

CE

YEAR
2000
COMPLIANT



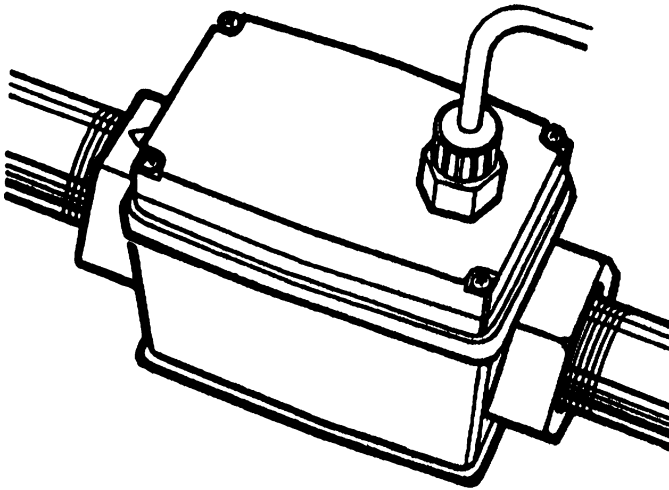
User's Guide

omega.com[®]

Ω OMEGA[®]

<http://www.omega.com>

e-mail: info@omega.com



FLSC790-ND-P Pulse Output Module



OMEGAnet® On-Line Service http://www.omega.com	Internet e-mail info@omega.com
--	---

Servicing North America:

USA:
ISO 9001 Certified

One Omega Drive, Box 4047
Stamford, CT 06907-0047
Tel: (203) 359-1660
e-mail: info@omega.com
FAX: (203) 359-7700

Canada:

976 Bergar
Laval (Quebec) H7L 5A1
Tel: (514) 856-6928
e-mail: info@omega.ca
FAX: (514) 856-6886

For immediate technical or application assistance:

USA and Canada:

Sales Service: 1-800-826-6342 / 1-800-TC-OMEGASM
Customer Service: 1-800-622-2378 / 1-800-622-BESTSM
Engineering Service: 1-800-872-9436 / 1-800-USA-WHENSM
TELEX: 996404 EASYLINK: 62968934 CABLE: OMEGA

Mexico and Latin America:

Tel: (001) 800-826-6342
En Español: (001) 203-359-7803
FAX: (001) 203-359-7807
e-mail: espanol@omega.com

Servicing Europe:

Benelux:

Postbus 8034, 1180 LA Amstelveen, The Netherlands
Tel: (31) 20 6418405
Toll Free in Benelux: 0800 0993344
e-mail: nl@omega.com
FAX: (31) 20 6434643

Czech Republic:

ul. Rude armady 1868, 733 01 Karvina-Hranice
Tel: 420 (69) 6311899
Toll Free: 0800-1-66342
e-mail: czech@omega.com
FAX: 420 (69) 6311114

France:

9, rue Denis Papin, 78190 Trappes
Tel: (33) 130-621-400
Toll Free in France: 0800-4-06342
e-mail: france@omega.com
FAX: (33) 130-699-120

Germany/Austria:

Daimlerstrasse 26, D-75392 Deckenpfronn, Germany
Tel: 49 (07056) 3017
Toll Free in Germany: 0130 11 21 66
e-mail: info@omega.de
FAX: 49 (07056) 8540

United Kingdom:

ISO 9002 Certified

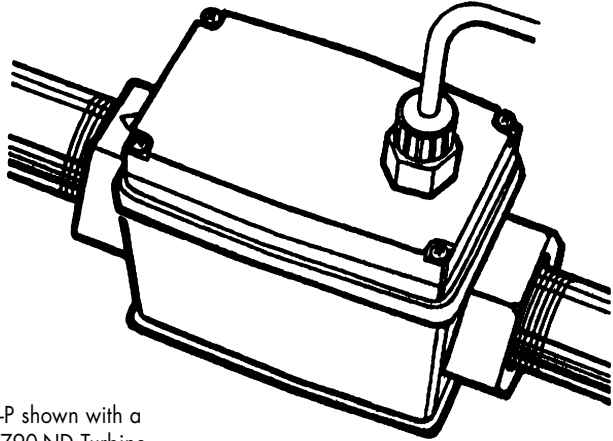
One Omega Drive, River Bend Technology Centre
Northbank, Irlam, Manchester
M44 5EX, United Kingdom
Tel: 44 (0161) 777-6611
Toll Free in United Kingdom: 0800-488-488
e-mail: info@omega.co.uk
FAX: 44 (0161) 777-6622

It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.

The information contained in this document is believed to be correct, but OMEGA Engineering, Inc. accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

WARNING: These products are not designed for use in, and should not be used for, patient-connected applications.

FLSC790-ND-P Pulse Output Module



FLSC790-ND-P shown with a standard FTB790-ND Turbine, which is sold separately.

The FLSC790-ND-P Pulse Output Module is for use with the non-indicating FTB790-ND Series Turbine Meters only.

