Integrated Control modules

QC54 with FOUNDATION™ Fieldbus digital communication.
(Product Discontinued)

Features:

- **Basic actuator functions for:**
    - Spring return applications, or
    - Double acting applications or,
    - Double acting Fail in Last Position applications.

- **Spring-return control modules come with Breather function**
    - The breather function is a part of single-acting control module and provides corrosion protection of the actuator spring chamber.

- **Suitable for all Q-Series actuator sizes.**

- **FOUNDATION™-Fieldbus digital communication.**

- **IPT-technology (Intelligent Position Tracking).**

- **Initialization by FOUNDATION™- Fieldbus or Push Button for easy setup of the actuator.**
    - Press and confirm press the "Auto-Init" button starts auto-initialization procedure.
    - Initialization sets automatically the switch points for the position feedback of the actuator.
    - Initialization checks if the actuator and control module configuration match. This procedure will detect the action type (Fail-Open, Fail-Close or Fail in last position) and generate an alert if there is a configuration issue.

- **Readjustable or Reversible position feedback using the re-reassignment buttons or by FOUNDATION™ Fieldbus.**

- **Adjustable switch points can be adjusted from 5% to 30% before the end of the stroke by FOUNDATION™ Fieldbus.**

- **Three indication LED's for "Status", "Open" and "Closed" position. Status LED indicates:**
    - Initialization procedure running (blinking),
    - Successful initialization procedure (LED is on) or
    - No or failed initialization (flashing) or
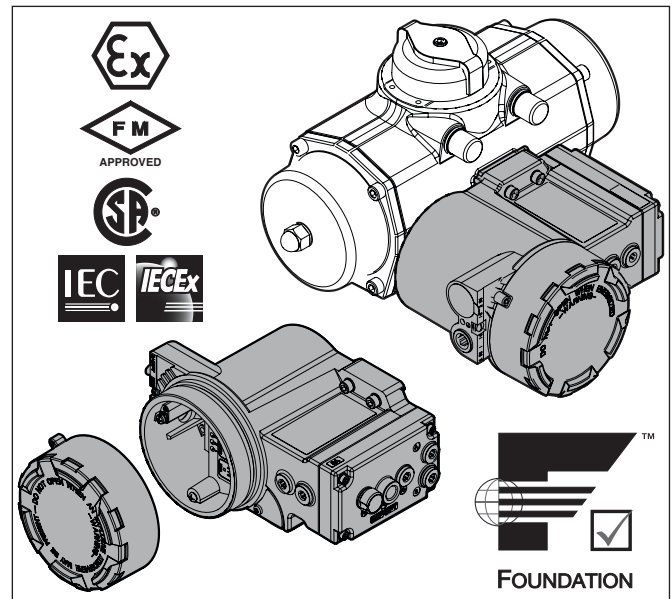   - A particular unit in the field.

Fig. 1. Control module QC54 with FOUNDATION™-Fieldbus bus communication

- **Control Module can be easily mounted to the actuator**

- **Available as "Weather Proof" for indoors or outdoors use.**
    - The robust aluminum alloy enclosure (IP66/NEMA4X rated), protects the IPT system, pneumatic components, the feedback switches and terminals and makes it suitable for indoor and outdoor use.
    - The hazardous area versions are available with:
      - ATEX or IECEx Ex ia or Ex nA approvals for use in Zone 1, 2, 21 and 22
      - CSA or FM Intrinsically safe or Non-Incendive approvals for use in Class I, Division 1 or Class I, Division 2.

- **Lockable Control Module cover.**

- **One larger entry (3/4"NPT) is available for larger multi-core cables on imperial units.**

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Description:

This Q-Series QC54 Control Module offers an integrated concept for valve automation. Its compact and robust construction incorporates basic control and feedback functionality and communicates through the FOUNDATION™ Fieldbus protocol.

Construction:

All electrical and pneumatic control components are located inside one module housing making it a compact and robust construction incorporating basic control and feedback functionality and is suitable for indoor and outdoor use.

The Control Module is mounted at the side of the basic actuator housing. Inside, wiring terminals are available for connecting the FOUNDATION™ Fieldbus signals. Two cable entries are available.

One pneumatic connection is available to feed the control module. The pilot valves inside the control module are used to send the actuator to its open or closed position.

These modules are available with ATEX, IECEx or Inmetro certification for use in Zone 2, 21, and 22, and additionally CSA or FM certified for use in Class I, Division 2.
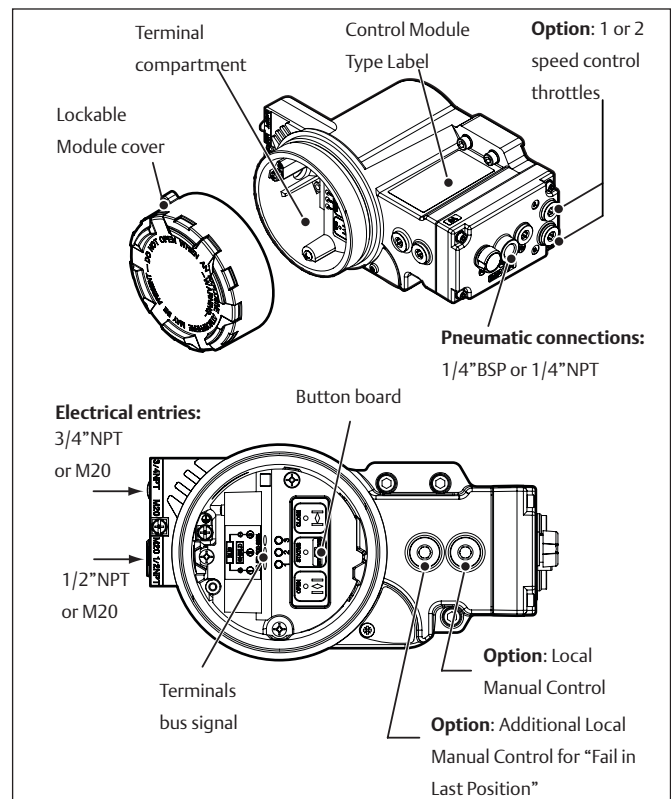

