# **RECTUS SERIES 21**



## Brass/Steel Low Pressure Quick Release Couplings, Nominal Diameter 5 = 20mm<sup>2</sup>

Mini industrial coupling with the world's most popular profile in this nominal diameter. Above average flow performance for liquid and gaseous media. Coupling system with single-hand operation. Small dimensions and large band width in materials and valve variants. Series 21 with additional end connections available on request.

#### Working Temperature:

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

For temperatures below -20 $^\circ\text{C}$  and over +100 $^\circ\text{C}$  and depending on the medium, other seal variants (FKM, EPDM, FFKM) are available.



## Working Pressure: 35 bar

Series KA: maximum static working pressure with design factor 4 to 1.



Series 21KA

Interchangeability:

· Coupling: brass

**Technical Description:** 

• Connecting force 0 bar: 35 N

Connecting force 6 bar: 60 N
Vacuum coupling: 96%
Vacuum connected: 96%

· Plug: brass

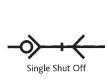
Seals: NBR

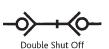
• Camozzi

• Ewo

Kani

Material:





## Series 21KB

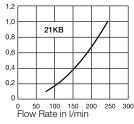
#### Material:

- Coupling: brass
- Plug: brass
- Seals: NBR

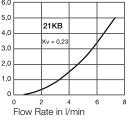
#### **Technical Description:**

- Dead space volume: 0.6 ml
- Connecting force 0 bar: 40 N Connecting force 6 bar: 80 N
- Vacuum coupling: 96%
- Vacuum plug: 96%
- Vacuum connected: 96%

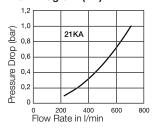
#### Flow Diagram (Air)



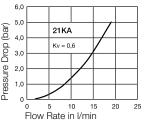
#### Flow Diagram (Water)



### Flow Diagram (Air)



#### Flow Diagram (Water)



## Flow Diagram (wate

## Series 21KA

## Couplings, with Valve

	Connection A	HEX	HEX1 mm	L mm	L1 mm	L2 mm	D mm	B mm	G mm	Version	Part Number
	G 1/8	14		36	7		16			blank	21KBAW10MPX
	G 1/8	14		36	7		16			nickel plated	21KBAW10MPN
	G 1/4	17		38	9		16			blank	21KBAW13MPX
L L	G 1/4	17		38	9		16			nickel plated	21KBAW13MPN
HEX L1	G 3/8	19		38	9		16			blank	21KBAW17MPX
	G 3/8	19		38	9		16			nickel plated	21KBAW17MPN
	M 10 x 1	14		37	8		16			blank	21KBAD10MPX
Mala Thursd	M 10 x 1	14		37	8		16			nickel plated	21KBAD10MPN
Male Thread	M 12 x 1,5	17		39	10		16			blank	21KBAD12MPX
	M 12 x 1,5	17		39	10		16			nickel plated	21KBAD12MPN
	M 14 x 1,5	17		39	10		16			blank	21KBAD14MPX
	M 14 x 1,5	17		39	10		16			nickel plated	21KBAD14MPN
	G 1/8	14		36	9		16			blank	21KBIW10MPX
L	G 1/8	14		36	9		16			nickel plated	21KBIW10MPN
HEX +L1	G 1/4	17		38	9		16			blank	21KBIW13MPX
	G 1/4	17		38	9		16			nickel plated	21KBIW13MPN
	G 3/8	19		38	9		16			blank	21KBIW17MPX
	G 3/8	19		38	9		16			nickel plated	21KBIW17MPN
Female Thread	M 12 x 1,5	17		38	6		16			blank	21KBIM12MPX
	M 12 x 1,5	17		38	6		16			nickel plated	21KBIM12MPN
	4 mm	14		46	17		16			blank	21KBTF04MPX
	4 mm	14		46	17		16			nickel plated	21KBTF04MPN
	5 mm	14		46	17		16			blank	21KBTF05MPX
	5 mm	14		46	17		16			nickel plated	21KBTF05MPN
HEX L1	6 mm	14		46	17		16			blank	21KBTF06MPX
	6 mm	14		46	17		16			nickel plated	21KBTF06MPN
	8 mm	14		46	17		16			blank	21KBTF08MPX
	8 mm	14		46	17		16			nickel plated	21KBTF08MPN
Hose Barb	9 mm	14		46	17		16			blank	21KBTF09MPX
	9 mm	14		46	17		16			nickel plated	21KBTF09MPN
	10 mm	14		46	17		16			blank	21KBTF10MPX
	10 mm	14		46	17		16			nickel plated	21KBTF10MPN
	4 x 6 mm	14		42	7	6	16		M 10 x 1	blank	21KBKO06MPX
<u>⊨ L</u>	4 x 6 mm	14		42	7	6	16		M 10 x 1	nickel plated	21KBKO06MPN
HEX	6 x 8 mm	14		42	7	6	16		M 12 x 1	blank	21KBKO08MPX
	6 x 8 mm	14		42	7	6	16		M 12 x 1	nickel plated	21KBKO08MPN
with Plastic Hose Connection											