Open Collector Signal Output

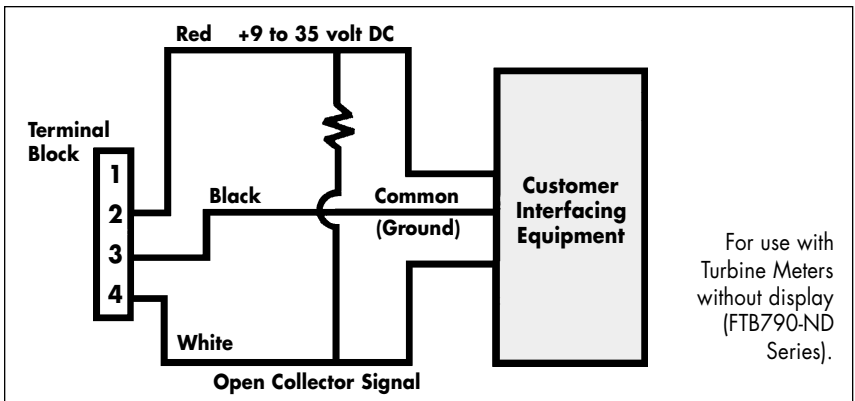
To achieve an open collector signal output, please reference the wiring diagram below.

The terminal block is located on the back right side of the module. The module is factory assembled for open collector signal output. Please provide the 820 (minimum) ohm resistor.

Ten feet (3m) of cable is provided with the module, trim it to desired length or extend it, as necessary. Distances up to 5,000 ft. (1,524m) can be achieved.

The terminal block is identified as follows:

- | | |
|--------|------------------------------|
| Pin #1 | Not used |
| Pin #2 | +9 to 35 volt DC Input |
| Pin #3 | Common Ground |
| Pin #4 | Open Collector Signal Output |



Pulse Output Module Technical Specifications

Frequency Range: 0 to 750 Hz

Housing Material: Aluminum with amorphous nylon inner housing

Connector: Hubble PG7

Cable: Belden 9363 or equivalent. Standard length of 10 ft. (3m). Other lengths available

Temperature: -40° to $+212^{\circ}$ F (-40° to $+100^{\circ}$ C)

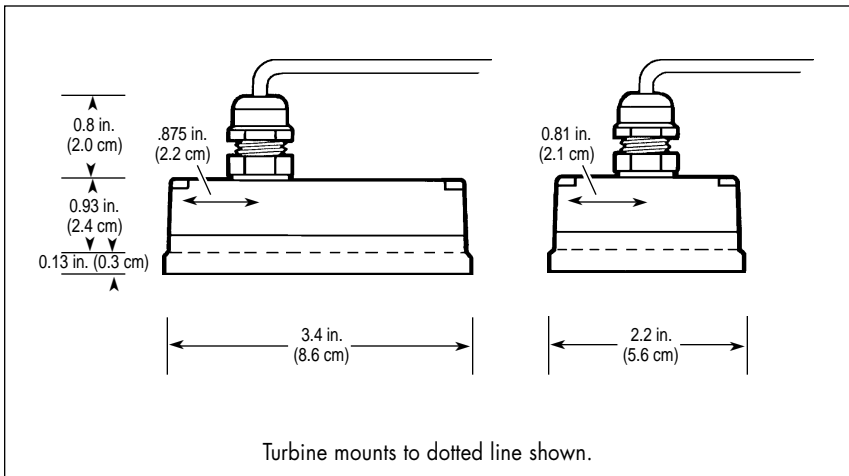
Open Collector Current Sinking Output

Power: External, 9 to 35 volt DC, 4.5 mA maximum

Connection: Three wire

Input: Low level sine wave from incorporated magnetic pickoff coil

Output: Square Wave Pulse. Amplitude same as supplied input voltage.
(Customer must supply 820 minimum ohm Pull Up Resistor)



NOTES:

NOTES:



WARRANTY / DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA Warranty adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear are not warranted, including but not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by it will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence. The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR NON-WARRANTY RETURNS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

OMEGA is a registered trademark of OMEGA ENGINEERING, INC.

© Copyright 1998 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.

Where Do I Find Everything I Need for Process Measurement and Control? OMEGA... Of Course!

TEMPERATURE

- Thermocouple, RTD & Thermistor Probes, Connectors, Panels & Assemblies
- Wire: Thermocouple, RTD & Thermistor
- Calibrators & Ice Point References
- Recorders, Controllers & Process Monitors
- Infrared Pyrometers

PRESSURE, STRAIN AND FORCE

- Transducers & Strain Gauges
- Load Cells & Pressure Gauges
- Displacement Transducers
- Instrumentation & Accessories

FLOW/LEVEL

- Rotameters, Gas Mass Flowmeters & Flow Computers
- Air Velocity Indicators
- Turbine/Paddlewheel Systems
- Totalizers & Batch Controllers

pH/CONDUCTIVITY

- pH Electrodes, Testers & Accessories
- Benchtop/Laboratory Meters
- Controllers, Calibrators, Simulators & Pumps
- Industrial pH & Conductivity Equipment

DATA ACQUISITION

- Data Acquisition & Engineering Software
- Communications-Based Acquisition Systems
- Plug-in Cards for Apple, IBM & Compatibles
- Datalogging Systems
- Recorders, Printers & Plotters

HEATERS

- Heating Cable
- Cartridge & Strip Heaters
- Immersion & Band Heaters
- Flexible Heaters
- Laboratory Heaters

ENVIRONMENTAL MONITORING AND CONTROL

- Metering & Control Instrumentation
- Refractometers
- Pumps & Tubing
- Air, Soil & Water Monitors
- Industrial Water & Wastewater Treatment
- pH, Conductivity & Dissolved Oxygen Instruments