Fig. 2. Control module overview

General specifications:

Material housing:	Aluminium alloy
Operating media:	Air or inert gasses, filtered at 5μm
Pneumatic entry:	Metric units: G1/4" Imperial units: 1/4"NPT
Electrical connections :	Internal 3 pole terminal strip for bus signal Internal and external earth connection Optional quick connectors: 7/8" or M12 connector (see page 9)
Cable entries:	Metric units: 2x M20x1.5 Imperial units: 1/2" and 3/4"NPT
Enclosure:	Rated IP66 - NEMA4X
Switch points:	Factory set at 15° before each end of travel (open and closed position).
Adjustable range:	Between -3° to 15° and +75° to +93° of the end position.
Finish:	Chromated with polyurethane based coating.
Temperature range:	-20°C to +50°C (-4°F to +122°F)

Dimensions:

Metric:	See data sheet 1.603.08
Imperial/UNC:	See data sheet 1.603.09
DIN 3337:	See data sheet 1.603.10

Electrical safety requirements:

Use:	In and outdoor.
Altitude:	Operating full power available up to 2000 meter (6000 feet).
Maximum relative: humidity	80% for temperatures up to 31°C (87.8°F) decreasing linearly to 50% relative humidity at 40°C (104°F).
Mains supply: fluctuation	Up to ±10% of nominal voltage
Over voltage category:	II
Pollution degree:	2 (3 when the cover remains closed)

Communication Protocol:

Protocol :	FOUNDATION™-Fieldbus
Transmission :	H1, IEC 61158-2
Maximum current :	18mA from bus
Required external : protection current	Restrict the power supply to <600mA.

Function blocks

The Control Module provides the following function blocks:
- Resource Block (RB)
- Transducer Block (TB)
- Analog Input (AI) Function Block
- Discrete Output (DO) Function Block
- 2x Discrete Input (DI) Function Block
- PID Function Block

Diagnostics and Alerts

Standard FOUNDATION™- Fieldbus diagnostics and alerts provided meets Emerson PlantWeb Alerts standard.
Applicable diagnostics include:
- Travel times for the Open stroke, Close stroke and Average travel times.
- Cycle Counters for Control Module, Pneumatic Module, Actuator and Valve
- Time in Position
- Various internal electronic health tests.
- Instrument temperature.

For more detailed information on diagnostics see page 10 and 11.

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Pneumatic control

Pneumatic control variations

The Control Module contains all the necessary pneumatic components to control the actuator and control the incoming and outgoing airflow. Pneumatically the modules are available for three applications:
1. Spring return or
2. Double acting or
3. Double Acting - "Fail-in-Last-Position".

To achieve these functions, each Control Module can be fitted with one or two pilot valves depending on the required functionality:

1. One pilot valve is default and suitable for normal operation of double acting or spring return actuators
2. Two pilot valves are required to achieve a "Fail-in-Last-Position" functionality on double acting actuators.
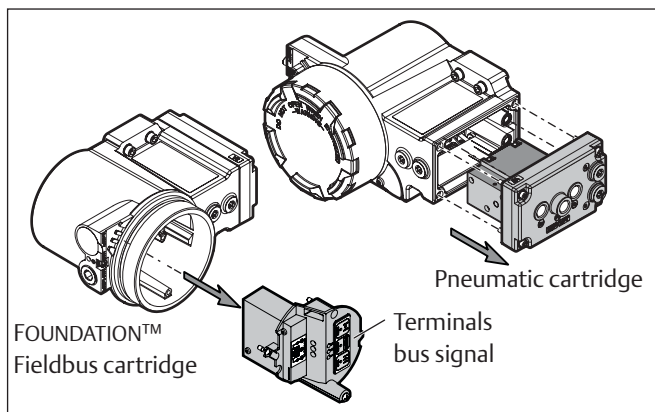

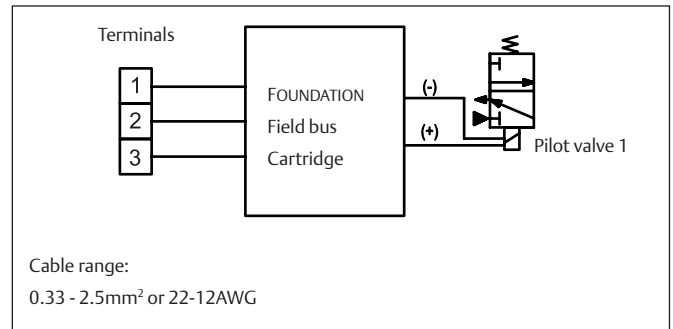Fig. 3. Pilot valve and pneumatic cartridge

