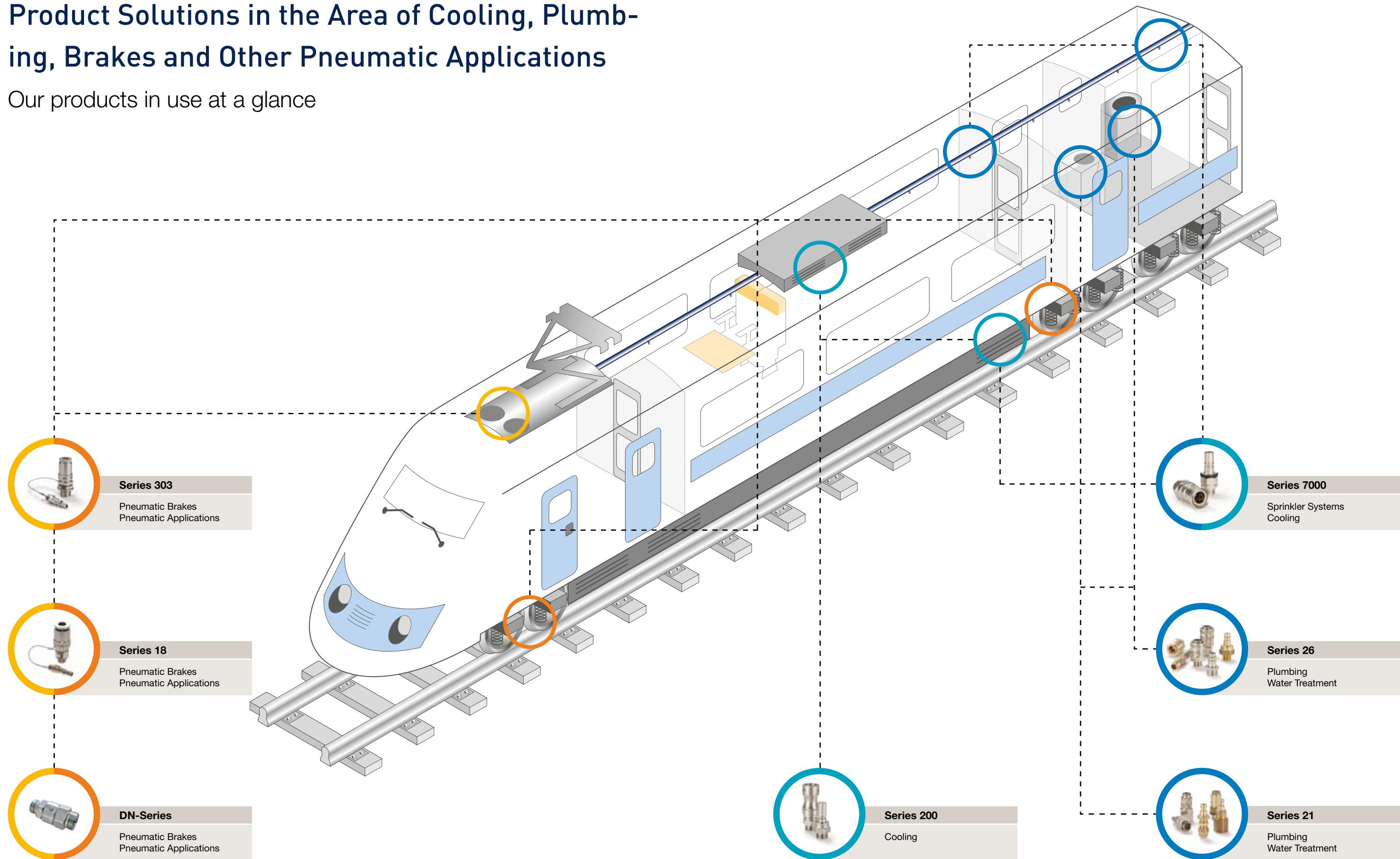
Pneumatic Applications

To this day, pneumatics remains an important element in rail vehicles. Coupling systems from Parker LPCE are used in many applications for connecting compressed air components:

- In purely pneumatic door drives.
- For folding steps, sliding steps and ramps with pneumatic drives.
- In sanding systems.
- In pneumatic pantograph systems.

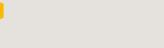
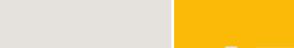
Product Solutions in the Area of Cooling, Plumbing, Brakes and Other Pneumatic Applications

Our products in use at a glance



Interchangeable Profiles at a Glance

Find the ideal product for your application

							
	Series 303	Series 18	Series 7000	Series 200KL	Series 21	Series 26	DN-Series
Air Conditioning Systems / Electronic Cooling			X	X			
Pneumatic Braking Systems	X	X					X
Plumbing / Water Treatment			X		X	X	
Pneumatic Applications	X	X					X
Valves ¹⁾			 		 	 	
Working Pressure	35 bar	35 bar	16 bar	15 bar	35 bar	35 bar	12 bar
Nominal Diameter (mm)	3	5,5	6/9/12/16/20	4/6/9/12/19	5	7,2	5/12/16
Technische Informationen	<ul style="list-style-type: none"> Single-hand operation Compact design External seal for external use 	<ul style="list-style-type: none"> Single-hand operation Compact design External seal for external use 	<ul style="list-style-type: none"> External seal for external use 	<ul style="list-style-type: none"> Single-hand operation Dry-break coupling system 	<ul style="list-style-type: none"> Single-hand operation Compact design World's most popular profile 	<ul style="list-style-type: none"> Single-hand operation Compact design European industrial interchange 	<ul style="list-style-type: none"> Swivelling double nipple 1 Mio. turning cycles at +/- 15° guarantee a long service life of hose
Plug Profile							
Material (Coupling Body)	Brass AISI 316 L	Brass	Brass AISI 303	Brass AISI 316 L	Brass AISI 303 AISI 316 L	Brass	Steel
Seals (other seal variants on request)	NBR, EPDM, FKM	NBR, EPDM, FKM	NBR, EPDM, FKM	NBR, EPDM, FKM, FFKM	NBR, EPDM, FKM	NBR, EPDM, FKM	EPDM + Cryogenic PU
Working Temperature	-55°C up to +100°C (Cryogenic NBR)	-55°C up to +100°C (Cryogenic NBR)	-40°C up to +150°C (EPDM)	-40°C up to +150°C (EPDM)	-20°C up to +100°C (NBR)	-20°C up to +100°C (NBR)	-50°C up to +100°C (EPDM)

