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Design Concepts

Eaton's Carter Model 64910 4-inch API Hydrant Coupler is the latest coupler design and supersedes Models 64900 and 60700-1. It is used for air-reference pressure control systems.

The lower half of Model 64910 has been completely redesigned. This new lower half incorporates three (3) detent pins, an internal collar locking device and collar lifting handles (both "short" – standard, or "tall" – Option "T"), providing improved ergonomics and operational handling during disconnect.

Two additional coupler models that include this new lower half are also available, Model 64912 for digital pressure control systems, and Model 64913, which is electro-hydraulically controlled.

Earlier coupler Models 64900 and 60700-1 can be retrofitted to gain these new features by changing only the lower half.

Features

- Mates with all adapters and all standard hydrant valves in accordance with API Bulletin 1584
- Outlet of elbow is flanged to accept various outlet male adapter fittings. Options to mate with older quick disconnects (QDs) available, reducing maintenance costs if male fitting is damaged.
- 3 and 4-inch NPT or BSPP outlet threads available
- Air/fuel sense ports parallel to outlet
- All ports with straight O-ring sealed threads
- Air bleed under sealed screw
- Closing time adjustment accessible without removal of air port fitting
- Studs used for connecting lower half, reducing chance of over-tightening connecting fasteners
- External collar locking device eliminated
- Optional carrying handles available. Transverse mounting standard. A second QD-mounted handle is also available.

- Carriage affixed by studs. No special length bolts required, reducing possibility of error when carriage is added in the field.
- Port to connect to hydrant provided on coupler. No special hose assembly required
- Parts common to 4-inch inline valves and Model 60700-1 coupler used for less costly maintenance
- Design changes have not increased weight

Operation Information

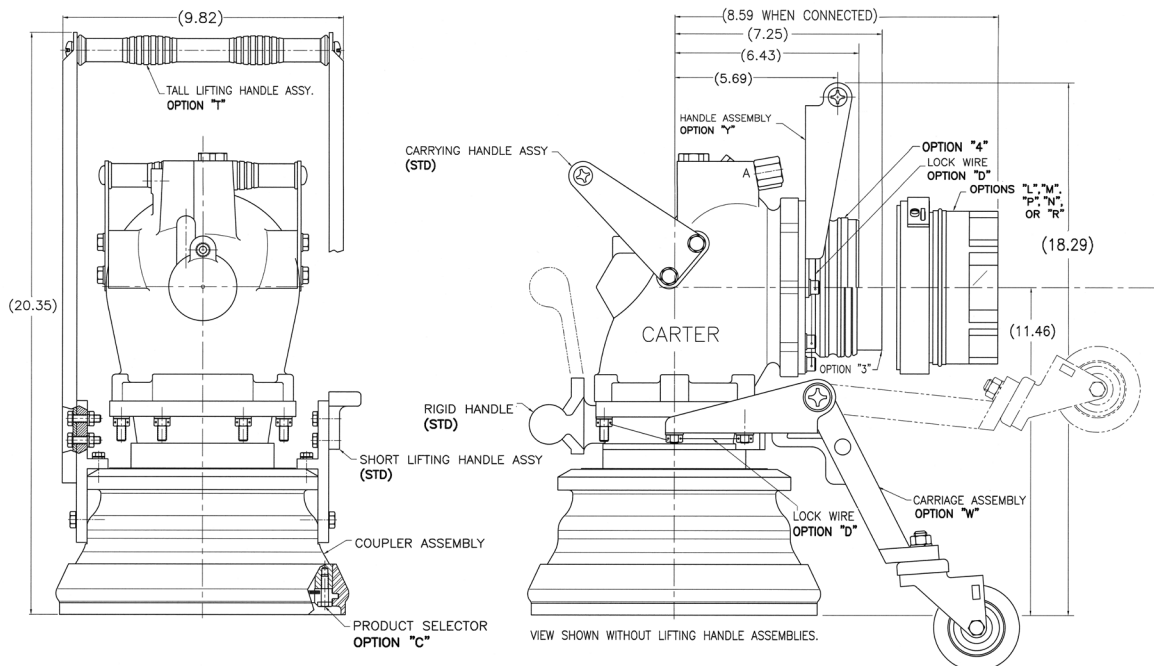
Model 64910 is a direct spring-loaded pressure control unit that is controlled by the air-reference pressure provided from the vehicle system. Operation of Model 64910 is nearly identical to earlier Models 64900 and 60700-1, but the redesigned lower half provides improved operational handling. A sealed screw outside the air hose fitting provides closing time adjustment. A sealed screw is also used to bleed the unit of air.

