HUMON INGS



GLOBALOFFER





Q-SAFE PRODUCT RANGE

ABOUT COMPANY	2
CONTACS	4
Q-SAFE PRODUCT RANGE	5
THE COMPLETE PACKAGE	6
Q-SAFE PRODUCT RANGE	7
Q-SAFE PRODUCT RANGE SUMMARY	8
 LEGEND OF SYMBOLS 	9
PART NUMBERING SYSTEM	10
MQS-A - ISO APoppet valvesBall valves	16
MQS-AP - ISO A UNDER PRESSURE	23
MQS-N - STANDARDPoppet valvesBall valves	25
• MQS-AF - PUSH-PULL	29
MQS-AFP - PUSH-PULL UNDER PRESSURE	35
 BRAKING CIRCUITS MQS-VB - Braking Circuit valves MQS-VS - Agricultural valves 	37 42
• MQS-F - FLAT-FACE	47
 SCREW-TYPE MQS-SG - for German Market MQS-SC - Hydraulic Cylinders MQS-ST - for Trucks MQS-CV - CHECK VALVES 	52 57 59 61
Q-SAFE ACCESSORIES AND SPARE PARTS	63
WARNINGS	73
SALES TERMS AND CONDITIONS	75



ABOUT COMPANY



THE MISSION

Fluiconnecto by Manuli Group is a leading international distribution organization, serving endusers in all sectors with a complete range of high quality hydraulic components and technical services, supported by know-how regarding products and applications.

ADDED VALUE CREATION through:

- Global network close to the customer
- Wide product offer
- Expert solutions

WHO WE ARE

Fluiconnecto by Manuli experience starts more than 25 years ago, when So.na.tra (SOcieté NAntese de TRAnsmission) was founded in 1981, in La Chapelle sur Erdre France, close to Nantes, as a company fully committed to the hydraulic service providing a global offer and technical know how.

The global offer consists in top quality hydraulic hoses, fittings, adaptors and connectors. It includes also a complete range of assembly machines as well as spring guards, ball valves, manometers, clamping rings and other high pressure hydraulics components.

In 1985, the first service point was opened in Rouen, North France, as first step toward the hydraulic network, actually counting more than 60 branches in France.

In 1994, Sonatra joined the Manuli Rubber Industries Group, becoming Manuli Sonatra.

Following the Manuli Sonatra philosophy the first service point was established in September 2002 in Myslowice, South Poland, preparing the base for further expansion throughout Poland and other Central European markets.

At the end of 2004 the Group started its network development in Poland and at the beginning of 2006 in Central & Eastern Europe Countries and in Argentina. Nowadays the Group boasts several service points in Poland, employing an international team of skilled professionals, and a network which has been developed in Czech Republic, Hungary, Lithuania and Ukraine.

During 2006, the Group opened the new warehouse for Western Europe near Nantes(France) covering an area of 10000 square meters.

During 2008, the Group established Fluiconnecto by Manuli BENELUX throught the acquisition of Hebu Group, a leading hydraulic retail company established in 1940, operating in the Netherlands and Belgium. In the same year it opened Fluiconnecto by Manuli South Africa (Johannesburg) and acquired Powerforce Hydraulics in Witbank.

The service point network development was managed also in Singapore and Australia.

During 2009 Central Eastern Europe warehouse changed localization on Sosnowiec, covering an area of more than 1500 square meters, assuring a full product availability.

The Global Fluiconnecto by Manuli network reaches more than 120 Service Points.

WHAT WE DO

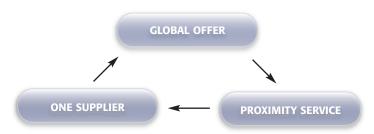
- Distribution of hydraulic products for agriculture, earth-moving, transports, mining, material handling, lifting, industrial cleaning, general industry, many others.
- Technical support service offered to all our customers driven by know how and experience.
- Hose assembly production through our service points, completely equipped to assure a prompt delivery.
- A complete stock level of all products to provide full availability.
- A Service On Site mobile VAN, consists of more than 20 fully equipped vehicles for on site maintenance
- A Service On Site workshop which operates to provide just in time maintenance service.





ABOUT COMPANY

Fluiconnecto by Manuli fulfills the customer needs through:



Committed to offer its customers an high quality product range, Fluiconnecto by Manuli has developed a quality policy able to offer approved and certified products and services. The Group quality policy is driven also by the business relationship with companies and manufacturers ISO 9000 certified, which share the same policy.

The product range, which meets and exceeds all the International specifications, assures:

- High endurance & strength;
- Very high pressure resistance for extreme applications;
- Abrasion, weather and temperature resistance;
- Full chemical compatibility with a wide range of hydraulic fluids.

The environmental policy is driven by partnership established with companies sharing the same model: creation of a sustainable development system through the implementation of operational methods which do not have negative impacts on the environment and on people's health.

The partners of Fluiconnecto by Manuli are companies which have achieved ISO 14001 certification. The ISO 14001 certificate is aimed at the creation of a management system oriented towards the protection of the environment in terms of: subsoil control, water and industrial waste management, reduced emissions into the atmosphere.

In addition to ISO 14001, Fluiconnecto by Manuli workshop in South Africa is OHSAS 18001 certified, a concrete pratice aimed at achieving a perfect place to work.

OUR PRODUCTS

- Hoses & Fittings
- Adaptors & Bite-Ring Connectors
- Hose Assembling Machines
- Quick Release Couplings
- Staple lock fittings & adaptors
- Pipes & Clamps
- Steel & Teflon hose
- Pressure gauges & Accessories
- Water-jet cleaning & Accessories
- Sealing products
- Refrigeration connectors
- Protection & Safety Accessories

OUR SERVICES

- Service On Site Workshops
- Service On Site VAN







Argentina

Colectora Panamericana Este 26361 Don Torcuato Buenos Aires Tel. +54-11-4-727-6800 Fax. +54-11-4-727-6200 ext. 107 info@fluiconnecto.com.ar

Australia

68-70 Cyber Loop, Dandenong Victoria 3175 Tel. +61 3 8795 4000 Fax. +61 3 8795 4040 info@fluiconnecto.com.au

Belgium

Noorderlaan 97a, 2030 Antwerpen Tel. 03 - 5415495 Fax. 03 - 5417795 info@hebu.be

Czech Republic

Babickova 1146/8a 779 00 Olomouc Tel. +420 585 750 536 - +420 602 640 132 Fax. +420 585 751 326 olomouc@fluiconnecto.com

France

42-44, rue de Grande Bretagne BP 60237 44472 CARQUEFOU CEDEX, Nantes Tel. +33 02 40 93 57 99 Fax. +33 02 40 93 69 56 std@fluiconnecto.fr

Hungary

1239 Budapest Ócsai út 5 Tel. +36 1 287 30 33 Fax. +36 1 286 25 43 budapest@fluiconnecto.com

Lithuania

Kirtimų g. 11, LT-02300 Vilnius Tel. +37 0 5 2645810 Fax. +37 0 5 2645820 vilnius@fluiconnecto.com

The Netherlands

Van der Giessenweg 7 - 9, 2921 LP Krimpen a/d Ijssel Tel. 0180 - 511 411 Fax. 0180 - 510 515 info@hebu.nl

Central - Eastern Europe - Poland

41-404 Mysłowice, Brzezińska 50 Tel. +48 32 222 01 35 Fax. +48 32 222 01 39 fc@fluiconnecto.pl

Singapore

3 Gul Circle, Singapore 629632 Tel. +65 67909191 Fax. +65 67909292 info@fluiconnecto.com.sg

South Africa

183 Kuschke Road. Meadwdale ext 3 Germiston Johannesburg Tel. +27 11 454 5155 Fax. +27 11 454 5157 colin.hood@fluiconnecto.co.za

Ukraine

Derevoobrobna, 6B, Kyiv 01013 Tel. +38 044 545 70 67 Fax. +38 044 545 70 68 kyiv@fluiconnecto.com



Q.Safe PRODUCT RANGE

A quick coupling is a component which grants a connection and disconnection between a machine and its implements. It also provides a seal against leakage in both situations of connection or disconnection.

The connection is made between "male" and "female" parts, manufactured according to international standard specifications. Inside both of these parts, springs and valves assure either the sealing or the fluid flow of the hydraulic system when fully connected.

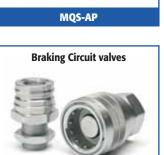
The Q-Safe series made by Manuli are provided with an environmentally friendly Cr3+ (trivalent chrome) surface coating, which offers an excellent resistance to corrosion, exceeding the ISO 4520 requirements (salt spray resistance: 240 hours for white corrosion and 400 for red corrosion).

The Q-Safe products range includes the following series together with the related accessories and spare parts kits, in total more then 460 references.































Q.Safe PRODUCT RANGE

Q-Safe series are suggested for several application fields such as:

- Agriculture (tractors, trailers, harvester machines): MQS-A, MQS-AP, MQS-AF, MQS-FP, MQS-VB, MQS-VS and MQS-CV series
- Forestry (tractors, trailers, harvester machines): MQS-A, MQS-N, MQS-F, MQS-SG and MQS-CV series
- Construction and earth moving (excavators, skid steers, wheel-loaders, hammers, drills): MQS-A, MQS-F, MQS-N, MQS-SG and MQS-CV series
- Mining (drills): MQS-A, MQS-N, MQS-F and MQS-SG series
- Public utility vehicles (scissor lift, bucket cranes): MQS-A, MQS-F, MQS-N, MQS-SG and MQS-ST series.

Manuli Rubber Industries offers a fully integrated product concept to the market. Quick Couplings compliment the already extensive Manuli hoses, fittings and adaptors programme.















Q-SAFE PRODUCT RANGE SUMMARY

	QUICK COUPLINGS SERIES	FEMALE COUPLING	MALE COUPLING	SPECIFICATIONS	SHUT-OFF System	CONNECTION	WORKING PRESSURE (Dynamic)	PAGE
	ISO A	Q008	Q002	ISO 7241 series A	POPPET VALVE	LOCKING	from 18 MPa to 31,5 MPa	22
	MQS-A	Q009	Q003	130 7241 Series A	BALL VALVE	BALLS	21 MPa	27
IS	O A UNDER PRESSURE MQS-AP	Q010	Q006	ISO 7241 series A	POPPET VALVE	LOCKING BALLS	25 MPa	29
	STANDARD	Q032	Q029	-	POPPET VALVE	LOCKING	35 MPa	31
	MQS-N		Q030	-	BALLS BALLS		30 MPa	33
	PUSH-PULL MQS-AF	Q013	-	ISO 7241 series A	POPPET VALVE	LOCKING BALLS	30 MPa	35
PUSH	I-PULL UNDER PRESSURE MQS-AFP	Q015	-	ISO 7241 series A	POPPET VALVE	LOCKING BALLS	25 MPa	41
ING	BRAKING CIRCUIT VALVE MQS-VB	Q048	Q047	ISO 5676	FLAT VALVE	LOCKING BALLS	15 MPa	43
BRAKING	AGRICULTURAL VALVE MQS-VS	Q050	Q049	-	FLAT VALVE	SCREW-ON SLEEVE	20 MPa	48
	FLAT-FACE MQS-F	Q041	Q039	ISO 16028 and HTMA (size 3/8" only)	FLAT VALVE	LOCKING BALLS	25 MPa	53
111	FOR GERMAN MARKET MQS-SG	Q052	Q051	German Market interchangeable	POPPET VALVE	SCREW-ON SLEEVE	from 30 MPa to 40 MPa	58
SCREW-TYPE	HYDRAULIC CYLINDERS MQS-SC	Q056	Q055	-	BALL VALVE	SCREW-ON SLEEVE	70 MPa (static)	63
Š	FOR TRUCKS MQS-ST	Q058	Q057	-	POPPET VALVE	SCREW-ON SLEEVE	from 23 MPa to 25 MPa	65
	CHECK VALVES MQS-CV	Q2	A2	-	POPPET VALVE	-	from 25 MPa to 45 MPa	67



LEGEND OF SYMBOLS



Working Pressure

It is the maximum pressure at which the correct functioning of the quick coupling is assured.



Flow Rate

It is the fluid quantity which passes through a cross section of the quick coupling in the time unit.



Pressure Drop

It is the pressure difference between the way-in and the way-out of the quick coupling.



Connection Effort

It is the effort required to lock the male insert into the female one.



Oil Spillage

It is the fluid quantity lost from the coupling during the connection/disconnection phase.



Burst pressure

It is the minimum guaranteed burst pressure of the quick coupling, equivalent or superior to the reference specifications minimum requirements.



Connection/Disconnection under pressure

It is the possibility to connect and disconnect with pressure inside the quick coupling.



HYDRAULIC QUICK COUPLING

0 1 2 3 4 5 6 7 8 9 - 10 11 - 12 13

DIGIT "0" DÍGITO "0"

Q Quick coupling



DIGIT "1" DÍGITO "1"

O Hydraulic



DIGIT "2"-"3" DÍGITO "2"-"3"

Quick coupling series. Refer to the table at page 18.



 $(\mathbf{8})$

(9)-(10[×]11)-(12[×]13)

4 (5)(6)7)

DIGIT "4" DÍGITO "4"

The number stated in this position indicates the material:

- 1 Steel
- 2 AISI 316
- 3 AISI 303
- 4 Brass
- 5 Aluminium

DIGIT "5" DÍGITO "5"



The number stated in this position indicates the seals material:

- Absence of seal material
- 1 NBR (nitrile)
- 2 HNBR
- 3 FKM (viton, FPM)
- 4 CR (neoprene)
- 5 EPDM
- 6 FFPM (Kalrez)
- 7 PTFE
- 8 VMQ (silicone rubber)
- 9 AU (polyurethane)

DIGIT "6"-"7" DÍGITO "6"-"7"



The numbers stated in this positions indicate the end configuration according to the "Termination ends type" table at page 19.



DIGIT "8" DÍGITO "8"



The number stated in this position indicates the thread gender:

- 0 Male
- 1 Female

DIGIT "9" DÍGITO "9"



A letter stated in this position identifies a customized version.

DIGIT "10"-"11" DÍGITO "10"-"11"



The numbers stated in this position indicate the quick coupling size.

DIGIT "12"-"13" DÍGITO "12"-"13"



The numbers stated in this position indicate the thread size.



QUICK COUPLING SERIES

SERIES	DESCRIPTION
02	Male according to ISO 7241-1 standards, series A - Poppet valve
03	Male according to ISO 7241-1 standards, series A - Ball valve
06	Male according to ISO 7241-1 standards, series A - Connectable under pressure
08	Female according to ISO 7241-1 standards, series A - One-way release, poppet valve
09	Female according to ISO 7241-1 standards, series A - One-way release, ball valve
10	Female according to ISO 7241-1 standards, series A - One-way release, connectable under pressure
13	Female according to ISO 7241-1 standards, series A - Two-ways release, poppet valve
15	Female according to ISO 7241-1 standards, series A - Two-ways release, connectable under pressure
29	Male interchangeable with series 4000 - Poppet valve
30	Male interchangeable with series 4000 - Ball valve Macho intercambiable con la serie 4000 - Válvula de bola
32	Female interchangeable with series 4000 - One-way release, poppet valve
33	Female interchangeable with series 4000 - One-way release, ball valve
39	Flat-Face male according to ISO 16028
41	Flat face female according to ISO 16028 - With safety sleeve
47	Male for hydraulic braking circuit according to ISO 5676
48	Female for hydraulic braking circuit according to ISO 5676
49	Screw-type male for hydraulic braking circuit
50	Screw-type female for hydraulic braking circuit
51	Screw-type male for German market
52	Screw-type female for German market
55	Screw-type male for hydraulic cylinder
56	Screw-type female for hydraulic cylinder
57	Screw-type male for truck
58	Screw-type female for truck



TERMINATION ENDS TYPE

DIGIT	DESCRIPTION
04	BSP male bulkhead / Fixed female BSP DIN 3852-2 "form X" - ISO 1179-1
05	BSP parallel thread (60° cone BS5200)
11	Male metric thread (24° cone light type DIN 3861)
12	Male metric thread (24° cone heavy type DIN 3861)
14	Metric male DIN 3852-11 "form E" / Metric fixed female DIN 3852-1 "form X" and "form Y"
19	Metric male (adjustable + non-adjustable heavy) ISO 6149-2 / Metric fixed female ISO 6149-1
23	JIC thread (37° cone) bulkhead
28	NPTF male SAE J476A / NPSM swivel female
30	Male O-Ring boss (non-adjustable light) SAE J1926-3 / Female port SAE J1926-1
34	NPTF fixed female SAE J476A
37	Flange (A/C and refri application) / Metric male 60° cone superlight DIN 3863 bulkhead
77	Male bulkhead DIN (24° cone light type)
82	Male bulkhead BSP
87	Male bulkhead DIN (24° cone heavy type)

TERMINATION ENDS TYPE UPON REQUEST

DIGIT	DESCRIPTION
13	Metric female (multiseal cone DIN 3868) / metric male (adjustable + non-adjustable light) ISO 6149-3
24	ORFS type
25	JIC thread (37° cone)
27	JIC thread double exag. 37° cone / ORFS type bulkhead
32	Male O-Ring boss (adjustable + non-adjustable heavy) SAE J1926-2



HYDRAULIC CHECK VALVES



DIGIT "0","1","2" DÍGITO "0","1","2"



DIGIT "3" DÍGITO "3"

Q2A Manuli check valves series

0 1 2 3 4 5 6 7 8 9 10 - 11 12 - 13 14 15

Temination ends gender:

VALUE	INPUT	OUTPUT
1	Male	Male
2	Female	Female
3	Male	Female
4	Female	Male

DIGIT "4" DÍGITO "4"



The number stated in this position indicates the material:

- 1 Steel
- 2 AISI 316
- 3 AISI 303
- 4 Brass
- 5 ALUMINIUM

DIGIT "5" DÍGITO "5"



The number stated in this position indicates the seals material:

- Absence of seal material
- 1 NBR (nitrile)
- 2 HNBR
- **3** FKM (viton, FPM)
- 4 CR (neoprene)
- 5 EPDM
- 6 FFPM (Kalrez)
- 7 PTFE
- 8 VMQ (silicone rubber)
- 9 AU (polyurethane)

DIGIT "6"-"7" DÍGITO "6"-"7"



The numbers stated in this positions indicate the input end configuration according to the "Termination ends type" table at page 19.



