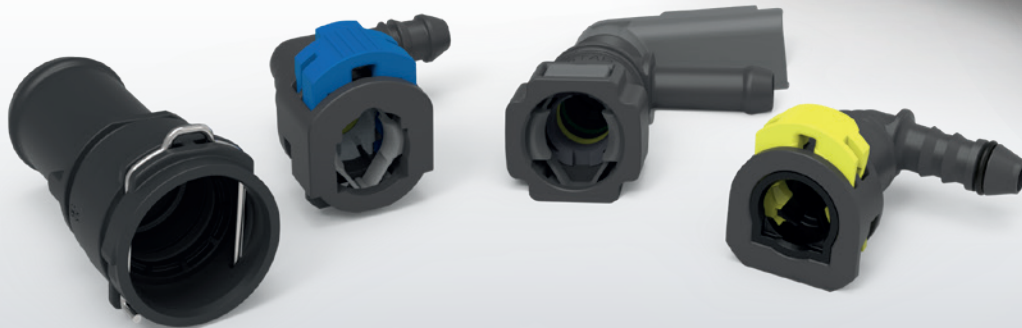


PRODUCT INFORMATION

THERMAL MANAGEMENT

Fluid connection solutions
for Automotive



ARaymond[™]
MORE THAN FASTENING

ARAYMOND, CLOSE TO YOU EVERYWHERE



1 center of expertise

11 engineering centers

26 manufacturing sites in
25 countries

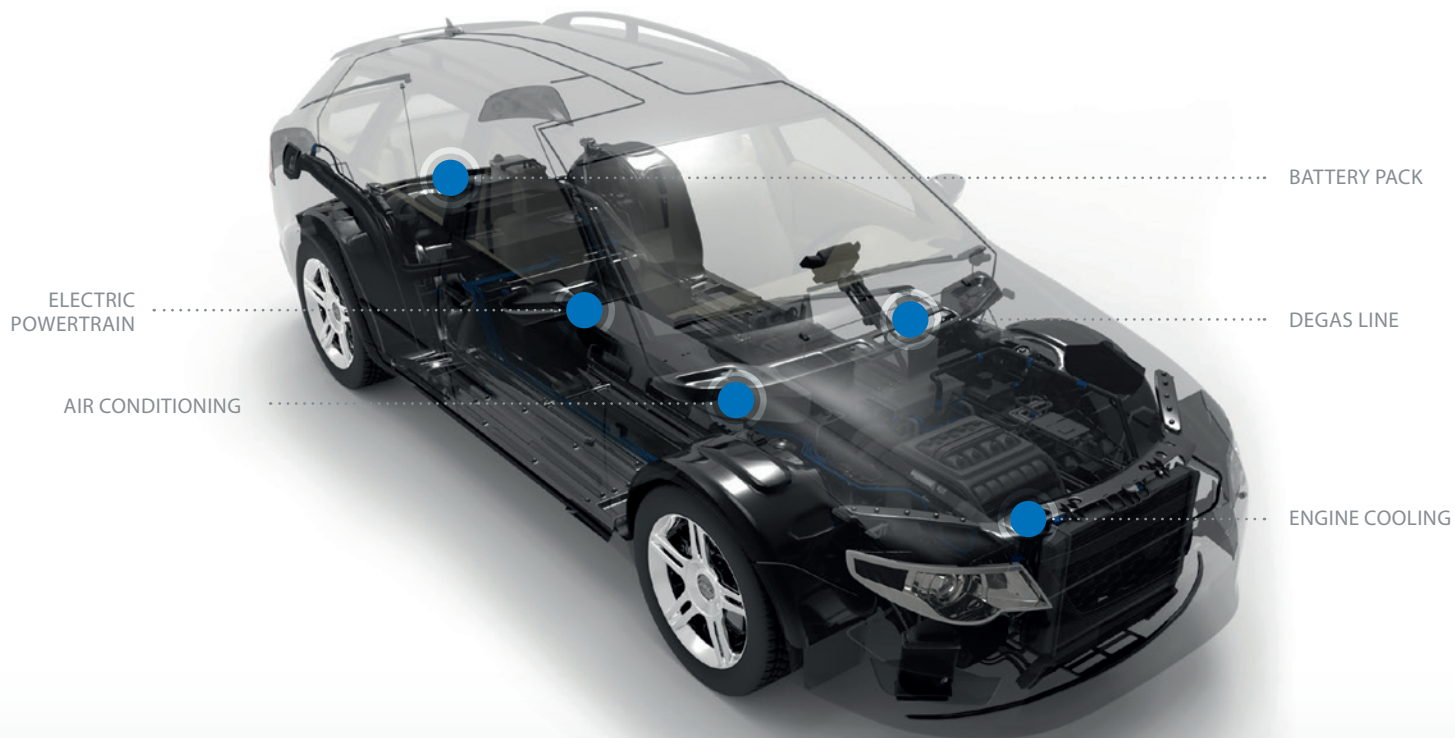
7,200 employees

More than 150 years of experience

OVERVIEW

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Secured connection	p.6