Technical Data

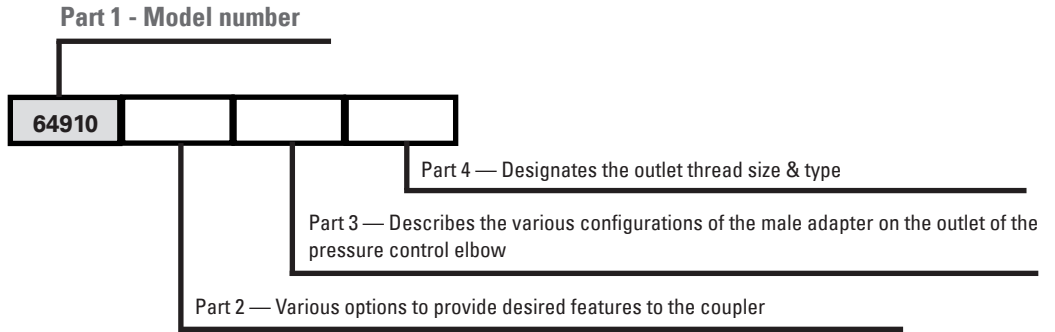
- Weight — (basic coupler) 29.0 lbs (13.154 kg)
- Operated by vehicle air reference pressure
- Working pressure — 200 psi (13.793 bar)
- Proof pressure — 450 psi (31.034 bar)
- Closing Time — 2-5 seconds (adjustable)
- Opening time — 5-10 seconds (no adjustment)
- Overshoot - 50 US gal. maximum at 1,000 USgpm
- Air pressure operated — nominal bias (air pressure required above control pressure) — 25 psi (1.724 bar). Bias increases to approximately 33 psi (2.276 bar) at flow rates up to 1,200 USgpm.
- Fully open pressure drop — 21 psi (1.448 bar) at 1,000 USgpm when mated with Model 60554 hydrant valve (see chart on page 3 for more data)

Envelope Dimensions

Dimensions shown in inches (mm)



Various options are available on Model 64910 coupler. The complete model number is comprised of four parts, as explained in the tables below.



Part 2

One or more of the options shown in the table (right) may be added to the basic model number 64910 to obtain desired features.

Option	Description	Option	Description
A	Replaces standard lugs with API 1584 2nd Edition lugs	H	Adds 3/8-inch NPT to both air and fuel ports
B	Adds folding handle	J	Adds 3/8-inch hose barbs to air and fuel ports
C	Adds product selection	R	Adds 90° elbow, 1/4-inch female NPT for air/dual operated hydrant valve actuation
D	Adds lockwire to flange joint fasteners	T	Adds "tall" lower collar lifting handle
E	Adds API style air/fuel QD	W	Adds carriage assembly
F	Adds hose barb fittings to air and fuel ports	Y	Adds handle assembly at outlet port
G	Replaces standard coupler with coupler used for arctic weather conditions		

Part 3

One of the options described in the table (right) must be added to determine the outlet male adapter configuration.

Option	Description	Option	Description
3	Male adapter fitting to mate with 60700-1 style female QD	4	Male adapter to mate with 44220 QD

Part 4

One of the options described below must be added to specify the outlet thread size and type.

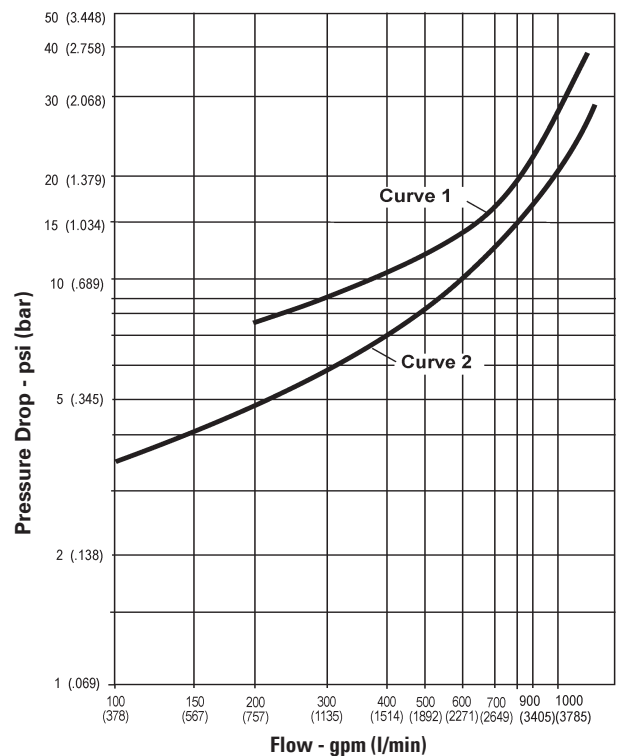
Option	Description	Option	Description
L	Adds 3-inch NPT threaded female QD	P	Adds 4-inch NPT threaded female QD
M	Adds 3-inch BSPP threaded female QD	R	Adds 4-inch -8 NPSC threaded female QD (used with Option 3 only)
N	Adds 4-inch BSPP threaded female QD	Z	Adds 4-inch BSPP female QD with cast handle (used with Option 3 only)

Note: If Part 4 is left blank, no female quick disconnect will be shipped. This is a proper designation when it is desired to use a Model 64910 to replace a Model 60700-1, 60600 or 60600-1 coupler. In this case Part 3 must correctly designate the proper male adapter fitting.

Examples:

- 64910BF3L — Coupler with folding handle, hose barbs in all air/fuel ports, male adapter fitting to mate with female QD with 3-inch NPT threads
- 64910CT3 — Coupler with product selection and male adapter fitting to mate with female QD (no female QD provided) and "tall" lower collar lifting handle

Pressure Drop Curves



Curve 1 Typical Model 64910 with 3-inch QD outlets options

Curve 2 Typical Model 64910 with 4-inch QD outlet options

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