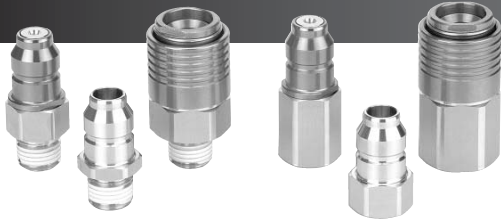


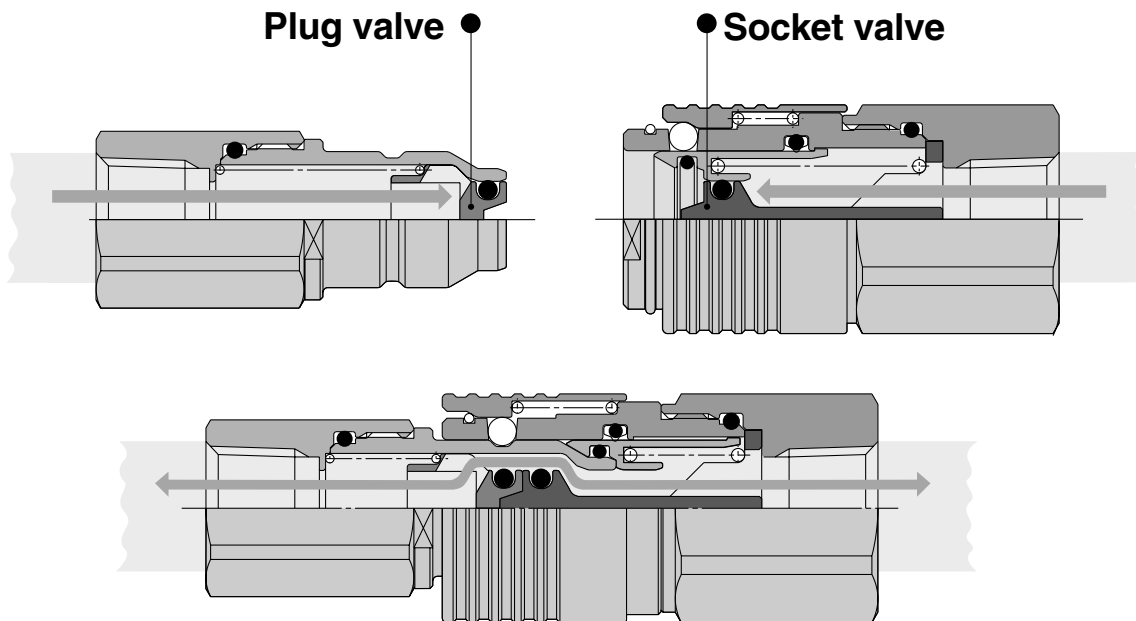
## S Couplers

# Series KKA

Stainless steel type



- **Body material: Stainless steel 304**  
**Seal material: Fluoro rubber (FKM)**
- **Both plug and socket have an integral check valve.**  
Available with and without check valves depending on the operating conditions.
- **Reduces liquid dripping when the plug and socket are uncoupled.**  
Liquid dripping: 0.02 to 0.06 cm<sup>3</sup> at each removal  
Aeration: 0.1 to 0.2 cm<sup>3</sup> at each removal



- **Non-greased specifications (standard)**  
O-ring: Fluorine coated  
Sliding parts of plug and socket: Plated with fluorine-contained material  
Allows smooth installation and removal even without grease
- **Fluid: Water, Air**
- **Operating temperature range: -5 to 100°C**  
Note) Do not use S couplers with steam.