## Couplings, with Valve

## Series 21KA

	Connection A	HEX mm	HEX1 mm	L mm	L1 mm	L2 mm	D mm	B mm	G mm	Version	Part Number
	4 x 6 mm	14	14	54	7	18	16	4	M 10 x 1	blank	21KBKS06MPX
HEX HEX1	4 x 6 mm	14	14	54	7	18	16	4	M 10 x 1	nickel plated	21KBKS06MPN
	6 x 8 mm	17	17	54	7	18	16	4	M 12 x 1	blank	21KBKS08MPX
	6 x 8 mm	17	17	54	7	18	16	4	M 12 x 1	nickel plated	21KBKS08MPN
Panel Mount											
with Plastic Hose Connection											
	4 mm	14	14	60	17	14	16	4	M 10 x 1	blank	21KBTS04MPX
. –	4 mm	14	14	60	17	14	16	4	M 10 x 1	nickel plated	21KBTS04MPN
HEX HEX1	5 mm	17	17	60	17	14	16	4	M 12 x 1	blank	21KBTS05MPX
	5 mm	17	17	60	17	14	16	4	M 12 x 1	nickel plated	21KBTS05MPN
	6 mm	17	17	60	17	14	16	4	M 12 x 1	blank	21KBTS06MPX
B <u>L1</u>	6 mm	17	17	60	17	14	16	4	M 12 x 1	nickel plated	21KBTS06MPN
	8 mm	17	17	60	17	14	16	4	M 12 x 1	blank	21KBTS08MPX
Panel Mount with Hose Barb	8 mm	17	17	60	17	14	16	4	M 12 x 1	nickel plated	21KBTS08MPN
	9 mm	17	19	60	17	14	16	4	M 12 x 1	blank	21KBTS09MPX
	9 mm	17	19	60	17	14	16	4	M 12 x 1	nickel plated	21KBTS09MPN
	4 x 6 mm	14		125	7	6	16		M 10 x 1	blank	21KBKK06MPX
	4 x 6 mm	14		125	7	6	16		M 10 x 1	nickel plated	21KBKK06MPN
HEX	M 12 x 1	14		130	7	6	16		M 10 x 1	blank	21KBKK08MPX
	M 12 x 1	14		130	7	6	16		M 10 x 1	nickel plated	21KBKK08MPN
Plastic Hose Connection											
with Spring Guard											