Fig. 4. One pilot valve and wiring connections for standard Double Acting or Spring Return applications
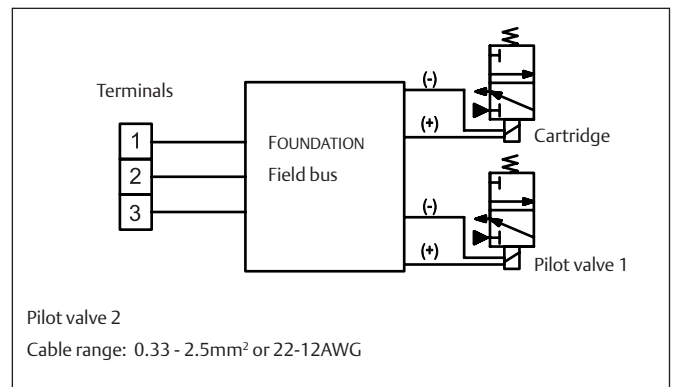

Fig. 5. Two pilot valves and wiring connections for Double Acting "Fail in Last Position" applications

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Pneumatic components

The pneumatic components inside the module consist out of one or two pilot valves and a 3/2 spool valve or 5/2 bistable spool valve. The spool valves are pneumatically operated by the pilot valves.

To assure trouble-free operation, the spool valves are equipped with big ports. This enables a large air flow and makes it less sensitive for contamination of the internals. The large air flow also fast cycle times and enables it to be utilized for the entire Q-Series Series actuator range.

Internal corrosion protection:

The spring return models have standard a built in "Breather" function. During the spring stroke, the exhaust air from the center chamber (A-Port) is first fed to the spring chamber (B-port) preventing air from outside from being sucked into the spring chamber. This reduces the possibility of internal corrosion and maximizes the actuators' working life.

Pneumatic options

Speed Control

The QC54 control module can be supplied with a Speed Control option. One throttle is required for Spring Return actuators and up to two for Double Acting actuators.

The speed control throttle controls the air flow in and out of an air chamber and as such limits the speed of the "Opening" and "Closing" stroke simultaneously.

Silencers and vents

The exhaust ports Ra and Rb on the module are shipped from the factory with transport protection.

The module can be equipped with either silencers or vents.

Manual Control

For commissioning, emergency or maintenance purposes, the QC54 control module can be supplied with Manual Control options. These options can operate the actuator when there is air pressure available, but no control signal or power supply.

- For normal operation the module should be fitted with one Manual Control.
- For Double Acting with a Fail-in-Last-Position function, two Manual Control can be fitted.

Maximum Flow rates of Q-Series modules

The maximum flow rates depends mainly on the flow rates of the FieldQ modules. You can use Kv 0.28 (m3/h) of Cv value of 0.33 (US gall/min 1Psi) for approximate operating speed calculations.
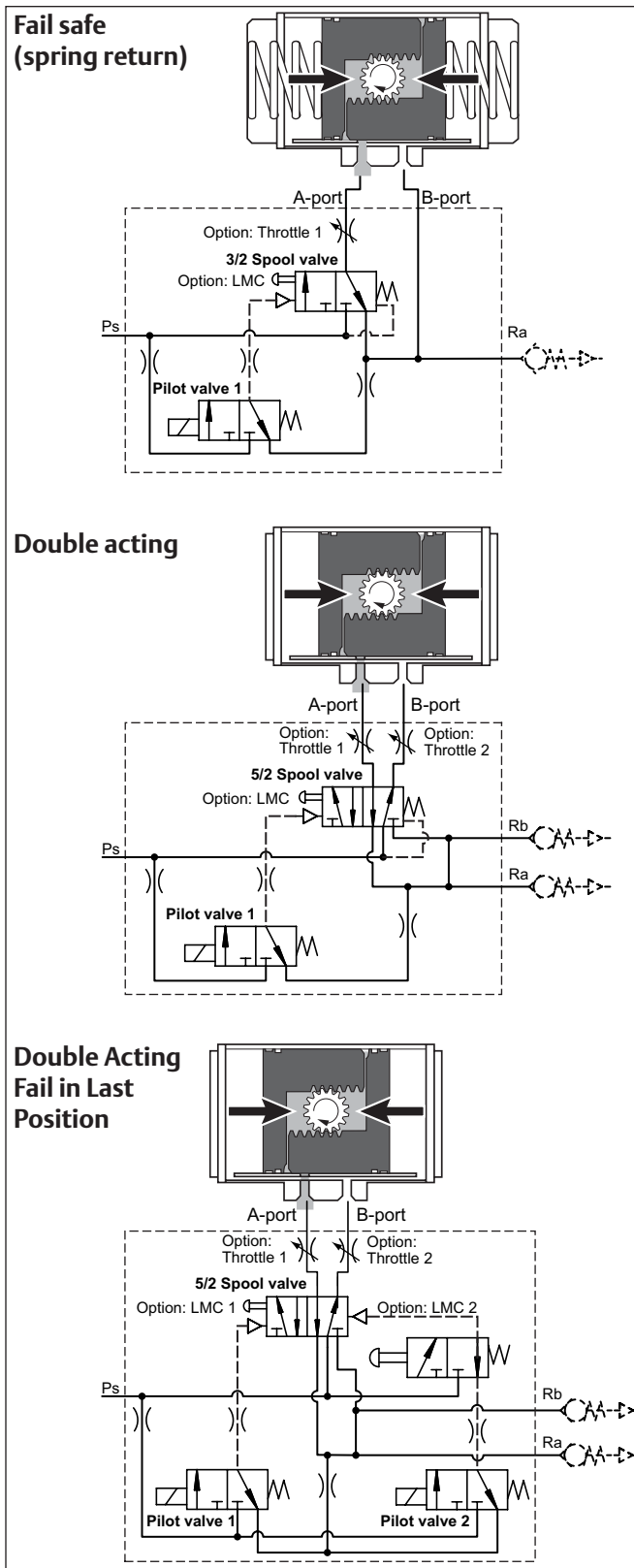