VDA QCs	p.7
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Integrated valves.....	p.11
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APPLICATION



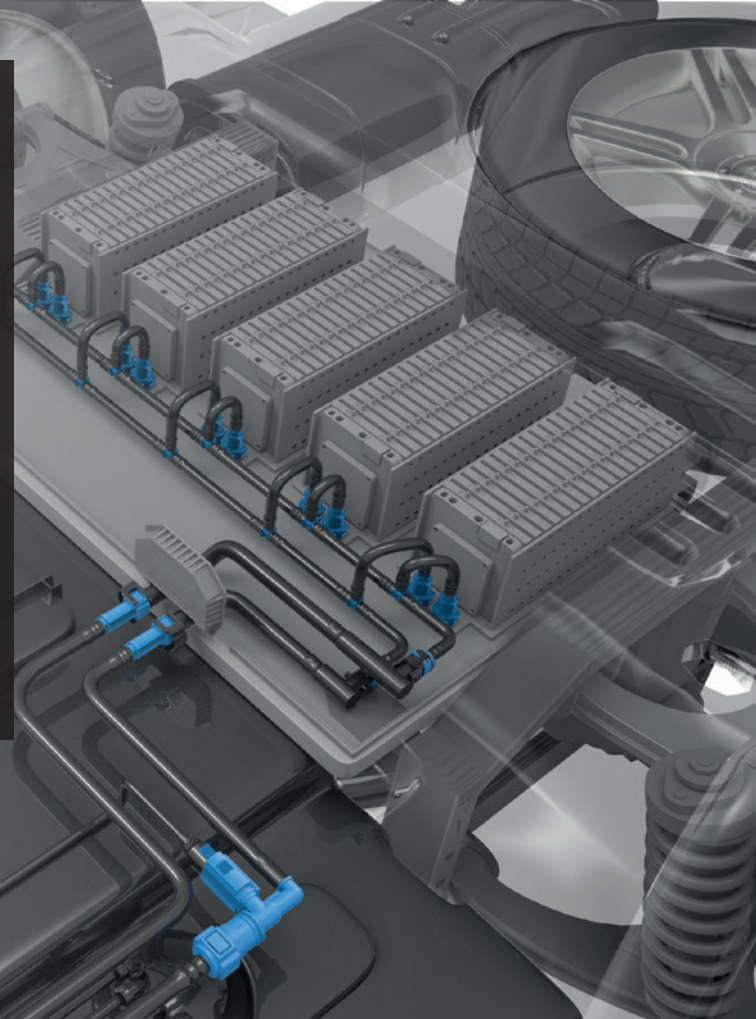
THERMAL MANAGEMENT

A key focus of ARaymond's strategy

Both traditional engines (ICE) and new EV and hybrid EV powertrains require thermal management systems to enhance performance, lower fuel consumption, and increase battery life and capacity.