¹⁾Valve types:  straight-through (KF)

 single shut-off (KA)

 double shut-off (KB)

 dry-break (KL)

Nominal Diameter

3

Rectus Series

303**Technical Description**

Mini coupling with a plug profile in accordance with ISO 6150 C. The coupling impresses with compact design and single-hand operation - allowing coupling and uncoupling with one hand even in places where access is difficult. Above-average flow rates ensure fast and reliable control of the pneumatic braking circuits.

Advantages

The coupling system has an external seal on the locking system for external use and a blank plug with stainless steel cable. Cryogenic seals for use at -55°C.

Working Temperature

-55°C to +100°C (Cryogenic NBR) depending on the medium.

Special seals are available on request.

Single Shut-Off
Max. Working Pressure*

35 bar

* maximum static working pressure with safety factor 4 to 1.

Material

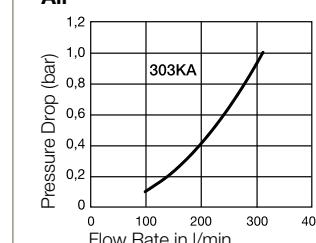
Coupling: Brass nickel plated or Stainless Steel

Plug: Brass nickel plated or Stainless Steel

Seals: Cryogenic NBR

Applications

- Pneumatic Braking Systems
- Pneumatic Applications

Flow diagram**Air**

Rectus Series

303**Couplings – with valve****Series 303**

DN	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Part Number
3	G 1/8	14	45	7	18	Brass	303KAAW10MPNS
3	G 1/8	14	45	7	18	AISI 316L	303KAAW10EPXS
3	G 1/4	17	47	9	18	Brass	303KAAW13MPNS
3	G 1/4	17	47	9	18	AISI 316L	303KAAW13EPXS
Male Thread with front O-ring							
3	M 12 x 1,5	17	46	10	18	Brass	303KAAD12MPNS
3	M 12 x 1,5	17	46	10	18	AISI 316L	303KAAD12EPXS
Male thread with 24° sealing cone for external pipe diameter Ø 6mm in accordance with ISO 8434-1 Series L							
3	G 1/8	14	43	9	18	Brass	303KAIW10MPNS
3	G 1/8	14	43	9	18	AISI 316L	303KAIW10EPXS
3	G 1/4	17	45	9	18	Brass	303KAIW13MPNS
3	G 1/4	17	45	9	18	AISI 316L	303KAIW13EPXS
Female Thread							
3	6 mm	14	56,5	20	18	Brass	303KATP06MPNS
3	6 mm	14	56,5	20	18	AISI 316L	303KATP06EPXS
Parker Push-Lok							

Plugs – without valve
Series 303

DN	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Part Number
3	G 1/8	14	35,5	7		Brass	303SFAW10MPN
3	G 1/8	14	35,5	7		AISI 316L	303SFAW10EPX
3	G 1/4	17	37,5	9		Brass	303SFAW13MPN
3	G 1/4	17	37,5	9		AISI 316L	303SFAW13EPX
Male Thread with front O-ring							
3	M 12 x 1,5	14	35,5	10		Brass	303SFAD12MXN
3	M 12 x 1,5	14	35,5	10		AISI 316L	303SFAD12EXX
Male thread with 24° sealing cone for external pipe diameter Ø 6mm in accordance with ISO 8434-1 Series L							
3	G 1/8	14	33	9		Brass	303SFIW10MXN
3	G 1/8	14	33	9		AISI 316L	303SFIW10EXX
3	G 1/4	17	33	9		Brass	303SFIW13MXN
3	G 1/4	17	33	9		AISI 316L	303SFIW13EXX
Female Thread							
3	6 mm		43,5	20	17,5	Brass	303SFTP06MXN
3	6 mm		43,5	20	17,5	AISI 316L	303SFTP06EXX
Parker Push-Lok							

Please consider our security advices in our main catalogues

Nominal Diameter

5,5

Rectus Series

18**Technical Description**

Coupling with a plug profile in accordance with ISO 6150 C. The coupling impresses with compact design and single-hand operation - allowing coupling and uncoupling with one hand even in places where access is difficult. Above-average flow rates ensure fast and reliable control of the pneumatic braking circuits.

Advantages

The coupling system has an external seal on the locking system for external use and a blank plug with stainless steel cable. Cryogenic seals for use at -55°C.

Working Temperature

-55°C to +100°C (Cryogenic NBR) depending on the medium.

Special seals are available on request.

Single Shut-Off
Max. Working Pressure*

35 bar

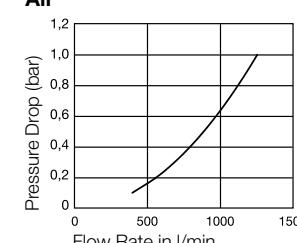
* maximum static working pressure with safety factor 4 to 1.

Material

Coupling: Brass nickel plated
Plug: Steel nickel plated
Seals: Cryogenic NBR

Applications

- Pneumatic Braking Systems
- Pneumatic Applications

Flow diagram**Air**
Couplings – with valve
Series 18

DN	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Part Number
5,5	G 1/4	19	62,2	9,2	24,5	Brass	18KAAW13MPNS
5,5	G 3/8	21	63,2	10,2	24,5	Brass	18KAAW17MPNS

Male Thread with front O-ring

Plugs – without valve
Series 18

DN	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Part Number
5,5	G 1/4	17	41	9		Steel	18SFAW13SXN
5,5	G 3/8	19	41	9		Steel	18SFAW17SXN
Male Thread							
5,5	G 1/4	17	43	9		Steel	18SFIW13SXN
5,5	G 3/8	19	44	9		Steel	18SFIW17SXN
Female Thread							

Nominal Diameter
9/12/16/20



Rectus Series 7000

Technical Description

Series 7000 is available in four different nominal diameters. It stands out for the very high level of reliability with respect to the seal, as the plug already seals in the coupling before the valves open when engaging the coupling and seals the connection reliably with a double seal when connected.