K□

M□

H□

D□

MS

T□


VMG

# Series KKA


## Plug (P)

### With check valve

#### Male thread type


	Body size	Port size	Part no.
	1/8	R 1/8	
R 1/4			<b>-02M</b>
R 3/8			<b>-03M</b>
1/4	R 1/4		<b>KKA4P-02M</b>
	R 3/8		<b>-03M</b>
	R 1/2		<b>-04M</b>
1/2	R 3/8		<b>KKA6P-03M</b>
	R 1/2		<b>-04M</b>
	R 3/4		<b>-06M</b>

#### Female thread type


	Body size	Port size	Part no.
	1/8	Rc 1/8	
Rc 1/4			<b>-02F</b>
Rc 3/8			<b>-03F</b>
1/4	Rc 1/4		<b>KKA4P-02F</b>
	Rc 3/8		<b>-03F</b>
	Rc 1/2		<b>-04F</b>
1/2	Rc 3/8		<b>KKA6P-03F</b>
	Rc 1/2		<b>-04F</b>
	Rc 3/4		<b>-06F</b>

### Without check valve

#### Male thread type

	Body size	Port size	Part no.
	1/8	R 1/8	
R 1/4			<b>-02M-1</b>
R 3/8			<b>-03M-1</b>
1/4	R 1/4		<b>KKA4P-02M-1</b>
	R 3/8		<b>-03M-1</b>
	R 1/2		<b>-04M-1</b>
1/2	R 3/8		<b>KKA6P-03M-1</b>
	R 1/2		<b>-04M-1</b>
	R 3/4		<b>-06M-1</b>


#### Female thread type

	Body size	Port size	Part no.
	1/8	Rc 1/8	
Rc 1/4			<b>-02F-1</b>
Rc 3/8			<b>-03F-1</b>
1/4	Rc 1/4		<b>KKA4P-02F-1</b>
	Rc 3/8		<b>-03F-1</b>
	Rc 1/2		<b>-04F-1</b>
1/2	Rc 3/8		<b>KKA6P-03F-1</b>
	Rc 1/2		<b>-04F-1</b>
	Rc 3/4		<b>-06F-1</b>

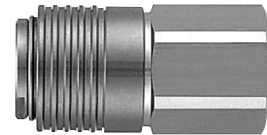
## Socket (S)

### With check valve

#### Male thread type

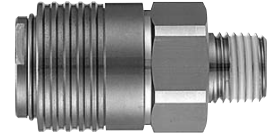
	Body size	Port size	Part no.
	1/8	R 1/8	
R 1/4			<b>-02M</b>
R 3/8			<b>-03M</b>
1/4	R 1/4		<b>KKA4S-02M</b>
	R 3/8		<b>-03M</b>
	R 1/2		<b>-04M</b>
1/2	R 3/8		<b>KKA6S-03M</b>
	R 1/2		<b>-04M</b>
	R 3/4		<b>-06M</b>

#### Female thread type


	Body size	Port size	Part no.
	1/8	Rc 1/8	
Rc 1/4			<b>-02F</b>
Rc 3/8			<b>-03F</b>
1/4	Rc 1/4		<b>KKA4S-02F</b>
	Rc 3/8		<b>-03F</b>
	Rc 1/2		<b>-04F</b>
1/2	Rc 3/8		<b>KKA6S-03F</b>
	Rc 1/2		<b>-04F</b>
	Rc 3/4		<b>-06F</b>

### Without check valve

#### Male thread type

	Body size	Port size	Part no.
	1/8	R 1/8	
R 1/4			<b>-02M-1</b>
R 3/8			<b>-03M-1</b>
1/4	R 1/4		<b>KKA4S-02M-1</b>
	R 3/8		<b>-03M-1</b>
	R 1/2		<b>-04M-1</b>
1/2	R 3/8		<b>KKA6S-03M-1</b>
	R 1/2		<b>-04M-1</b>
	R 3/4		<b>-06M-1</b>

#### Female thread type

	Body size	Port size	Part no.
	1/8	Rc 1/8	
Rc 1/4			<b>-02F-1</b>
Rc 3/8			<b>-03F-1</b>
1/4	Rc 1/4		<b>KKA4S-02F-1</b>
	Rc 3/8		<b>-03F-1</b>
	Rc 1/2		<b>-04F-1</b>
1/2	Rc 3/8		<b>KKA6S-03F-1</b>
	Rc 1/2		<b>-04F-1</b>
	Rc 3/4		<b>-06F-1</b>