Fig. 6. Pneumatic operation

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Switch point setting

The QC54 control modules are equipped with a button board that allows you to set or readjust the switch points for the position feed back.
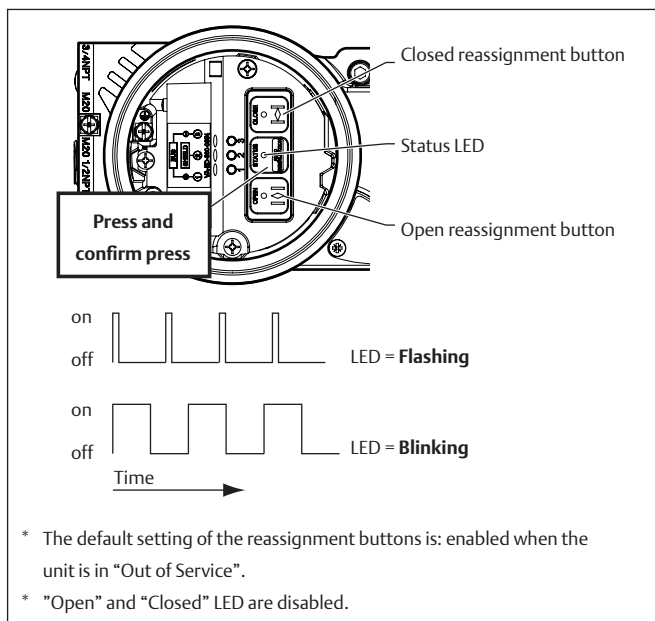

Fig. 7.   Button board

Button board functions:

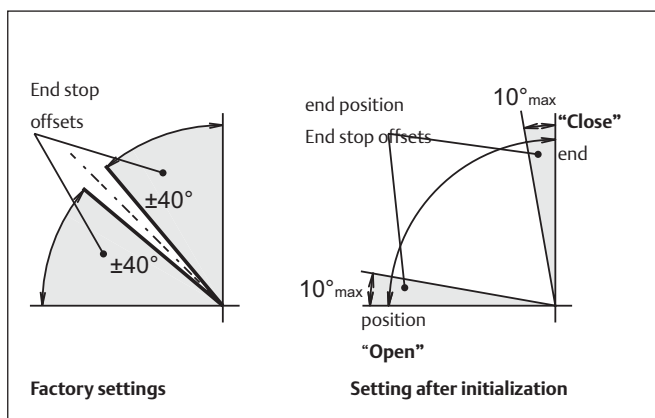| Initialization button:	Start Auto-Initialization procedure
Close button:	Re-adjustment of the "Closed" switch point
	Set to factory settings
Open button:	Re-adjustment of the "Closed" switch point
	Set to factory settings

Fig. 8. Switch point setting

Auto-Initialization

Initialization sets automatically the switch points for the position feedback of the actuator and checks if the actuator and control module configuration match. This procedure will detect the action type (Fail-Open, Fail-Close or Fail in last position) and generate an alert if there are configuration issues.

This process is done automatically, by the module, however, the user must start it and the unit must be wired and powered.

Digital communication is not required but power supply is necessary (9V to 32V DC). The initialization process can be started in one of two ways:

1. Initialization using the local buttons (see fig. 7).
2. Initialization using a bus command (see Reference manual QC54, DOC.RM.QC54.E)

Indication LED's

Three indication LED's for "Status", "Open" and "Closed" position are available. The status LED indicates:
- Initialization procedure running (blinking),
- Successful initialization procedure (LED is on) or
- No or failed initialization (flashing)

Recognize Function

An additional function of the Status LED is the recognize function. To recognzie a particular unit in the plant, the "Recognizing LED" function can be activated in the transducer block. When this function is activated, the Status LED will blink for 300 seconds (5 minutes).

Changing Switch Point Setting

Readjustment of switch points

When switch point re-adjustment is required but it is not allowed that the actuator/valve unit cycles, the new switch point can be set by pressing the corresponding "Open" or "Closed" button.

Factory settings

Pressing both the Open and Close reassignment buttons, while powering up, will set the module back to its factory settings.

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Control Module Options

Local Manual Control

Description

For commissioning, emergency or maintenance purposes, the QC54 control module can be supplied with one or two Manual Control options. These can operate the pilot valve(s) inside the module and as such operate the actuator, when there is air pressure available, but no control signal or power supply.

