

Introduction

Type AQ & IQ Valve Position Monitors are designed to provide high accuracy feedback of valve position to plant control systems. These instructions outline the requirements for ensuring a long and trouble free service life from the monitors.

Installation - Mounting

Attach mounting plate (1) to the actuator using fasteners (2) and lockwashers (2a) provided with mounting kit (if supplied by Imtex).

Loosen indicator cover set screw (3) and rotate indicator cover (4) to desired viewing angle. Retighten set screw (3).

Rotate coupling spacer (5) and indicator drum (6) to desired position (OPEN or CLOSED appearing through indicator window).

Fit torque coupler (7) or NAMUR drive block (7a) using screw (8) supplied in kit.

Fit monitor assembly to actuator ensuring that the torque coupler/NAMUR drive block (7/7a) engages the pinion of the actuator (9). Secure the assembly using the bolts (10) and lockwashers (11) provided with the mounting kit.

Fine tune the indicator cover (4) by loosening set screw (3). Retighten set screw when completed.

Operate the actuator to ensure proper alignment between monitor and actuator. Eccentricity of the shaft must not exceed 0.25mm. If it should be necessary, re-align monitor by loosening mount bolts (10). Retighten bolts when satisfied with alignment.

Installation - Wiring & Switch Setting

Once the monitor is fitted to the actuator, remove cover (12). NOTE: On flameproof enclosures, the cover lock screw (13) must be loosened prior to cover removal.

Bring field wiring into the enclosure via the conduit entries (14) fitted with a suitable cable gland. Use blanking plugs to block off any un-used cable entries. NOTE: Suitable IP rated glands and plugs must be used to maintain monitor IP rating. On flameproof enclosures, only certified cable glands and blanking plugs can be used.

Connect field wiring to the terminals (15) within the enclosure according to the wiring diagram and terminal labelling.

Drive the actuator to the first required indication position and set the bottom switch by lifting and rotating the bottom cam (16). Secure the cam by allowing it to fully re-engage with the spline (17).

Repeat the process for each switch in-turn by lifting/pushing down the appropriate cam, rotating and re-engaging when desired position is reached

Once completed, verify that indication is required by fully stroking the actuator. Then refit cover (12). NOTE: On flameproof enclosures, the cover lock screw (13) must be retightened.

SPECIAL CONDITIONS FOR FLAMEPROOF ENCLOSURES - ATEX

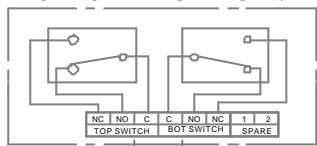
Only certified cable glands and blanking plugs are permitted for use with ATEX certified, flameproof enclosures.

Monitor must be disconnected from the power supply and the cover screw (13) loosened before opening.

Maintenance

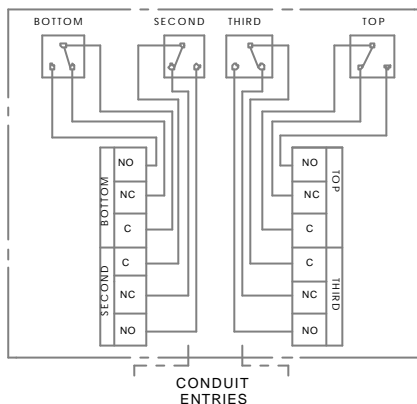
The Type AQ & IQ should offer years of reliable service, if installed correctly. However, it is advisable to check mounting screws/bolts, o-rings and terminal wiring for signs of loosening or corrosion as part of the routine plant maintenance to ensure continued trouble free operation.