DIGIT "8"-"9" DÍGITO "8"-"9"



The numbers stated in this positions indicate the output end configuration according to the "Termination ends type" table at page 19.

DIGIT "10" DÍGITO "10"



A letter stated in this position identifies the valve's crack pressure.

- 0,35 bar (5,0 psi) Α
- В 0,10 bar (1,4 psi)
- 0,20 bar (2,9 psi)
- 0,50 bar (7,1 psi)
- 1,00 bar (14,3 psi)
- 1,50 bar (21,4 psi)
- 2,00 bar (28,6 psi)
- 2,50 bar (35,7 psi)
- 3,00 bar (42,9 psi)
- 3,50 bar (50 psi)
- 4,00 bar (57,1 psi) L
- 4,50 bar (64,3 psi) M
- 5,00 bar (71,4 psi) N
- 0 6,00 bar (85,7 psi)
- P 7,00 bar (100,0 psi)
- Q 8,00 bar (114,3 psi)
- R 9,00 bar (128,6 psi)
- 10,00 bar (142,9 psi)

DIGIT "11"-"12" DÍGITO "11"-"12" (0) (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) - (11) (12) - (13) (14) (15)

Input termination end size.

DIGIT "13"-"14" DÍGITO "13"-"14" **6** , **7**) (1)

(4) (8,9)(10)-(11,12)-(13,14)(15) $(\mathbf{2})$ (3) $(\mathbf{5})$

Output termination end size.

(8,9)(10)-(11,12)-(13,14) **(5**) $\left(\mathbf{6}^{\vee}_{\lambda}\mathbf{7}\right)$ 4 **DIGIT "15"** DÍGITO "15"

Free digit for other characteristics.





ISO A POPPET VALVES

KEY FEATURES

- Reference series on the agriculture market
- Simple connection and disconnection by pulling back the sleeve
- Positive, quick connection of the male into the female by the locking ball system
- Shut-off by poppet valve provides a positive sealing arrangement
- Dimensional and performance requirements conform to ISO 7241-1 series A, ensuring worldwide interchangeability.



PLUS PERFORMANCES

■ Hardened male nipple and sleeve to withstand the brinelling effect of locking balls under pressure ■ Hardened poppet valve to increase service life against wear ■ Improved resistance against pressure impulses, due to increased thickness of Back-up Ring

	SIZE		WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection		MINIMUM BURST PRESSURE (MPa)		CONNECTION / DISCONNECTION UNDER PRESSURE
mm	inch	dash	MPa	L/min.	MPa	N	CC.	Male Female M+F			
10	3/8"	-06	31,5	23	0,07	80	1,4	145	160	130	Not allowed
12,5	1/2"	-08	30	45	0,1	80	1,8	125	160	160	Not allowed
20	3/4"	-12	25	106	0,18	90	7	100	120	105	Not allowed
25	1"	-16	25	189	0,25	90	13	105	110	110	Not allowed
31,5	1.1/4"	-20	20	288	0,18	170	10,5	75	115	85	Not allowed
40	1.1/2"	-24	18	379	0,18	170	20,5	65	115	95	Not allowed

MATERIAL: Female and male couplings in steel, with some hardened areas, in correspondence to the most stressed points. Carbonitrited valve, springs in C98 steel, seals in NBR (others materials on request) and Back-up Ring in PTFE.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F (for other temperatures, the coupling may be assembled with the specific seals).

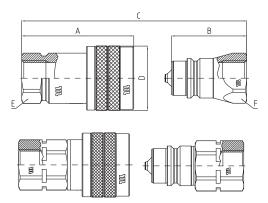
SAFETY FACTOR: 1:4 for dynamic pressures and 1:2 for static pressures. **IMPULSE PRESSURES:** 100.000 cycles at 133% of the rated one (freq. 1Hz). **TEST SPECIFICATIONS:** ISO 7241-2.







BSP



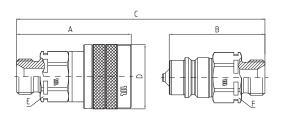
Q00811041A - Q00211041A

COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3852 X TYPE

Male and female couplings in two parts

SIZE			PART N	THREADS	DIMENSIONS mm						
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
10	3/8"	-06	Q00811041A-06-06	Q00211041A-06-06	3/8"	57,8	40	A+B-17,5	ø30	22	22
12.5	1/2"	00	Q00811041A-08-06*	Q00211041A-08-06*	3/8"	66,2	55	A+B-21,8	ø38	27	27
12,5	1/2"	-08	Q00811041A-08-08	Q00211041A-08-08	1/2"	67	45	A+B-21,8	ø38	27	27
20	3/4"	-12	Q00811041A-12-12	Q00211041A-12-12	3/4"	83,5	56,5	A+B-26,7	ø45	34	34
25	1"	-16	Q00811041A-16-16	Q00211041A-16-16	1"	97,5	64,5	A+B-32,7	ø52	41	41
31,5	1.1/4"	-20	Q00811041A-20-20	Q00211041A-20-20	1.1/4"	118	75	A+B-43	ø69	50	50
40	1.1/2"	-24	Q00811041A-24-24	Q00211041A-24-24	1.1/2"	133	84	A+B-49	ø83	60	60

^{*} In two parts.



Q00811050A - Q00211050A

COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3863

	SIZE		PART N	UMBER	THREADS	DIMENSIONS mm					
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F
12.5	1/2"	00	Q00811050A-08-06	Q00211050A-08-06	3/8"	66,2	55	A+B-21,8	ø38	27	27
12,5	12,5 1/2"	-08	Q00811050A-08-08	Q00211050A-08-08	1/2"	68,2	56	A+B-21,8	ø38	27	27

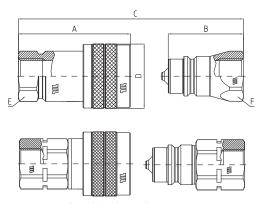




METRIC

Q00811141A - Q00211141A

COUPLINGS WITH METRIC TERMINATION ENDS TO DIN 3852 X TYPE



Male and female couplings in two parts

	SIZE		PART N	THREADS	DIMENSIONS mm						
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F
12.5	1/2//	00	Q00811141A-08-18*	Q00211141A-08-18*	M18x1,5	66,2	55	A+B-21,8	ø38	27	27
12,5	1/2"	-08	Q00811141A-08-22	Q00211141A-08-22	M22x1,5	66,2	55	A+B-21,8	ø38	27	27

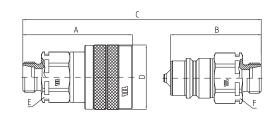
^{*} In two parts.

Q00811110A - Q00211110A

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 L SERIES

Q00811120A - Q00211120A

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 S SERIES



	SIZE PART NUMBER THREADS DIMENSIONS mn					ONS mm					
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F
			Q00811110A-08-14	Q00211110A-08-14	M14x1,5	64,2	53	A+B-21,8	ø38	27	27
			Q00811110A-08-16	Q00211110A-08-16	M16x1,5	65,2	54	A+B-21,8	ø38	27	27
12,5	1/2"	-08	Q00811110A-08-18	Q00211110A-08-18	M18x1,5	65,2	54	A+B-21,8	ø38	27	27
			Q00811110A-08-22	Q00211110A-08-22	M22x1,5	66,2	55	A+B-21,8	ø38	27	27
			Q00811110A-08-26	Q00211110A-08-26	M26x1,5	67,2	56	A+B-21,8	ø38	27	27
			Q00811120A-08-18	Q00211120A-08-18	M18x1,5	66,2	55	A+B-21,8	ø38	27	27
12,5	1/2"	-08	Q00811120A-08-20	Q00211120A-08-20	M20x1,5	66,2	55	A+B-21,8	ø38	27	27
			Q00811120A-08-24	Q00211120A-08-24	M24x1,5	68,2	57	A+B-21,8	ø38	27	27



Male and female couplings in two parts

Q00811191A - Q00211191A

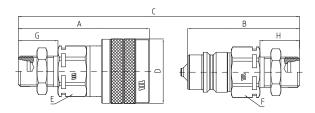
COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 6149-1

	SIZE		PART N	THREADS	DIMENSIONS mm						
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F
			Q00811191A-08-16*	Q00211191A-08-16*	M16x1,5	65,2	54	A+B-21,8	ø38	27	27
12,5	1/2"	-08	Q00811191A-08-18*	Q00211191A-08-18*	M18x1,5	66,2	55	A+B-21,8	ø38	27	27
			Q00811191A-08-22	Q00211191A-08-22	M22x1,5	67	45	A+B-21,8	ø38	27	27

^{*} In two parts.

Q00811770B - Q00211770B

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 BULKHEAD L SERIES



Q00811870B - Q00211870B

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 BULKHEAD S SERIES

	SIZE		PART N	UMBER	THREADS				DIMENSI	ONS mm			
mm	inch	dash	Female Coupling			Α	В	С	D	E	F	G	Н
			Q00811770B-08-14	Q00211770B-08-14	M14x1,5	76,7	65,5	A+B-21,8	ø38	27	27	25	25
			Q00811770B-08-16	Q00211770B-08-16	M16x1,5	77,7	66,5	A+B-21,8	ø38	27	27	26	26
12,5	1/2"	-08	Q00811770B-08-18	Q00211770B-08-18	M18x1,5	77,7	66,5	A+B-21,8	ø38	27	27	26	26
			Q00811770B-08-22	Q00211770B-08-22	M22x1,5	78,2	67	A+B-21,8	ø38	27	27	27	27
			Q00811770B-08-26	Q00211770B-08-26	M26x1,5	79,2	68	A+B-21,8	ø38	30	30	28	28
			Q00811870B-08-18	Q00211870B-08-18	M18x1,5	77,7	66,5	A+B-21,8	ø38	27	27	27	27
12,5	1/2"	-08	Q00811870B-08-20	Q00211870B-08-20	M20x1,5	77,7	66,5	A+B-21,8	ø38	27	27	27	27
			Q00811870B-08-24	Q00211870B-08-24	M24x1,5	79,7	68,5	A+B-21,8	ø38	27	27	29	29

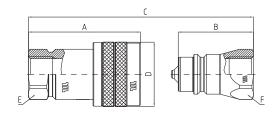




NPT

Q00811341A - Q00211341A

COUPLINGS WITH NPT TERMINATION ENDS TO ANSI B 1.20.3

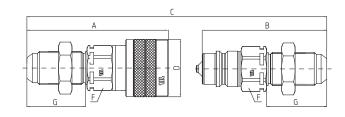


	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
10	3/8"	-06	Q00811341A-06-06	Q00211341A-06-06	3/8" NPTF	57,8	40	A+B-17,5	ø30	22	22
12,5	1/2"	-08	Q00811341A-08-08	Q00211341A-08-08	1/2" NPTF	67	45	A+B-21,8	ø38	27	27
20	3/4"	-12	Q00811341A-12-12	Q00211341A-12-12	3/4" NPTF	83,5	56,5	A+B-26,7	ø45	34	34
25	1"	-16	Q00811341A-16-16	Q00211341A-16-16	1" NPTF	97,5	64,5	A+B-32,7	ø52	41	41
31,5	1.1/4"	-20	Q00811341A-20-20	Q00211341A-20-20	1.1/4" NPTF	118	75	A+B-43	ø69	50	50
40	1.1/2"	-24	Q00811341A-24-24 Q00211341A-24-24		1.1/2" NPTF	133	84	A+B-49	ø83	60	60

SAE

Q00811230A - Q00211230A

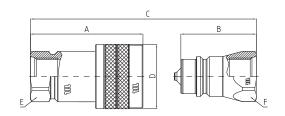
COUPLINGS WITH SAE TERMINATION ENDS TO ISO 8434-2 BULKHEAD



	SIZE PART NUMBER			UMBER	THREADS			DIM	IENSIONS	mm		
mm	inch	dash	Female Coupling Male Coupling			A	В	С	D	E	F	G
12.5	1/2"	00	Q00811230A-08-08	Q00211230A-08-08	3/4" UNF	90,8	79,6	A+B-21,8	ø38	27	27	36,6
12,5	1/2	-08	Q00811230A-08-10	Q00211230A-08-10	7/8" UNF	94,3	83,1	A+B-21,8	ø38	27	27	40,1

Q00811301A - Q00211301A

COUPLINGS WITH SAE TERMINATION ENDS TO SAE J1926-1



	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling Male Coupling			Α	В	С	D	E	F
12.5	1/2"	00	Q00811301A-08-08	Q00211301A-08-08	3/4" UNF	67	45	A+B-21,8	ø38	27	27
12,5	1/2"	-08	Q00811301A-08-10	Q00211301A-08-10	7/8" UNF	69	47	A+B-21,8	ø38	27	27



ISO A BALL VALVES

KEY FEATURES

- Simple connection and disconnection by pulling back the sleeve
- Positive, quick connection of the male into the female by the locking ball system
- Dimensional and performance requirements compliant to ISO 7241-1 series A, ensuring worldwide interchangeability
- Totally interchangeable with standard poppet valve couplings.

PLUS PERFORMANCES

- Hardened male nipple and sleeve to withstand the brinelling effect of locking balls under pressure
- Improved resistance against pressure impulses, due to increased thickness of Back-up Ring

			MPa	FLOW RATE		N					(i)
	SIZE		WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection		MINIMUM RST PRESS (MPa)		CONNECTION / DISCONNECTION UNDER PRESSURE
mm	inch	dash	MPa	L/min.	MPa	N	CC.	Male	Female	M+F	
12,5	1/2"	-08	21	45	0,15	65	1,6	85	100	150	Not allowed

MATERIAL: Female and male coupling in steel, with some hardened areas, in correspondence to the most stressed points. Carbonitrited valve, springs in C98 steel, seals in NBR (others materials on request) and Back-up Ring in PTFE.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F (for other temperatures, the coupling may be assembled with the specific seals).

SAFETY FACTOR: 1:4 for dynamic pressures and 1:2 for static ones. **IMPULSE PRESSURES:** 100.000 cycles at 133% of the rated one (freq. 1Hz). **TEST SPECIFICATIONS:** ISO 7241-2.





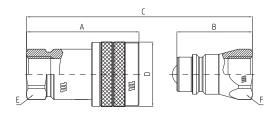


ISO A BALL VALVES - TERMINATION ENDS

BSP

Q00911041A - Q00311041A

COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3852 X TYPE

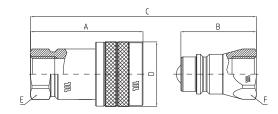


	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling Male Coupling			Α	В	С	D	E	F
12,5	1/2"	-08	Q00911041A-08-08 Q00310041A-08-08		1/2"	68,2	46,2	A+B-21,8	ø38	27	27

NPT

Q00911341A - Q00310341A

COUPLINGS WITH NPT TERMINATION ENDS TO ANSI B 1.20.3



	SIZE			PART N	UMBER	THREADS			DIMENSI	ONS mm		
Г	mm	inch	dash	Female Coupling		Α	В	С	D	E	F	
	12,5	1/2"	-08	Q00911341A-08-08 Q00310341A-08-08		1/2" NPTF	68,2	46,2	A+B-21,8	ø38	27	27

ISO A UNDER PRESSURE

KEY FEATURES

- Connection and disconnection is possible by pulling back the sleeve
- Positive, quick connection of the male into the female by the locking ball system
- The sealing is assured, either at high or low pressure, by a special valve
- Totally interchangeable according to ISO 7241 series A
- Connectable under pressure thanks to a frontal microvalve
- Possible connection with maximum working pressure.