Series 7000 has an additional external seal in the coupling and plug specifically for outdoor applications, so that the locking system is completely protected from dirt and spray water when connected.

Double Shut-Off

Max. Working Pressure*

16 bar

* maximum static working pressure with safety factor 4 to 1.

Material

Coupling: Brass chemical nickel plated or Stainless Steel

Plug: Brass chemical nickel plated or Stainless Steel

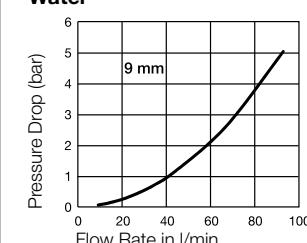
Seals: EPDM

Applications

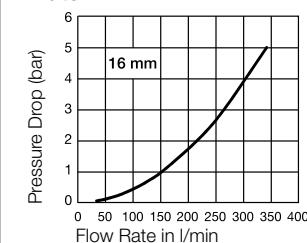
- Air Conditioning Systems / Electronic Cooling
- Plumbing / Water Treatment

Flow diagrams

Water



Water



Advantages

Additional external locking system seal for external use. Dust caps with stainless steel cable are available on request. Splash-proof design, i.e. no water discharge during the connection process. Double sealed when connected.

Working Temperature

-40°C up to +150°C (EPDM)
depending on the medium.

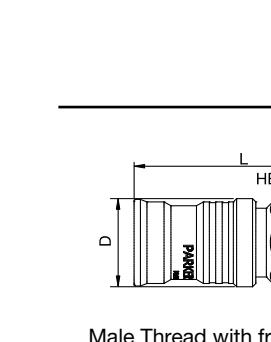
Special seals are available on request.



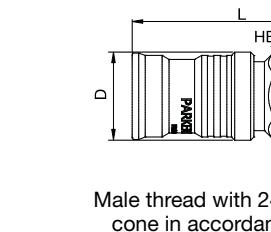
Couplings – with valve

Series 7000

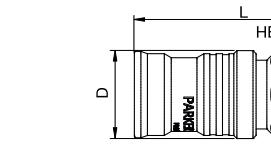
DN	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
9	G 3/8	24	65	9	27,5	Brass chemical nickel plated	EPDM	7009KBAO17MED
9	G 3/8	24	65	9	27,5	AISI 303	EPDM	7009KBAO17REX
12	G 1/2	30	82	12	35	Brass chemical nickel plated	EPDM	7012KBAO21MED
12	G 1/2	30	82	12	35	AISI 303	EPDM	7012KBAO21REX
16	G 3/4	36	103	16	43	Brass chemical nickel plated	EPDM	7016KBAO26MED
16	G 3/4	36	103	16	43	AISI 303	EPDM	7016KBAO26REX
20	G 1	42	127	19	54	Brass chemical nickel plated	EPDM	7020KBAO33MED
20	G 1	42	127	19	54	AISI 303	EPDM	7020KBAO33REX
9	M 18 x 1,5	24	67	11	27,5	Brass chemical nickel plated	EPDM	7009KBAD18MED
9	M 18 x 1,5	24	67	11	27,5	AISI 303	EPDM	7009KBAD18REX
12	M 26 x 1,5	30	82	12	35	Brass chemical nickel plated	EPDM	7012KBAD26MED
12	M 26 x 1,5	30	82	12	35	AISI 303	EPDM	7012KBAD26REX
16	M 30 x 2	36	100,5	14	43	Brass chemical nickel plated	EPDM	7016KBAD30MED
16	M 30 x 2	36	100,5	14	43	AISI 303	EPDM	7016KBAD30REX
20	M 36 x 2	42	121	14	54	Brass chemical nickel plated	EPDM	7020KBAD36MED
20	M 36 x 2	42	121	14	54	AISI 303	EPDM	7020KBAD36REX
9	G 3/8	24	65	9	27,5	Brass chemical nickel plated	EPDM	7009KBIW17MED
9	G 3/8	24	65	9	27,5	AISI 303	EPDM	7009KBIW17REX
12	G 1/2	30	82	12	35	Brass chemical nickel plated	EPDM	7012KBIW21MED
12	G 1/2	30	82	12	35	AISI 303	EPDM	7012KBIW21REX
16	G 3/4	36	101	16	43	Brass chemical nickel plated	EPDM	7016KBIW26MED
16	G 3/4	36	101	16	43	AISI 303	EPDM	7016KBIW26REX
20	G 1	42	127	20	54	Brass chemical nickel plated	EPDM	7020KBIW33MED
20	G 1	42	127	20	54	AISI 303	EPDM	7020KBIW33REX
9	10 mm	24	84	24	27,5	Brass chemical nickel plated	EPDM	7009KBTP10MED
9	10 mm	24	84	24	27,5	AISI 303	EPDM	7009KBTP10REX
12	16 mm	30	111	38	35	Brass chemical nickel plated	EPDM	7012KBTP16MED
12	16 mm	30	111	38	35	AISI 303	EPDM	7012KBTP16REX
16	19 mm	36	125	38	43	Brass chemical nickel plated	EPDM	7016KBTP19MED
16	19 mm	36	125	38	43	AISI 303	EPDM	7016KBTP19REX
20	25 mm	42	146	38	54	Brass chemical nickel plated	EPDM	7020KBTP25MED
20	25 mm	42	146	38	54	AISI 303	EPDM	7020KBTP25REX