The space available in battery packs is very limited, making battery cooling complex. Thermal management must be responsive and consistent across the battery pack to ensure safety in an environment where both electrical components and fluids are present.

Whatever the system configuration is, ARaymond has a solution.



SECURED CONNECTION

for environment with electrical components

Our Quick Connectors can improve safety by assuring the connections have been made, especially in environment where both electrical components and fluids are present. With visual, tactile and audible proof, our QCs offer different options of connection according to your needs. To prevent installation errors, the locker can not be pushed down if the end piece is not fully engaged.

Sensitive proof
of connection **++**

MANUAL CONNECTION



P2L® QC

AUTOMATIC CONNECTION



SELFY® QC

DOUBLE LATCHING SYSTEM



Click P2L® QC

VDA QCs

for all cooling lines

Our large range of robust and compact VDA Quick Connectors is compatible with all coolant fluids. They have low insertion effort to simplify assembly on the production line. Secure connections are critical and easily achieved with our compact VDA QCs.

Low insertion effort with our
new generation of VDA QCs 

DIAMETERS FROM
NW6 TO NW32

COMPATIBLE WITH
ALL COOLANT FLUIDS

CUSTOMIZED SOLUTION



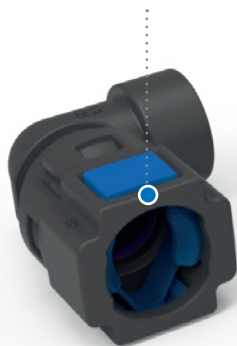
COMPACT DESIGN

for limited space

The space in the battery packs is very constrained.
Our 2-button compact Quick Connectors can fit and adapt to specific end pieces.
Thanks to cartridge structure and modularity design, they can be adapted to various designs depending on system configuration.

Compact solution 

CAN FIT SPECIFIC
END PIECES



DOUBLE O-RING



MODULARITY



ADAPTORS/END PIECES

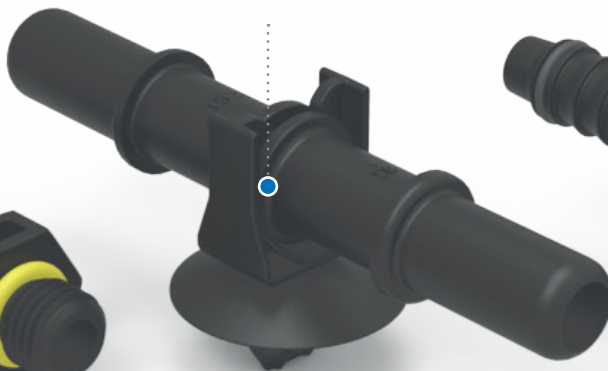
The ARaymond adaptors and end pieces enable connections between all tube types. They can link together flexible hoses or polyamide tubes. Threaded end pieces or adaptors can be used in battery packs to connect inside and outside fluid lines.

Adaptability 
Flexibility

THREADED SOLUTIONS



CUSTOMIZED DESIGN



MULTIWAYS



INTEGRATED SENSORS

to prevent battery thermal runaway

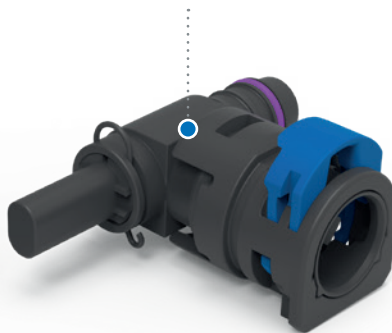
Both traditional internal combustion engines and EV/HEV powertrains require thermal management systems to enhance performance, lower fuel consumption, and increase battery life and capacity. Thermal management must be responsive and consistent across the battery pack to prevent battery thermal run-away.

