



Design Concepts

Eaton's Carter product line includes several API style hydrant couplers. Model 64810 is the latest coupler design and it supersedes Models 64800 and 60700-1. It is used for air reference pressure control systems.

The lower half of Model 64810 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.

Earlier coupler Models 64800 and 60700-1 can be retrofitted to gain these new features by changing only the lower half.

Features

- Mates with all standard hydrant valves in accordance with API 1584
- Air/fuel sense ports parallel to outlet
- All ports with straight O-ring sealed threads
- 2½, 3 and 4-inch NPT or BSPP outlet threads available
- Air bleed under sealed screw
- Closing time adjustment accessible without removal of air port fitting
- External collar locking device eliminated
- Studs used for connecting lower half, reducing chance of over-tightening connecting fasteners
- Outlet of elbow flanged to accept various outlet male adapter fittings. Options to mate with older quick disconnects (QD) available, reducing maintenance costs if the male fitting is damaged.

- Outlet QD has thumb latches for easy disconnecting without use of any tools
- Optional carrying handles available. Transverse mounting standard, parallel optional. A second QD mounted handle is also available.
- Carriage affixed by studs. No special length bolts required, reducing chance of error when carriage is added in the field.
- Port to connect to hydrant provided on coupler — no special hose assembly is required
- Changes have been made without an increase in weight

Technical Data

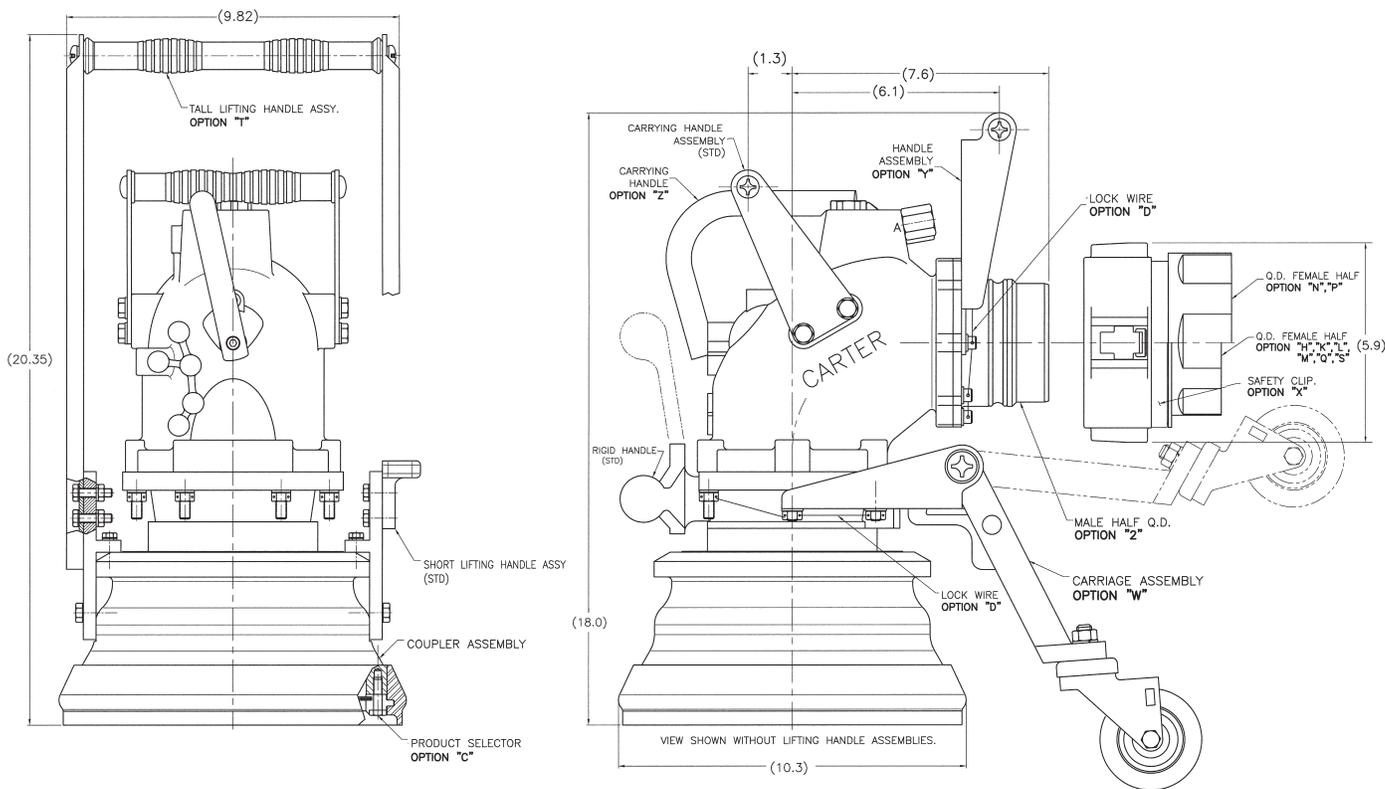
- Weight — (basic coupler) 27 lbs (12.247 kg)
- Operated by vehicle air reference pressure
- Working pressure — 200 psi (13.793 bar)
- Proof pressure — 450 psi (31.034 bar)
- Closing time — 2-5 seconds (adjustable)
- Opening time — 5-10 seconds (no adjustment)
- Overshoot — 40 US gal. maximum at 800 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 — 24 psi (1.655 bar) at 1,100 USgpm when mated to Model 60554 hydrant valve

