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Quick Acting Couplers in stainless steel AISI 316L



Parker Legris connectic

products are available from

MARYLAND METRICS

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ENGINEERING YOUR SUCCESS.

A complete range for demanding applications

Legris remains responsive to specific market needs with an enhanced range of stainless quick acting couplers.

What is the purpose of a Quick Acting Coupler ?

Quick acting couplers enable frequent rapid connection and disconnection without the use of tools or specialist equipment. They enable easy **maintenance of a circuit or replacement of a component or tooling**, avoiding the shut-down of a machine or production process.

Legris couplers are available with single or double shut-off operation. The latter is designed to prevent leakage of dangerous or toxic fluids.

Constituent materials

Legris quick acting couplers are manufactured from **stainless steel AISI 316L**: body, ring, balls and probes. Springs are **stainless steel AISI 316 Ti**.

As standard, seals are **FKM**, providing high resistance to acids, hot water, oils and many aggressive fluids.



Food Industry



Chemicals



Medical



Pharmaceuticals



Industrial Equipment



Construction

Application fields

Stainless steel AISI 316L is compatible with many fluids, and thus numerous applications:

- food industry: e.g. supply of CO₂, water, gas or organic acids
- chemicals: e.g. supply of CO₂, water, gas or organic acids
- medical and pharmaceuticals: for filtration systems or analysis equipment
- industrial equipment: cooling circuits for injection moulds or presses
- construction: conveyance of compressed air, oils or water
- for general use where aggressive washdown chemicals are in regular use

Legris stainless steel couplers are available with **FDA approved FKM seals**, or with **EPDM seals**. **Suffix 21** should be added after the part number for a coupler with FDA approved FKM food quality seals or **suffix 30** for a coupler with EPDM seals.

The Legris range

Legris AISI 316L stainless steel couplers are suitable for aggressive environments and fluids. X20 and X21 are compact series. X25 and X27 series are perfectly suited for applications requiring higher flow due to their large diameter passage.

Profiles	Series	DN	Flow (single / double shut-off) NI/mi	Fluids	Maximum working pressure in bar*	Working temperature	Shut-off
	x20	2,7	165 / 130	Compressed air and all fluids compatible with constituent materials	35	From -15°C to +200°C	
	x21	5	560 / 310				
	x25	7,4	1800 / 710				
	x27	10	3500 / 900				

* Safety coefficient 4 : 1



Stainless steel is a steel and carbon alloy containing a minimum of 12% chromium. Its advantages are numerous:

- excellent resistance to corrosion
- large range of working temperatures
- compatibility with many fluids (e.g. air, water, nitric, acetic and organic acids)
- superior mechanical resistance
- long usage expectancy and value for money.

The choice of stainless steel grades may be based on corrosion resistance, manufacturing characteristics, availability, mechanical properties within specific temperature ranges etc. However, corrosion resistance and mechanical properties are usually the most important factors in selecting the grade for a given application. Within the many different grades of stainless steel, it is widely recognised that stainless steel AISI 316L is the best 'all round' grade for Q.A.C. use, particularly within the aggressive areas of chemical, pharmaceutical, industrial and marine environments.

Associated products

In order to complete your installation, Legris offers a range of **FEP** or **polyethylene tubing** and **braided PVC hose**.

For standard applications, Legris provides polymer two stage release **safety** couplers and **nickel-plated brass** couplers.

Series X20

Ø internal passage:
2,7mm

Single shut-off flow:
165 NI/min (6 cfm)

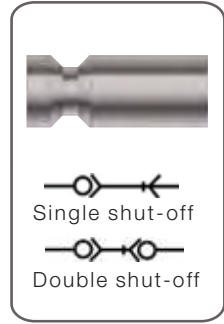
Double shut-off flow:
130 NI/min (5 cfm)

Specifications:

- Bodies and probes: stainless steel AISI 316L
- FKM seals
- working pressure: 35 bar
- working temperature: -15°C to +200°C
- vacuum capability: 86% vacuum

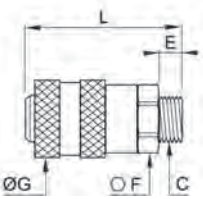
Advantages:

- compact
- robust
- low pressure loss



9201

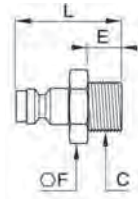
Male body BSP parallel and M5



C	With shut-off	E	F	G	L
M5	9201X20 19	5	9	10	26
G1/8	9201X20 10	7	11	10	28

9287-9087

Male thread BSP parallel and M5

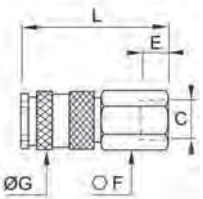


C	With shut-off	E	F	L
M5	9287X20 19	5	9	28
G1/8	9287X20 10	7	11	30

C	Without shut-off	E	F	L
M5	9087X20 19	5	7	18
G1/8	9087X20 10	7	11	20

9214

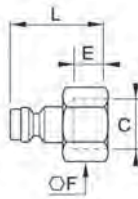
Female body BSP parallel and M5



C	With shut-off	E	F	G	L
M5	9214X20 19	5	9	10	26
G1/8	9214X20 10	7	12	10	28

9286-9086

Female thread BSP parallel and M5



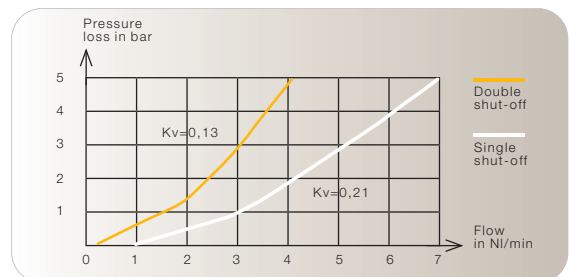
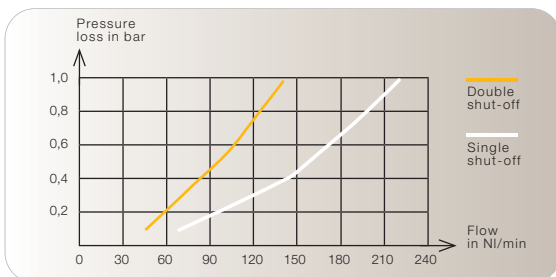
C	With shut-off	E	F	L
M5	9286X20 19	5	9	26
G1/8	9286X20 10	7	12	30

C	Without shut-off	E	F	L
M5	9086X20 19	5	7	17
G1/8	9086X20 10	7	12	19

Flow curves - Pressure loss

Air

Water



Series X21

Ø internal passage:

5 mm

Single shut-off flow:

560 NI/min (20 cfm)

Double shut-off flow:

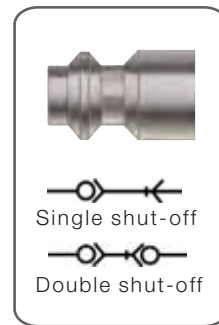
310 NI/min (11 cfm)

Specifications:

- Bodies and probes: stainless steel AISI 316L
- FKM seals
- Working pressure: 35 bar
- Working temperature: -15°C to +200°C
- Vacuum capability: 86% vacuum

Advantages:

- light weight
- robust
- compact



9201
Male body BSP parallel

C	With shut-off	E	F	G	L
G1/8	9201X21 10	7	14	16	36
G1/4	9201X21 13	9	17	16	38

9287-9087
Male thread BSP parallel

C	With shut-off	E	F	L
G1/8	9287X21 10	7	14	40
G1/4	9287X21 13	9	17	42

C	Without shut-off	E	F	L
G1/8	9087X21 10	7	14	25
G1/4	9087X21 13	9	17	28

9214
Female body BSP parallel

C	With shut-off	E	F	G	L
G1/8	9214X21 10	9	14	16	36
G1/4	9214X21 13	9	17	16	38

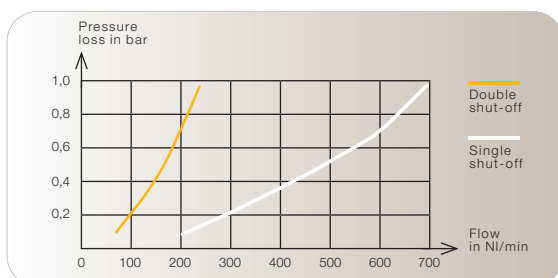
9286-9086
Female thread BSP parallel

C	With shut-off	E	F	L
G1/8	9286X21 10	7	14	40
G1/4	9286X21 13	9	17	42

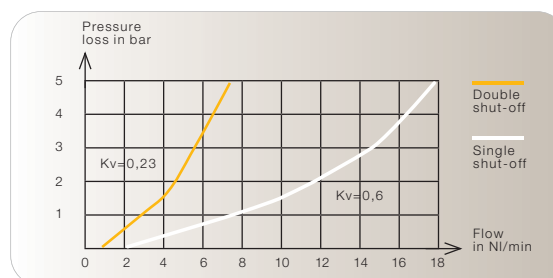
C	Without shut-off	E	F	L
G1/8	9086X21 10	8	14	25
G1/4	9086X21 13	9	17	25

Flow curves - Pressure loss

Air



Water



Series X25

Ø internal passage:
7,4 mm

Single shut-off flow:
1800 NI/min (64 cfm)

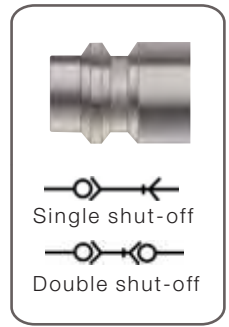
Double shut-off flow:
710 NI/min (25 cfm)

Specifications:

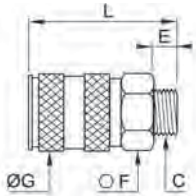
- bodies and probes: stainless steel AISI 316L
- FKM seals
- working pressure: 35 bar
- working temperature: -15°C to +200°C

Advantages:

- high flow
- robust

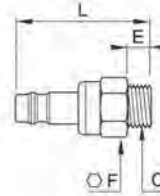


9201
Male body BSP parallel



C	With shut-off	E	F	G	L
G1/4	9201X25 13	10,5	19	23	59
G3/8	9201X25 17	9	19	23	57,5
G1/2	9201X25 21	12	24	23	60,5

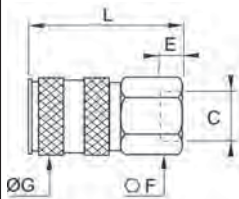
9287-9087
Male thread BSP parallel



C	With shut-off	E	F	L
G1/4	9287X25 13	9	19	56
G3/8	9287X25 17	9	19	56
G1/2	9287X25 21	12	24	59

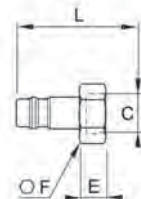
C	Without shut-off	E	F	L
G1/4	9087X25 13	9	17	33,5
G3/8	9087X25 17	9	19	33
G1/2	9087X25 21	12	24	38

9214
Female body BSP parallel



C	With shut-off	E	F	G	L
G1/4	9214X25 13	10	19	23	56
G3/8	9214X25 17	9	19	23	55
G1/2	9214X25 21	12	24	23	58

9286-9086
Female thread BSP parallel

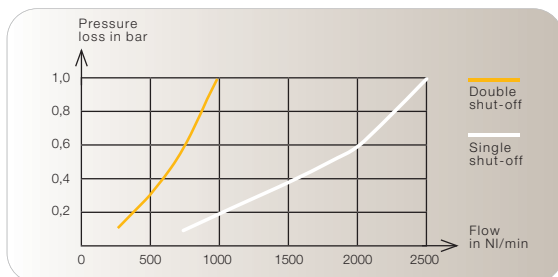


C	With shut-off	E	F	L
G1/4	9286X25 13	10	19	54
G3/8	9286X25 17	9	19	54
G1/2	9286X25 21	12	24	56