PLUS PERFORMANCES

- Hardened male nipple and sleeve to withstand the brinelling effect of locking balls under pressure
- Hardened poppet valve to increase service life against wear Improved resistance against pressure impulses, due to increased thickness of Back-up Ring

	SIZE		WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection	MINIMUM BURST PRESSURE (MPa)	CONNECTION / DISCONNECTION UNDER PRESSURE
mm	inch	dash	MPa	L/min.	MPa	N	CC.	Male Female M+F	

mm	inch	dash	MPa	L/min.	MPa	N	CC.	Male	Female	M+F	
12,5	1/2"	-08	25	45	0,1	80	1,8 with 0 MPa of pressure	115	125	160	Allowed just for the insert

MATERIAL: Female and male coupling in steel, with some tempered areas.

Carbonitrited valve and micro-valve, springs in C98 steel, seals in NBR and polyurethane (others materials on request) and Back-up Ring in PTFE.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F (for other temperatures the quick coupling is assembled with specific seals).

SAFETY FACTOR: 1:4 for dynamic pressures and 1:2 for static ones.

IMPULSE PRESSURES: It withstands 100.000 cycles of impulse pressure, at 133% of the rated one (freq. 1Hz).

TEST SPECIFICATIONS: ISO 7241-2.





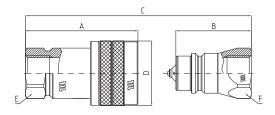


ISO A UNDER PRESSURE - TERMINATION ENDS

BSP

Q01011041A - Q00611041A

COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3852 X TYPE

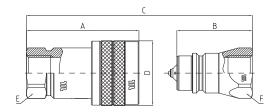


	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling Male Coupling			A	В	С	D	E	F
12,5	1/2"	-08	Q01011041A-08-08	Q00611041A-08-08	1/2"	68,2	46,2	A+B-21,8	ø38	27	27

NPT

Q01011341A - Q00611341A

COUPLINGS WITH NPT TERMINATION ENDS TO ANSI B 1.20.3



	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F
12,5	1/2"	-08	Q01011341A-08-08 Q00611341A-08-08		1/2" NPTF	68,2	46,2	A+B-21,8	ø38	27	27



STANDARD POPPET VALVES

KEY FEATURES

- Simple connection and disconnection by pulling back the sleeve
- Positive, quick connection of the male into the female by the locking ball system
- The 1/2" size is the same of 1/2" ISO series A
- Totally interchangeable with the standard ball valve coupling
- Interchangeable with current series on the market.



PLUS PERFORMANCES

- Hardened male nipple and sleeve to withstand the brinelling effect of locking balls under pressure
- Hardened poppet valve to increase service life against wear Improved resistance against pressure impulses, due to increased thickness of Back-up Ring

	SIZE		MPa	FLOW RATE		N					
			WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection		MINIMUN RST PRESS (MPa)	_	CONNECTION / DISCONNECTION UNDER PRESSURE
m	m inch	dash	MPa	L/min.	MPa	N	CC.	Male	Female	M+F	
6,	3 1/4"	-04	35	12	0,13	80	0,8	190	190	140	Not allowed

mm	inch	dash	MPa	L/min.	MPa	N	CC.	Male	Female	M+F	
6,3	1/4"	-04	35	12	0,13	80	0,8	190	190	140	Not allowed
10	3/8"	-06	35	23	0,07	95	1,3	160	170	170	Not allowed
12,5	1/2"	-08	SEE	ISO SERIES A - PO	PPET VALVES AT P	AGES 22-26 VEAL	a serie a ISO - válv	ULAS DE P	UNZÓN EN	LAS PÁGIN	AS 22-26

MATERIAL: Female and male couplings in steel, with some hardened areas, in correspondence to the most stressed points. Carbonitrited valve, springs in C98 steel, seals in NBR (others materials on request) and Back-up Ring in PTFE.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F (for other temperatures the coupling is assembled with the specified seals).

SAFETY FACTOR: 1:4 for dynamic pressures and 1:2 for static ones. **IMPULSE PRESSURES:** 100.000 cycles at 133% of the rated one (freq. 1Hz). **TEST SPECIFICATIONS:** ISO 7241-2.





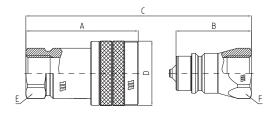


STANDARD POPPET VALVES - TERMINATION ENDS

BSP

Q03211041A - Q02911041A

COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3852 X TYPE

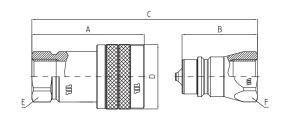


					THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
6,3	1/4"	-04	Q03211041A-04-04	Q02911041A-04-04	1/4"	53,5	36,5	A+B-16,6	ø27	19	19
10	3/8"	-06	Q03211041A-06-06			60,5	40	A+B-20,1	ø34	24	24
12,5	1/2"	-08	SEE ISO SERIES	A - POPPET VALVES AT PAGES 2	22-26 VEA LA SERII	e a ISO - Vál	LVULAS DE I	PUNZÓN EN	LAS PÁGINA	AS 22-26	

NPT

Q03211341A - Q02911341A

COUPLINGS WITH NPT TERMINATION ENDS TO ANSI B 1.20.3



	SIZE		PART N	UMBER	THREADS DIMENSIONS mm						
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
6,3	1/4"	-04	Q03211341A-04-04	Q02911341A-04-04	1/4" NPT	53,5	36,5	A+B-16,6	ø27	19	19
10	3/8"	-06	Q03211341A-06-06	Q02911341A-06-06	3/8" NPT	60,5	40	A+B-20,1	ø34	24	24
12,5	1/2"	-08	SEE ISO SERIES	A - POPPET VALVES AT PAGES	22-26 VEA LA SERI	e a ISO - Vá	LVULAS DE	PUNZÓN EN	LAS PÁGINA	AS 22-26	





STANDARD BALL VALVES

KEY FEATURES

- Simple connection and disconnection by pulling back the sleeve
- Positive, quick connection of the male into the female by the locking ball system
- The 1/2" size is the same of 1/2" ISO series A
- Totally interchangeable with the standard poppet valve coupling
- Interchangeable with current series on the market.



PLUS PERFORMANCES

- Hardened male nipple and sleeve to withstand the brinelling effect of locking balls under pressure
- Improved resistance against pressure impulses, due to increased thickness of Back-up Ring

MPa N S de FLOW RATE **SIZE PRESSURE OIL SPILLAGE WORKING MINIMUM** CONNECTION **RATED** CONNECTION **PRESSURE DROP Connection/ BURST PRESSURE DISCONNECTION FLOW EFFORT** by rated flow **Disconnection** (MPa) **UNDER PRESSURE** (Dynamic)

mı	m	inch	dash	MPa	L/min.	MPa	N	cc.	Male	Female	M+F	
6,	3	1/4"	-04	30	12	0,2	40	0,35	140	130	150	Not allowed
10)	3/8"	-06	30	23	0,26	63	0,85	120	130	170	Not allowed
12,	,5	1/2"	-08		SEE ISO SERIES A BALL VALVES AT PAGES 27-28 VEA LA SERIE A ISO - VÁLVULAS DE BOLA EN LAS PÁGINAS 27-28							

MATERIAL: Female and male coupling in steel, with some stressed tempered areas. High-resistance locking balls, springs in C98 steel, seals in NBR and Back-up Ring in PTFE.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F (for other temperatures the coupling is assembled with the specified seals).

SAFETY FACTOR: 1:4 for dynamic pressures and 1:2 for static ones. **IMPULSE PRESSURES:** 100.000 cycles at 133% of the rated one (freq. 1Hz). **TEST SPECIFICATIONS:** ISO 7241-2.





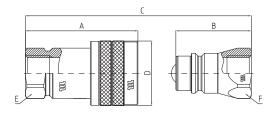


STANDARD BALL VALVES - TERMINATION ENDS

BSP

Q03311041A - Q03010041A

COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3852 X TYPE

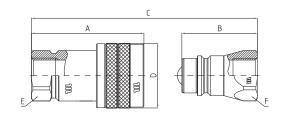


	SIZE PART NUMBER				THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
6,3	1/4"	-04	Q03311041A-04-04	Q03010041A-04-04	1/4"	51,3	34,3	A+B-16,6	ø27	19	19
10	3/8"	-06	Q03311041A-06-06	Q03311041A-06-06 Q03010041A-06-06		60,6	40,1	A+B-20,1	ø34	24	24
12,5	1/2"	-08	SEE ISO SERIES A BALL VALVES AT PAGES 27-28 VEA LA SERIE A ISO - VÁLVULAS DE E					OLA EN LAS	PÁGINAS 2	7-28	

NPT

Q03311341A - Q03010341A

COUPLINGS WITH NPT TERMINATION ENDS TO ANSI B 1.20.3



	SIZE		PART N	UMBER	THREADS DIMENSIONS mm						
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
6,3	1/4"	-04	Q03311341A-04-04	Q03010341A-04-04	1/4" NPT	51,3	34,3	A+B-16,6	ø27	19	19
10	3/8"	-06	Q03311341A-06-06	Q03010341A-06-06	3/8" NPT	60,6	40,1	A+B-20,1	ø34	24	24
12,5	1/2"	-08	SEE ISO SER	IES A BALL VALVES AT PAGES 2	2 7-28 Vea la serie	: A ISO - VÁL	VULAS DE E	OLA EN LAS	PÁGINAS 2	7-28	



PUSH-PULL

KEY FEATURES

- The Push-Pull female coupling is used with the male ISO series A
- The male is connected by being pushed in and it is disconnected by being pulled out
- Positive connection by locking balls system

- Connection under pressure is not allowed, while disconnection in emergency only
- With female wall or panel mounted by the sleeve, the coupling has a breakaway feature to ISO 5675.

PLUS PERFORMANCES

■ Hardened poppet valve to increase service life against wear ■ Improved resistance against pressure impulses, due to increased thickness of Back-up Ring

		MPa	FLOW RATE		N		E			
	SIZE		WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection	BURST P	MUM RESSURE Pa)	CONNECTION / DISCONNECTION UNDER PRESSURE
mm	inch	dash	MPa	L/min.	MPa	N	CC.	Female	M+F	
12,5	1/2"	-08	30	45	0,1	95	1,8	160	160	Not allowed

MATERIAL: Female and male coupling in steel, with some stressed tempered areas. Carbonitrited valve, springs in C98 steel, locking balls in high resistence 100 C6 steel, seals in NBR (other materials on request) and Back-up Ring in PTFE.

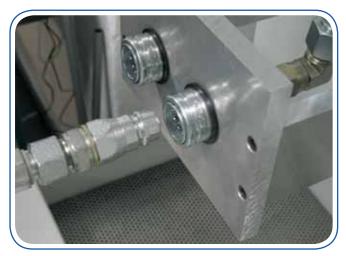
WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F (for other temperatures the coupling is assembled with the specified seals).

SAFETY FACTOR: 1:4 for dynamic pressures and 1:2 for static ones. **IMPULSE PRESSURES:** 100.000 cycles at 133% of the rated one (freq. 1Hz). **TEST SPECIFICATIONS:** ISO 7241-2.





PUSH-PULL - MOUNTING SYSTEM



On the wall, with blocked sleeve and hose with coupling

CONNECTION

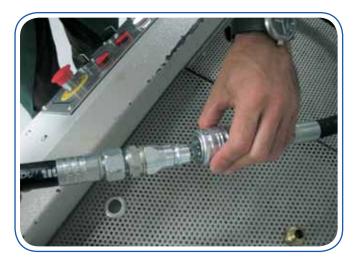
by pushing the male coupling (PUSH)

DISCONNECTION

by pulling the male coupling (PULL)

BREAKAWAY FUNCTION

ves



Hoses with couplings

CONNECTION

by holding the female coupling on the sleeve and pushing the male coupling

DISCONNECTION

by holding the female coupling on the sleeve and pulling the male coupling

BREAKAWAY FUNCTION

no



Hose with female coupling and pipe with male coupling

CONNECTION

by holding the female coupling on the sleeve and pushing the same one

DISCONNECTION

by holding the female coupling on the sleeve and pulling

BREAKAWAY FUNCTION

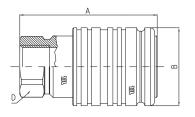
no

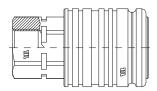


Q.Safe

PUSH-PULL - TERMINATION ENDS

BSP





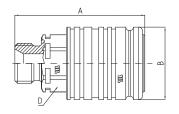
Female couplings in two parts.

Q01311041A

FEMALE COUPLING WITH BSP TERMINATION ENDS TO DIN 3852 X TYPE

	SIZE	PART NUMBER		THREADS		DIMENSIONS mm	
mm	inch	dash	Female Coupling		A	В	D
12.5	1/2//	00	Q01311041A-08-06*	3/8″	66,2	ø38	27
12,5	1/2"	-08	Q01311041A-08-08	1/2"	67	ø38	27

^{*} In two parts.

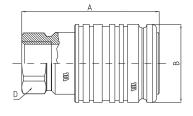


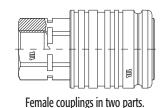
Q01311050A

FEMALE COUPLING WITH BSP TERMINATION ENDS TO DIN 3863

	SIZE		PART NUMBER	THREADS	DIMENSIONS mm		
mm	inch	dash	Female Coupling		Α	В	D
12.5	1/2"	00	Q01311050A-08-06	3/8"	66,2	ø38	27
12,5	1/2"	-08	Q01311050A-08-08	1/2″	68,2	ø38	27

METRIC





Q01311141A

FEMALE COUPLING WITH METRIC TERMINATION ENDS TO DIN 3852 X TYPE

	SIZE		PART NUMBER	THREADS	DIMENSIONS mm		
mm	inch	dash	Female Coupling		Α	В	D
12.5	1/2"	00	Q01311141A-08-18*	M18x1.5	66,2	ø38	27
12,5	,5 1/2"	/2" -08	Q01311141A-08-22	M22x1.5	67	ø38	27

^{*} In two parts.

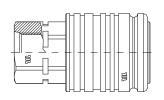


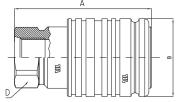


PUSH-PULL - TERMINATION ENDS

Q01311191A

FEMALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 6149-1





Female couplings in two parts.

			PART NUMBER	THREADS		DIMENSIONS mm	
mm	inch	dash	Female Coupling		Α	В	D
			Q01311191A-08-16*	M16x1.5	66,7	ø38	27
12,5	1/2"	-08	Q01311191A-08-18*	M18x1.5	66,7	ø38	27
			Q01311191A-08-22	M22x1.5	67	ø38	27

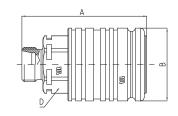
^{*} In two parts.