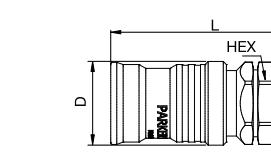
Male Thread with front O-ring



Male thread with 24° sealing cone in accordance with ISO 8434-1 Series L



Female Thread



Parker Push-Lok



Plugs – with valve

Series 7000

	DN	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
Male Thread with front O-ring	9	G 3/8	24	60	9	27	Brass chemical nickel plated	EPDM	7009SBAO17MED
	9	G 3/8	24	60	9	27	AISI 303	EPDM	7009SBAO17REX
	12	G 1/2	27	73,5	12	31	Brass chemical nickel plated	EPDM	7012SBAO21MED
	12	G 1/2	27	73,5	12	31	AISI 303	EPDM	7012SBAO21REX
	16	G 3/4	36	98,5	16	40	Brass chemical nickel plated	EPDM	7016SBAO26MED
	16	G 3/4	36	98,5	16	40	AISI 303	EPDM	7016SBAO26REX
	20	G 1	42	132,5	19	49	Brass chemical nickel plated	EPDM	7020SBAO33MED
	20	G 1	42	132,5	19	49	AISI 303	EPDM	7020SBAO33REX
Male thread with 24° sealing cone in accordance with ISO 8434-1 Series L	9	M 18 x 1,5	24	62	11	27	Brass chemical nickel plated	EPDM	7009SBAD18MED
	9	M 18 x 1,5	24	62	11	27	AISI 303	EPDM	7009SBAD18REX
	12	M 26 x 1,5	27	73,5	12	31	Brass chemical nickel plated	EPDM	7012SBAD26MED
	12	M 26 x 1,5	27	73,5	12	31	AISI 303	EPDM	7012SBAD26REX
	16	M 30 x 2	36	95,5	14	40	Brass chemical nickel plated	EPDM	7016SBAD30MED
	16	M 30 x 2	36	95,5	14	40	AISI 303	EPDM	7016SBAD30REX
	20	M 36 x 2	42	126,5	14	49	Brass chemical nickel plated	EPDM	7020SBAD36MED
	20	M 36 x 2	42	126,5	14	49	AISI 303	EPDM	7020SBAD36REX
Female Thread	9	G 3/8	24	60	9	27	Brass chemical nickel plated	EPDM	7009SBIW17MED
	9	G 3/8	24	60	9	27	AISI 303	EPDM	7009SBIW17REX
	12	G 1/2	27	73,5	12	31	Brass chemical nickel plated	EPDM	7012SBIW21MED
	12	G 1/2	27	73,5	12	31	AISI 303	EPDM	7012SBIW21REX
	16	G 3/4	36	97,5	16	40	Brass chemical nickel plated	EPDM	7016SBIW26MED
	16	G 3/4	36	97,5	16	40	AISI 303	EPDM	7016SBIW26REX
	20	G 1	42	130,5	20	49	Brass chemical nickel plated	EPDM	7020SBIW33MED
	20	G 1	42	130,5	20	49	AISI 303	EPDM	7020SBIW33REX
Parker Push-Lok	9	10 mm	24	82	24	27	Brass chemical nickel plated	EPDM	7009SBTP10MED
	9	10 mm	24	82	24	27	AISI 303	EPDM	7009SBTP10REX
	12	16 mm	27	101,5	38	31	Brass chemical nickel plated	EPDM	7012SBTP16MED
	12	16 mm	27	101,5	38	31	AISI 303	EPDM	7012SBTP16REX
	16	19 mm	36	124,5	38	40	Brass chemical nickel plated	EPDM	7016SBTP19MED
	16	19 mm	36	124,5	38	40	AISI 303	EPDM	7016SBTP19REX
	20	25 mm	42	152,5	38	49	Brass chemical nickel plated	EPDM	7020SBTP25MED
	20	25 mm	42	152,5	38	49	AISI 303	EPDM	7020SBTP25REX

Nominal Diameter
4/6/9



Rectus Series **200KL**

Technical Description

Dry-break coupling system for applications in sensitive environments, for example in cooling systems, in transport systems and many applications with aggressive media. Nominal Diameter 12 and 19 are available on request.

Advantages

Coupling system with single-hand operation, extremely low leakage rates and minimal dead space volume. Absolutely no air pockets when coupling and only a barely noticeable film of the medium being

channelled on the valve bodies when uncoupling. Ergonomic sleeve design. Low coupling forces. Valve body protected by collar design.

Working Temperature

-40°C up to +150°C (EPDM) depending on the medium.

Special seals are available on request.

Dry-Break

Max. Working Pressure*

15 bar

* maximum static working pressure with safety factor 4 to 1.

Material

Coupling: Brass nickel plated or Stainless Steel

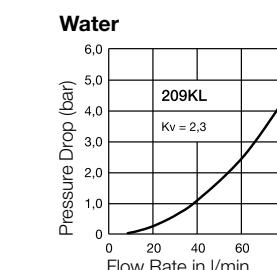
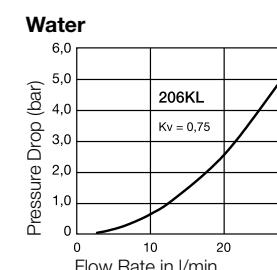
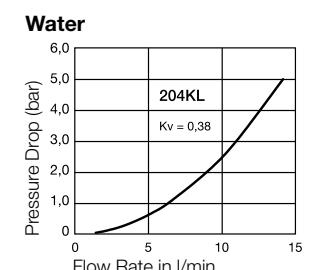
Plug: Brass nickel plated or Stainless Steel