Notes:

- One Local Manual Control is required for normal operation of Double acting or Spring return actuators.
- For Double acting actuator with a Fail-in-last position function, a second Local Manual Control can be mounted.
- These options can be ordered together with the Control Module or as a kit to be mounted later.
- For option ordering codes, see data sheet 1.607.01

Speed Control

Description

The QC54 control module can be supplied with a Speed Control option. One throttle is required for Spring Return actuators and up to two for Double Acting actuators.
The speed control throttle controls the air flow in and out of an air chamber and as such limits the speed of the "Opening" and "Closing" stroke simultaneously.
This throttle consists of :
1   Nut cover
2   Main throttle with set screw.

Notes:

- For Spring Return actuators with one speed control throttle, it is not possible to set both the stroke cycle times to an equal time.
- Four Double Acting actuators it is possible to mount two speed control throttles.
- The actual stroke cycle times depend on the actual load on the actuator during the different strokes.
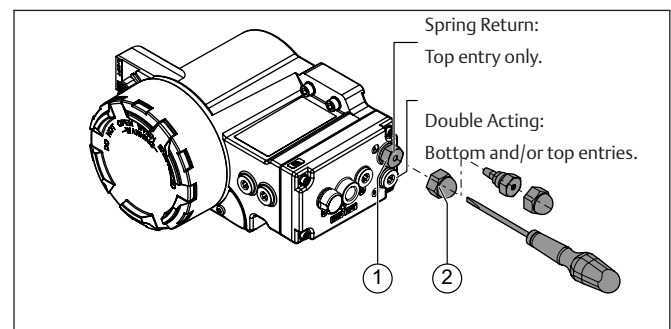

Fig. 9.   Local Manual Control option

Fig. 10. Speed control options

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Wiring and Quick Connectors

FOUNDATION™ Fieldbus terminal wiring

The QC54 module can be connected to the system by hard wiring the module to the terminals The QC54 Module can optionally be equipped with prewired quick connectors. Two versions are available: 7/8" or M12 (male chassis part).

Quick connector pinouts:
(male chassis part)
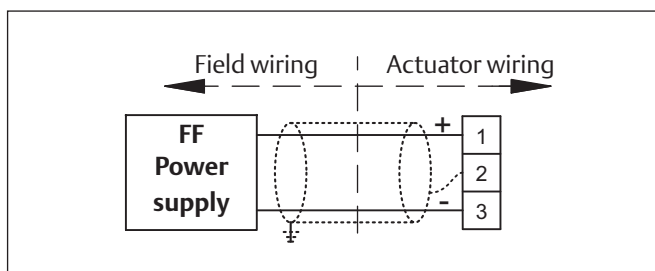
Wiring for hazardous areas

Detailed safe area, Intrinsically safe or Non-Incendive/Non-Sparking wiring instructions, will be shipped with the product, see Installation Guide : DOC.IG.QC54.1

Quick connectors

Quick connectors, as shown are excluded for non-Incendive or non-sparking use in hazardous area's classified as Zone 2 or 22 or Cl I, II, III, Div. 2.

Wiring dimensions

Solid wire   : 2.5mm^2 max.
Stranded wire   : 0.2-3.3mm^2 or 24-12 AWG

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Hazardous area executions

Control Module QC54 with FOUNDATION™ Fieldbus is available with optional intrinsically safe (IS) or Non-Incendive/ Non Sparking (NI) approvals as listed below:

IECEx

Certificate No.:
IECEx DEK16.0006X

Intrinsically safe *
Ex ia IIC T4 Ga
Ex ia IIIC T80°C Da
Ex ic IIC T4 Gc

Non-Sparking
Ex nA IIC T4 Gc
Ex tb IIIC T80°C Db

ATEX

Certificate No.:
DEKRA 16ATEX0006X

Intrinsically safe *
Ⓔx II 1 G Ex ia IIC T4 Ga
Ⓔx II 1 D Ex ia IIIC T80°C Da
Ⓔx II 3 G Ex ic IIC T4 Gc

Non-Sparking
Ⓔx II 2 D Ex tb IIIC T80°C Db
Ⓔx II 3 G Ex nA IIC T4 Gc

FM

Certificate No.:
FM16US0366X

Type 4X

Intrinsically safe *
- Intrinsically safe,Class I, II, III Div.1, Groups ABCDEFG, T4, Type4/IP66
- Class 1, Zone 1, AEx ia IIC T4

Non Incendive
- Class I, II, III, Division 2, Groups ABCDFG, T4,
- Class 1, Zone 2, Group IIC T4

CSA

Certificate No.:
CSA 17CA70167494X

Intrinsically safe *

Class I, Division 1, Groups A, B, C and D T4;
Class I, Division 2, Groups A, B, C and D, T4;
Class II, Division 1, Group E, F and G, T80°C;
Class III, Division 1, T80°C
Ex ia IIC T4 Ga
Ex ia IIIC T80°C Da
Ex ic IIC T4 Gc

Non Incendive

Class I, Division 2, Groups A, B, C and D, T4;
Class II, Division 1, Group E, F and G, T80°C;
Class III, Division 1, T80°C
Ex nA IIC T4 Gc
Ex tb IIIC T80°C Db

INMETRO

Certificado: IEx 17.0085X
Intrinsically safe *
Ex ia IIC T4 Ga IP66
Ex ia IIIC T80 °C Da IP66
Certificate No.: IEx 17.0085X
Non Incendive
Ex nA IIC T4 Gc IP66
Ex tb IIIC T80 °C Db IP66

Ambient temperature:
T4 @ Ta = -20°C...+50°C IP66/nema 4x

Note:
* The assembly of a Q-Series Actuator with the intrinsically safe QC54 Control Module, may be used in (ATEX) classified Zones 1, 2(Gasses) and/or 21, 22 dust(Dust).

