



Open-loop Velocity Control Module

(Catalog Number 1746-QV)

Use this abbreviated procedure for getting the 1746-QV module into operation. If you need more information, refer to the user manual, publication 1746-6.18.

1. Obtain Manual & Logic Files from Internet or Rockwell Software Bulletin Board (BBS) Chapter 3

Obtain user manual and ladder program from Rockwell Software Bulletin Board (BBS) or the Internet. **From BBS:** (216) 646-ROCK (-7625). If a new user, follow prompts to register. Log in. Look for 1746QV in the Allen-Bradley Products Library. The manual is in Word format. Download to a hard drive sub-directory and decompress it with PKUNZIP available on BBS. The ladder program, VELMOD, is SLC500 code (65 Kbyte). Download to a hard drive subdirectory where your programming software looks for files. **From Internet:** webpage <http://www.ab.com> If a new user, click *Join Now* and follow prompts to register. Log in. Search for QV: on homepage, click *Search Our Site*, insert QV in window, and click *search* button. The manual is PDF format and requires Adobe Acrobat viewer. The ladder program is PDF format and must be entered manually.

2. Set Up Your Software Chapter 3

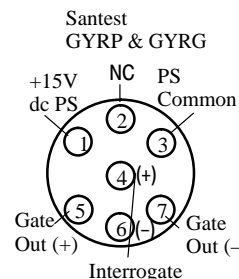
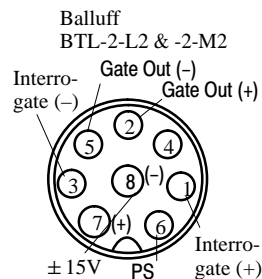
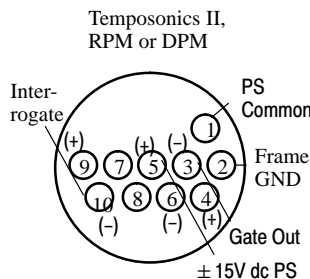
Configure the SLC Processor and I/O with your programming software. Enter the following:
 a) processor type, b) module I/O-chassis slot, c) module ID (13115), d) G-file size (7 words), and e) G-file configuration values from ladder logic example (or publication 1746-6.18 appendix B). Modify N files for profiles found in the ladder program (appendix B) to suite your application.

3. Connect the LDT to the Module's Input Terminal Block Chapter 4

We give you module input connections for Temposonics, Balluff, Santest, and Gemco LDTs.

1746-QV Module Input Terminal Block

8	(+) Gate Out
7	(-) Gate Out
6	(-) Interrogate
5	(+) Interrogate
4	Shield/Frame
3	-15V dc PS
2	PS Common
1	+15V dc PS



Gemco Quick-Stick II 951VP w/PWM Output

B-BLK	PS Common
C-RED	+15V dc PS
K-GRY	+ Interrogate
E-BRN	-Sq Wave Out*
F-BLU	+Sq Wave Out*
A-WHT	-Interrogate
G, D, H	RS232RXD
J-PUR	2nd PS COM

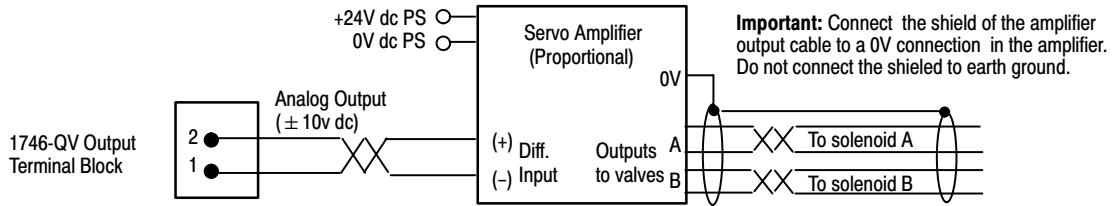
*951RS has pulse trigger

The views are looking at the connector on the LDT head.