Seals: EPDM

Applications

- Air Conditioning Systems / Electronic Cooling

Flow diagrams



Couplings – flat sealing

Series 200KL

DN	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
4	G 1/4	17	47	9	19	Brass nickel plated	EPDM	204KLAW13MEN
4	G 1/4	17	47	9	19	AISI 316 L	EPDM	204KLAW13EEX
6	G 3/8	22	68,5	9	25,5	Brass nickel plated	EPDM	206KLAW17MEN
6	G 3/8	22	68,5	9	25,5	AISI 316 L	EPDM	206KLAW17EEX
9	G 1/2	27	88,5	12	33	Brass nickel plated	EPDM	209KLAW21MEN
9	G 1/2	27	88,5	12	33	AISI 316 L	EPDM	209KLAW21EEX
Male Thread								
4	G 1/4	17	47	9	19	Brass nickel plated	EPDM	204KLIW13MEN
4	G 1/4	17	47	9	19	AISI 316 L	EPDM	204KLIW13EEX
6	G 3/8	22	68,5	7	25,5	Brass nickel plated	EPDM	206KLIW17MEN
6	G 3/8	22	68,5	9	25,5	AISI 316 L	EPDM	206KLIW17EEX
9	G 1/2	27	92	14	33	Brass nickel plated	EPDM	209KLIW21MEN
9	G 1/2	27	92	14	33	AISI 316 L	EPDM	209KLIW21EEX
Female Thread								

Plugs – flat sealing

Series 200KL

DN	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
4	G 1/4	17	42	9		Brass nickel plated	EPDM	204SLAW13MEN
4	G 1/4	17	42	9		AISI 316 L	EPDM	204SLAW13EEX
6	G 3/8	22	51	9		Brass nickel plated	EPDM	206SLAW17MEN
6	G 3/8	22	55	9		AISI 316 L	EPDM	206SLAW17EEX
9	G 1/2	27	76	12		Brass nickel plated	EPDM	209SLAW21MEN
9	G 1/2	27	76	12		AISI 316 L	EPDM	209SLAW21EEX
Male Thread								
4	G 1/4	17	42	7		Brass nickel plated	EPDM	204SLIW13MEN
4	G 1/4	17	42	9		AISI 316 L	EPDM	204SLIW13EEX
6	G 3/8	22	51	7		Brass nickel plated	EPDM	206SLIW17MEN
6	G 3/8	22	51	9		AISI 316 L	EPDM	206SLIW17EEX
9	G 1/2	27	79,5	14		Brass nickel plated	EPDM	209SLIW21MEN
9	G 1/2	27	79,5	14		AISI 316 L	EPDM	209SLIW21EEX
Female Thread								

Please consider our security advices in our main catalogues

Nominal Diameter

5

**Technical Description**

Mini industrial coupling with the world's most popular profile in this nominal diameter. Above average flow performance for liquid and gaseous media.

Advantages

Coupling system with single-hand operation. Small dimensions and large band width in materials and valve variants.

**Max. Working Pressure***

35 bar

* maximum static working pressure with safety factor 4 to 1.

Material

Coupling: Brass nickel plated or Stainless Steel

Plug: Brass nickel plated or Stainless Steel

Seals: NBR or FKM

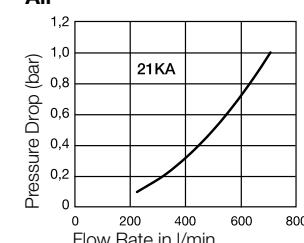
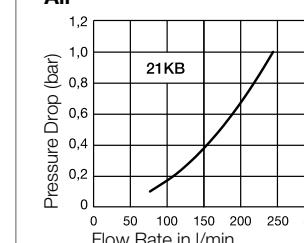
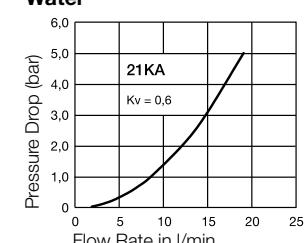
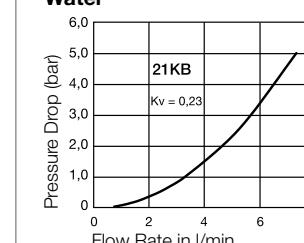
**Double Shut-Off**

35 bar

Applications

- Plumbing / Water Treatment

- Plumbing / Water Treatment

Flow diagrams**Air****Air****Water****Water**

Rectus Series

21

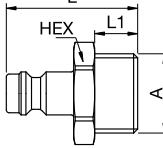
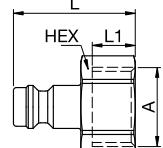
**Couplings – with valve****Series 21KA**

Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
G 1/8	14	36	7	16	Brass nickel plated	NBR	21KAAW10MPN
G 1/8	14	36	7	16	AISI 303	FKM	21KAAW10RVX
G 1/8	14	36	7	16	AISI 316 L	FKM	21KAAW10EVX
G 1/4	17	38	9	16	Brass nickel plated	NBR	21KAAW13MPN
G 1/4	17	38	9	16	AISI 303	FKM	21KAAW13RVX
G 1/4	17	38	9	16	AISI 316 L	FKM	21KAAW13EVX
G 3/8	19	38	9	16	Brass nickel plated	NBR	21KAAW17MPN
G 3/8	19	38	9	16	AISI 303	FKM	21KAAW17RVX
G 3/8	19	38	9	16	AISI 316 L	FKM	21KAAW17EVX
M 12 x 1,5	17	39	10	16	Brass nickel plated	NBR	21KAAD12MPN
M 12 x 1,5	14	38	9	16	AISI 303	FKM	21KAAM12RVX
M 14 x 1,5	17	39	10	16	Brass nickel plated	NBR	21KAAD14MPN
M 14 x 1,5	17	39	10	16	AISI 303	FKM	21KAAM14RVX
G 1/8	14	36	9	16	Brass nickel plated	NBR	21KAIW10MPN
G 1/8	14	36	9	16	AISI 303	FKM	21KAIW10RVX
G 1/8	14	36	9	16	AISI 316 L	FKM	21KAIW10EVX
G 1/4	17	38	9	16	Brass nickel plated	NBR	21KAIW13MPN
G 1/4	17	38	9	16	AISI 303	FKM	21KAIW13RVX
G 1/4	17	38	9	16	AISI 316 L	FKM	21KAIW13EVX
G 3/8	19	38	9	16	Brass nickel plated	NBR	21KAIW17MPN
G 3/8	19	38	9	16	AISI 303	FKM	21KAIW17RVX
G 3/8	19	38	9	16	AISI 316 L	FKM	21KAIW17EVX
M 12 x 1,5	17	38	6	16	Brass nickel plated	NBR	21KAIM12MPN
M 12 x 1,5	17	38	9	16	AISI 303	FKM	21KAIM12RVX
M 14 x 1,5	17	38	6	16	Brass nickel plated	NBR	21KAIM14MPN
M 14 x 1,5	17	38	9	16	AISI 316 L	FKM	21KAIM14RVX