FISCO systems
The Q-Series QC54 is suitable for use in a FISCO system in accordance with IEC 60079-27

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Diagnostics and PlantWeb Alerts

QC54 FOUNDATION™ Fieldbus

Diagnostics

The Q-Series QC54 Control Module with FOUNDATION™ Fieldbus communication has diagnostic capabilities. These process parameters can give information about communication condition, valve and/or actuator unit. It enables to predict failures in advance and makes maintenance easier to schedule. The following diagnostics are available for the QC54 control module:

1. **Timer parameters:**
   1. Open and Closed travel time
   2. High and low limits of Open and Closed travel time
   3. Average travel times of last 30 strokes of Open and Closed travel.
   4. High and low limits of average Open and Closed travel time.

2. **Cycle Counters**
   1. Control Module - Counts how many times the Control Module cycles (read only).
   2. Pneumatic Module - Counts how many times the Pneumatic Module cycles.
   3. Actuator - Counts how many times the actuator cycles.
   4. Valve - Counts how many times the valve cycles.

3. **Time In Position**

4. **Various internal electronic health tests**

PlantWeb Alerts

PlantWeb Alerts are alerts that have been predefined and categorized for the user. These device alerts can be used to help troubleshoot the instrument (see also page 4). There are three categories:

- **Failed alerts**
  A failed alert indicates a failure within the device that will make the device, or some part of the device, non-operational.

- **Maintenance alerts**
  A maintenance alert indicates that the device, or some part of the device, needs maintenance soon.

- **Advisory alerts**
  An advisory alert indicates a condition that does not have a direct impact on the device's primary function. If the condition is ignored, the device will eventually fail.

These alerts, when enabled, can participate in the DeltaV alarm interface tools such as the alarm banner, alarm list, and alarm summary.

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Diagnostics and PlantWeb Alerts

Alerts & recommended actions								
Alerts			Alert default setting					
			Advisory		Maintenance		Fail	
Parameter name	DeltaV text	Recommended actions	enable	mask (show)	enable	mask (show)	enable	mask (show)
Internal alerts								
bad_position_sensor	Bad Position Sensor Error	Feedback problem, replace control module when possible	n	n	y	y	n	n
bad_temperature_sensor	Bad Temperature Sensor Error	Temperature sensor problem, replace Control module when possible	n	n	y	y	n	n
system_temperature_exceeded	System Temperature Exceeded	Take corrective actions to bring temperature within specified range.	n	n	y	y	n	n
software_error	Software Error	Software error has been detected, replace control module when possible.	n	n	y	n	n	n
travel_deviation	Travel Deviation	Lost position, Check air pressure	y	y	n	n	n	n
shutdown_is_set	Shutdown Is Set	Internal communications problem, check shutdown configuration for restart, Replace Control module.	n	n	n	n	y	y
pilot valve_error	Pilot valve error	pilot valve number mismatch or pilot valve failure has been detected	n	n	y	y	n	n
Buttonboard_error	Buttonboard Error	Error is undefined, replace control module when possible	n	n	y	n	n	n
Counter alerts								
cm_life_exceeded	Control Module Life Cycle Exceeded	Control module life cycle exceeded, replace control module	n	n	y	y	n	n
pm_life_exceeded	Pneumatic Module Life Cycle Exceeded	Pneumatic module life cycle exceeded, replace pneumatic module.	n	n	n	n	n	n
act_life_exceeded	Actuator Life Cycle Exceeded	Actuator life cycle exceeded, replace actuator.	n	n	n	n	n	n
valve_life_exceeded	Valve Life Cycle Exceeded	Valve life cycle exceeded, valve requires maintenance.	n	n	n	n	n	n
Timer alerts								
time_in_position_exceeded	Time in position exceeded	Time in position exceeded, take appropriate action.	n	n	n	n	n	n
open_travel_time_exceeded	Open travel timer exceeded	Open travel timer exceeded, check valve system.	n	n	n	n	n	n
close_travel_time_exceeded	Close travel timer exceeded	Close travel timer exceeded, check valve system.	n	n	n	n	n	n
Initialization alert								
assembly error	Assembly error	pneumatic function mismatch, check module and actuator configuration	n	n	y	y	n	n
initialization_failed	Initialization Failure	Device failed initialization; Check airpressure, check actuator sizing, check valve system	y	y	n	n	n	n