## Series 21KA

## Plugs, without Valve

	Connection A	HEX mm	HEX1 mm	L mm	L1 mm	L2 mm	D mm	B mm	G mm	Version	Part Number
	G 1/8	14		40	7					blank	21SBAW10MPX
	G 1/8	14		40	7					nickel plated	21SBAW10MPN
	G 1/4	17		42	9					blank	21SBAW13MPX
L	G 1/4	17		42	9					nickel plated	21SBAW13MPN
HEX HEX	G 3/8	19		42	9					blank	21SBAW17MPX
	G 3/8	19		42	9					nickel plated	21SBAW17MPN
	M 10 x 1	14		41	8					blank	21SBAD10MPX
	M 10 x 1	14		41	8					nickel plated	21SBAD10MPN
Male Thread	M 12 x 1,5	17		43	10					blank	21SBAD12MPX
	M 12 x 1,5	17		43	10					nickel plated	21SBAD12MPN
	M 14 x 1,5	17		43	10					blank	21SBAD14MPX
	M 14 x 1,5	17		43	10					nickel plated	21SBAD14MPN
	G 1/8	14		40	7					blank	21SBIW10MPX
	G 1/8	14		40	7					nickel plated	21SBIW10MPN
	G 1/4	17		42	7					blank	21SBIW13MPX
	G 1/4	17		42	7					nickel plated	21SBIW13MPN
	G 3/8	19		42	7					blank	21SBIW17MPX
	G 3/8	19		42	7					nickel plated	21SBIW17MPN
	M 12 x 1,5	17		42	7					blank	21SBIM12MPX
Female Thread	M 12 x 1,5	17		42	7					nickel plated	21SBIM12MPN
	M 14 x 1,5	17		42	7					blank	21SBIM14MPX
	M 14 x 1,5	17		42	7					nickel plated	21SBIM14MPN
	4 mm	14		50	17					blank	21SBTF04MPX
	4 mm	14		50	17					nickel plated	21SBTF04MPN
	5 mm	14		50	17					blank	21SBTF05MPX
	5 mm	14		50	17					nickel plated	21SBTF05MPN
HEX L1	6 mm	14		50	17					blank	21SBTF06MPX
	6 mm	14		50	17					nickel plated	21SBTF06MPN
	8 mm	14		50	17					blank	21SBTF08MPX
	8 mm	14		50	17					nickel plated	21SBTF08MPN
Hose Barb	9 mm	14		50	17					blank	21SBTF09MPX
	9 mm	14		50	17					nickel plated	21SBTF09MPN
	10 mm	14		50	17					blank	21SBTF10MPX
	10 mm	14		50	17					nickel plated	21SBTF10MPN
	4 x 6 mm	14		46	7	6			M 10 x 1	blank	21SBKO06MPX
H <u>EX</u>	4 x 6 mm	14		46	7	6			M 10 x 1	nickel plated	21SBKO06MPN
	6 x 8 mm	14		46	7	6			M 12 x 1	blank	21SBKO08MPX
	6 x 8 mm	14		46	7	6			M 12 x 1	nickel plated	21SBKO08MPN
with Plastic Hose Connection											

## Plugs, without Valve

## Series 21KA

	Connection A	HEX mm	HEX1 mm	L mm	L1 mm	L2 mm	D mm	B mm	G mm	Version	Part Number
	4 x 6 mm	14	12	58	7	18		3	M 10 x 1	blank	21SBKS06MPX
HEX HEX1	4 x 6 mm	14	12	58	7	18		3	M 10 x 1	nickel plated	21SBKS06MPN
	6 x 8 mm	17	17	58	7	18		4	M 12 x 1	blank	21SBKS08MPX
	6 x 8 mm	17	17	58	7	18		4	M 12 x 1	nickel plated	21SBKS08MPN
Panel Mount with Plastic Hose Connection											
	4 mm	14	14	64	17	14		4	M 10 x 1	blank	21SBTS04MPX
	4 mm	14	14	64	17	14		4	M 10 x 1	nickel plated	21SBTS04MPN
<u>د</u>	6 mm	14	17	64	17	14		4	M 10 x 1	blank	21SBTS06MPX
	6 mm	14	17	64	17	14		4	M 12 x 1	nickel plated	21SBTS06MPN
	8 mm	14	17	64	17	14		4	M 12 x 1	blank	21SBTS08MPX
	8 mm	14	17	64	17	14		4	M 12 x 1	nickel plated	21SBTS08MPN
L2	10 mm	14	19	64	17	14		4	M 14 x 1	blank	21SBTS10MPX
Panel Mount with Hose Barb	10 mm	14	19	64	17	14		4	M 14 x 1	nickel plated	21SBTS10MPN
	4 x 6 mm	14		130	7	6			M 10 x 1	blank	21SBKK06MPX
	4 x 6 mm	14		130	7	6			M 10 x 1	nickel plated	21SBKK06MPN
	6 x 8 mm	14		135	7	6			M 12 x 1	blank	21SBKK08MPX
	6 x 8 mm	14		135	7	6			M 12 x 1	nickel plated	21SBKK08MPN
Plastic Hose Connection											
with Spring Guard											

## Couplings, with Valve

#### 🖌 = 20 mm<sup>2</sup>

## Series 21KB



Mini industrial coupling with the world's most popular profile in this nominal diameter. Above average flow performance for liquid and gaseous media. Coupling system with single-hand operation. Small dimensions and large band width in materials and valve variants.

Series 21 with additional end connections available on request.