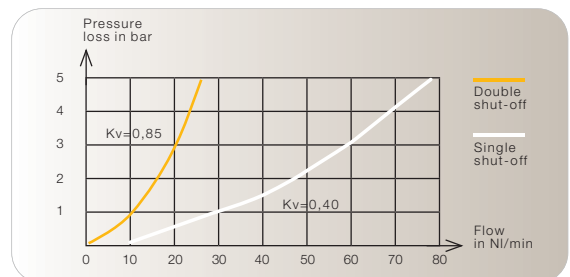
C	Without shut-off	E	F	L
G1/4	9086X25 13	12	17	38,5
G3/8	9086X25 17	12	19	39,5
G1/2	9086X25 21	14	24	44

Flow curves - Pressure loss

Air



Water



Series X27

Ø internal passage:

10 mm

Single shut-off flow:

3500 NI/min (124 cfm)

Double shut-off flow:

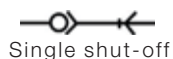
900 NI/min (32 cfm)

Specifications:

- bodies and probes: stainless steel AISI 316L
- FKM seals
- working pressure: 35 bar
- working temperature: -15°C to +200°C

Advantages:

- very high flow
- low pressure loss
- robust



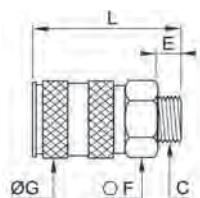
Single shut-off



Double shut-off

9201

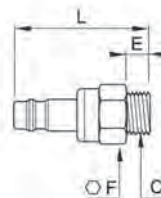
Male body BSP parallel



C	With shut-off	E	F	G	L
G3/8	9201X27 17	9	24	27	56,5
G1/2	9201X27 21	12	24	27	58,5
G3/4	9201X27 27	16	32	27	59,5

9287-9087

Male thread BSP parallel

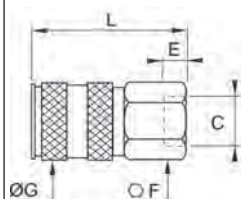


C	With shut-off	E	F	L
G3/8	9287X27 17	9	24	55,5
G1/2	9287X27 21	12	24	57,5
G3/4	9287X27 27	16	32	58,5

C	Without shut-off	E	F	L
G3/8	9087X27 17	9	19	36,5
G1/2	9087X27 21	12	24	40
G3/4	9087X27 27	16	32	45

9214

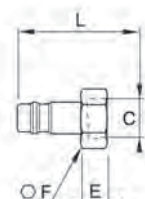
Female body BSP parallel



C	With shut-off	E	F	G	L
G3/8	9214X27 17	11	24	27	56
G1/2	9214X27 21	12	24	27	56
G3/4	9214X27 27	16	32	27	60

9286-9086

Female thread BSP parallel

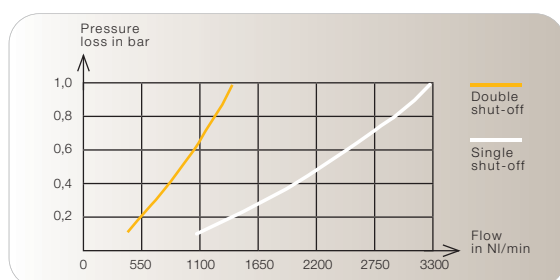


C	With shut-off	E	F	L
G3/8	9286X27 17	9	24	54,5
G1/2	9286X27 21	12	24	54,5
G3/4	9286X27 27	16	24	58,5

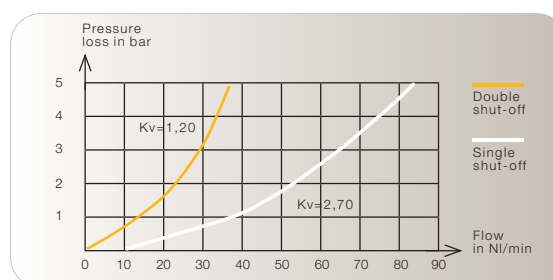
C	Without shut-off	E	F	L
G3/8	9086X27 17	9	19	33
G1/2	9086X27 21	12	24	37
G3/4	9086X27 27	16	32	42

Flow curves - Pressure loss

Air



Water



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