MONITOR - 2 x SPDT Switch*

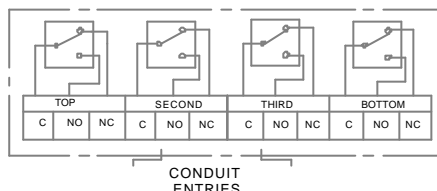


* Intrinsically Safe AQ17 has no spare terminals

MONITOR - 4 x SPDT Switch - AQ56



MONITOR - 4 x SPDT Switch - AQ/IQ55



AQ/IQ16 & 55 - Mechanical w/ Silver Contacts

Electrical Ratings: 10.0A @ 125/250VAC
0.5A @ 125 VDC
Temp Range: -40 to +60 Deg C
Operating Life: 400,000 Cycles

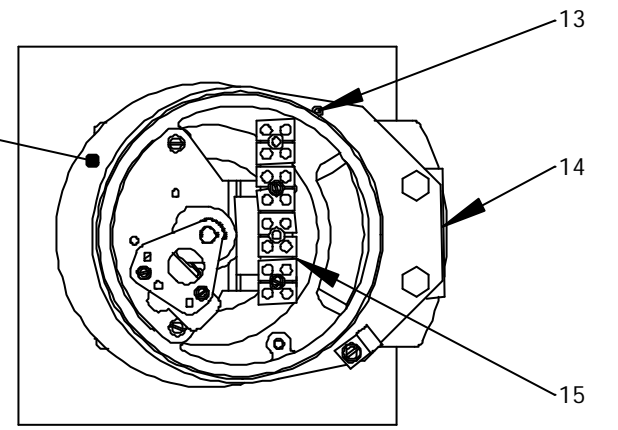
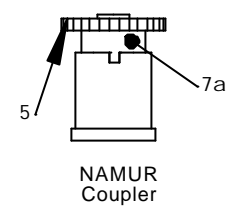
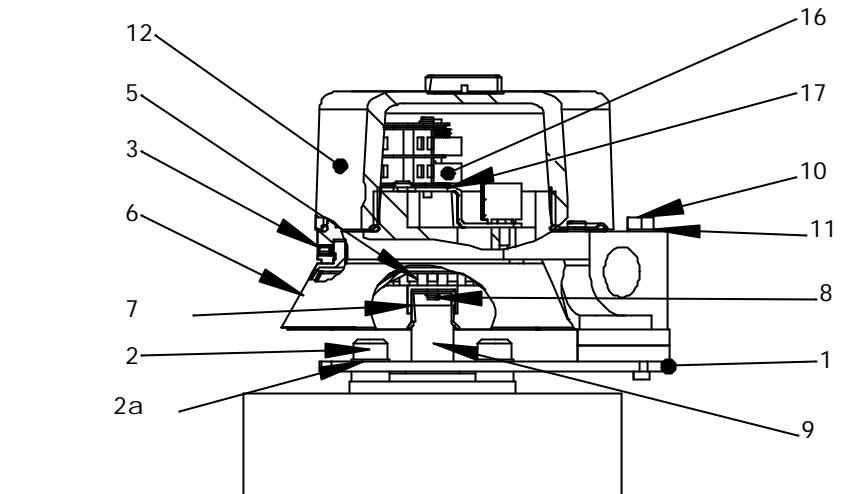
Not recommended for circuits operating less than 20mA @24VDC

AQ/IQ17 & 56 - Mechanical w/ Gold Contacts

Electrical Ratings: 1.0A @ 125VAC
0.5A @ 30 VDC
Temp Range: -40 to +60 Deg C
Operating Life: 100,000 Cycles

Recommended for use in 24VDC computer input circuits

REV	DRAWN	DATE	CHK'D	ECO
	PT	7.2.07		06-474



UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR:
ANGULAR:

TITLE:
Installation, Operating & Maintenance

AQ/IQ16, 17, 55, 56

DEBUR AND BREAK SHARP EDGES
MATERIAL:
WEIGHT(g):

DWG NO. **A190120**

A4

SCALE:1:5 SHEET 1 OF 1

This private & confidential drawing is the property of Imtex Controls Limited, Tonbridge, UK and cannot be copied or reproduced without the express written permission of the Company.

Imtex Controls Limited
Unit 5A, Valley Industries, Hadlow Road
Tonbridge, Kent, TN11 0AH, United Kingdom
Tel: +44(0)1732-850360 Fax: +44(0)1732-852133
[Website: www.imtex-controls.com](http://www.imtex-controls.com)