

G040-125A002 PQ Valve Checker



DESCRIPTION

The Moog G040-125A002 PQ Valve Checker is a portable test instrument intended for in-field testing of the complete range of Moog proportional and servo valves. It provides quick and easy validation of a valve's performance. This enables hydraulic and electronic problems to be isolated, giving speedy and reliable system trouble-shooting.

The Valve Checker is configured for the valve being tested by a small plug-in key. This obviates the need for many bulky and expensive cables, making the complete package small, inexpensive and easy to use.

There are two modes of operation:

- In-line mode, called "plant mode"; the Valve Checker connects between the valve and plant electronics and monitors the valve's spool and pressure signals, in response to the plant electronics commands. The valve's spool and pressure signals are also passed through to the plant electronics so the presence of the Valve Checker has no impact on normal plant operation.
- Stand-alone mode, called "checker mode"; the Valve Checker generates commands to the valve and monitors the valve's spool and pressure signals.

Internal power is derived from the plant supply to the valve, or from an external 24V DC supply that connects to the rear panel of the Valve Checker. When operating from the external supply, both 24V and $\pm 15V$ valves are powered from the Valve Checker internal supply.

FEATURES

- Provides hydraulic test independent of electronics
- Enables system fault isolation to either hydraulics or electronics
- Configured by plug-in key
- In-built LED spool/pressure meter
- Test points on all valve connector pins
- Both 24V and $\pm 15V$ valves powered from external 24V supply

The -002 model differs from the -001 in that it has a switch to set the -P command valve pin to ground or open circuit.

The A002 model differs from the -002 in that the enable circuit has been improved.

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SPECIFICATIONS

Q Command Outputs:	±10V, ±10mA, ±100mA, 4-20mA, plant command
Q Command Test Point:	0 to ±10V
P Command Outputs:	0 to +10V, 0 to +10mA, 4-20mA, plant command
P Command Test Point:	0 to +10V
P&Q Commands Output Swing:	10V
Q (Spool) Feedback:	2.5 to 13.5V, ±10V differential, ±10V single ended, ±10mA, 4-20mA, 2-10V
Q (Spool) Feedback Test Point:	0 to ±10V
P Feedback:	0 to +10V, 0 to +10mA, 4-20mA
P Feedback Test Point:	0 to +10V
Supply:	
±15V	±14.25 to ±15.75V, ±80mA at ±15V, excluding valve
24V	22 to 28V, 140mA at 24V, excluding valve. 800mA at 24V and maximum ±350mA from the internal ±15V supply
Enable OK, Valve OK, and Safe Position threshold:	on at 8.5V off at 6.5V
Weight:	680gm
Dimensions:	190W x 140D x 70H
EMC:	EN61000-4-2, emission EN61000-6-2, immunity
Protective earth:	EN 60204-1 equal-potential

CABLES

- Two metres long
- Solid metal back shells
- Screen terminated at both ends
- Protective earth conductor where connector provides a PE contact
- -XXX in bold are recommended to be purchased with a new Valve Checker

Available types:

Connector/ function	Valve C70615	Plant C70616	Comments
6 pin	-001-002	-001	Common valve cable for 6 and 6+PE
6+PE	-001-002	-002	Common valve cable for 6 and 6+PE
11+PE	-003	-003	Hirschmann N11R
12 pin	-004	-004	MIL-C-26482 bayonet
12 pin (K=PE)	-005	-005	MIL-C-26482 bayonet with extended male pin for PE
4 pin mfb series and Mini DDV	-006	-006-007	Common plant cable for series and parallel coils
4 pin mfb parallel and Mini DDV	-007	-006-007	Common plant cable for series and parallel coils
5 & 6 pin	-008	-008	Dual PQ valve connectors
6 & 7 pin	-009	-009	Dual PQ valve connectors
7 pin	-010	-010	MIL-C-5015 14S bayonet