Please consider our security advices in our main catalogues

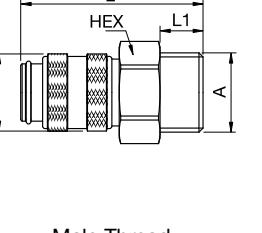
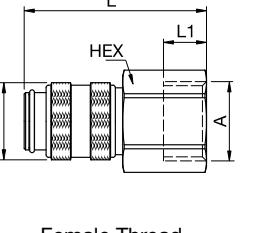
 Plugs – without valve

Series 21KA

Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
	G 1/8	14	25	7	Brass nickel plated		21SFAW10MXN
	G 1/8	14	25	7	AISI 303		21SFAW10RXX
	G 1/8	14	25	7	AISI 316 L		21SFAW10EXX
	G 1/4	17	28	9	Brass nickel plated		21SFAW13MXN
	G 1/4	17	28	9	AISI 303		21SFAW13RXX
	G 1/4	17	28	9	AISI 316 L		21SFAW13EXX
	G 3/8	17	28	9	Brass nickel plated		21SFAW17MXN
	G 3/8	19	28	9	AISI 303		21SFAW17RXX
	G 3/8	19	28	9	AISI 316 L		21SFAW17EXX
	M 10 x 1	14	26	8	Brass nickel plated		21SFAD10MXN
	M 10 x 1	14	25	7	AISI 303		21SFAM10RXX
	M 12 x 1,5	17	28	10	Brass nickel plated		21SFAD12MXN
	M 12 x 1,5	17	28	10	AISI 303		21SFAM12RXX
	M 14 x 1,5	17	28	10	Brass nickel plated		21SFAD14MXN
	M 14 x 1,5	17	28	10	AISI 303		21SFAD14RXX
	G 1/8	14	25	8	Brass nickel plated		21SFIW10MXN
	G 1/8	14	25	8	AISI 303		21SFIW10RXX
	G 1/8	14	25	8	AISI 316 L		21SFIW10EXX
	G 1/4	17	25	9	Brass nickel plated		21SFIW13MXN
	G 1/4	17	25	9	AISI 303		21SFIW13RXX
	G 1/4	17	25	9	AISI 316 L		21SFIW13EXX
	G 3/8	19	26	9	Brass nickel plated		21SFIW17MXN
	G 3/8	19	26	9	AISI 303		21SFIW17RXX
	G 3/8	19	26	9	AISI 316 L		21SFIW17EXX
	M 10 x 1	14	26	9	Brass nickel plated		21SFIM10MXN
	M 10 x 1	14	26	9	AISI 303		21SFIM10RXX
	M 12 x 1,5	17	27	10	Brass nickel plated		21SFIM12MXN
	M 14 x 1,5	17	27	10	Brass nickel plated		21SFIM14MXN
	M 14 x 1,5	17	27	10	AISI 303		21SFIM14RXX

 Couplings – with valve

Series 21KB

Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number	
	G 1/8	14	36	7	16	Brass nickel plated	NBR	21KBAW10MPN
	G 1/8	14	36	7	16	AISI 303	FKM	21KBAW10RVX
	G 1/8	14	36	7	16	AISI 316 L	FKM	21KBAW10EVX
	G 1/4	17	38	9	16	Brass nickel plated	NBR	21KBAW13MPN
	G 1/4	17	38	9	16	AISI 303	FKM	21KBAW13RVX
	G 1/4	17	38	9	16	AISI 316 L	FKM	21KBAW13EVX
	G 3/8	19	38	9	16	Brass nickel plated	NBR	21KBAW17MPN
	G 3/8	19	38	9	16	AISI 303	FKM	21KBAW17RVX
	G 3/8	19	38	9	16	AISI 316 L	FKM	21KBAW17EVX
	M 10 x 1	14	37	8	16	Brass nickel plated	NBR	21KBAD10MPN
	M 12 x 1,5	17	39	10	16	Brass nickel plated	NBR	21KBAD12MPN
	M 14 x 1,5	17	39	10	16	Brass nickel plated	NBR	21KBAD14MPN
	G 1/8	14	36	9	16	Brass nickel plated	NBR	21KBIW10MPN
	G 1/8	14	36	9	16	AISI 303	FKM	21KBIW10RVX
	G 1/8	14	36	9	16	AISI 316 L	FKM	21KBIW10EVX
	G 1/4	17	38	9	16	Brass nickel plated	NBR	21KBIW13MPN
	G 1/4	17	38	7	16	AISI 303	FKM	21KBIW13RVX
	G 1/4	17	38	7	16	AISI 316 L	FKM	21KBIW13EVX
	G 3/8	19	38	9	16	Brass nickel plated	NBR	21KBIW17MPN
	G 3/8	19	38	9	16	AISI 303	FKM	21KBIW17RVX
	G 3/8	19	38	9	16	AISI 316 L	FKM	21KBIW17EVX
	M 12 x 1,5	17	38	6	16	Brass nickel plated	NBR	21KBIM12MPN