Alerts & recommended actions (continued)								
Alerts			Alert default setting					
			Advisory		Maintenance		Fail	
Parameter name	DeltaV text	Recommended actions	enable	mask (show)	enable	mask (show)	enable	mask (show)
Internal IO failure alert								
io_failure	Internal Io Failure	Internal communications are lost, device will act according to shutdown configuration.	y	y	n	n	n	n
rb_NV_write_deferred	Output Board NV Memory Failure	NV Write Deferred: A high number of writes has been detected to non-volatile memory. To prevent premature failure of the memory, the write operations have been deferred. The data will be saved about every 3 hours. This condition usually exists because a program has been written that writes to control block parameters not normally expected to be written to on a cyclic basis. Any such automated write sequence should be modified to write the the parameter(s) only when needed. It is recommended that you limit the number of periodic writes to all static or non-volatile parameters such as HI_HI_LIM, LOW_CUT, SP, TRACK_IN_D, OUT, IO_OPTS, BIAS, STATUS_OPTS, SP_HI_LIM, and so on.	n	n	n	n	y	y
PWA_simulate_active	PWA Simulate Active	If PWA simulate mode has been activated. The PWA active parameters can now be written as well as the resource block detailed status parameters and the internal alerts in the Transducer Block where the PWA active alarms originate from.	n	n	n	n	y	y
rb_nv_memory_failure	Output Board NV Memory Failure	"Output Board NV Memory Failure: Non-volatile EEPROM data corruption was detected on the Fieldbus Electronics Board. Default values were loaded into the faulty block. 1. Check the device configuration for changes in the block parameter values. 2. Reset the device to clear the error. 3. Download a Device Configuration. NOTE: If the failure reoccurs it may indicate a faulty EEPROM memory chip."	y	y	n	n	n	n
rb_nv_electronics_failure	Output Board Electronics Failure	Output Board Electronics Failure:						
		The Device has detected a fault with an electrical component on the Fieldbus Electronics Module Assembly. Replace the Device.	y	y	n	n	n	n
diag_opt_PWA_simulate	PWA Simulate							
func_opt_simulate	Simulate Switch	Since the hardware simulate switch may be impractical to access, a software option is being provided.						
misc_opt_base_record	Base Record	When the base record option is enabled, operator can write/read parameters to/from the sensor board that are not available via the FF parameter list.						

Namur NE-107 Alarms

This section describes the parameter interaction to implement a FieldQ™ QC54 Control module to the NAMUR NE-107 requirements as a parameter group in the Resource Block. There are four alarm categories defined as per the NE-107 specification, Failed, Off Specification, Maintenance, and Check function.

Maintenance Although the output signal is valid, the wear reserve is nearly exhausted or a functions will soon be restricted due to operational conditions e.g. build-up of deposits

Off Specification Off-spec means that the device is operating outside its specified range or an internal diagnostic indicates deviations from measured or set values due to internal problems in the device or process characteristics (e.g. bubble formation in flow metering or valve sticking).

Check Function Output signal temporarily invalid (e.g. frozen) due to on-going work on the device.

Failed Output signal invalid due to malfunction in the field device or its peripherals.

Each of these categories share 32 conditions that can be defined by the device manufacturer. Each condition may be mapped or not mapped for each category. If a condition is mapped then it is indicated in the* ACTIVE parameter. If the condition in the * ACTIVE parameter is not masked by the corresponding bit in the *_MASK parameter then the condition will be queued for broadcast using the corresponding *ALM parameter at the associated priority indicated by *PRI parameter. The 4 categories are defined below.

The conditions are not expected to identify explicitly the root cause of the condition, but rather to identify it in terms of:
- Replace the device
- Replace a part of the device
- Correct a configuration problem
- Fix something outside of the device

The above list is all that the operator needs to know to restore his process functionality and if there are more than 31 device conditions they should be grouped by definition into these bit

Parameter Mnemonic	Obj Type	Data Type/ Structure	Use/Model	Store	Size	Valid Range	Initial Value	Permission	Other	Range Check
FD_CHECK_ACTIVE	S	Bit String	C/FD Active	D	4				Read only	
FD_CHECK_ALM	R	DS-87	C/Alarm	D	15					
FD_CHECK_MAP	S	Bit String	C/Contained	S	4			ALARM		
FD_CHECK_MASK	S	Bit String	C/Contained	S	4			ALARM		
FD_CHECK_PRI	S	Unsigned8	C/Alert Priority	S	1	0 - 15	0	ALARM		Yes
FD_EXTENDED_ACTIVE_n	S	Bit String	C/Contained	D	4				Read only	
FD_EXTENDED_MAP_n	S	Bit String	C/Contained	S	4					
FD_FAIL_ACTIVE	S	Bit String	C/FD Active	D	4				Read only	
FD_FAIL_ALM	R	DS-87	C/Alarm	D	15					
FD_FAIL_MAP	S	Bit String	C/Contained	S	4			ALARM		
FD_FAIL_MASK	S	Bit String	C/Contained	S	4			ALARM		
FD_FAIL_PRI	S	Unsigned8	C/Alert Priority	S	1	0 - 15	0	ALARM		Yes
FD_MAINT_ACTIVE	S	Bit String	C/FD Active	D	4				Read only	
FD_MAINT_ALM	R	DS-87	C/Alarm	D	15					
FD_MAINT_MAP	S	Bit String	C/Contained	S	4			ALARM		
FD_MAINT_MASK	S	Bit String	C/Contained	S	4			ALARM		
FD_MAINT_PRI	S	Unsigned8	C/Alert Priority	S	1	0 - 15	0	ALARM		Yes
FD_OFFSPEC_ACTIVE	S	Bit String	C/FD Active	D	4				Read only	
FD_OFFSPEC_ALM	R	DS-87	C/Alarm	D	15					
FD_OFFSPEC_MAP	S	Bit String	C/Contained	S	4			ALARM		
FD_OFFSPEC_MASK	S	Bit String	C/Contained	S	4			ALARM		
FD_OFFSPEC_PRI	S	Unsigned8	C/Alert Priority	S	1	0 - 15	0	ALARM		Yes
FD_RECOMMEN_ACT	S	Unsigned16	C/Contained	D	2	1 – manf spec	0		Read only	
FD_SIMULATE	R	DS-89	C/FD Simulate	D	9		disabled			
FD_VER	S	Unsigned16	C/Contained	S	2				Read only	