Dust Protections  $\overset{\frown}{\sim}$  (P. 250) for Coupling Part.-No. SK16S

**Working Temperature\*** -20°C up to +100°C (NBR) depending on the medium.

\* For temperatures below -20°C and over +100°C and depending on the medium, other seal variants (FKM, EPDM, FFKM) are available.

KA Single Shut-Off		
Working Pressure** 35 bar ** maximum static working pres- sure with design factor 4 to 1.	35 bar	8 bar
Features		
		<ul> <li>Minimal, almost imperceptibleakage when uncoupling</li> <li>No air locked into the system during the coupling process</li> </ul>
Material		
Coupling: Brass Plug: Brass Seals: NBR	Coupling: Brass Plug: Brass Seals: NBR	Coupling: Brass Plug: Brass Seals: NBR
Technical Description		
Connecting Force 0 bar: 35 N Connecting Force 6 bar: 60 N Vacuum Coupling: 96% Vacuum connected: 96%	Dead space volume: 0,6 ml Connecting Force 0 bar: 40 N Connecting Force 6 bar: 80 N Vacuum Coupling: 96% Vacuum Plug: 96% Vacuum connected: 96%	Dead space volume: 0,0006 Connecting Force 0 bar: 35 Connecting Force 6 bar: 60 Vacuum Coupling: 96% Vacuum Plug: 96% Vacuum connected: 96%
Flow diagrams		
Air 1.2 1.0 0.8 0.4 0.4 0.2 0.4 0.2 0.4 0.2 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	Air 1.2 1.0 0.8 0.6 0.6 0.4 0.2 0.0 0.50 100 150 200 250 300 Flow Rate in <i>V</i> min	Air 1.2 1.0 21KL 0.8 0.6 0.6 0.6 0.6 0.50 100 150 200 250 30 Flow Rate in l/min
Water	Water	Water
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6,0 5,0 21KB 0 3,0 Kv = 0,23	6.0 5.0 21KL 0 3.0 Kv = 0.23

Other designs in series 21

The following other designs can be found rom page:

> 140 Ρ. P. P. P. 176

210

234

- Stainless SteelThermoplastic
- ► Safety
- Coded Systems

## terchangeability (KA only)

Camozzi Ewo Kani

## **Couplings, with Valve**

**V** = 20 mm<sup>2</sup>

### 

## Series 21KB

**\_** I



Mini industrial coupling with the world's most popular profile in this nominal diameter. Above average flow performance for liquid and gaseous media. Coupling system with single-hand operation. Small dimensions and large band width in materials and valve variants.

Series 21 with additional end connections available on request.

Dust Protections (P. 250) for Coupling Part.-No. SK16S

**Working Temperature\*** -20°C up to +100°C (NBR) depending on the medium.

\* For temperatures below -20°C and over +100°C and depending on the medium, other seal variants (FKM, EPDM, FFKM) are available.

Working Pressure**		
35 bar ** maximum static working pres- sure with design factor 4 to 1.	35 bar	8 bar
Features		
		<ul> <li>Minimal, almost imperceptible leakage when uncoupling</li> <li>No air locked into the system during the coupling process</li> </ul>
Material		
Coupling: Brass Plug: Brass Seals: NBR	Coupling: Brass Plug: Brass Seals: NBR	Coupling: Brass Plug: Brass Seals: NBR
Technical Description		
Connecting Force 0 bar: 35 N Connecting Force 6 bar: 60 N Vacuum Coupling: 96% Vacuum connected: 96%	Dead space volume: 0,6 ml Connecting Force 0 bar: 40 N Connecting Force 6 bar: 80 N	Dead space volume: 0,0006 ml Connecting Force 0 bar: 35 N Connecting Force 6 bar: 60 N

#### Other designs in series 21

The following other designs can be found from page:

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P. 210

P. 234

- Stainless Steel
   Thermoplastic
- ► Safety
- ► Coded Systems

## Plugs, without Valve

#### 🕑 = 20 mm²

#### 

Mini industrial coupling with the world's most popular profile in this nominal diameter. Above average flow performance for liquid and gaseous media. Coupling system with single-hand operation. Small dimensions and large band width in materials and valve variants.

Series 21 with additional end connections available on request.