Q01311110A

FEMALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 8434-1 L SERIES

Q01311120A

FEMALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 8434-1 S SERIES



	SIZE		PART NUMBER THREADS		DIMENSIONS mm				
mm	inch	dash	Female Coupling		A	В	D		
			Q01311110A-08-14	M14x1,5	65,2	ø38	27		
			Q01311110A-08-16	M16x1,5	65,2	ø38	27		
12,5	5 1/2"	-08	Q01311110A-08-18	M18x1,5	65,2	ø38	27		
			Q01311110A-08-22	M22x1,5	66,2	ø38	27		
			Q01311110A-08-26	M26x1,5	67,2	ø38	30		
			Q01311120A-08-18	M18x1,5	66,2	ø38	27		
12,5	2,5 1/2"	-08	Q01311120A-08-20	M20x1,5	66,2	ø38	27		
			Q01311120A-08-24	M24x1,5	68,2	ø38	27		



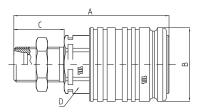
Q.Safe



PUSH-PULL - TERMINATION ENDS

Q01311770B

FEMALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 8434-1BULKHEAD L SERIES

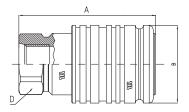


Q01311870B

FEMALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 8434-1 BULKHEAD S SERIES

	SIZE		PART NUMBER	THREADS	DIMENSIONS mm			
mm	inch	dash	Female Coupling		A	В	С	D
			Q01311770B-08-14	M14x1,5	79,2	ø38	25	27
	1/2"		Q01311770B-08-16	M16x1,5	80,2	ø38	26	27
12,5		-08	Q01311770B-08-18	M18x1,5	80,2	ø38	26	27
			Q01311770B-08-22	M22x1,5	81,2	ø38	27	27
			Q01311770B-08-26	M26x1,5	82,2	ø38	28	30
	1/2"		Q01311870B-08-18	M18x1,5	81,2	ø38	27	27
12,5		-08	Q01311870B-08-20	M20x1,5	81,2	ø38	27	27
			Q01311870B-08-24	M24x1,5	83,2	ø38	29	27

SAE



Q01311301A

FEMALE COUPLING WITH SAE TERMINATION ENDS TO SAE J1926-1

SIZE			PART NUMBER	THREADS	DIMENSIONS mm			
mm	inch	dash	Female Coupling		A B D			
12.5	1/2"	00	Q01311301A-08-08	3/4" UNF	67	ø38	27	
12,5		-08	Q01311301A-08-10	7/8" UNF	69	ø38	27	

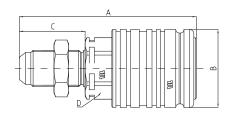




PUSH-PULL - TERMINATION ENDS

Q01311230A

FEMALE COUPLING WITH SAE TERMINATION ENDS TO ISO 8434-2

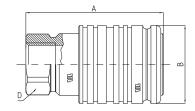


SIZE			PART NUMBER	THREADS	DIMENSIONS mm				
mm	inch	dash	Female Coupling		A B C			D	
12.5	1/2"	1/2"	00	Q01311230A-08-08	3/4" UNF	90,8	ø38	36,6	27
12,5		-08	Q01311230A-08-10	7/8" UNF	94,3	ø38	40,1	27	

NPT

Q01311341A

FEMALE COUPLING WITH NPT TERMINATION ENDS TO ANSI B 1.20.3



SIZE			PART NUMBER	THREADS	DIMENSIONS mm			
mm	inch	dash	Female Coupling		A B		D	
12,5	1/2"	-08	Q01311341A-08-08	1/2" NPT	67 ø38		27	



PUSH-PULL UNDER PRESSURE

KEY FEATURES

- Female quick couplings which connect by pushing and disconnect by pulling
- The male quick coupling is the ISO series A
- Positive connection by locking balls system
- Totally interchangeable according to ISO 7241 series A
- Disconnection under pressure is allowed on emergency only
- With female wall or panel mounted the coupling has a breakaway feature to ISO 5675
- Possible connection with maximum working pressure.

PLUS PERFORMANCES

■ Hardened poppet valve to increase service life against wear ■ Improved resistance against pressure impulses, due to increased thickness of Back-up Ring

	SIZE		WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection	MINIMUM BURST PRESSURE (MPa)		CONNECTION / DISCONNECTION UNDER PRESSURE	
mm	inch	dash	MPa	L/min.	MPa	N	CC.	Male	Female	M+F	
12,5	1/2"	-08	25	45	0,1	95	1,8 with 0 MPa of pressure	-	130	160	Allowed just for the insert

MATERIAL: Female and male coupling in steel, with some tempered areas.

Carbonitrited valve and micro-valve, springs in C98 steel, locking balls in 100 C6 steel, seals in NBR and polyurethane (other materials on request) and Back-up Ring in PTFE.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F (for other temperatures the quick coupling is assembled with specific seals).

SAFETY FACTOR: 1:4 for dynamic pressures and 1:2 for static ones.

IMPULSE PRESSURES: 100.000 cycles of impulse pressure, at 133% of the rated one (freq. 1Hz).

TEST SPECIFICATIONS: ISO 7241-2.





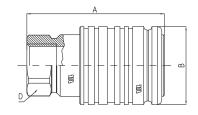


PUSH-PULL UNDER PRESSURE - TERMINATION ENDS

BSP

Q01511041A

FEMALE COUPLING WITH BSP TERMINATION ENDS TO DIN 3852 X TYPE

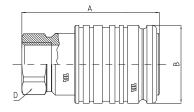


	SIZE		PART NUMBER	THREADS		DIMENSIONS mm	
mm	inch	dash	Female Coupling		A	В	D
12,5	1/2"	-08	Q01511041A-08-08	1/2"	67 ø38 27		27

NPT

Q01511341A

FEMALE COUPLING WITH NPT TERMINATION ENDS TO ANSI B 1.20.3



	SIZE		PART NUMBER	THREADS		DIMENSIONS mm	
mm	inch	dash	Female Coupling		A	D	
12,5	1/2"	-08	Q01511341A-08-08	1/2" NPTF	67	ø38	27



BRAKING CIRCUITS VALVE

KEY FEATURES

- Trailer brake coupling specially designed to connect the hydraulic braking system of tractors to trailers
- Connection and disconnection by pulling back the sleeve
- Positive connection by locking balls system
- The connection is assured by a special flat seal valve that grants the maximum performance at either high or low pressure
- Interchangeable according to ISO 5676
- The male has to be placed on the tractor and the female on the implement.



Safety cap for male coupling and female coupling with parking included.



PLUS PERFORMANCES CARACTERÍSTICAS ADICIONALES

• Hardened male nipple and sleeve to withstand the brinelling effect of locking balls under pressure

	SIZE		WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection	ı	MINIMUM RST PRESS (MPa)	-	CONNECTION / DISCONNECTION UNDER PRESSURE
mm	inch	dash	MPa	L/min.	MPa	N	CC.	Male	Female	M+F	
12,5	1/2"	-08	15	20	0,05	100	0,02	135	60	130	Not allowed

MATERIAL: Female and male coupling in steel, with some stressed tempered areas. Carbonitrited valve, springs in C98 steel, seals in NBR and Back-up Ring in PTFE.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F. **SAFETY FACTOR:** 1:4 for dynamic pressures and 1:2 for static ones.

TEST SPECIFICATIONS: ISO 5676.



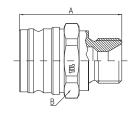




BSP

Q04711050A

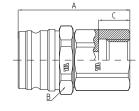
MALE COUPLING WITH BSP TERMINATION ENDS TO DIN 3863



	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04711050A-08-08	1/2" BSP	DIN 3863	48	32	-	-

Q04711041A

MALE COUPLING WITH BSP TERMINATION ENDS

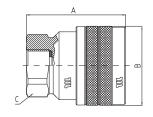


	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04711041A-08-08	1/2" BSP	-	57	32	16	-

METRIC

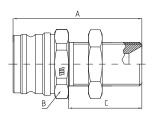
Q04811141A

FEMALE COUPLING WITH METRIC TERMINATION ENDS



	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Female Coupling			A	В	С	D
12,5	1/2"	-08	Q04811141A-08-18	M18x1,5	-	55,5	ø44	32	-

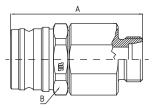




Q04711370A

MALE COUPLING WITH METRIC TERMINATION ENDS TO DIN 3863 BULKHEAD

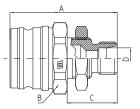
	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04711370A-08-22	M22x1,5	DIN 3863	65	32	37	-



Q04711110A

MALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 8434-1 L SERIES

	SIZE		PART NUMBER	THREADS	STANDARD		DIMENSI	ONS mm	
mm	inch	dash	Male Coupling			A	В	С	D
12.5	1/2"	00	Q04711110A-08-18	M18x1,5	ISO 8434-1 L series	65	32	-	-
12,5	1/2"	-08	Q04711110A-08-22	M22x1,5	ISO 8434-1 L series	64,7	32	-	-



A

Q04711770A

MALE COUPLING WITH METRIC TERMINATION ENDS

Q04711770A

MALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 8434-1 BULKHEAD S SERIES

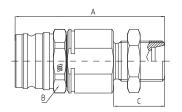
	SIZE		PART NUMBER	THREADS	STANDARD				
mm	inch	dash	Male Coupling			Α	В	С	D
12.5	1/2"	00	Q04711770A-08-16	M16x1,5	-	52,5	32	24,5	ø10,2
12,5	1/2"	-08	Q04711770A-08-18	M18x1,5	-	52	32	24	ø12,2
12,5	1/2"	-08	Q04711770A-08-22	M22x1,5	ISO 8434-1 S series	63	32	35	-





Q04711770B

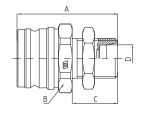
MALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 8434-1 BULKHEAD L SERIES



	SIZE		PART NUMBER	THREADS	STANDARD		DIMENSI	ONS mm	
mm	inch	dash	Male Coupling			Α	В	С	D
12,5	1/2"	-08	Q04711770B-08-22	M22x1,5	ISO 8434-1 L series	82	32	28	-

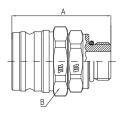
Q04711820A

MALE COUPLING WITH METRIC TERMINATION ENDS



	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04711820A-08-20	M20x1,5	-	51	32	23	ø13,5

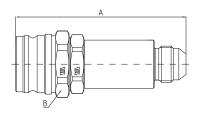
UNF



Q04711300A

MALE COUPLING WITH UNF TERMINATION ENDS TO SAE J1926-3

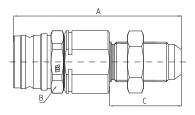
	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04711300A-08-08	3/4" UNF	SAE J 1926-3	50	32	-	-



Q04711250A

MALE COUPLING WITH UNF TERMINATION ENDS TO ISO 8434-2

	SIZE		PART NUMBER	THREADS	STANDARD				
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04711250A-08-08	3/4" UNF	ISO 8434-2	89,5	32	-	-



Q04711230A

MALE COUPLING WITH UNF TERMINATION ENDS TO ISO 8434-2 BULKHEAD

	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04711230A-08-10	7/8" UNF	ISO 8434-2	93,8	32	40,1	-





AGRICULTURAL VALVE

KEY FEATURES

- Quick couplings specifically designed for the braking circuits in agriculture application
- Connection and disconnection possible by screwing the sleeve
- The blockage of the male coupling into the female one is due to the thread between the sleeve and the male part
- Totally interchangable with products on the market
- The connection and disconnection under pressure are always allowed
- The male has to be placed on the tractor and female on the implement.



Safety cap for male coupling and parking for female included.



PLUS PERFORMANCES

• Vulcanized seal in the female coupling, to prevent seal wash-out in case of connection/disconnection under residual pressure

			MPa	FLOW RATE						
	SIZE		WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	OIL SPILLAGE Connection/ Disconnection		MINIMUM RST PRESS (MPa)		CONNECTION / DISCONNECTION UNDER PRESSURE
mm	inch	dash	MPa	L/min.	MPa	CC.	Male	Female	M+F	
12,5	1/2"	-08	20	20	0,05	0,02	135 80 145		Allowed	

MATERIAL: Female and male coupling in steel, with some stressed tempered areas. Carbonitrited valve, springs in C98 steel, seals in NBR and Back-up Ring in PTFE.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F. **SAFETY FACTOR:** 1:4 for dynamic pressures and 1:2 for static ones.

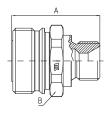








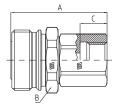
BSP



Q04911050A

MALE COUPLING WITH BSP TERMINATION ENDS TO DIN 3863

	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04911050A-08-08	1/2" BSP	DIN 3863	48	36	-	-

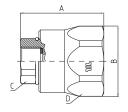


Q04911041A

MALE COUPLING WITH BSP TERMINATION ENDS

	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04911041A-08-08	1/2" BSP	ı	57	36	16	-

METRIC



Q05011141A

FEMALE COUPLING WITH METRIC TERMINATION ENDS

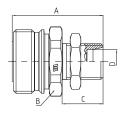
	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Female Coupling			A	В	С	D
12,5	1/2"	-08	Q05011141A-08-18	M18x1,5	-	53,2	ø45	27	41





Q04911820A

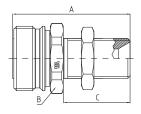
MALE COUPLING WITH METRIC TERMINATION ENDS BULKHEAD



	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04911820A-08-20	M20x1,5	-	51	36	23	ø13,5

Q04911370A

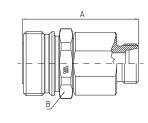
MALE COUPLING WITH METRIC TERMINATION ENDS TO DIN 3863 BULKHEAD



	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04911370A-08-22	M22x1,5	DIN 3863	65	36	37	-

Q04911110A

MALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 8434-1 L SERIES

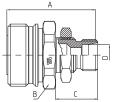


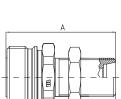
	SIZE		PART NUMBER	THREADS	STANDARD		DIMENSI	ONS mm	
mm	inch	dash	Male Coupling			A	В	С	D
12.5	1/2"	00	Q04911110A-08-18	M18x1,5	ISO 8434-1 L series	65	36	-	-
12,5	1/2"	-08	Q04911110A-08-22	M22x1,5	ISO 8434-1 L series	64,7	36	-	-











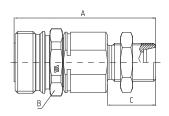
Q04911770A

MALE COUPLING WITH METRIC TERMINATION ENDS

Q04911770A

MALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 8434 BULKHEAD S SERIES

	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12.5	1/2"	00	Q04911770A-08-16	M16x1,5	-	52,5	36	24,5	ø10,2
12,5	1/2"	-08	Q04911770A-08-18	M18x1,5	-	52	36	24	ø12,2
12,5	1/2"	-08	Q04911770A-08-22	M22x1,5	ISO 8434-1 S series	63	36	35	-



Q04911770B

MALE COUPLING WITH METRIC TERMINATION ENDS TO ISO 8434 BULKHEAD L SERIES

	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04911770B-08-22	M22x1,5	ISO 8434-1 L series	82	36	28	-

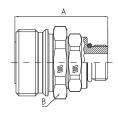




UNF

Q04911300A

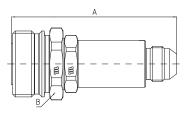
MALE COUPLING WITH UNF TERMINATION ENDS TO SAE J1926-3



	SIZE		PART NUMBER	THREADS	STANDARD	DIMENSIONS mm			
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04911300A-08-08	3/4" UNF	SAE J 1926-3	50	36	-	-

Q04911250A

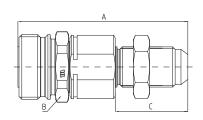
MALE COUPLING WITH UNF TERMINATION ENDS TO ISO 8434-2



	SIZE		PART NUMBER	THREADS	STANDARD		DIMENSI	ONS mm	
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04911250A-08-08	3/4" UNF	ISO 8434-2	89,5 36			-

Q04911230A

MALE COUPLING WITH UNF TERMINATION ENDS TO ISO 8434-2 BULKHEAD



	SIZE		PART NUMBER	THREADS	STANDARD		DIMENSI	ONS mm	
mm	inch	dash	Male Coupling			A	В	С	D
12,5	1/2"	-08	Q04911230A-08-10	7/8" UNF	ISO 8434-2	93,8 36 40,1 -			



FLAT-FACE

KEY FEATURES

- Connection is made by pushing the male coupling and disconnection by pulling back the sleeve of the female
- Flat mating surfaces easily wiped clean to prevent contamination and spillage during connection/ disconnection
- Stainless steel springs in the female coupling
- Interchangeability according to ISO 16028 and HTMA standards.



PLUS PERFORMANCES

Hardened male nipple and sleeve to withstand the brinelling effect of locking balls under pressure = Increased resistance against pressure impulses in connection and disconnection conditions

	SIZE		WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection		MINIMUM RST PRESS (MPa)	_	CONNECTION / DISCONNECTION UNDER PRESSURE					
mm	inch	dash	MPa	L/min.	MPa	N	cc.	Male Female M+F		Male Female M+F		Male Female M+F		Male Female M+F		
6.7	1///"	04	25	12	0.04	115	0.005	170	150	170	Not allowed					

mm	inch	dash	MPa	L/min.	MPa	N	CC.	Male	Female	M+F	
6,3	1/4"	-04	25	12	0,04	115	0,005	170	150	170	Not allowed
10	3/8"	-06	25	23	0,03	130	0,007	135	125	150	Not allowed
12,5	1/2"	-08	25	45	0,04	140	0,008	100	120	150	Not allowed
20	3/4"	-12	25	106	0,07	200	0,009	100	100	150	Not allowed

MATERIAL: Female and male coupling in steel, with some stressed tempered or carbonitrited areas. Springs in AISI and C98 steel, seals in polyurethane and NBR. Other materials (VITON, EPDM or any others) on request.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F (for other temperatures the coupling is assembled with the specified seals).

SAFETY FACTOR: 1:4 for dynamic pressures and 1:2 for static ones. **IMPULSE PRESSURES:** 100.000 cycles at 133% of the rated one (freq. 1Hz). **TEST SPECIFICATIONS:** ISO 16028 and ISO 7241-2.