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Find and Download EDD files

Intoduction

For the QC54 Control Module Electronic Device Description files are available which you will need to install in your host system. Two versions of the EDD-driver files are available for the QC54 module:
- QC54 Standard DD Rev 4 - DD files for use with other Foundation FieldBus host systems and tools
- QC54 PlantWeb DD Rev 4 - DD files tailored specifically for use with Emerson PlantWeb Systems (DeltaV).
Please follow below instructions to find and download the applicable EDD files.
For installation of these files, please refer to your host systems documentation.

Foundation FieldBus host systems

Step	Action	
1	Go to: https://fieldcommgroup.org/registered-products/	
2	In the search box type:	FIELDQ
3	Click on the the FIELDQ hyperlink	Field Q [D3A0]
4	Select now the applicable revision of the driver file. - Revision 1, 2 and 3 are for QM/QC34 control modules. - Revision 4 is for the QC54 Control module.	

FIELDQ

VERSION

- ● 3
- ○ 1
- ○ 2
- ○ 4

EDD DOWNLOAD >

REGISTERED PRODUCT INFORMATION

Manufacturer: Emerson Automation Solutions

Product Name: FieldQ

Product Description: Pneumatic Valve Actuator

Protocol: FOUNDATION Fieldbus

Category: Actuators, Regulators, Positioners

Profile: Foundation Field Device

More Information:

A complete size range of "fully Integrated" rack and pinion actuator, switchbox and solenoid packages with a small 'foot-print' able to be retro-fit installed in to tight spaces.

In its 'Out of the Box' pre-assembled form it avoids the need for multiple supplier parts, reduces stock keeping inventory and reduces cost over the whole product life cycle from Capital Expenditure to Maintenance budget.

REGISTERED PRODUCT DETAILS

FieldQ

EMERSON™

DeltaV Host systems

Step	Action	Reference
1	Go to: https://www.emerson.com/en-us/support/software-downloads-drivers	
2	Select under "Emerson": Valve Automation	
3	For Q-Series control modules QM or QC 34 select:	Field Q [D3A0]
3a	Select now the applicable revision of the driver file and the applicable revision of your DeltaV system.	
4	For Q-Series control modules QC 54 select:	D3A0 Q Series QC54 [d3a0]
4a	Select now the applicable revision of the driver file and the applicable revision of your DeltaV system.	

EMERSON   ⌄

☐ Rosemount (683)
☐ Micro Motion (621)
☐ Rosemount Analytical (199)
☐ Fisher Controls (117)
☐ EL-O-Matic (75)
☐ TopWorx (33)
☑ Valve Automation (29)
  ☑ Field Q [D3A0] (13)
    ☐ 3 (6)
    ☐ 2 (5)
    ☐ 1 (2)
  ☐ CAM 228CAM28 FF Electric

SOFTWARE DOWNLOADS & DRIVERS

⤓ Downloads & Drivers: Valve Automation FieldQ Rev 3 FF AMS 11.0 12.0 DeltaV 11.3

.ZIP   503.7 kB

SOFTWARE DOWNLOADS & DRIVERS

⤓ Downloads & Drivers: Valve Automation FieldQ Rev 3 FF AMS 11.0 11.5 DeltaV 11.3

.ZIP   503.7 kB

SOFTWARE DOWNLOADS & DRIVERS

Results for ""   Sort by: RELEVANCE

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☐ Rosemount (683)
☐ Micro Motion (621)
☐ Rosemount Analytical (199)
☐ Fisher Controls (117)
☐ EL-O-Matic (75)
☐ TopWorx (33)
☑ Valve Automation (29)
  ☐ Field Q [D3A0] (13)
  ☐ CAM 228CAM28 FF Electric
    Actuator [EDC3] (5)
  ☐ CAM228CAM28 FF EHO Actuator
    [EDC4] (4)
  ☑ D3A0 Q Series QC54 [d3a0] (3)
    ☐ 4 (3)
  ☐ CAM16 [E28B] (2)
  ☐ CAM216 [e28c] (2)

SOFTWARE DOWNLOADS & DRIVERS

⤓ Downloads & Drivers: Valve Automation D3A0 Q Series QC54 Rev 4 DeltaV 12.3 AMS 12.5

Other AMS versions supported: 12.0 and 13.0

.ZIP   497.3 kB

SOFTWARE DOWNLOADS & DRIVERS

⤓ Downloads & Drivers: Valve Automation D3A0 Q Series QC54 Rev 4 DeltaV 10.3 AMS 10.5

Other AMS versions supported: 10.0,11.0,11.1,11.5,12.0,12.5 and 13.0

.ZIP   495.7 kB

SOFTWARE DOWNLOADS & DRIVERS

⤓ Downloads & Drivers: Valve Automation D3A0 Q Series QC54 Rev 4 DeltaV 11.3 AMS 11.5

Other AMS versions supported: 11.0,11.1,12.0,12.5 and 13.0

FieldQ

EMERSON™