# S Couplers Stainless Steel Type Series **KKA**



## Specifications

<b>Fluid</b>	Water/Air
<b>Operating pressure range</b> <small>(Note)</small>	KKA3: -100kPa to 1.0MPa KKA4-6: 0 to 1MPa
<b>Proof pressure</b>	10MPa
<b>Ambient and fluid temperature</b>	-5 to 100°C (No freezing) <small>Note) Do not use with steam.</small>
<b>Non-greased specification</b>	No grease is used. Rubber: Fluorine coated, (Metal sliding parts: Plated with fluorine-contained material)
<b>Material</b>	Metal part: SUS304, Rubber material: Fluoro rubber (FKM)
<b>Seal</b>	With male thread seal

Note) Do not use the S couplers with a leak tester or for vacuum retention because they are not guaranteed for zero leakage.

## Performance

<b>Plug and socket connection</b>	One-touch connection and release
<b>Check valve</b>	Plug and socket are available with and without check valves.

Note) Series KKA cannot be connected with Series KK or Series KKH.

## Characteristics with Check Valve on Both Sides

Body size	Liquid dripping cm <sup>3</sup> at each removal	Aeration cm <sup>3</sup> at each removal
KKA3	0.02	0.1
KKA4	0.04	0.1
KKA6	0.06	0.2

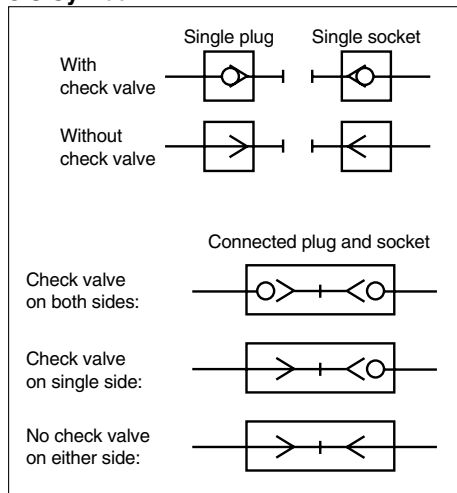
### Liquid dripping:

Volume of water leakage at the time when the plug and socket are uncoupled.

### Aeration:

Volume of external air entrained when the plug and socket are connected.

## JIS Symbol



## Effective Area

Built-in check valve	Plug	Socket	Effective area mm <sup>2</sup>
Plug: With check valve Socket: With check valve	KKA3P-01F	KKA3S-01F	16.2
	KKA4P-02F	KKA4S-02F	26.5
	KKA6P-04F	KKA6S-04F	56.4
Plug: Without check valve Socket: With check valve	KKA3P-01M-1	KKA3S-01M	19.0
	KKA4P-02M-1	KKA4S-02M	30.5
	KKA6P-04M-1	KKA6S-04M	59.5
Plug: Without check valve Socket: Without check valve	KKA3P-01M-1	KKA3S-01M-1	20.8
	KKA4P-02M-1	KKA4S-02M-1	38.9
	KKA6P-04M-1	KKA6S-04M-1	79.3

## How to Order

**KKA 4 P-02 M-1**

**Body size**

3	1/8
4	1/4
6	1/2

**Socket/Plug designation**

P	Plug
S	Socket

**Port size**

Symbol	Thread size
01	R, Rc 1/8
02	R, Rc 1/4
03	R, Rc 3/8
04	R, Rc 1/2
06	R, Rc 3/4

**Built-in check valve**

Nil	With check valve
1	Without check valve

**Connection type**

Symbol	Type
M	Mail thread (with seal)
F	Female thread

Built-in check valve	Plug	Socket	Availability
	Yes	Yes	○
	No	Yes	○
	No	No	○
	Yes	No	×