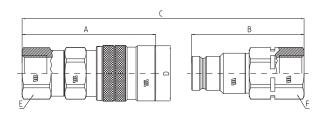




BSP

Q04111041A - Q03911041A

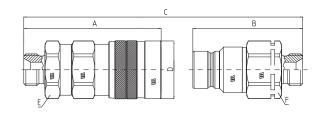
COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3852 X TYPE



	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
6,3	1/4"	-04	Q04111041A-04-04	Q03911041A-04-04	1/4"	63,6	52,1	A+B-11,1	ø28	24	22
10	7/0"	-06	Q04111041A-06-06	Q03911041A-06-06	3/8"	74,9	62,5	A+B-15,9	ø32	27	27
10	3/8"	-00	Q04111041A-06-08	Q03911041A-06-08	1/2"	77,9	65,5	A+B-15,9	ø32	27	27
12.5	1/2//	00	Q04111041A-08-08	Q03911041A-08-08	1/2"	84,7	72,5	A+B-17,1	ø38	34	34
12,5	1/2"	2" -08	Q04111041A-08-12	Q03911041A-08-12	3/4"	86,7	74,5	A+B-17,1	ø38	34	34
20	3/4"	12	Q04111041A-12-12	Q03911041A-12-12	3/4"	102,9	88,5	A+B-21,7	ø48	41	41
20		-12	Q04111041A-12-16	Q03911041A-12-16	1"	105,9	91,5	A+B-21,7	ø48	41	41

Q04111050A - Q03911050A

COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3863

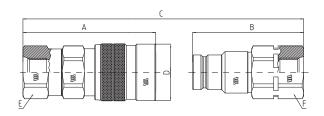


	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
10	7/0"	٥٢	Q04111050A-06-06	Q03911050A-06-06	3/8"	78	65	A+B-15,9	ø32	27	27
10	3/8"	-06	Q04111050A-06-08	Q03911050A-06-08	1/2"	80	67	A+B-15,9	ø32	27	27

METRIC

Q04111191A - Q03911191A

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 6149-1



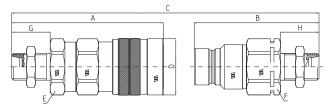
	SIZE		PART N	THREADS			DIMENSI	ONS mm			
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
10	7/0"	0.0	Q04111191A-06-16	Q03911191A-06-16	M16x1,5	75,4	63	A+B-15,9	ø32	27	27
10	10 3/8"	-06	Q04111191A-06-18	Q03911191A-06-18	M18x1,5	75,4	63	A+B-15,9	ø32	27	27





Q04111770B - Q03911770B

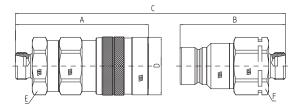
COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 BULKHEAD L SERIES



Q04111870B - Q03911870B

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 BULKHEAD S SERIES

	SIZE		PART N	UMBER	THREADS				DIMENSI	ONS mm			
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F	G	Н
6,3	1/4"	-04	Q04111770B-04-16	Q03911770B-04-16	M16x1,5	76,6	60,1	A+B-11,1	ø28	24	22	26	26
			Q04111770B-06-16	Q03911770B-06-16	M16x1,5	88,9	76,5	A+B-15,9	ø32	27	27	26	26
10	10 3/8" -	-06	Q04111770B-06-18	Q03911770B-06-18	M18x1,5	88,9	76,5	A+B-15,9	ø32	27	27	26	26
	10 3/6		Q04111770B-06-22	Q03911770B-06-22	M22x1,5	89,9	77,5	A+B-15,9	ø32	27	27	27	27
12.5	1/2"	00	Q04111770B-08-18	Q03911770B-08-18	M18x1,5	102,7	84,5	A+B-17,1	ø38	34	34	26	26
12,5	1/2"	-08	Q04111770B-08-22	Q03911770B-08-22	M22x1,5	103,7	85,5	A+B-17,1	ø38	34	34	27	27
20	7/4"	12	Q04111770B-12-26	Q03911770B-12-26	M26x1,5	112,9	95,5	A+B-21,7	ø48	41	41	29	29
20	3/4"	-12	Q04111770B-12-30	Q03911770B-12-30	M30x2	115,9	98,5	A+B-21,7	ø48	41	41	32	32
10	7/0"	00	Q04111870B-06-18	Q03911870B-06-18	M18x1,5	89,9	77,5	A+B-15,9	ø32	27	27	27	27
10	10 3/8"	-06	Q04111870B-06-20	Q03911870B-06-20	M20x1,5	89,9	77,5	A+B-15,9	ø32	27	27	27	27
20	3/4"	-12	Q04111870B-12-30	Q03911870B-12-30	M30x2	117,9	100,5	A+B-21,7	ø48	41	41	34	34



Q04111110A - Q03911110A

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 L SERIES

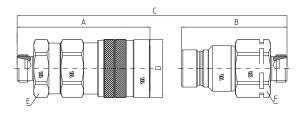
	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm			
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F	
6,3	1/4"	-06	Q04111110A-04-16	Q03911110A-04-16	M16x1,5	61,6	45,1	A+B-11,1	ø28	24	22	
		3/8" -06	Q04111110A-06-16	Q03911110A-06-16	M16x1,5	77,9	62,5	A+B-15,9	ø32	27	27	
10	3/8"		Q04111110A-06-18	Q03911110A-06-18	M18x1,5	77,9	61,5	A+B-15,9	ø32	27	27	
			Q04111110A-06-22	Q03911110A-06-22	M22x1,5	78,9	62,5	A+B-15,9	ø32	27	27	
12.5	1/2"	00	Q04111110A-08-18	Q03911110A-08-18	M18x1,5	84,6	71,5	A+B-17,1	ø38	34	34	
12,5	1/2"	-08	-08	Q04111110A-08-22	Q03911110A-08-22	M22x1,5	85,6	72,5	A+B-17,1	ø38	34	34
20	7 / 4"	12	Q04111110A-12-26	Q03911110A-12-26	M26x1,5	97,9	85,5	A+B-21,7	ø48	41	41	
20	3/4"	-12	3/4" -12	Q04111110A-12-30	Q03911110A-12-30	M30x2	99,9	86,5	A+B-21,7	ø48	41	41





Q04111120A - Q03911120A

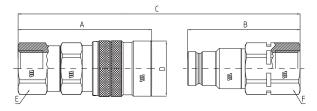
COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 S SERIES



	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F
10	7/0"	0.0	Q04111120A-06-18	Q03911120A-06-18	M18x1,5	78,9	62,5	A+B-15,9	ø32	27	27
10	3/8"	-06	Q04111120A-06-20	Q03911120A-06-20	M20x1,5	78,9	62,5	A+B-15,9	ø32	27	27
12,5	1/2"	-08	Q04111120A-08-20	Q03911120A-08-20	M20x1,5	85,6	72,5	A+B-17,1	ø38	34	34
20	3/4"	-12	Q04111120A-12-30	Q03911120A-12-30	M30x2	101,9	88,5	A+B-17,1	ø38	34	34

Q04111141A - Q03911141A

COUPLINGS WITH METRIC TERMINATION ENDS TO DIN 3852 X TYPE

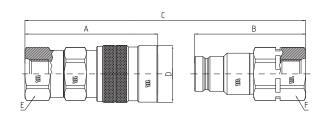


	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F
10	3/8"	-06	Q04111141A-06-18	Q03911141A-06-18	M18x1,5	75,4	62,5	A+B-15,9	ø32	27	27

SAE

Q04111301A - Q03911301A

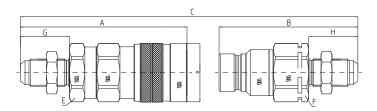
COUPLINGS WITH SAE TERMINATION ENDS TO SAE J1926-1



	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm				
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F		
6,3	1/4"	-04	Q04111301A-04-06	Q03911301A-04-06	9/16" UNF	64,6	53,6	A+B-11,1	ø28	24	22		
			Q04111301A-06-06	Q03911301A-06-06	9/16" UNF	75,4	63	A+B-15,9	ø32	27	27		
10	3/8"	-06	Q04111301A-06-08	Q03911301A-06-08	3/4" UNF	77,4	65	A+B-15,9	ø32	27	27		
	3/8	-00			Q04111301A-06-10	Q03911301A-06-10	7/8" UNF	80	67,5	A+B-15,9	ø32	27	27
12.5	1/2"	00	Q04111301A-08-10	Q03911301A-08-10	7/8" UNF	86,7	74,5	A+B-17,1	ø38	34	34		
12,5	1/2"	-08	Q04111301A-08-12	Q03911301A-08-12	1-1/16"-12" UN	89,7	77,5	A+B-17,1	ø38	34	34		
20	3/4"	12	Q04111301A-12-12	Q03911301A-12-12	1-1/16"-12" UN	109,9	92,5	A+B-21,7	ø48	41	41		
20		-12	Q04111301A-12-16	Q03911301A-12-16	1-5/16"-12" UN	111,9	94,5	A+B-21,7	ø48	41	41		





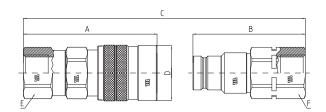


Q04111230A - Q03911230A

COUPLINGS WITH SAE TERMINATION ENDS TO ISO 8434-2 BULKHEAD

	SIZE		PART N	UMBER	THREADS				DIMENSI	ONS mm	ı			
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F	G	Н	
10		3/8"		Q04111230A-06-08	Q03911230A-06-08	3/4"-16" UNF	103,5	87,1	A+B-15,9	ø32	27	27	36,6	36,6
10	3/8	-00	Q04111230A-06-10	Q03911230A-06-10	7/8"-14" UNF	107	90,6	A+B-15,9	ø32	27	27	40,1	40,1	
12.5	1/2"	-08	Q04111230A-08-10	Q03911230A-08-10	7/8"-14" UNF	115,8	100,6	A+B-17,1	ø38	34	34	40,1	40,1	
12,5	1/2	-00	Q04111230A-08-12	Q03911230A-08-12	1"-1/16" UN	120,1	104,9	A+B-17,1	ø38	34	34	44,4	44,4	

NPT



Q04111341A - Q03911341A

COUPLINGS WITH NPT TERMINATION ENDS TO ANSI B 1.20.3

	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
6,3	1/4"	-04	Q04111341A-04-04	Q03911341A-04-04	1/4" NPTF	63,6	52,1	A+B-11,1	ø28	24	22
10	10 3/8"	-06	Q04111341A-06-06	Q03911341A-06-06	3/8" NPTF	74,9	62,5	A+B-15,9	ø32	27	27
10	3/8	-00	Q04111341A-06-08	Q03911341A-06-08	1/2" NPTF	77,9	65,5	A+B-15,9	ø32	27	27
12.5	1/2"	00	Q04111341A-08-08	Q03911341A-08-08	1/2" NPTF	84,7	72,5	A+B-17,1	ø38	34	34
12,5	1/2"	-08	Q04111341A-08-12	Q03911341A-08-12	3/4" NPTF	86,7	74,5	A+B-17,1	ø38	34	34
20	20 3/4"	12	Q04111341A-12-12	Q03911341A-12-12	3/4" NPTF	102,9	88,5	A+B-21,7	ø48	41	41
20		-12	Q04111341A-12-16	Q03911341A-12-16	1" NPTF	105,9	91,5	A+B-21,7	ø48	41	41





SCREW-TYPE FOR GERMAN MARKET

KEY FEATURES

- Screw-type couplings specially designed for heavy duty, high pressure, pressure impulses applications such as hammers attachments, rock crushers, etc.
- Connection and disconnection is made by screwing the sleeve, also possible with residual pressure in the line
- The connection is secured on the thread between the sleeve and the male coupling
- When uncoupled, the sealing is made by a poppet valve
- Interchangeable with other products and widely used in the German market.



PLUS PERFORMANCES

 Improved resistance against pressure impulses - Hexagon around the male insert to be tightened up or released for maintenance

	MPa	FLOW RATE		N		*	(i)
SIZE	WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection	MINIMUM BURST PRESSURE (MPa)	CONNECTION / DISCONNECTION UNDER PRESSURE

mm	inch	dash	MPa	L/min.	MPa	CC.	Male	Female	M+F	
6,3	1/4"	-04	40	12	0,16	0,8	165	170	170	Allowed max. 10 MPa
10	3/8"	-06	40	23	0,17	1,3	160	170	165	Allowed max. 10 MPa
12,5	1/2"	-08	40	45	0,07	2,1	150	150	160	Allowed max. 10 MPa
20	3/4"	-12	35	106	0,1	4	130	170	145	Allowed max. 10 MPa
25	1"	-16	30	189	0,11	10	120	120	160	Allowed max. 10 MPa

MATERIAL: Female coupling in steel, male couplings in steel (high standard).

Carbonitrited valve, springs in C98 steel, seals in NBR (others materials on request) and Back-up Ring in PTFE.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F. **SAFETY FACTOR:** 1:3 for dynamic pressures and 1:2 for static ones. **IMPULSE PRESSURES:** 100.000 cycles at 133% of the rated one (freq. 1Hz). **TEST SPECIFICATIONS:** ISO 7241-2.

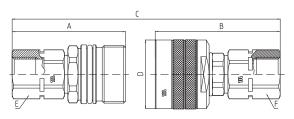








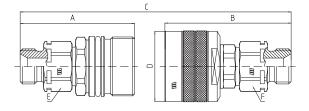
BSP



Q05211041A - Q05111041A

COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3852 X TYPE

	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
6,3	1/4"	-04	Q05211041A-04-04	Q05111041A-04-04	1/4"	61,5	68	A+B-24,5	ø30	19	19
10	7/0"	-06	Q05211041A-06-04	Q05111041A-06-04	1/4"	68	73,5	A+B-26,5	ø34	22	22
10	3/8"	-00	Q05211041A-06-06	Q05111041A-06-06	3/8"	69,5	75	A+B-26,5	ø34	22	22
12.5	1/2"	00	Q05211041A-08-06	Q05111041A-08-06	3/8"	66,5	74,5	A+B-26,5	ø42	27	27
12,5	1/2"	-08	Q05211041A-08-08	Q05111041A-08-08	1/2"	69,5	77,5	A+B-26,5	ø42	27	27
20	7 / 1/1	12	Q05211041A-12-08	Q05111041A-12-08	1/2"	80,8	88,3	A+B-31	ø48	34	34
20	3/4"	-12	Q05211041A-12-12	Q05111041A-12-12	3/4"	82,8	90,3	A+B-31	ø48	34	34
25	25 1"	10	Q05211041A-16-12	Q05111041A-16-12	3/4"	92,3	99,3	A+B-34,5	ø56	41	41
25		-16	Q05211041A-16-16	Q05111041A-16-16	1"	95,3	102,3	A+B-34,5	ø56	41	41

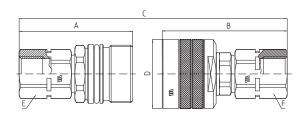


Q05211050A - Q05111050A

COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3863

	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F
12.5	1/2"	00	Q05211050A-08-06	Q05111050A-08-06	3/8"	66,5	74,5	A+B-26,5	ø42	27	27
12,5	1/2"	-08	Q05211050A-08-08	Q05111050A-08-08	1/2"	68,5	76,5	A+B-26,5	ø42	27	27

METRIC



Q05211141A - Q051111141A

COUPLINGS WITH METRIC TERMINATION ENDS TO DIN 3852 X TYPE

	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
10	3/8"	-06	Q05211141A-06-16	Q05111141A-06-16	M16x1,5	68	73.5	A+B-26,5	ø34	22	22
12.5	1/2"	00	Q05211141A-08-18	Q05111141A-08-18	M18x1,5	66,5	74,5	A+B-26,5	ø42	27	27
12,5	1/2"	-08	Q05211141A-08-22	Q05111141A-08-22	M22x1,5	69	77	A+B-26,5	ø42	27	27