Plugs – with valve
Series 21KB

	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
Male Thread	G 1/8	14	40	7		Brass nickel plated	NBR	21SBAW10MPN
	G 1/8	14	40	7		AISI 303	FKM	21SBAW10RVX
	G 1/8	14	40	7		AISI 316 L	FKM	21SBAW10EVX
	G 1/4	17	42	9		Brass nickel plated	NBR	21SBAW13MPN
	G 1/4	17	42	9		AISI 303	FKM	21SBAW13RVX
	G 1/4	17	42	9		AISI 316 L	FKM	21SBAW13EVX
	G 3/8	19	42	9		Brass nickel plated	NBR	21SBAW17MPN
	G 3/8	19	42	9		AISI 303	FKM	21SBAW17RVX
	G 3/8	19	42	9		AISI 316 L	FKM	21SBAW17EVX
	M 10 x 1	14	41	8		Brass nickel plated	NBR	21SBAD10MPN
	M 12 x 1,5	17	43	10		Brass nickel plated	NBR	21SBAD12MPN
	M 14 x 1,5	17	43	10		Brass nickel plated	NBR	21SBAD14MPN
	M 14 x 1,5	17	43	10		AISI 303	FKM	21SBAM14RVX
Female Thread	G 1/8	14	40	7		Brass nickel plated	NBR	21SBIW10MPN
	G 1/8	14	40	9		AISI 303	FKM	21SBIW10RVX
	G 1/8	14	40	9		AISI 316 L	FKM	21SBIW10EVX
	G 1/4	17	42	7		Brass nickel plated	NBR	21SBIW13MPN
	G 1/4	17	42	7		AISI 303	FKM	21SBIW13RVX
	G 1/4	17	42	7		AISI 316 L	FKM	21SBIW13EVX
	G 3/8	19	42	7		Brass nickel plated	NBR	21SBIW17MPN
	G 3/8	19	42	9		AISI 303	FKM	21SBIW17RVX
	G 3/8	19	42	9		AISI 316 L	FKM	21SBIW17EVX
	M 10 x 1	14	40	9		AISI 303	FKM	21SBIM10RVX
	M 12 x 1,5	17	42	7		Brass nickel plated	NBR	21SBIM12MPN
	M 12 x 1,5	17	42	9		AISI 303	FKM	21SBIM12RVX
	M 14 x 1,5	17	42	7		Brass nickel plated	NBR	21SBIM14MPN
	M 14 x 1,5	17	42	9		AISI 303	FKM	21SBIM14RVX

Nominal Diameter

7,2



Rectus Series

26

Technical Description

Universal brass coupling with European standard industrial profile. Version in AISI 303 stainless steel for corrosion-resistant applications, as an alternative to the UltraFlo versions.

Advantages

Coupling system with single-hand operation and standard-valve. Small mass size. The ergonomic sleeve design prevents dirt on the valve body.

Working Temperature

-20°C up to +100°C (NBR)
-15°C up to +200°C (FKM)
depending on the medium.

Special seals are available on request.

**Single Shut-Off****Double Shut-Off****Max. Working Pressure***

35 bar

* maximum static working pressure with safety factor 4 to 1.

Material

Coupling: Brass nickel plated or Stainless Steel

Plug: Brass nickel plated or Stainless Steel

Seals: NBR or FKM

Coupling: Brass nickel plated

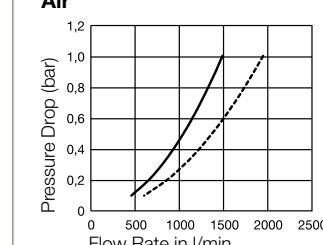
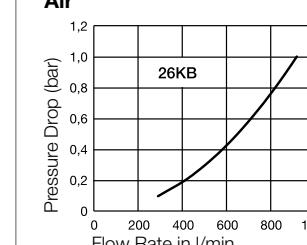
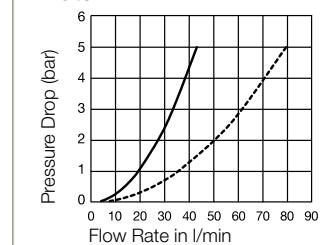
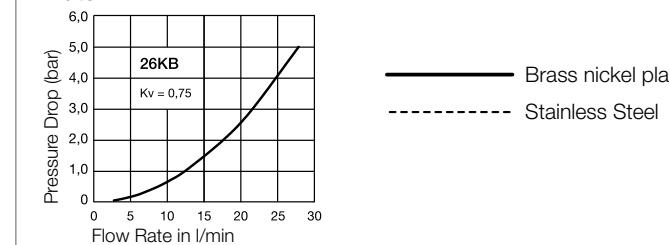
Plug: Brass nickel plated

Seals: NBR

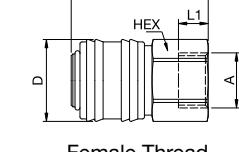
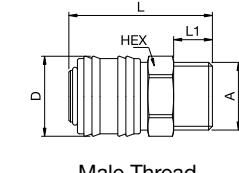
Applications

- Plumbing / Water Treatment

- Plumbing / Water Treatment

Flow diagrams**Air****Air****Water****Water****Couplings – with valve**

Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
G 1/8	22	43	9	25	Brass nickel plated	NBR	26KAAW10MPN
G 1/4	22	39	9	25	Brass nickel plated	NBR	26KAAW13MPN
G 1/4	19	55,5	10,5	28	AISI 303 + PTFE	FKM	26KAAW13RVX
G 3/8	22	41	9	25	Brass nickel plated	NBR	26KAAW17MPN
G 3/8	19	53,5	9	28	AISI 303 + PTFE	FKM	26KAAW17RVX
G 1/2	22	44	12	25	Brass nickel plated	NBR	26KAAW21MPN
G 1/2	24	56,5	12	28	AISI 303 + PTFE	FKM	26KAAW21RVX
M 14 x 1,5	22	42	10	25	Brass nickel plated	NBR	26KAAD14MPN
M 16 x 1,5	22	43	11	25	Brass nickel plated	NBR	26KAAD16MPN
M 18 x 1,5	22	43	11	25	Brass nickel plated	NBR	26KAAD18MPN
G 1/4	22	41	9	25	Brass nickel plated	NBR	26KAIW13MPN
G 1/4	19	51,5	10	28	AISI 303 + PTFE	FKM	26KAIW13RVX
G 3/8	22	41	9	25	Brass nickel plated	NBR	26KAIW17MPN
G 3/8	19	53,5	9	28	AISI 303 + PTFE	FKM	26KAIW17RVX
G 1/2	24	44	10	25	Brass nickel plated	NBR	26KAIW21MPN
G 1/2	24	56,5	12	28	AISI 303 + PTFE	FKM	26KAIW21RVX
M 14 x 1,5	22	44	9	25	Brass nickel plated	NBR	26KAIM14MPN
M 16 x 1,5	22	44	9	25	Brass nickel plated	NBR	26KAIM16MPN
M 18 x 1,5	22	44	9	25	Brass nickel plated	NBR	26KAIM18MPN