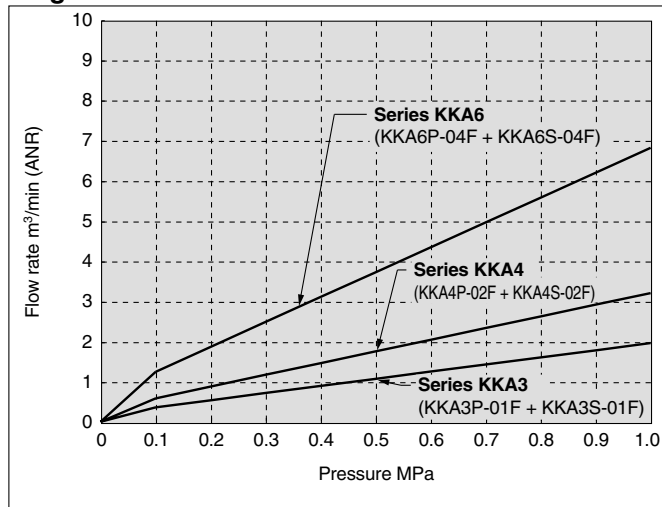
Note) A plug with check valve should be used in combination with a socket with check valve.  
If a socket without check valve is used, the check valve of the plug will not open.

# Series KKA

## Flow Characteristics

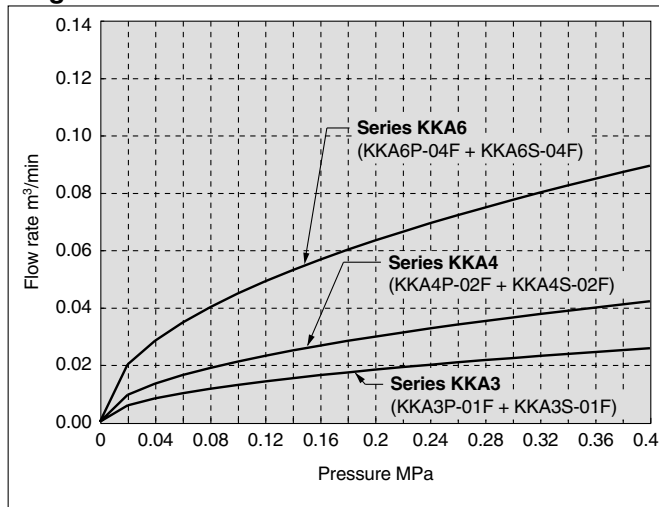
Air (0 to 1 MPa)

Plug: With check valve Socket: With check valve

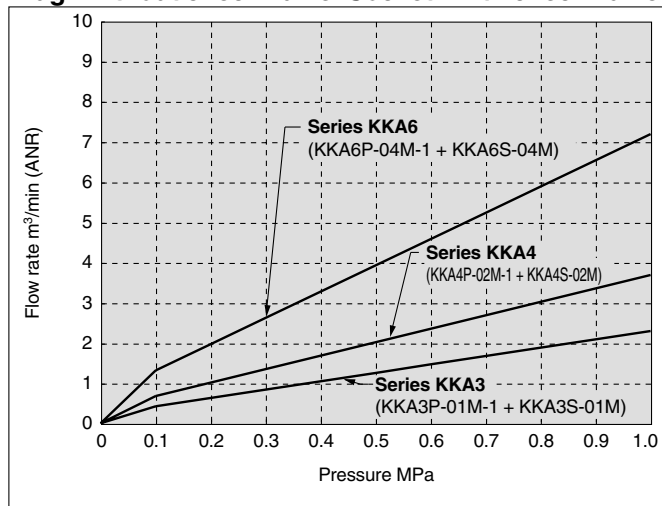


Water (0 to 0.4 MPa)

