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# Design Concepts

Eaton's Carter product line includes several API style hydrant couplers. Model 64802 4-Inch API Style Hydrant Coupler is nearly identical to the widely used Eaton Model 60700-1 and the newer Model 64800 coupler. However, certain features have been modified to allow it to be operated digitally.

## Features

- Mates all standard hydrant valves in accordance with API Bulletin 1584
- Folding operating handle optional
- Product selection feature available
- 2, 2½, 3 and 4-inch NPT or BSPP outlet threads available
- Studs used for connecting lower half and to affix the optional carriage assembly

- Outlet of elbow flanged to accept various outlet male adapter fittings, reducing maintenance costs if male fitting is damaged
- Options to mate to older Quick Disconnects (QD) available
- Thumb latches on QD — easier to remove from hose with no tools
- Optional safety clip available on 2½ and 3-inch QDs
- Optional carrying handle available at disconnect
- Lower half of coupler (connecting unit to hydrant) has not been changed
- Suitable for operating pressures of 200 psig (13.79 bar) and system proof pressure of up to 450 psig (31.026 bar)
- Pressure drop — 24 psi (1.655 bar) across mating Model 60554 hydrant valve and coupler

## Operation Information

Connection to the hydrant valve is in accordance with the industry API Bulletin 1584 interface standard.

Eaton's Model 64802 is a direct spring loaded pressure control unit that is controlled Eaton's exclusive Digital Pressure Control System. Full details of this system are outlined in Model 64235 brochure (TF100-104).

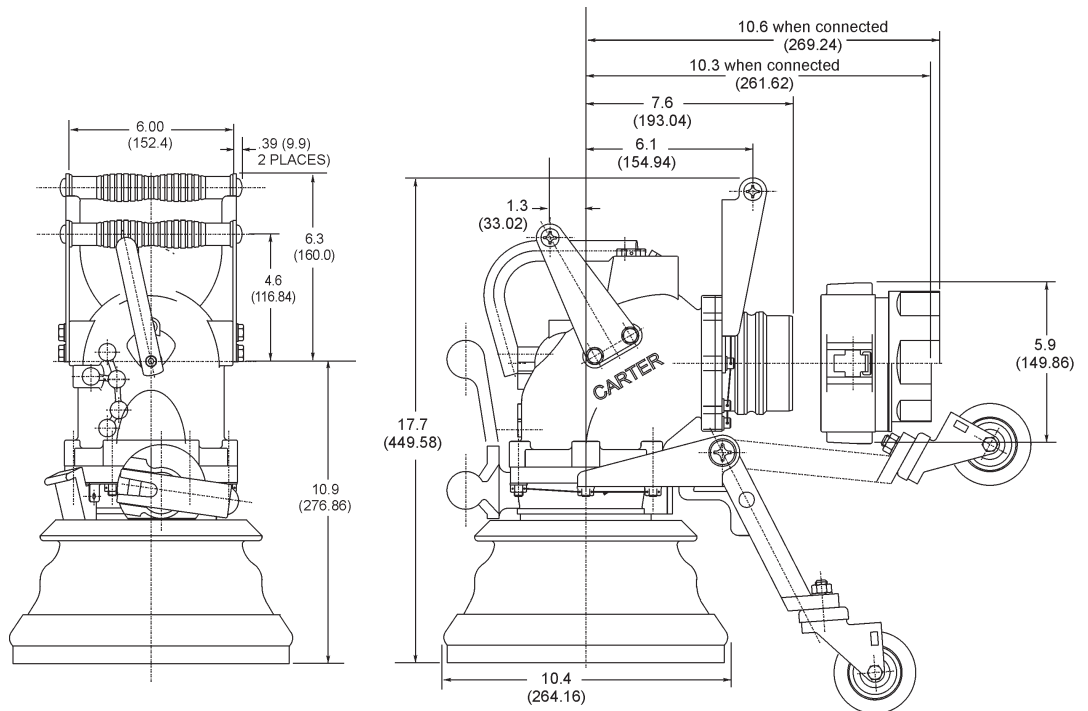
Fuel pressure presented to the operating chamber through the command hose from the vehicle mounted solenoid manifold assembly (Model 64302, 64303 or 64304, as required by the system design) causes the coupler control elbow valve to open. This establishes flow through the system. Digital commands to the manifold further command

the coupler to trim to a position to effect control of the pressure in the system. No air pressure is required to achieve system control, unlike the earlier Model 60700-1 and newer Model 64800, or couplers made by competing manufacturers. Pressure control is also achieved without the need for confusing venturi systems.