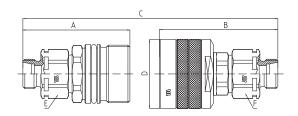


Q05211110A - Q051111110A

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 L SERIES

Q05211120A - Q05111120A

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 S SERIES



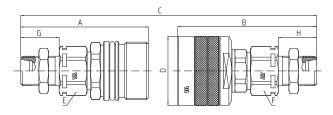
	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
6.7	1/4//	0.4	Q05211110A-04-12	Q05111110A-04-12	M12x1,5	57,5	64	A+B-24,5	ø30	19	19
6,3	1/4"	-04	Q05211110A-04-14	Q05111110A-04-14	M14x1,5	57,5	64	A+B-24,5	ø30	19	19
10	3/8"	00	Q05211110A-06-14	Q05111110A-06-14	M14x1,5	64	69,5	A+B-26,5	ø34	22	22
10	3/8	-06	Q05211110A-06-16	Q05111110A-06-16	M16x1,5	65	70,5	A+B-26,5	ø34	22	22
			Q05211110A-08-14	Q05111110A-08-14	M14x1,5	65,5	73,5	A+B-26,5	ø42	27	27
			Q05211110A-08-16	Q05111110A-08-16	M16x1,5	66,5	74,5	A+B-26,5	ø42	27	27
12,5	1/2"	-08	Q05211110A-08-18	Q05111110A-08-18	M18x1,5	65,5	73,5	A+B-26,5	ø42	27	27
			Q05211110A-08-22	Q05111110A-08-22	M22x1,5	66,5	74,5	A+B-26,5	ø42	27	27
			Q05211110A-08-26	Q05111110A-08-26	M26x1,5	66,5	74,5	A+B-26,5	ø42	27	27
			Q05211110A-12-18	Q05111110A-12-18	M18x1,5	79,8	87,3	A+B-31	ø48	34	34
20	3/4"	-12	Q05211110A-12-22	Q05111110A-12-22	M22x1,5	80,8	88,3	A+B-31	ø48	34	34
20	3/4	-12	Q05211110A-12-26	Q05111110A-12-26	M26x1,5	80,8	88,3	A+B-31	ø48	34	34
			Q05211110A-12-30	Q05111110A-12-30	M30x2	82,8	90,3	A+B-31	ø48	34	34
			Q05211110A-16-26	Q05111110A-16-26	M26x1,5	89,3	96,3	A+B-34,5	ø56	41	41
25	1"	-16	Q05211110A-16-30	Q05111110A-16-30	M30x2	91,3	98,3	A+B-34,5	ø56	41	41
			Q05211110A-16-36	Q05111110A-16-36	M36x2	91,3	98,3	A+B-34,5	ø56	41	41
6,3	1/4"	-04	Q05211120A-04-14	Q05111120A-04-14	M14x1,5	59,5	66	A+B-24,5	ø30	19	19
0,3	1/4	-04	Q05211120A-04-16	Q05111120A-04-16	M16x1,5	60,5	67	A+B-24,5	ø30	19	19
10	3/8"	-06	Q05211120A-06-16	Q05111120A-06-16	M16x1,5	66	71,5	A+B-26,5	ø34	22	22
10	3/0	-00	Q05211120A-06-18	Q05111120A-06-18	M18x1,5	66	71,5	A+B-26,5	ø34	22	22
			Q05211120A-08-18	Q05111120A-08-18	M18x1,5	66,5	74,5	A+B-26,5	ø42	27	27
12,5	1/2"	-08	Q05211120A-08-20	Q05111120A-08-20	M20x1,5	66,5	74,5	A+B-26,5	ø42	27	27
			Q05211120A-08-24	Q05111120A-08-24	M24x1,5	68,5	76,5	A+B-26,5	ø42	27	27
20	3/4"	-12	Q05211120A-12-24	Q05111120A-12-24	M24x1,5	82,8	90,3	A+B-31	ø48	34	34
20	3/4	-12	Q05211120A-12-30	Q05111120A-12-30	M30x2	84,8	92,3	A+B-31	ø48	34	34
			Q05211120A-16-30	Q05111120A-16-30	M30x2	93,3	100,3	A+B-34,5	ø56	41	41
25	1"	-16	Q05211120A-16-36	Q05111120A-16-36	M36x2	95,3	102,3	A+B-34,5	ø56	41	41
			Q05211120A-16-42	Q05111120A-16-42	M42x2	99,3	105,3	A+B-34,5	ø56	41	41





Q05211770B - Q05111770B

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 BULKHEAD L SERIES



Q05211870B - Q05111870B

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 8434-1 BULKHEAD S SERIES

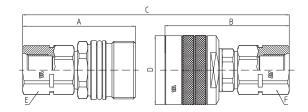
	SIZE		PART N	UMBER	Iale Coupling A B C D E 5111770B-04-12 M12x1,5 72,5 79 A+B-24,5 ø30 19 5111770B-04-14 M14x1,5 72,5 79 A+B-24,5 ø30 19 5111770B-06-14 M14x1,5 79 84,5 A+B-26,5 ø34 22 5111770B-06-16 M16x1,5 80 85,5 A+B-26,5 ø42 27 5111770B-08-14 M14x1,5 80,5 88,5 A+B-26,5 ø42 27 5111770B-08-16 M16x1,5 80,5 88,5 A+B-26,5 ø42 27 5111770B-08-18 M18x1,5 80,5 88,5 A+B-26,5 ø42 27 5111770B-08-22 M22x1,5 81,5 89,5 A+B-26,5 ø42 27 5111770B-08-26 M26x1,5 83,5 91,5 A+B-26,5 ø42 30								
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F	G	Н
6.7	1/4//	0.4	Q05211770B-04-12	Q05111770B-04-12	M12x1,5	72,5	79	A+B-24,5	ø30	19	19	25	25
6,3	1/4"	-04	Q05211770B-04-14	Q05111770B-04-14	M14x1,5	72,5	79	A+B-24,5	ø30	19	19	25	25
10	7/0"	00	Q05211770B-06-14	Q05111770B-06-14	M14x1,5	79	84,5	A+B-26,5	ø34	22	22	25	25
10	3/8"	-06	Q05211770B-06-16	Q05111770B-06-16	M16x1,5	80	85,5	A+B-26,5	ø34	22	22	26	26
			Q05211770B-08-14	Q05111770B-08-14	M14x1,5	80,5	88,5	A+B-26,5	ø42	27	27	25	25
			Q05211770B-08-16	Q05111770B-08-16	M16x1,5	80,5	88,5	A+B-26,5	ø42	27	27	26	26
12,5	1/2"	-08	Q05211770B-08-18	Q05111770B-08-18	M18x1,5	80,5	88,5	A+B-26,5	ø42	27	27	26	26
			Q05211770B-08-22	Q05111770B-08-22	M22x1,5	81,5	89,5	A+B-26,5	ø42	27	27	27	27
			Q05211770B-08-26	Q05111770B-08-26	M26x1,5	83,5	91,5	A+B-26,5	ø42	30	30	29	29
			Q05211770B-12-18	Q05111770B-12-18	M18x1,5	94,8	102,3	A+B-31	ø48	34	34	26	26
20	3/4"	-12	Q05211770B-12-22	Q05111770B-12-22	M22x1,5	95,8	103,3	A+B-31	ø48	34	34	27	27
20	3/4	-12	Q05211770B-12-26	Q05111770B-12-26	M26x1,5	97,8	105,3	A+B-31	ø48	34	34	29	29
			Q05211770B-12-30	Q05111770B-12-30	M30x2	100,8	108,3	A+B-31	ø48	34	34	32	32
			Q05211770B-16-26	Q05111770B-16-26	M26x1,5	106,3	113,3	A+B-34,5	ø56	41	41	29	29
25	1"	-16	Q05211770B-16-30	Q05111770B-16-30	M30x2	109,3	116,3	A+B-34,5	ø56	41	41	32	32
			Q05211770B-16-36	Q05111770B-16-36	M36x2	109,3	116,3	A+B-34,5	ø56	41	41	32	32
6,3	1/4"	-04	Q05211870B-04-14	Q05111870B-04-14	M14x1,5	74,5	81	A+B-24,5	ø30	19	19	27	27
0,3	1/4	-04	Q05211870B-04-16	Q05111870B-04-16	M16x1,5	74,5	81	A+B-24,5	ø30	19	19	27	27
10	3/8"	-06	Q05211870B-06-16	Q05111870B-06-16	M16x1,5	81	86,5	A+B-26,5	ø34	22	22	27	27
10	3/0	-00	Q05211870B-06-18	Q05111870B-06-18	M18x1,5	81	86,5	A+B-26,5	ø34	22	22	27	27
			Q05211870B-08-18	Q05111870B-08-18	M18x1,5	81,5	89,5	A+B-26,5	ø42	27	27	27	27
12,5	1/2"	-08	Q05211870B-08-20	Q05111870B-08-20	M20x1,5	81,5	89,5	A+B-26,5	ø42	27	27	27	27
			Q05211870B-08-24	Q05111870B-08-24	M24x1,5	83,5	91,5	A+B-26,5	ø42	27	27	29	29
20	3/4"	-12	Q05211870B-12-24	Q05111870B-12-24	M24x1,5	97,8	105,3	A+B-31	ø48	34	34	29	29
20	3/4	-12	Q05211870B-12-30	Q05111870B-12-30	M30x2	100,8	108,3	A+B-31	ø48	34	34	32	32
			Q05211870B-16-30	Q05111870B-16-30	M30x2	109,3	116,3	A+B-34,5	ø56	41	41	32	32
25	1"	-16	Q05211870B-16-36	Q05111870B-16-36	M36x2	115,3	122,3	A+B-34,5	ø56	41	41	38	38
			Q05211870B-16-42	Q05111870B-16-42	M42x2	117,3	124,3	A+B-34,5	ø56	41	41	40	40





Q05211191A - Q05111191A

COUPLINGS WITH METRIC TERMINATION ENDS TO ISO 6149-1

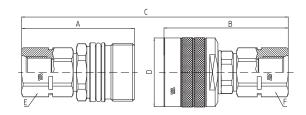


	SIZE		PART N	UMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		A B C D E			E	F	
12,5	1/2"	-08	Q05211191A-08-16	Q05111191A-08-16	M16x1,5	67	75	A+B-26,5	ø42	27	27

SAE

Q05211301A - Q05111301A

COUPLINGS WITH SAE TERMINATION ENDS TO SAE J1926-1

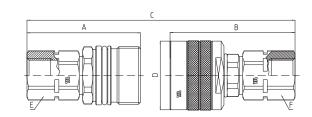


	SIZE		PART NUMBER	PART NUMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		A	В	С	D	E	F
12.5	1/2//	00	Q05211301A-08-08	Q05111301A-08-08	3/4"-16" UNF	69	77	A+B-26,5	ø42	27	27
12,5	1/2"	-08	Q05211301A-08-10	Q05111301A-08-10	7/8"-14" UNF	71,5	79,5	A+B-26,5	ø42	27	27

NPT

Q05211341A - Q05111341A

COUPLINGS WITH NPT TERMINATION ENDS TO ANSI B 1.20.3



	SIZE		PART NUMBER	PART NUMBER	THREADS			DIMENSI	ONS mm		
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F
6,3	1/4"	-04	Q05211341A-04-04	Q05111341A-04-04	1/4" NPTF	61,5	68	A+B-24,5	ø30	19	19
10	3/8"	-06	Q05211341A-06-06	Q05111341A-06-06	3/8" NPTF	69,5	75	A+B-26,5	ø34	22	22
12,5	1/2"	-08	Q05211341A-08-08	Q05111341A-08-08	1/2" NPTF	69,5	77,5	A+B-26,5	ø42	27	27
20	3/4"	-12	Q05211341A-12-12	Q05111341A-12-12	3/4" NPTF	92,3	99,3	A+B-31	ø48	34	34
25	1"	-16	Q05211341A-16-16	Q05111341A-16-16	1" NPTF	95,3	102,3	A+B-34,5	ø56	41	41





SCREW-TYPE HYDRAULIC CYLINDERS

KEY FEATURES

- Screw-type couplings specially designed for very high pressure applications on cylinders and hydraulic rams
- Connection and disconnection is made by screwing the sleeve and can be made with residual pressure in the line
- The connection is secured on the thread between the sleeve and the male coupling
- When uncoupled, the sealing is made by a ball valve
- Interchangeable with other products and widely used in the USA and Europe.

	SIZE		WORKING PRESSURE (Static)	RATED FLOW	PRESSURE DROP by rated flow	OIL SPILLAGE Connection/ Disconnection		MINIMUM SST PRESS (MPa)		CONNECTION / DISCONNECTION UNDER PRESSURE
mm	inch	dash	MPa	L/min.	MPa	CC.	Male	Female	M+F	
6,3	1/4"	-04	70	12	0,12	0,5	230	265	280	Allowed
10	3/8"	-06	70	23	0,26	1	200	240	190	Allowed

MATERIAL: Female and male coupling in steel, ball valves with high resistance, springs in C98 steel, seals in NBR (others materials on request) and Back-up Ring in PTFE.

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F.





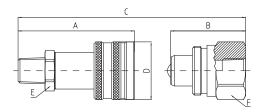


SCREW-TYPE HYDRAULIC CYLINDERS - TERMINATION ENDS

NPT

Q05611280A

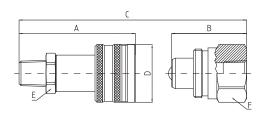
FEMALE COUPLING WITH NPT TERMINATION ENDS TO ANSI B 1.20.3



	SIZE		PART NUMBER	THREADS	HREADS DIMENSIONS mm					
mm	inch	dash	Female Coupling		Α	В	С	D	E	F
6,3	1/4"	-04	Q05611280A-04-04	1/4" NPTF	60,5	-	A+B-19	ø30	19	-
10	7/0"	00	Q05611280A-06-04	1/4" NPTF	72,5	-	A+B-24	ø34,5	24	-
10	0 3/8"	-06	Q05611280A-06-06	3/8" NPTF	72,5	-	A+B-24	ø34,5	24	-

Q05510341A

MALE COUPLING WITH NPT TERMINATION ENDS TO ANSI B 1.20.3



	SIZE		PART NUMBER	THREADS	DIMENSIONS mm					
mm	inch	dash	Male Coupling		Α	В	С	D	E	F
6,3	1/4"	-04	Q05510341 A-04-04	1/4" NPTF	-	34	A+B-19	-	-	19
10	7/0"	0" 00	Q05510341 A-06-04	1/4" NPTF	-	38,7	A+B-24	-	-	24
10	10 3/8"	-06	Q05510341 A-06-06	3/8" NPTF	-	38,7	A+B-24	-	-	24





SCREW-TYPE FOR TRUCKS

KEY FEATURES

- Screw-type couplings specially designed for truck trailer applications
- Wing Nut shaped sleeve for easier connection by hand
- Connection and disconnection is made by screwing the sleeve and can be made with residual pressure in the line
- The connection is secured on the thread between the sleeve and the male coupling
- When uncoupled, the sealing is made by a poppet valve
- Interchangeable with other products and widely used in the European market.

		MPa	FLOW RATE						(3)	
SIZE			WORKING PRESSURE (Static)	RATED FLOW	PRESSURE DROP by rated flow	OIL SPILLAGE Connection/ Disconnection		MINIMUM RST PRESS (MPa)		CONNECTION / DISCONNECTION UNDER PRESSURE
mm	inch	dash	MPa	L/min.	MPa	CC.	Male	Female	M+F	
20	3/4"	-12	25	106	0,15	7,5	100	120	120	Residual pressures

0,27

MATERIAL: Female and male coupling in steel. Carbonitrited valve, springs in C98 steel, seals in NBR (others materials on request) and Back-up Ring in PTFE.

189

WORKING TEMPERATURE: -30°C up to +110°C / -22°F up to +230°F. **SAFETY FACTOR:** 1:4 for dynamic pressures and 1:2 for static ones.



120

140

Residual pressures



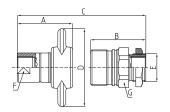


SCREW-TYPE FOR TRUCKS - TERMINATION ENDS

BSP

Q05811041A - Q05711041A

COUPLINGS WITH BSP TERMINATION ENDS TO DIN 3852-2 X TYPE



	SIZE	PART NUMBER		THREADS	DIMENSIONS mm							
mm	inch	dash	Female Coupling	Male Coupling		Α	В	С	D	E	F	G
20	3/4"	-12	Q05811041A-12-12	Q05711041A-12-12	3/4"	78	78	138	117	1.1/4"	33	46
25	1"	-16	Q05811041A-16-16	Q05711041A-16-16	1"	83	83	148	117	1.1/4"	40	55

Q.Safe

CHECK VALVES

KEY FEATURES

- The Check valves are used in the hydraulic circuits as safety device to check the flow
- They work at a stated pressure
- Shut-off system: by means of a valve with metal sealing, to prevent the oil flow
- Standard opening pressure is 35kPa (0,35 bar)
- Different opening pressures and threads on request.

	SIZE		WORKING PRESSURE (Dynamic)	RATED FLOW	PRESSURE DROP by rated flow	MINIMUM BURST PRESSURE (MPa)
mm	inch	dash	MPa	L/min.	MPa	MPa
6,3	1/4"	-04	45	12	0,04	250
10	3/8"	-06	35	23	0,06	170
12,5	1/2"	-08	35	45	0,1	160
20	3/4"	-12	32	106	0,1	180
25	1"	-16	25	189	0.08	200

MATERIAL: Bodies and valves in steel, springs in C98 steel.

WORKING TEMPERATURE: -30° C up to $+110^{\circ}$ C / -22° F up to $+230^{\circ}$ F.

OPENING PRESSURE: 35 kPa (0,35 bar).