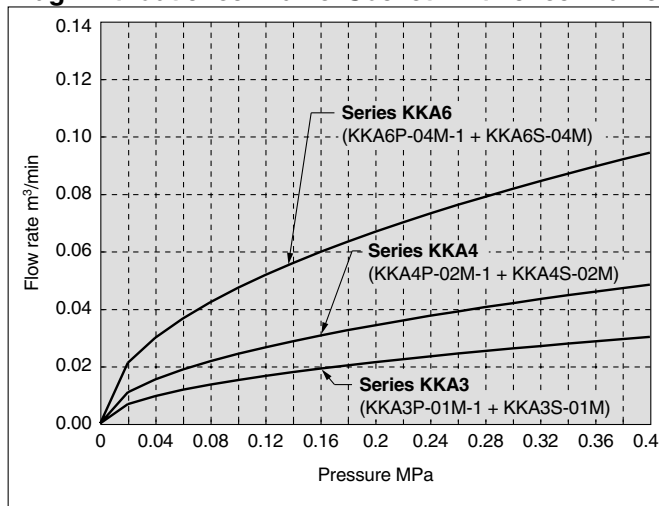
Plug: With check valve Socket: With check valve



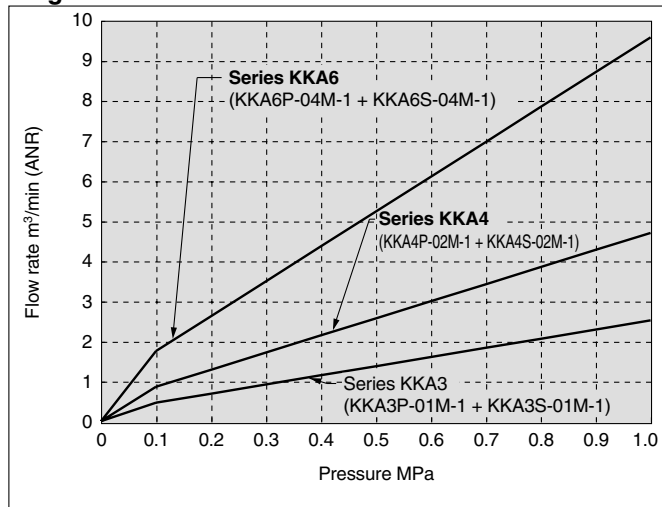
Plug: Without check valve Socket: With check valve



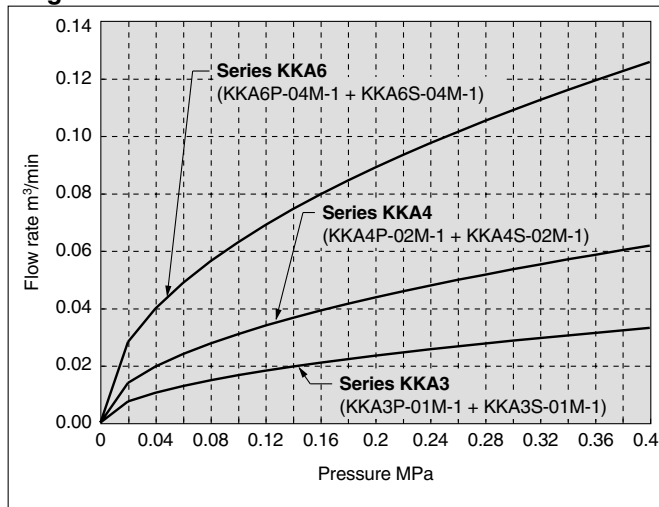
Plug: Without check valve Socket: With check valve



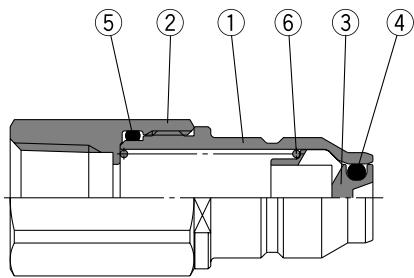
Plug: Without check valve Socket: Without check valve