Operation Information

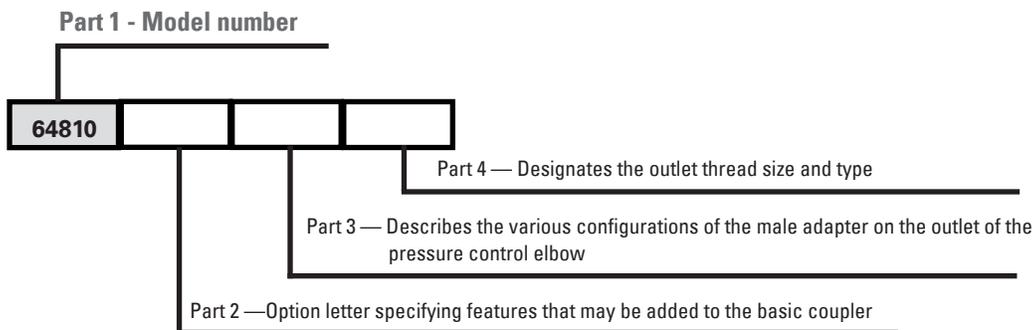
Model 64810 Hydrant Coupler is a direct spring loaded pressure control unit that is controlled by the air reference pressure provided from the vehicle system. Operation of Model 64810 is nearly identical to earlier models 64800 and 60700-1, but the redesigned lower half provides improved operational handling.

Envelope Dimensions

Dimensions shown in inches (mm)



Various options are available on the Model 64810 coupler. The part number system is described to the right. The complete part number is comprised of four parts, as explained in the tables below.



Part 2

One or more of the options described at right may be added to the basic model number 64810 to obtain desired features.

Option Letter	Description	Option Letter	Description
A	Replaces standard lugs with API 1584 2nd Edition lugs	J	Adds 3/8-inch hose barb fittings to both air and fuel sense ports
B	Adds folding handle	R	Adds 90° elbow ¼-inch FNPT for air operated hydrant valve actuation
C	Adds product selection	T	Adds “tall” lower collar lifting handle
D	Adds lockwire to flange joint fasteners	W	Adds carriage assembly
E	Adds API style air/fuel QD	X	Adds safety clip to outlet disconnect (Option 2 only)
F	Adds hose barb fittings to air and fuel ports	Y	Adds handle assembly at outlet
H	Adds 3/8-inch FNPT fitting to both air and fuel sense ports	Z	Replaces standard transverse carrying handle at centerline of coupler with handle parallel to outlet (47214)

Part 3

One of the options described at right must be added to determine the outlet male adapter configuration.

Option	Description	Option	Description
2	Adds 3-inch male adapter to mate standard thumb latched female QD.	4	Adds adapter to mate customer furnished Model 60600 (except Option K) type QD
3	Adds 4-inch male adapter to mate 60700-1 style female QD		

Part 4

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

Option Letter	Description	Option Letter	Description
H	Adds 2½-inch NPT thread female QD. Can be used only with Option 2 from Part 3.	N	Adds 4-inch BSPP thread female QD
K	Adds 2½-inch BSPP thread female QD. Can be used only with Option 2 from Part 3.	P	Adds 4-inch NPT thread female QD
L	Adds 3-inch NPT thread female QD	Q	Adds 2-inch NPT thread female QD. Can be used only with Option 2 from Part 3.
M	Adds 3-inch BSPP thread female QD	R	Adds 4-inch -8 NPSC thread female QD. Can be used only with Option 3 from Part 3.
		S	Adds 2 inch BSPP thread female QD. Can be used only with Option 2 from Part 3.

Note: If Part 4 is left blank, no female QD will be shipped. This is a proper designation when it is desired to use a Model 64810 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:

- 64810BFX2H Coupler with folding handle, hose barbs in all air/fuel ports, safety ring on QD, standard thumb latch QD with 2½-inch NPT threads
- 64810CT3 Coupler with male adapter fitting to mate with 60700-1 (no female QD provided), and “tall” lower collar lifting handles

Eaton
Aerospace Group
Fluid & Electrical Distribution Division
9650 Jeronimo Road
Irvine, California 92618
Phone: (949) 452 9500
Fax: (949) 452 9992
E-mail: groundfueling@eaton.com



Eaton
Aerospace Group
9650 Jeronimo Road
Irvine, California 92618
Phone: (949) 452 9500
Fax: (949) 452 9555
www.eaton.com/aerospace

Copyright © 2013 Eaton
All Rights Reserved
Printed In USA
Form No. TF100-129C
June 2013