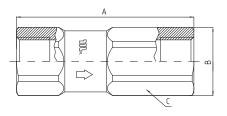


CHECK VALVES - TERMINATION ENDS

BSP

Q2A2100404A

FEMALE COUPLING WITH BSP TERMINATION ENDS TO DIN 3852-2 X TYPE

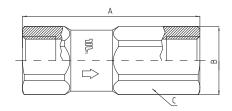


	SIZE	ZE PART NUMBER OPENING THREADS DIMENSIONS mm						
mm	inch	dash	Female Coupling			Α	В	С
6,3	1/4"	-04	Q2A2100404A-04-04	35 kPa	1/4" BSP	60	ø21	19
10	3/8"	-06	Q2A2100404A-06-06	35 kPa	3/8" BSP	65	ø24,2	22
12,5	1/2"	-08	Q2A2100404A-08-08	35 kPa	1/2" BSP	77	ø29,6	27
20	3/4"	-12	Q2A2100404A-12-12	35 kPa	3/4" BSP	90	ø37,4	34
25	1"	-16	Q2A2100404A-16-16	35 kPa	1" BSP	104	ø45	41

NPT

Q2A2103434A

FEMALE COUPLING WITH NPT TERMINATION ENDS TO ANSI B 1.20.3



	SIZE		PART NUMBER	OPENING PRESSURE	THREADS	DIMENSIONS mm		
mm	inch	dash	Female Coupling			A	В	С
6,3	1/4"	-04	Q2A2103434A-04-04	35 kPa	1/4" NPTF	60	ø21	19
10	3/8"	-06	Q2A2103434A-06-06	35 kPa	3/8" NPTF	65	ø24,2	22
12,5	1/2"	-08	Q2A2103434A-08-08	35 kPa	1/2" NPTF	77	ø29,6	27
20	3/4"	-12	Q2A2103434A-12-12	35 kPa	3/4" NPTF	90	ø37,4	34
25	1"	-16	Q2A2103434A-16-16	35 kPa	1" NPTF	104	ø45	41



Q-SAFE ACCESSORIES AND SPARE PARTS fluiconnecto: 63 _{by}manuli® —

PART NUMBERING SYSTEM



PLUGS AND SEALS



DIGIT "0"

Q Quick coupling

DIGIT "1"

1 Plugs and seals

DIGIT "2"-"3"

Condensed quick coupling series. Refer to the tables at page 71.

0 1 2 3 4 5 6 7 - 8 9 10

0 1 2 3 4 5 6 7 - 8 9 10

0 1 2 3 4 5 6 7 - 8 9 10

2 3 4 5 6 7 - **8**

DIGIT "4"

The number stated in this position indicates the metal or cap/plug material:

- O Absence
- 1 Steel
- 2 AISI 316
- 3 AISI 303
- 4 Brass
- 5 Aluminium
- A PE (polyethilene)
- **B** PVC
- C PA (polyammide)
- D POM (acetalic resin)

DIGIT "5"

The number stated in this position indicates the seals material:

- O Absence
- 1 NBR (nitrile)
- 2 HNBR / HNBR
- 3 FKM (viton, FPM)
- 4 CR (neoprene)
- 5 EPDM
- 6 FFPM (Kalrez)
- 7 PTFE
- 8 VMQ (silicone rubber)
- 9 AU (polyurethane)

DIGIT "6"

The number stated in this position indicates the usage type:

- Simple cap and plug
- 1 EcoCap (with oil recycle)
- 2 Automatic cap
- 3 Seal
- 4 Parking







Q.Safe

PART NUMBERING SYSTEM

DIGIT "7"



The letter stated in this position indicates the plugs and caps colour:

- N Not specified or natural
- R Red
- **B** Blue
- Y Yellow
- **G** Green
- K Black
- W Brown
- H White
- Orange
- **E** Grey

DIGIT "8"-"9"



The numbers stated in this position indicate the quick coupling size. The size designation corresponds to the nominal inside diameter of the hose recommended for use with coupling (see ISO 4397).

DIGIT "10"



QUICK COUPLING SERIES

PLUG AND SEALS SERIES	QC SERIES
	01
	02
A0	03
, Au	04
	05
	06
	07
	08
	09
	10
	11
	12
A1	13
	14
	15
	16
	17
	18
	19

PLUG AND SEALS SERIES	QC SERIES
	1 20
42	20
A2	21
	22
	23
	24
A3	25
	26
	27
	28
A4	29
	30
	31
	32
A5	33
	34
	35
A6	36
Λ7	37
A7	38

PLUG AND SEALS SERIES	QC SERIES
	39
A8	40
40	41
A9	42
AA	43
AB	44
AC	45
AD	46
AE	47
AF	48
AG	49
AH	50
Al	51
AJ	52
AK	53
AL	54
AM	55
AN	56
AP	57
AQ	58



ACCESSORIES AND SPARE PARTS Q.Safe

Q1A0B00R - Q1A1B00R

PLUGS AND CAPS FOR MQS-A (ISO A) AND MQS-AP (ISO A UNDER PRESSION) SERIES



	SIZE		PART N	UMBER	MATERIAL	COLOUR
mm	inch	dash	Plug for Female Coupling	Cap for Male Coupling		
10	3/8"	-06	Q1A1B00R-06	Q1A0B00R-06	PVC	RED
			Q1A1B00R-08	Q1A0B00R-08	PVC	RED
12.5	1/2"		Q1A1B00B-08	Q1A0B00B-08	PVC	BLUE
12,5	1/2"	-08	Q1A1B00G-08	Q1A0B00G-08	PVC	GREEN
			Q1A1B00Y-08	Q1A0B00Y-08	PVC	YELLOW
20	3/4"	-12	Q1A1B00R-12	Q1A0B00R-12	PVC	RED
25	1"	-16	Q1A1B00R-16	Q1A0B00R-16	PVC	RED

Q1A0114N

PARKING FOR MQS-A MALE, BULKHEAD MOUNTING



	SIZE		PART NUMBER	MATERIAL	COLOUR
mm	inch dash Parking				
12,5			STEEL	-	

Q1A5B00R - Q1A4B00R

PLUGS AND CAPS FOR MQS-N (STANDARD SERIES)



	SIZE		PART N	UMBER	MATERIAL	COLOUR
mm	inch	dash	Plug for Female Coupling	Cap for Male Coupling		
6,3	1/4"	-04	Q1A5B00R-04	Q1A4B00R-04	PVC	RED
10	3/8"	-06	Q1A5B00R-06	Q1A4B00R-06	PVC	RED
12.5	1/2"	-08	S	EE PLUGS AND SEALS FOR ISO SERIES	S A VEA TAPONES PARA LA SERIE ISO	A



Q.Safe ACCESSORIES AND SPARE PARTS



Q1A0104N

PARKING FOR MQS-A MALE

	SIZE PART NUMBER		PART NUMBER	MATERIAL	COLOUR
mm	inch dash Parking				
12,5	1/2" -08 Q1A0104N-08		STEEL	-	



Q1A1B00R

PLUGS FOR MQS-AF (PUSH-PULL) AND MQS-AFP (PUSH-PULL UNDER PRESSION)

	SIZE		PART NUMBER	MATERIAL	COLOUR
mm	inch	dash	Plug for Female Coupling		
			Q1A1B00R-08	PVC	RED
12.5	1/2"	00	Q1A1B00B-08	PVC	BLUE
12,5	1/2"	-08	Q1A1B00G-08	PVC	GREEN
			Q1A1B00Y-08	PVC	YELLOW



Q1A9B00R - Q1A8B00R

CAPS FOR MQS-F (FLAT-FACE)

	SIZE		PART N	UMBER	MATERIAL	COLOUR
mm	inch	dash	Cap for Female Coupling	Cap for Male Coupling		
10	3/8"	-06	Q1A9B00R-06	Q1A8B00R-06	PVC	RED
12,5	1/2"	-08	Q1A9B00R-08	Q1A8B00R-08	PVC	RED



ACCESSORIES AND SPARE PARTS Q.Safe

Q1AJA00R - Q1AIA00R

CAPS AND PLUGS FOR MQS-SG (SCREW-TYPE)



	SIZE		PART N	UMBER	MATERIAL	COLOUR
mm	inch	dash	Cap for Female Coupling	Plug for Male Coupling		
6,3	1/4"	-04	Q1AJA00R-04	Q1AIA00R-04	PE-HD	RED
10	3/8"	-06	Q1AJA00R-06	Q1AIA00R-06	PE-HD	RED
12,5	1/2"	-08	Q1AJA00R-08	Q1AIA00R-08	PE-HD	RED
20	3/4"	-12	Q1AJA00R-12	Q1AIA00R-12	PE-HD	RED
25	1"	-16	Q1AJA00R-16	Q1AIA00R-16	PE-HD	RED

Q1AN100N - Q1AM100N

PLUGS AND CAPS FOR MQS-SC (SCREW-TYPE HYDRAULIC CYLINDERS)



	SIZE		PART N	UMBER	MATERIAL	COLOUR
mm	inch	dash	Plug for Female Coupling	Cap for Male Coupling		
6,3	1/4"	-04	Q1AN100N-04	Q1AM100N-04	STEEL	
10	3/8"	-06	Q1AN100N-06	Q1AM100N-04	STEEL	-

Q1AP100N - Q1AQ100N

CAPS AND PLUGS FOR MQS-ST (SCREW-TYPE TRUCKS)



	SIZE		PART N	UMBER	MATERIAL	COLOUR
mm	inch	dash	Cap for Female Coupling	Plug for Male Coupling		
20	3/4"	-12	Q1AQ100N-12	Q1AP100N-12	STEEL	-
25	1"	-16	Q1AQ100N-16	Q1AP100N-16	STEEL	-



Q.Safe ACCESSORIES AND SPARE PARTS



Q1A1013N

O-RING AND BACK-UP RING FOR MQS-A (ISO A) AND MQS-AP (ISO A UNDER PRESSION)

	SIZE		PART NUMBER	КІТ	MAT	ERIAL
mm	inch	dash			O-RING	BACK-UP RING
10	3/8"	-06	Q1A1013N-06	O-RING + BACK-UP RING	NBR	PTFE
12,5	1/2"	-08	Q1A1013N-08	O-RING + BACK-UP RING	NBR	PTFE
20	3/4"	-12	Q1A1013N-12	O-RING + BACK-UP RING	NBR	PTFE
25	1"	-16	Q1A1013N-16	O-RING + BACK-UP RING	NBR	PTFE
31,5	1-1/4"	-20	Q1A1013N-20	O-RING + BACK-UP RING	NBR	PTFE
40	1-1/2"	-24	Q1A1013N-24	O-RING + BACK-UP RING	NBR	PTFE



Q1A5013N

O-RING AND BACK-UP RING FOR MQS-N (STANDARD SERIES)

	SIZE		PART NUMBER	KIT	MATE	ERIAL
mm	inch	dash			O-RING	BACK-UP RING
6,3	1/4"	-04	Q1A5013N-04	O-RING + BACK-UP RING	NBR	PTFE
10	3/8"	-06	Q1A5013N-06	O-RING + BACK-UP RING	NBR	PTFE
12,5	1/2"	-08		SEE SPARE PARTS FOR ISO SERIES A VEA REPUESTOS PARA LA SERIE ISO A		



Q1A1013N

O-RING AND BACK-UP RING FOR MQS-AF (PUSH-PULL) AND MQS-AFP (PUSH-PULL UNDER PRESSION)

	SIZE		PART NUMBER	КІТ	MATI	ERIAL
mm	inch	dash			O-RING	BACK-UP RING
12,5	1/2"	-08	Q1A1013N-08	O-RING + BACK-UP RING	NBR	PTFE



ACCESSORIES AND SPARE PARTS Q.Safe

Q1A8093N

SEAL FOR MQS-F (FLAT-FACE)



	SIZE		PART NUMBER	DESCRIPTION	MATERIAL
mm	inch	dash			SEAL
6,3	1/4"	-04	Q1A8093N-04	SEAL	POLYURETHANE
10	3/8"	-06	Q1A8093N-06	SEAL	POLYURETHANE
12,5	1/2"	-08	Q1A8093N-08	SEAL	POLYURETHANE
20	3/4"	-12	Q1A8093N-12	SEAL	POLYURETHANE

Q1AEA00R

PLUG FOR MQS-VB (BRAKING VALVES)



	SIZE		PART NUMBER	DESCRIPTION	MATERIAL
mm	inch	dash			PLUG
12,5	1/2"	-08	Q1AEA00R-08	PLUG	PE-HD

Q1AF104N

PARKING FOR MQS-VB (BRAKING VALVES)





	SIZE		PART NUMBER	DESCRIPTION	MATERIAL
mm	inch	dash			PARKING
12,5	1/2"	-08	Q1AF104N-08	PARKING	STEEL



Q.Safe ACCESSORIES AND SPARE PARTS



Q1AGA00R

PLUG FOR MQS-VS (AGRICULTURAL VALVES)

	SIZE		PART NUMBER	DESCRIPTION	MATERIAL
mm	inch	dash			PLUG
12,5	1/2"	-08	Q1AGA00R-08	PLUG	PE-HD





Q1AH104N

PARKING FOR MQS-VS (AGRICULTURAL VALVES)

	SIZE		PART NUMBER	DESCRIPTION	MATERIAL
mm	inch	dash			PARKING
12,5	1/2"	-08	Q1AH104N-08	PARKING	STEEL



Q1AJ013N

O-RING AND BACK-UP RING FOR MQS-SG (SCREW-TYPE)

	SIZE		PART NUMBER	KIT	MATI	ERIAL
mm	inch	dash			O-RING	BACK-UP RING
6,3	1/4"	-04	Q1AJ013N-04	O-RING + BACK-UP RING	NBR	PTFE
10	3/8"	-06	Q1AJ013N-06	O-RING + BACK-UP RING	NBR	PTFE
12,5	1/2"	-08	Q1AJ013N-08	O-RING + BACK-UP RING	NBR	PTFE
20	3/4"	-12	Q1AJ013N-12	O-RING + BACK-UP RING	NBR	PTFE
25	1"	-16	Q1AJ013N-16	O-RING + BACK-UP RING	NBR	PTFE



ACCESSORIES AND SPARE PARTS Q.Safe

Q1AN013N

O-RING FOR MQS-SC (SCREW-TYPE HYDRAULIC CYLINDERS)



	SIZE		PART NUMBER	DESCRIPTION	MATERIAL
mm	inch	dash			O-RING
6,3	1/4"	-04	Q1AN013N-04	O-RING	NBR
10	3/8"	-06	Q1AN013N-06	O-RING	NBR

Q1AQ013N

O-RING FOR MQS-ST (SCREW-TYPE TRUCKS)



	SIZE		PART NUMBER	DESCRIPTION	MATERIAL
mm	inch	dash			O-RING
20	3/4"	-12	Q1AQ013N-12	O-RING	NBR
25	1"	-16	Q1AQ013N-16	O-RING	NBR



WARNINGS

PRESSURE

A quick coupling has to fit both the pressure and the flow rate of each application. Always check the compatibility between the rated performance of the coupling and the maximum system pressure. The quick coupling pressure must be equal or greater than the maximum pressure of the system. With many couplings connection and disconnection must be carried out without any pressure in the line. If it is not possible to decrease the pressure to zero, please use specific quick couplings that are connectable under pressure. If any residual pressures remains connection may still be difficult. Decrease completely the system pressure to unlock the valves. Avoid using tools.

FLUIDS

Before each application, check the compatibility between the fluids and the quick coupling materials or seals.

TEMPERATURE

Verify the temperature in use requested by each single application.

ENVIRONMENTAL CONDITIONS

The environmental conditions may damage the quick couplings: remark the action of chemicals, UV radiations and salt waters.

PRECAUTIONS

Before connecting, clean carefully the insert, in order to avoid the wear of the seals. Use all the precautions to preserve the quick couplings as long as possible, such as caps and plugs when they are disconnected. Avoid the falling on the ground of the quick couplings. Try to immediately replace all the damaged spare parts (O-Rings and Back-up Rings), with the specific kits in use. Check regularly, after each individual application, the quick couplings, in order to detect any visible crack, leakage, damage or corrosion result.

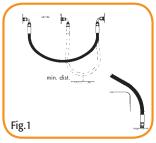
HOSE INSTALLATION GUIDE

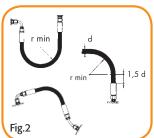
Avoid to twist the hose assembly. During installation avoid moving parts that can cause twisting effects on the hose assemblies (fig.1).

Use proper fittings to avoid tight bend radius. Do not start hose bending closer than 1,5 time "d" to the ferrule (fig. 2).

Avoid interference with objects that can cause abrasion or damage to the hose. On flexing applications, pay particular attention to avoid tensile stress or abrasion (fig. 3).

The hydraulic hoses of the Manuli product range are not designed for immersion in the service fluid. This type of special applications should be avoided or carefully studied.







For detailed information concerning the recommended practices for hydraulic hose assemblies, please refer to SAE J1273. This document should be used as guide when selecting, routing, fabricating, installing, replacing, maintaining and storing hose for hydraulic systems.