Dust Protections (P. 250) for Coupling Part.-No. SK16S

**Working Temperature\*** -20°C up to +100°C (NBR) depending on the medium.

\* For temperatures below -20°C and over +100°C and depending on the medium, other seal variants (FKM, EPDM, FFKM) are available.

Double Shut-Off Single Shut-Off Dry-break Working Pressure\*\* 35 bar 35 bar 8 bar \* maximum static working pressure with design factor 4 to 1. Features • Minimal, almost imperceptible leakage when uncoupling • No air locked into the system during the coupling process Material Coupling: Brass Coupling: Brass Coupling: Brass Plug: Brass Plug: Brass Plug: Brass Seals: NBR Seals: NBR Seals: NBR **Technical Description** Connecting Force 0 bar: 35 N Dead space volume: 0,6 ml Dead space volume: 0,0006 ml Connecting Force 6 bar: 60 N Connecting Force 0 bar: 40 N Connecting Force 0 bar: 35 N Vacuum Coupling: 96% Connecting Force 6 bar: 60 N Connecting Force 6 bar: 80 N Vacuum connected: 96% Vacuum Coupling: 96% Vacuum Coupling: 96% Vacuum Plug: 96% Vacuum Plug: 96% Vacuum connected: 96% Vacuum connected: 96% **Flow diagrams** Air Air Air 1,2 1,2 1,2 1,0 1,0 1,0 (bar) Pressure Drop (bar) Pressure Drop (bar) 21 KL 21KA 21KB 0,8 0,8 0,8 Drop 0,6 0,6 0,6 Pressure [ 0,4 0,4 0,4 0,2 0,2 0,2 0 0 0 100 600 800 0 50 100 150 2 Flow Rate in I/min 100 150 200 250 300 50 150 200 250 300 0 200 400 Flow Rate in I/min 0 50 100 150 2 Flow Rate in I/min Water Water Water 6,0 6,0 6,0 5,0 5,0 5,0 (bar) (bar) (bar) 21KB 21KL 21KA 4,0 4,0 4,0 Kv = 0.6Kv = 0.23 dou Kv = 0.23dou lop 3.0 3.0 3.0

### )ther designs in series 21

he following other designs can be found om page:

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Ρ.

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176

210

- Stainless Steel
- Thermoplastic
- ► Safety
- Coded Systems

## terchangeability (KA only)

Camozzi Ewo Kani

## Series 21KB

## Plugs, without Valve

**V** = 20 mm<sup>2</sup>

#### 

Series 21KB

Mini industrial coupling with the world's most popular profile in this nominal diameter. Above average flow performance for liquid and gaseous media. Coupling system with single-hand operation. Small dimensions and large band width in materials and valve variants.

Series 21 with additional end connections available on request.

Dust Protections  $\overset{\frown}{\sim}$  (P. 250) for Coupling Part.-No. SK16S

Working Temperature\* -20°C up to +100°C (NBR) depending on the medium.

\* For temperatures below -20°C and over +100°C and depending on the medium, other seal variants (FKM, EPDM, FFKM) are available.

		Working Pressure**
		35 bar
		** maximum static working pres-
Other designs in series 2	21	sure with design factor 4 to 1.
The following other designs	can be found	-
from page:		
		Features
<ul> <li>Stainless Steel</li> </ul>	P. 140	
<ul> <li>Thermoplastic</li> </ul>	P. 176	
► Safety	P. 210	
<ul> <li>Coded Systems</li> </ul>	P. 234	

Working Pressure**		
35 bar ** maximum static working pres- sure with design factor 4 to 1.	35 bar	8 bar
Features		
		<ul> <li>Minimal, almost imperceptible leakage when uncoupling</li> <li>No air locked into the system during the coupling process</li> </ul>
Material		
Coupling: Brass Plug: Brass Seals: NBR	Coupling: Brass Plug: Brass Seals: NBR	Coupling: Brass Plug: Brass Seals: NBR
Technical Description		
Connecting Force 0 bar: 35 N Connecting Force 6 bar: 60 N	Dead space volume: 0,6 ml Connecting Force 0 bar: 40 N	Dead space volume: 0,0006 ml Connecting Force 0 bar: 35 N
Vacuum Coupling: 96% Vacuum connected: 96%	Connecting Force 6 bar: 80 N	Connecting Force 6 bar: 60 N
	Vacuum Coupling: 96% Vacuum Plug: 96%	Vacuum Coupling: 96% Vacuum Plug: 96%