Parameters control 
for safety

DIRECT INTEGRATION
INSIDE THE QC

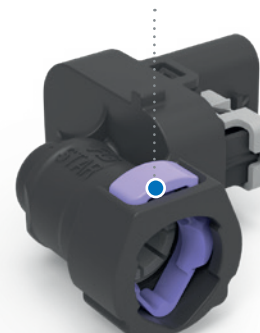


MEASUREMENT OF REAL
FLUID TEMPERATURE



TEMPERATURE SENSOR

MODULARITY
(angles, diameters, fluids,
electric interfaces)



PRESSURE SENSOR

INTEGRATED VALVES

to simplify fluid management

2-in-1 solutions like our Quick Connectors with integrated valves reduce the number of parts, lighten weight, and cut costs. Many functions can be embedded in our products (shut-off, one way, pressure regulator, calibrated valves...)

Available in several diameters, our integrated functions help service operation.

2-in-1 solutions 



Shut-off valve is open when connected to an end piece and close when disconnected



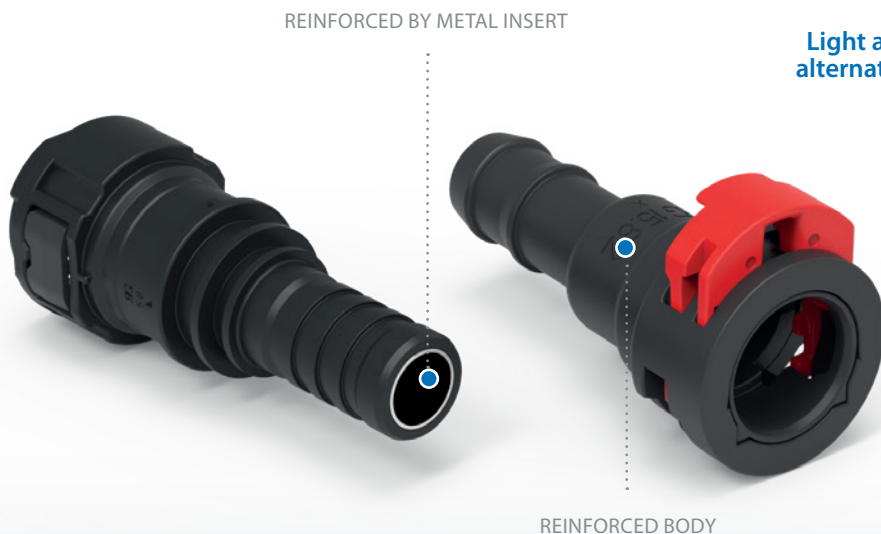
One-way valve allows fluid to flow in one direction only

REINFORCED QCs

for high performance

Our specially-engineered metal insert to reinforce the connector body allows a high-pressure-resistant assembly solution.

Our high performance QCs are particularly adapted for air conditioning line, engine or transmission oil cooling lines.



Light and compact
alternative to metal

SOLUTION

for degas lines

Our product range can be adapted to all cooling lines.
E-lock QCs are particularly recommended for degas cooling water lines.

DIFFERENT GEOMETRIES



COMPACT



AVAILABLE WITH
ANTI ROTATION DEVICE

Minimal 
insertion force

A LARGE RANGE OF SOLUTIONS

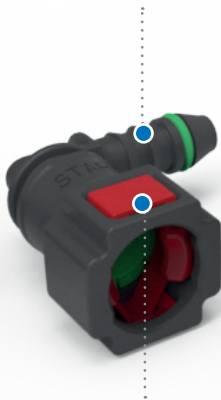
to transfer multiple fluids

As a pioneer in plastic Quick Connectors, we developed and patented our first 2-button QC more than 20 years ago. With the broadest range of Quick Connectors on the market, ARaymond covers all automotive fluid delivery systems.