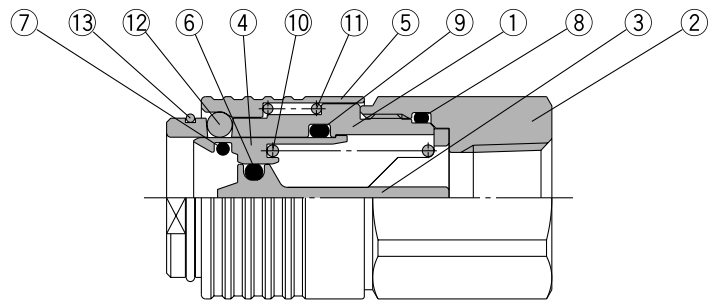
Plug: Without check valve Socket: Without check valve



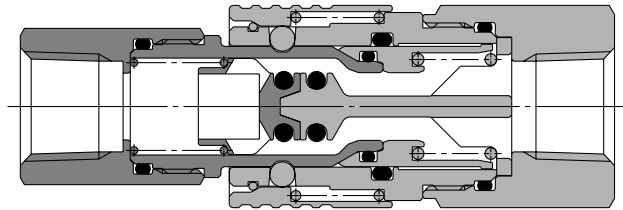
**Construction**



**Plug**



**Socket**



- K
- M
- H
- D
- MS
- T
- VMG

**Plug**

No.	Description	Material	Note
①	Stem	Stainless steel	Plated with fluorine-contained material
②	Rear stem	Stainless steel	
③	Plug valve	Stainless steel	
④	Valve O-ring	FKM	Fluorine coated
⑤	Stem O-ring	FKM	Fluorine coated
⑥	Plug valve spring	Stainless steel	

**Socket**

No.	Description	Material	Note
①	Body	Stainless steel	Plated with fluorine-contained material
②	Rear body	Stainless steel	
③	Socket valve	Stainless steel	
④	Collar	Stainless steel	Plated with fluorine-contained material
⑤	Sleeve	Stainless steel	Plated with fluorine-contained material
⑥	Valve O-ring	FKM	Fluorine coated
⑦	Plug O-ring	FKM	Fluorine coated
⑧	Body O-ring	FKM	Fluorine coated
⑨	Collar seal	FKM	Fluorine coated
⑩	Collar spring	Stainless steel	
⑪	Sleeve spring	Stainless steel	
⑫	Steel ball	Stainless steel	
⑬	Stopper ring	Stainless steel	

# Series KKA

## Dimensions: Plug (P)

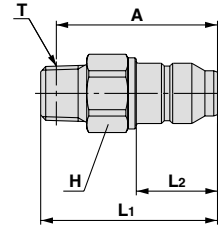
### With check valve

#### Male thread type

(mm)



Body size	Model	T Connection port size	H Width across flats	L1	L2	A	Min. bore size	Effective area mm <sup>2</sup>	Weight g
1/8	KKA3P-01M	R 1/8	14	35.4	16.0	31.4	6.1	16.5	15.4
	-02M	R 1/4		38.4		32.4		17.5	19.8
	-03M	R 3/8	17	39.4		32.9		17.5	32.9
1/4	KKA4P-02M	R 1/4	17	42.2	18.9	36.2	8.0	28.3	28.3
	-03M	R 3/8		43.2		36.7		29.4	36.6
	-04M	R 1/2	22	46.2		38.2		29.4	65.9
1/2	KKA6P-03M	R 3/8	24	47.1	20.4	40.6	11.0	58.0	60.3
	-04M	R 1/2		47.9		39.9		61.0	69.2
	-06M	R 3/4	30	49.9		40.4		61.0	119.0

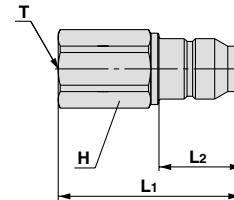


#### Female thread type

(mm)