Please consider our security advices in our main catalogues

Plugs – without valve

Series 26KA

	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
Male Thread	G 1/8	14	31	7		Brass nickel plated		26SFAW10MXN
	G 1/8	14	31	7		AISI 303		25SFAW10RXX
	G 1/4	17	33	9		Brass nickel plated		26SFAW13MXN
	G 1/4	17	33	9		AISI 303		25SFAW13RXX
	G 3/8	19	33	9		Brass nickel plated		26SFAW17MXN
	G 3/8	19	33	9		AISI 303		25SFAW17RXX
	G 1/2	24	38	12		Brass nickel plated		26SFAW21MXN
	G 1/2	24	38	12		AISI 303		25SFAW21RXX
	M 14 x 1,5	17	35	10		Brass nickel plated		26SFAD14MXN
	M 16 x 1,5	19	36	11		Brass nickel plated		26SFAD16MXN
Female Thread	M 18 x 1,5	22	37	11		Brass nickel plated		26SFAD18MXN
	G 1/8	14	30	7		Brass nickel plated		26SFIW10MXN
	G 1/8	14	30	7		AISI 303		25SFIW10RXX
	G 1/4	17	33	10		Brass nickel plated		26SFIW13MXN
	G 1/4	17	33	10		AISI 303		25SFIW13RXX
	G 3/8	19	33	10		Brass nickel plated		26SFIW17MXN
	G 3/8	19	33	10		AISI 303		25SFIW17RXX
	G 1/2	24	35	12		Brass nickel plated		26SFIW21MXN
	G 1/2	24	35	12		AISI 303		25SFIW21RXX
	M 14 x 1,5	17	33	10		Brass nickel plated		26SFIM14MXN
Male Thread	M 16 x 1,5	19	33	10		Brass nickel plated		26SFIM16MXN
	M 16 x 1,5	19	33	10		AISI 303		25SFIM16RXX
	M 18 x 1,5	22	33	10		Brass nickel plated		25SFIM18MXN
	M 18 x 1,5	22	36	13		Brass nickel plated		26SFIM18MXN

Plugs – with valve

Series 25KB

	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
Male Thread	G 1/8	22	44,5	9		Brass nickel plated	NBR	25SBAW10MPN
	G 1/4	22	43	9		Brass nickel plated	NBR	25SBAW13MPN
	G 3/8	22	43	9		Brass nickel plated	NBR	25SBAW17MPN
	G 1/2	22	46	12		Brass nickel plated	NBR	25SBAW21MPN
	M 14 x 1,5	22	44	10		Brass nickel plated	NBR	25SBAD14MPN
	M 16 x 1,5	22	45	11		Brass nickel plated	NBR	25SBAD16MPN
	M 18 x 1,5	22	45	11		Brass nickel plated	NBR	25SBAD18MPN
	G 1/4	22	43	10		Brass nickel plated	NBR	25SBIW13MPN
	G 3/8	22	43	9		Brass nickel plated	NBR	25SBIW17MPN
	G 1/2	24	46	9		Brass nickel plated	NBR	25SBIW21MPN
Female Thread	M 14 x 1,5	22	43	9		Brass nickel plated	NBR	25SBIM14MPN
	M 16 x 1,5	22	43	9		Brass nickel plated	NBR	25SBIM16MPN
	M 18 x 1,5	22	43	9		Brass nickel plated	NBR	25SBIM18MPN
	G 1/4	22	41	9	25	Brass nickel plated	NBR	26KBAW10MPN
	G 3/8	22	41	9	25	Brass nickel plated	NBR	26KBAW13MPN

Couplings – with valve

Series 26KB

	Connection A	HEX mm	L mm	L1 mm	D mm	Version	Seal	Part Number
Male Thread	G 1/8	22	43	9	25	Brass nickel plated	NBR	26KBAW10MPN
	G 1/4	22	39	9	25	Brass nickel plated	NBR	26KBAW13MPN
	G 3/8	22	41	9	25	Brass nickel plated	NBR	26KBAW17MPN
	G 1/2	24	42	10	25	Brass nickel plated	NBR	26KBAW21MPN
	M 16 x 1,5	22	43	11	25	Brass nickel plated	NBR	26KBAD16MPN
	M 18 x 1,5	22	43	11	25	Brass nickel plated	NBR	26KBAD18MPN
Female Thread	G 1/4	22	41	9	25	Brass nickel plated	NBR	26KBIW13MPN
	G 3/8	22	41	9	25	Brass nickel plated	NBR	26KBIW17MPN
	G 1/2	24	44	10	25	Brass nickel plated	NBR	26KBIW21MPN
	M 16 x 1,5	22	44	9	25	Brass nickel plated	NBR	26KBIM16MPN
	M 18 x 1,5	22	44	9	25	Brass nickel plated	NBR	26KBIM18MPN

 Please consider our security advices in our main catalogues 



Rectus Serie

Technical Description Swivelling double nipple with a very robust low-temperature polyurethane seal to guarantee a long service life.	Working Temperature -50°C up to +120°C (EPDM) depending on the medium. Special seals are available on request.
Advantages By this swivelling double nipple, the hoses are not contorted or twisted - this means that the hoses have a longer service life.	
Max. Working Pressure 12 bar	
Material Double nipple: Steel zinc plated Seals: EPDM and Cryogenic-PU	
Applications <ul style="list-style-type: none">• Pneumatic Braking Systems• Pneumatic Applications	

Swivelling double nipple

Series DN