COMPATIBLE WITH
ALL COOLANT FLUIDS



VARIOUS ANGLES
& GEOMETRIES



AUTOMATIC CONNECTION



Large range ++

DIAMETERS FROM
6.30-1/4" SAE TO DN 18

INNOVATIONS

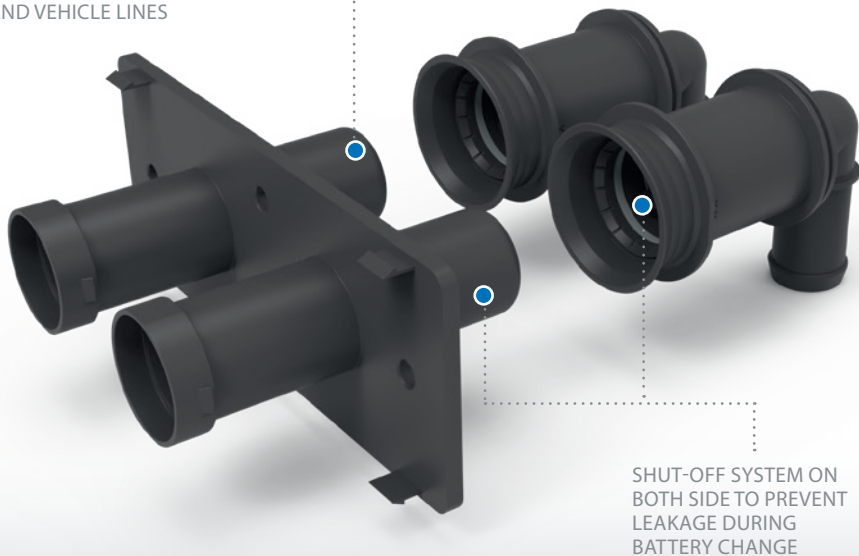
for fluid control

Innovating and anticipating customers' needs are our priority.
We are working on intelligent and active fluid management solutions to
simplify and optimize the thermal management of tomorrow's vehicles.

PROVIDE A CONNECTION
BETWEEN BATTERY PACK
AND VEHICLE LINES

Safety **+**
and control

THERMOSTATIC VALVE FOR SMART
AUTONOMOUS MANAGEMENT SYSTEM



SHUT-OFF SYSTEM ON
BOTH SIDE TO PREVENT
LEAKAGE DURING
BATTERY CHANGE



YOUR CONTACTS WORLDWIDE

AMERICAS

USA & CANADA

+1 248 265 4000
contact.connecting.us@araymond-automotive.com

BRAZIL

+55 19 3836-6900
contact.connecting.br@araymond-automotive.com

ASIA

CHINA

+86 0511-853 09 100
contact.connecting.cn@araymond-automotive.com

INDIA

+91 (2135) 676 200
contact.connecting.in@araymond-automotive.com

JAPAN

+81 463 40 8600
contact.connecting.jp@araymond-automotive.com

SINGAPORE

+65 6634 1041
contact.connecting.sg@araymond-automotive.com

SOUTH KOREA

+82 70 5055 5000
contact.connecting.kr@araymond-automotive.com

EMEA

CZECH REPUBLIC

+420 483 358 111
contact.connecting.cz@araymond-automotive.com

FRANCE

+33 4 76 33 49 49
contact.connecting.fr@araymond-automotive.com

GERMANY

+49 7 634 5080-433
contact.connecting.de@araymond-automotive.com

HUNGARY

+36 30 967 3636
contact.connecting.hu@araymond-automotive.com

ITALY

+39 0161 937311
contact.connecting.it@araymond-automotive.com

POLAND

+48 22 633 55 87
contact.connecting.pl@araymond-automotive.com

ROMANIA

+40 248 210324
contact.connecting.ro@araymond-automotive.com

RUSSIA

+7 831 3398 111
contact.connecting.ru@araymond-automotive.com

SLOVAKIA

+421 326 401 586
contact.connecting.sk@araymond-automotive.com

SWEDEN (SALES AGENT)

+46 31 703 34 40
stefan.andreasson@ci-phil.se

TURKEY

+90 262 658 1058
contact.connecting.tr@araymond-automotive.com

UNITED KINGDOM

+44 1732 871934
contact.connecting.uk@araymond-automotive.com

www.araymond-automotive.com

catalog.araymond-automotive.com

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