Body size	Model	T Connection port size	H Width across flats	L1	L2	Min. bore size	Effective area mm <sup>2</sup>	Weight g
1/8	KKA3P-01F	Rc 1/8	14	36.0	16.0	6.1	16.5	20.2
	-02F	Rc 1/4	17	39.6			17.5	31.8
	-03F	Rc 3/8	19	40.4			17.5	35.8
1/4	KKA4P-02F	Rc 1/4	17	43.4	18.9	8.0	28.3	36.1
	-03F	Rc 3/8	19	44.4			29.4	40.2
	-04F	Rc 1/2	24	48.6			29.4	69.7
1/2	KKA6P-03F	Rc 3/8	24	48.7	20.4	11.0	58.0	84.1
	-04F	Rc 1/2		52.9			61.0	79.7
	-06F	Rc 3/4	30	54.6			61.0	123.8



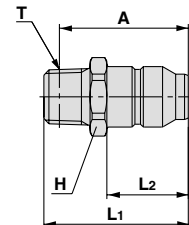
### Without check valve

#### Male thread type

(mm)



Body size	Model	T Connection port size	H Width across flats	L1	L2	A	Min. bore size	Effective area mm <sup>2</sup>	Weight g
1/8	KKA3P-01M-1	R 1/8	12	28.5	16.0	24.5	6.0	20.7	9.8
	-02M-1	R 1/4	14	31.5		25.5		14.6	
	-03M-1	R 3/8	17	32.5		26.0		25.0	23.6
1/4	KKA4P-02M-1	R 1/4	17	34.4	18.9	28.4	8.0	39.6	21.0
	-03M-1	R 3/8		35.4		28.9		41.9	27.9
	-04M-1	R 1/2	22	39.4		31.4		41.9	50.2
1/2	KKA6P-03M-1	R 3/8	22	37.9	20.4	31.4	11.0	71.8	41.9
	-04M-1	R 1/2		40.9		32.9		79.3	56.0
	-06M-1	R 3/4	30	42.9		33.4		79.3	98.7

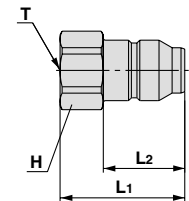


#### Female thread type

(mm)



Body size	Model	T Connection port size	H Width across flats	L1	L2	Min. bore size	Effective area mm <sup>2</sup>	Weight g
1/8	KKA3P-01F-1	Rc 1/8	14	23.2	16.0	6.0	20.9	9.6
	-02F-1	Rc 1/4	17	30.3			25.3	20.2
	-03F-1	Rc 3/8	19	32.0			25.3	26.2
1/4	KKA4P-02F-1	Rc 1/4	17	29.7	18.9	8.0	40.4	20.0
	-03F-1	Rc 3/8	19	34.0			42.7	25.8
	-04F-1	Rc 1/2	24	39.4			42.7	46.1
1/2	KKA6P-03F-1	Rc 3/8	22	30.9	20.4	11.0	73.2	34.3
	-04F-1	Rc 1/2		39.6			80.8	50.0
	-06F-1	Rc 3/4	30	42.8			80.8	78.6



**Dimensions: Socket (S)**

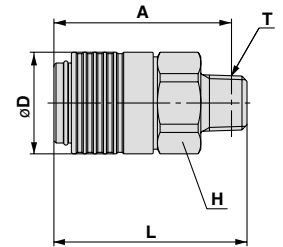
**With check valve**

**Male thread type**

(mm)