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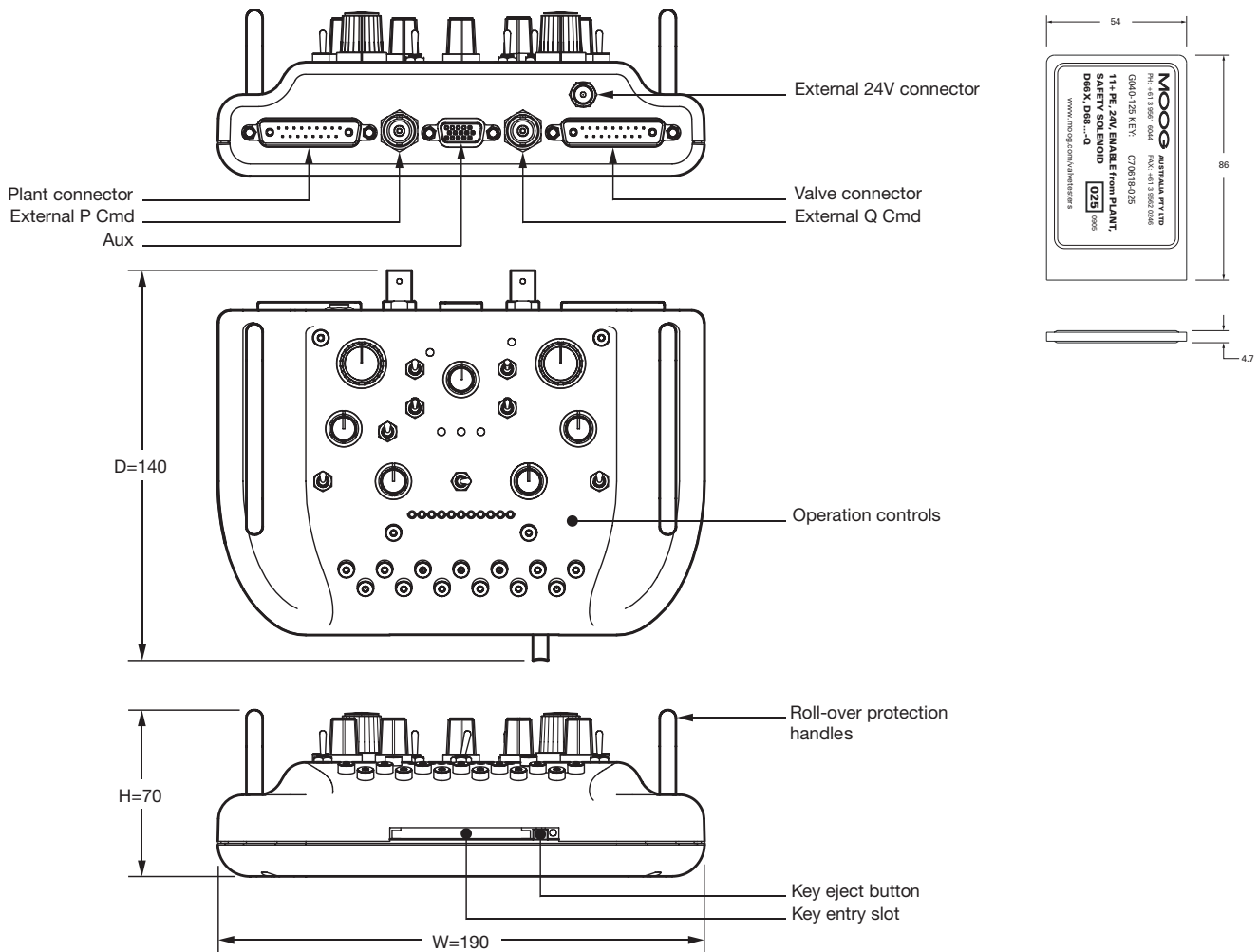
KEYS

- Format is PCMCIA card
- Passive circuit; contains no active electronics
- Key part number is C70618-XXX
- -XXX in bold are recommended to be purchased with a new Valve Checker

Available types:

XXX No.	Valve model	Valve type	Connector	Power	Comments	PE pin	Enable from
-002	D66X	Q	6 or 6+PE	+24V		PE	plant
-003	D635	DDV-P	6+PE	+24V	P+ and P- command	PE	key
-004	D66X	Q	12 pin	±15V		-	key
-006	D69X	PQ	12 pin	+24V	Supply on J & M	K	plant
-007	D66X/765/64X	Q	6 or 6+PE	±15V		PE	key
-008	D656Z038	PQ	12 pin	±15V	J to E in P mode	-	key
-009	D651 to D654	PQ	5 & 6 pin	±15V		-	key
-010	D656	PQ	6 & 7 pin	±15V		-	key
-011	D656	PQ	12 pin	±15V		-	key
-012	D691	PQ	11+PE	±15V		PE	key
-013	D691	PQ	11+PE	+24V	No sol, dif spool	PE	plant
-014	D633/634 DDV	Q	6 or 6+PE	+24V		PE	key
-015	Mini DDV, mfb	Q	4 pin	-	Serial or parallel	-	key
-017	D651-346B	PQ	6 & 7 pin	±15V	Arburg connectors	-	key
-018	D659	PQ	7 pin	±15V		-	key
-020	D691	PQ	12 pin	±15V		K	key
-022	D66X	Q	11+PE	+24V	Supply on 9 & 10, dif spool	PE	plant
-023	D636/638 DIV	PQ	11+PE	+24V		PE	plant
-024	D66X, D68X	Q	11+PE	+24V	No sol, sin spool	PE	plant
-025	D66X, D68X	Q	11+PE	+24V	Sol, sin spool	PE	plant
-026	D691Z4702	PQ	11+PE	+24V	Solenoid	PE	plant
-027	D68X	Q	11+PE	+24V	Sol, dif spool	PE	plant
-028	D638 DIV	P	6+PE	+24V	P+ and P- command	PE	plant
-029	659F101B	PQ	12 pin	±15V	Constant PQ & dif Q cmd	-	key

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ORDERING INFORMATION

- G040-125A002 PQ Valve Tester. Does not include any cables or keys.
- C70765 Kit of G040-125A002, keys C70618-002, -007, -011, -013 and -014, valve cables C70615-001/2, -003 and -004 and plant cables C70616-002, -003 and -004. These cables and keys are suitable for general purpose use.
- C70935-001 External 24VDC, 2.0A power supply, 90 to 264 VAC, 47-63Hz. AC power cord, IEC 320-7, not included.
- C70618-XXX Key
- C70615-XXX Valve cable
- C70616-XXX Plant cable

INTERNET DATA

For the latest version of this Data Sheet, please refer to the Moog website www.moog.com/valvetesters