1746-QV Input Pin #	Function	Temposonics II RPM or DPM	Balluff BTL-2-L2 & -M2	Santest GYRP/GYRG	Gemco Quick-Stick 951VP/RS
8	(+) Gate Out	4 - Pink	2 - Gray (note 1)	pin 5	F - Blue (note 1)
7	(-) Gate Out	3 - Gray	5 - Green (note 1)	pin 7	E - Brown (note 1)
6	(-) Interrogate	10 - Green	3 - Pink	pin 6	A - White
5	(+) Interrogate	9 - Yellow	1 - Yellow	pin 4	K - Gray
4	Shield/Frame	n/a	n/a	n/a	n/a
3	-15V dc PS	6 - Blue	8 - White	n/a	n/a
2	PS Common	1 - White	6 - Blue	pin 3	B - Black
1	+15V dc PS	5 - Red	7 - Brown	pin 1	C - Red

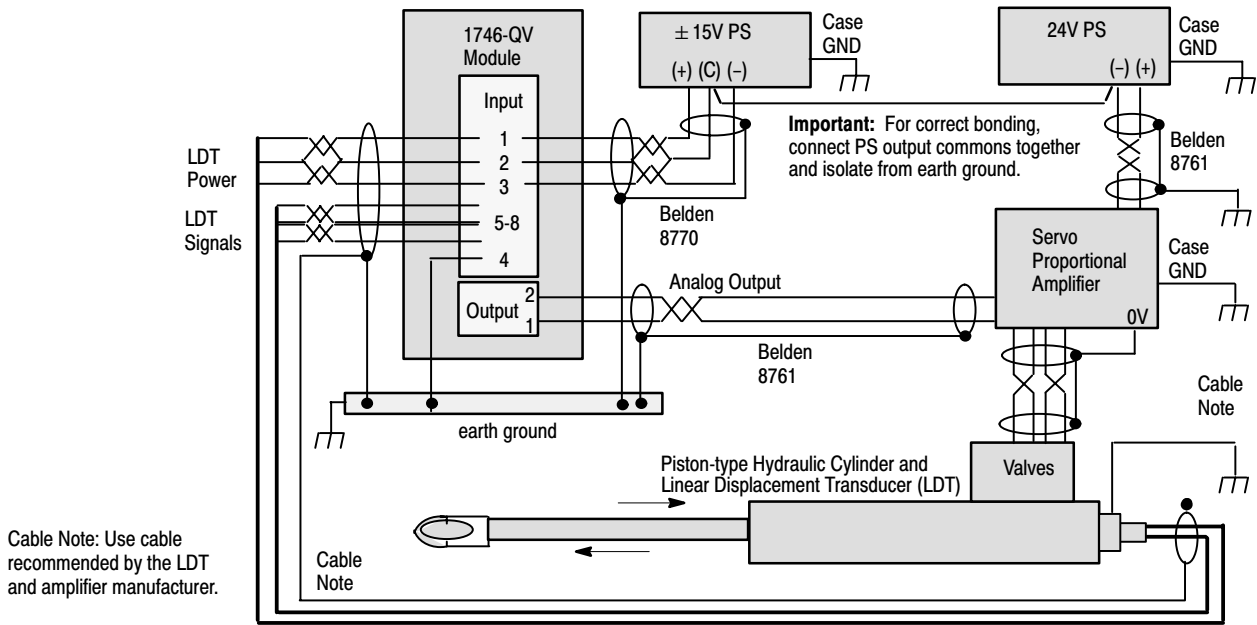
(+) and (-) wires of same function should be a twisted pair within the cable.
 Note 1: We use the term "gate out" for pulse triggered or square wave (Gemco) and stop/start (Balluff -M2) LDT signals.

4. Connect Module Output Terminals to Output Devices Chapter 4



5. Minimize Interference from Electrical Noise with Correct Shielding and Grounding Chapter 4

Important: Connect the following to earth ground: a) cable shields (except for amplifier output cable) at one end only, b) input terminal 4, c) case grounds of PS and amplifier, e) LDT flange.



6. Operate the Module for the First time Chapter 5

After loading extend and retract profiles (step 1), alternately run the extend profile (O:e.0/0 = 0-to-1), then the retract profile (O:e.0/1 = 0-to-1). Modify a profile to reach the preset reference, and set it.

Important: If motion is reversed: for a ± 10V dc output, change the sign (±) of all extend/retract voltage values; or for a +10V output, energize the other solenoid on the directional valve (with ladder logic).

To do this:	Enter decimal:	at address:
load all profiles	1	N7:40
set preset reference to zero	8	N7:50
clear errors	16	N7:50
read current position	read, only	N7:61



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