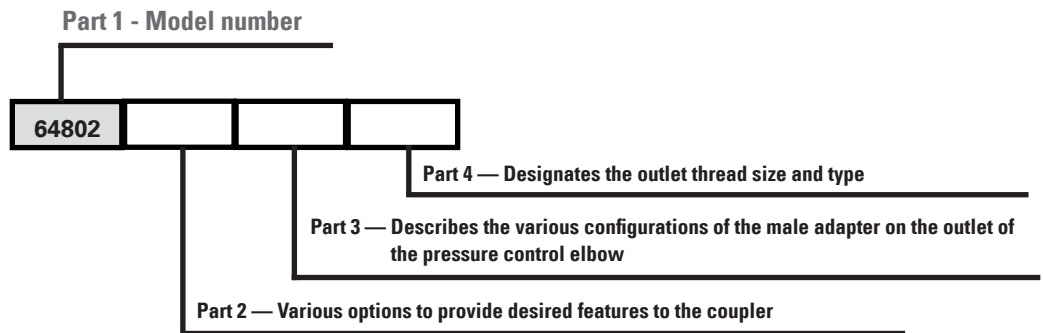
There are no adjustments required or possible on the coupler. All pressure control adjustments are made on the control module of Eaton's Model 64235 Digital Pressure Control System.

## Envelope Dimensions

Dimensions shown in inches (millimeters)



Various options are available on Model 64802. The part number system is as shown, right. The complete part 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) must be added to the basic model number 64802 to obtain desired features.

Option	Description	Option	Description
B	Adds folding handle to lower half	W	Adds carriage assembly (60532)
C	Adds product selection (41802)	X	Adds safety clip to QD (220822) — with Option 2 (Part 2) only
D	Adds lockwire to coupler joint fasteners	Y	Adds handle assembly at outlet (47182)
F	Adds male dry break QD for the fuel control port. Use with Option E.	Z	Adds vertical carrying handle, replacing standard handle

### Part 3

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

Option	Description	Option	Description
2	Male adapter fitting to mate standard thumb latched female QD	4	Adds adapter to mate customer furnished Model 60600 (except Option K) type QD
3	Male adapter fitting to mate Model 64702/60700-1 style female QD		

### Part 4

One of the options shown in the table (right) must be added to Option 3, above, to specify the outlet thread size and type. See notes below regarding exceptions.

Option	Description	Option	Description
H	2½-inch NPT outlet — applicable with Options 2 and 3 (Part 3)	P	4-inch NPT outlet — applicable with Options 3 and 4 (Part 3)
K	2½-inch BSPP outlet — applicable with Options 2 and 3 (Part 3)	Q	2-inch NPT outlet — applicable with Options 2 and 3 (Part 3)
L	3-inch NPT outlet — applicable with Options 3 and 4 (Part 3)	R	4-inch NPSC outlet — applicable only with Option 3 (Part 3)
M	3-inch BSPP outlet — applicable with Options 3 and 4 (Part 3)	S	2-inch BSPP outlet — applicable with Options 2 and 3 (Part 3)
N	4-inch BSPP outlet — applicable with Options 3 and 4 (Part 3)		

#### Notes:

- Part 4 can be left blank when ordering a coupler to be used as a replacement for an existing Model 60700-1, 60600, 60600-1 or 64702 coupler. Part 3 must be filled in properly to acquire a male half to mate the existing female half being used.
- Part 4 may also be left blank if a Model 64802 coupler is being ordered as a replacement or a spare that will be used with an existing female half (attached to the hose)

#### Examples:

- 64802FX2H Coupler with folding handle, dry break fitting in command port, collar stop assembly, safety clip on QD, standard thumb latch QD with 2½-inch NPT threads
- 64802FW3 Coupler with dry break fitting in command port, collar stop assembly, carriage assembly and outlet adapter to mate an existing female adapter previously used on Model 60700-1

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