WARNINGS



PRODUCT SELECTION

The foregoing description of the Manuli® hoses, connectors, hose assemblies and hose protections, manufactured by Manuli Rubber Industries and subsidiaries, and the general installation instructions are provided as information to be considered when selecting hose, connectors, hose assemblies and hose protections for a particular application.

Additional factors which must be considered in selecting proper hoses, connectors, hose assemblies and hose protections for any particular application include hose size, hose length, involved fluids, environment and operating temperatures, system operating pressures, static head pressures and installation design for the application. Failure to consider all material factors in selecting hoses, connectors, hose assemblies and hose protections for a particular application can result in reducing the hose assembly life or other failures which can result in serious bodily injury or property damage. If there are any questions concerning the use of Manuli® hoses, connectors, hose assemblies and hose protections for a particular application, please contact Manuli Rubber Industries.



PRODUCT INSTALLATION

The foregoing description of Manuli® hoses, connectors, hose assemblies, hose protections and the general installation instructions are provided as information to be considered when installing Manuli® products. Proper installation of hoses and connectors is essential to the safe and proper operation of hose assemblies.

Additional factors which must be considered in achieving a proper installation include correct minimum bend radius to avoid hose collapse, possible abrasion of hoses on rough surfaces or cutting edges, correct hose length given the relation of potential movement between hose ends, possible twisting or torsion of hoses in operation or installation, and possible high temperature in areas around the hoses.

Failure to consider all material factors with respect to installation and improper installation of hoses, fittings and hose assemblies can result in reducing the hose assembly life or other failures that could result in serious bodily injury or property damage.



HOSE INTEGRATION

Manuli® hoses and connectors are designed as integral parts of hose assembly system to be used together and they should only be used together or in conjunction with other types of fittings for the Manuli® hose recommended by Manuli Rubber Industries and subsidiaries. Failure to do so may result in reducing the hose assembly life or other failures which can result in serious bodily injury or property damage.

Product selection, product installation and hose integration guide lines are essential to the proper operation and safe use of the Manuli® hoses, connectors, hose assemblies and related equipment. Improper installation of the hoses, connectors and hose assemblies can result in serious injury or property damage.

Further information on selection, installation and maintenance of hose and hose assemblies is described in "SAE Recommended Practice J1273 2001".

If you have any questions regarding the proper product selection and hose installation, please contact the Manuli Technical Center based in Italy.

Warning!

Failure or improper selection or improper use of any of the products found on this Manuli catalogue or related items can cause death, personal injury and/or property damage. Before using any product, it is important that you analyze all aspects of your application and review the information explained in the current catalogue.

MRI reserves the right to modify any data. Eventual and any kind of modification can be carried out without any notice.

© Copyright by Manuli Rubber Industries S.p.A., all rights reserved. No parts of this catalogue can be reproduced or transmitted, in any form or by any mean, or otherwise without prior authorisation of the publisher.



SALES TERMS & CONDITIONS

ALL GOODS AND SERVICES PROVIDED BY FLUICONNECTO BY MANULI ARE FURNISHED ONLY ON THE TERMS AND CONDITIONS STATED BELOW:

1. Validity and right of variation.

These standard terms and conditions of sales (referred to below as Conditions) apply to the relationship involving the supply of products (referred to below as Products) by Manuli Fluiconnecto Companies to professional operators or end-users (referred to below as Buyer).

Manuli Fluiconnecto does hereby reserve the right to add to, amend or vary the Conditions as herein set out, by including such additions, variations or modifications to the quotation or in any written correspondence addressed to the Buyer.

2. Terms of payment.

Credits shall be granted at Manuli Fluiconnecto's absolute discretion and the following terms of payment shall then apply.

- a. Payment at Net Invoice Value is due no later than the due date indicated in the invoice:
- b. If the Buyer fails to make payment in the time and manner specified by Manuli Fluiconnecto or becomes insolvent or has a receiver appointed or passes a resolution for winding up, Fluiconnecto may suspend, at its option, further deliveries;
- c. In case of default in payment by the date indicated on the invoice and in addition to the other remedies permitted under the applicable law and these Conditions, Manuli Fluiconnecto reserves the right to charge interest, without prior notice, at a rate equal to one and a half times the legal interest rate;
- d. In event Manuli Fluiconnecto does not expressly confirm its willingness to apply the terms of payment referred in this section, the Products shall be paid by the Buyer, by means of cash, check, credit card on delivery or an irrevocable letter of credit confirmed by a primary bank accepted by Manuli Fluiconnecto and cashable against the presentation of the delivery documents and the relevant invoice. Such letter of credit must be received by Manuli Fluiconnecto together with the Buyer's Order.

3. Terms of delivery.

The delivery of the Products shall be EXW (Incoterms 2000).

4. Orders' acceptance and Manuli Fluiconnecto's disclaimers of liability

for any provided information. Any order from the Buyer shall be binding for Manuli Fluiconnecto, only when accepted in writing by Manuli Fluiconnecto itself.

Verbal, telephoned or faxed orders and any modifications to orders must be confirmed in writing by the Buyer, otherwise Manuli Fluiconnecto accepts no responsibility for errors or consequent misunderstandings. Catalogues, price lists or other advertising matters are only an indication of the type of products and no prices or other particulars contained herein shall be binding for Manuli Fluiconnecto.

All information given in price lists and catalogues or any literature are supplied by Manuli Fluiconnecto in good faith; however, whilst every effort has been made to ensure that the information is correct, Manuli Fluiconnecto does not accept any responsibility for errors which may have inadvertently been made.

5. No liability for late delivery.

Manuli Fluiconnecto shall endeavour to complete the agreement and/or deliver the Products within the time agreed (if any) but it shall not be liable for any loss or damage of any kind whatsoever caused directly or indirectly by any delay in the completion of the agreement or delivery of the Products.

6. Acceptance of the Products. All claims for transit damages, loss or shortage of Products must be submitted by the Buyer to Manuli Fluiconnecto, in writing, within 10 (ten) working days from the date in which the Buyer received the forwarded Products.

In absence of claims within these time limits, the Products shall be deemed to have been properly delivered.

7. Compliance with specifications and terms of warranty.

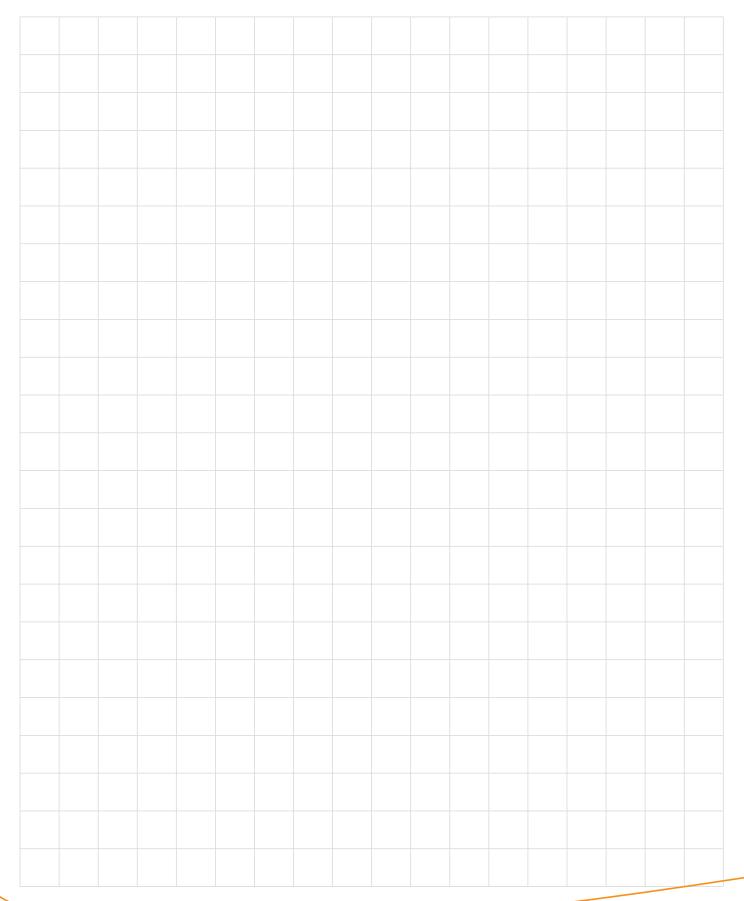
Manuli Fluiconnecto does hereby represent and warrant that the Product shall comply with the technical specifications forwarded by Manuli Fluiconnecto itself to the Buyer with the written acceptance of the Buyer's order. Manuli Fluiconnecto further represents and warrants that the Products are free of defects for a period equal to twelve (12) months from the date of delivery or in accordance with and subject to the limitations of liability provided for by the Products' warranty manuals actually in force in which the Products are delivered to the Buyer.

Such warranty is given in lieu of any additional warranty on the merchantability, quality and fitness for purpose. Consequently, except in case it is proven the Manuli Fluiconnecto's gross negligence, Manuli Fluiconnecto shall not be liable for any direct or indirect damage or loss of profit due to the use, the inability to use, or the incorporation of the Products in other products. Furthermore, under no circumstances Manuli Fluiconnecto shall be liable for wrong choice, bad use or normal wear of the Products.

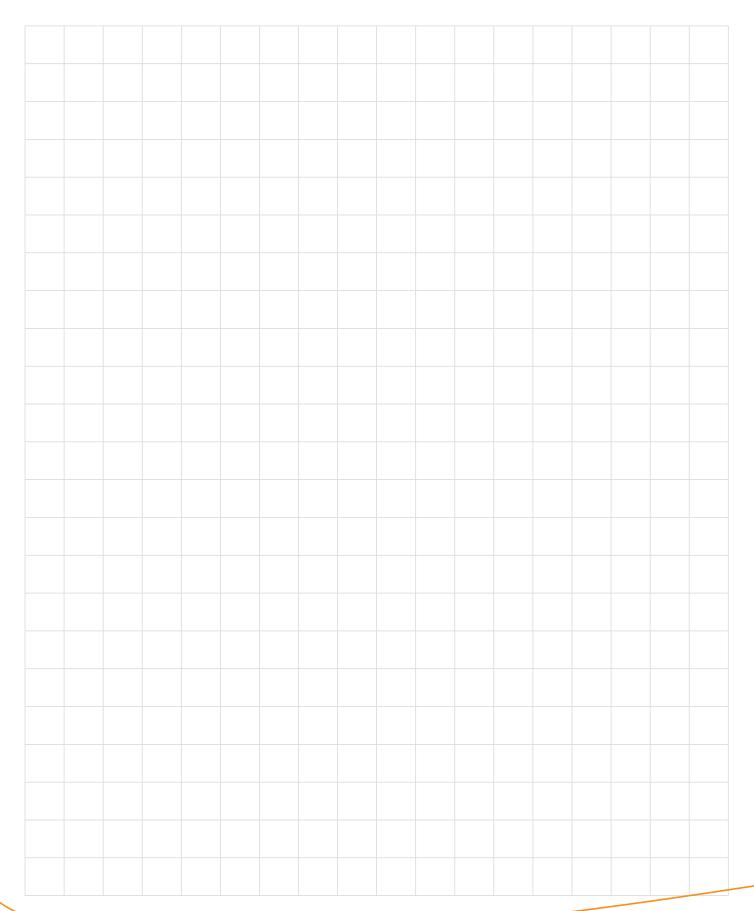
- **8. Specific terms and conditions of sale.** In the event that the Buyer objects to the inclusion in any agreement with Manuli Fluiconnecto of any of the excluding or exempting or indemnity terms contained herein, such objections must be brought to the attention of Fluiconnecto, in writing, before conclusion of any such agreement so that if (which shall be within the Manuli Fluiconnecto's entire discretion) Manuli Fluiconnecto agrees to the deletion or modification of any such term, appropriate increases in the price of Products to be supplied under such agreement may be agreed to reflect any increase in risks and obligations which Manuli Fluiconnecto may thus agree or bear.
- **9. Applicable law and settlement of disputes.** All agreements with Manuli Fluiconnecto shall be deemed, construed and interpreted in accordance with the law of the country where registered office of Manuli Fluiconnecto is located. Any dispute shall be referred to the Court of the city where registered office of Manuli Fluiconnecto is located, provided however that Manuli Fluiconnecto, at its own discretion, may elect to bring an action against the Buyer before any court of competent jurisdiction. The United Nations Conventions for the International Sales of Goods does not apply to any supply of Products made hereunder by Manuli Fluiconnecto to the Buyer.

NOTE: In case of dispute, only the original English text will be used, the translation being given for guidance only.

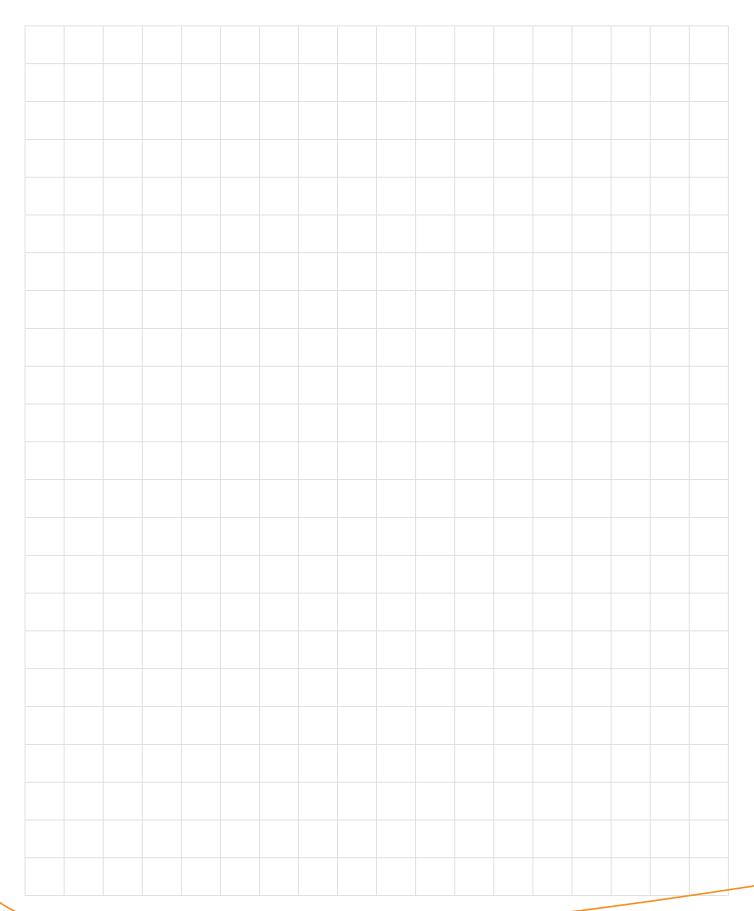




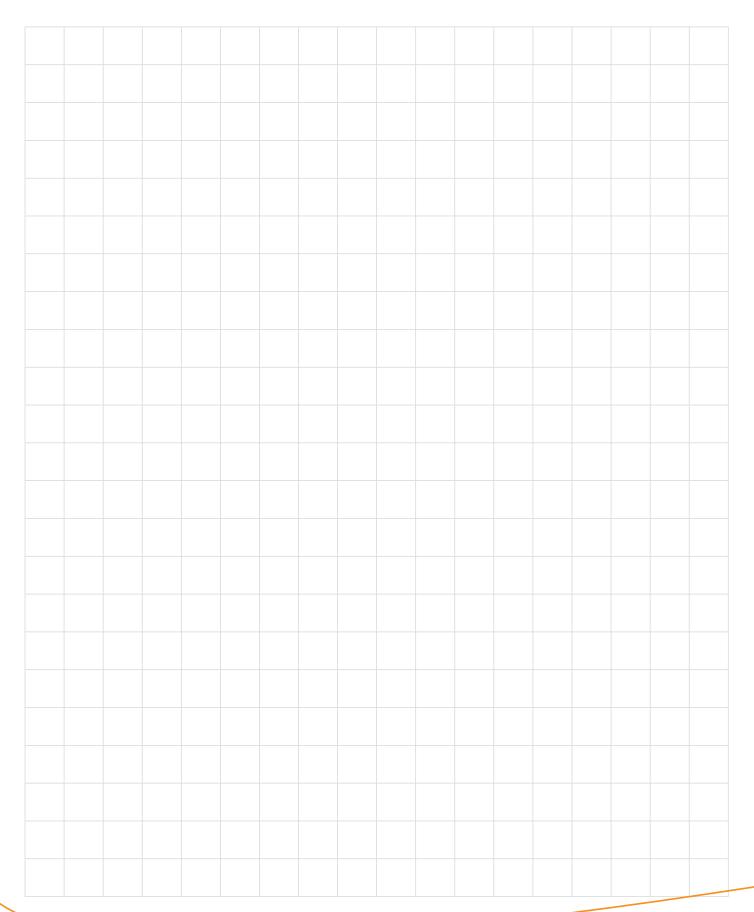
















Printed in Italy - FIRST EDITION - 2009 © Copyright by Fluiconnecto by Manuli