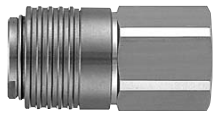


Body size	Model	T Connection port size	H Width across flats	øD	L	A	Min. bore size	Effective area mm <sup>2</sup>	Weight g
1/8	KKA3S-01M	R 1/8	17	18.5	38.1	34.1	6.1	18.8	38.5
	-02M	R 1/4			41.1	35.1		20.1	41.8
	-03M	R 3/8			42.1	35.6		20.1	46.3
1/4	KKA4S-02M	R 1/4	22	24.2	46.0	40.0	8.1	31.3	76.8
	-03M	R 3/8			47.0	40.5		32.8	78.5
	-04M	R 1/2			50.0	42.0		32.8	86.6
1/2	KKA6S-03M	R 3/8	30	30.7	51.4	44.9	11.0	58.0	149.1
	-04M	R 1/2			54.4	46.4		59.5	160.4
	-06M	R 3/4			56.4	46.9	59.5	184.8	

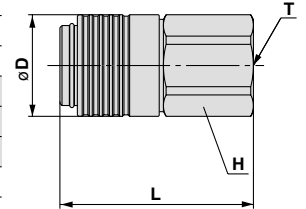


**Female thread type**

(mm)



Body size	Model	T Connection port size	H Width across flats	øD	L	Min. bore size	Effective area mm <sup>2</sup>	Weight g
1/8	KKA3S-01F	Rc 1/8	17	18.5	37.6	6.1	18.8	46.9
	-02F	Rc 1/4			41.2		20.1	47.2
	-03F	Rc 3/8			43.1		20.1	52.3
1/4	KKA4S-02F	Rc 1/4	22	24.2	46.1	8.1	31.3	97.1
	-03F	Rc 3/8			46.9		32.8	91.1
	-04F	Rc 1/2			52.3		32.8	104.3
1/2	KKA6S-03F	Rc 3/8	30	30.7	50.5	11.4	58.0	189.6
	-04F	Rc 1/2			56.2		59.5	202.0
	-06F	Rc 3/4			57.9	59.5	180.6	



- K
- M
- H
- D
- MS
- T
- VMG

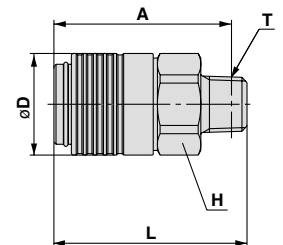
**Without check valve**

**Male thread type**

(mm)



Body size	Model	T Connection port size	H Width across flats	øD	L	A	Min. bore size	Effective area mm <sup>2</sup>	Weight g
1/8	KKA3S-01M-1	R 1/8	17	18.5	38.1	34.1	6.1	21.7	36.1
	-02M-1	R 1/4			41.1	35.1		25.8	39.4
	-03M-1	R 3/8			42.1	35.6		25.8	43.9
1/4	KKA4S-02M-1	R 1/4	22	24.2	46.0	40.0	8.1	41.9	71.9
	-03M-1	R 3/8			47.0	40.5		44.2	73.6
	-04M-1	R 1/2			50.0	42.0		44.2	81.7
1/2	KKA6S-03M-1	R 3/8	30	30.7	51.4	44.9	11.0	79.3	138.3
	-04M-1	R 1/2			54.4	46.4		88.5	149.6
	-06M-1	R 3/4			56.4	46.9	88.5	174.0	



**Female thread type**

(mm)



Body size	Model	T Connection port size	H Width across flats	øD	L	Min. bore size	Effective area mm <sup>2</sup>	Weight g
1/8	KKA3S-01F-1	Rc 1/8	17	18.5	37.6	6.1	21.7	44.5
	-02F-1	Rc 1/4			41.2		25.8	44.8
	-03F-1	Rc 3/8			43.1		25.8	49.9
1/4	KKA4S-02F-1	Rc 1/4	22	24.2	46.1	8.1	41.9	92.2
	-03F-1	Rc 3/8			46.9		44.2	86.2
	-04F-1	Rc 1/2			52.3		44.2	99.4
1/2	KKA6S-03F-1	Rc 3/8	30	30.7	50.5	11.4	79.3	178.8
	-04F-1	Rc 1/2			56.2		88.5	191.2
	-06F-1	Rc 3/4			57.9	88.5	169.8	

