



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

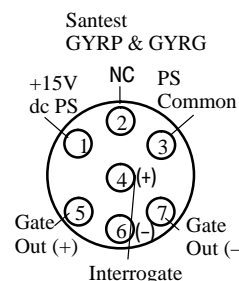
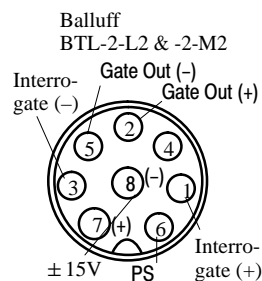
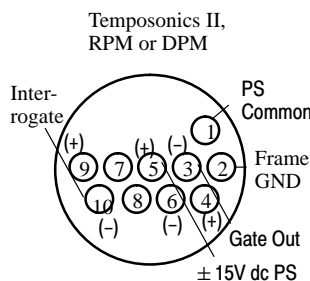
Configure the SLC Processor and I/O with your programming software. Enter the following:
 a) processor type, b) module I/O-chassis slot, c) module ID (13115), d) G-file size (7 words), and e) G-file configuration values from ladder logic example (or publication 1746-6.18 appendix B).
 Modify N files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

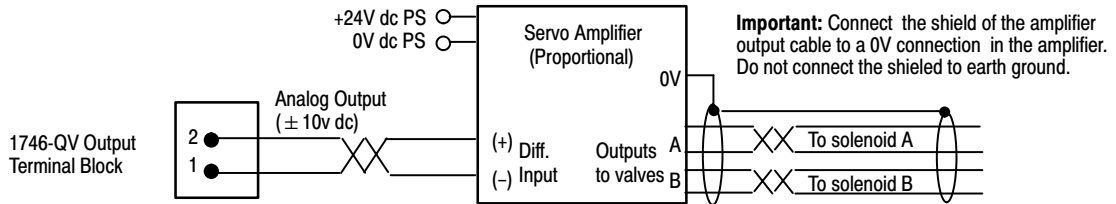
*951RS has pulse trigger

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

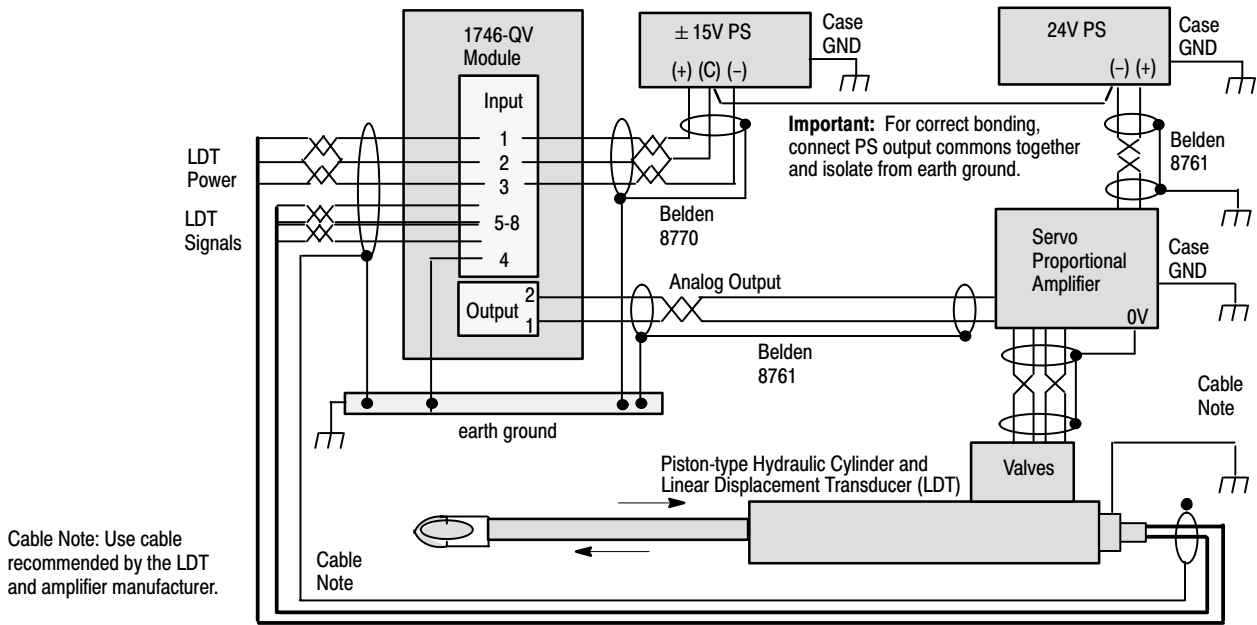
(+) and (-) wires of same function should be a twisted pair within the cable.
 Note 1: We use the term "gate out" for pulse triggered or square wave (Gemco) and stop/start (Balluff -M2) LDT signals.

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.



Cable Note: Use cable recommended by the LDT and amplifier manufacturer.

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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