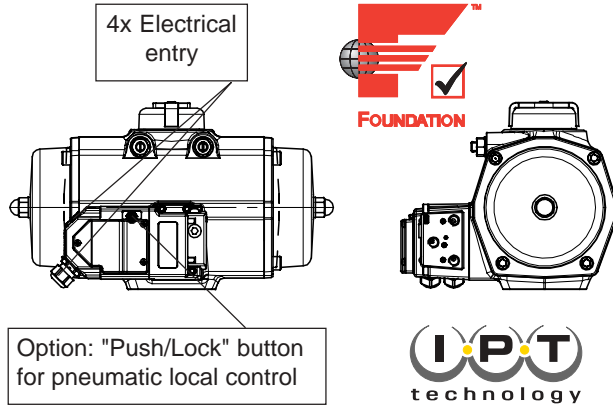


FieldQ valve actuator with FOUNDATION™ fieldbus "Open / Closed" Function module

Description

This FieldQ function 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.



General specifications

Material housing : Aluminium alloy
 Electrical connections : Internal terminal strip.
 Optional quick connectors : *minifast*® or *euromast*®
 Cable entries : 4x M20x1.5 or 4x 1/2"NPT
 Enclosure : IP65 / NEMA 4
 Finish : Epoxy primer and two component polyurethane top coating
 Temperature : -20° to +50°C / -4° to 122°F
 Dimensions : See 1.603.01 for ISO 5211 (metric & UNC)
 See 1.603.02 for DIN 3337

Features

- Digital communication through **FOUNDATION™-Fieldbus** .
- **Integrated diagnostics**.
- **Basic actuator functions** for fail safe (spring return) or double acting applications .
- All the control and feedback by **2-wire connection**. No need for extra power supply.
- **IPT-technology** (Intelligent Position Tracking).
- **Initialization by FOUNDATION™- Fieldbus or Push-button** for easy setup of the actuator.
Pressing 4 seconds simultaneously the "Open" and "Closed" button starts auto-initialization procedure and sets automatically the feedback limit switches.
- **Readjustable position feedback** by pressing the button of the actual position for 5 seconds or by FOUNDATION™- Fieldbus.
- **Feedback can be reversed** by pressing the opposite button of the actual position for 5 seconds or by FOUNDATION™- Fieldbus.
- **Indication LED** for "Status", which indicates initialization procedure running (blinking), successful initialization procedure (LED is on) or a failed initialization (flashing). "Open" and "Closed" position LED's are disabled.
- Function module **can be easily plugged in** the pneumatic control module.

Hazardous area executions:

- **ATEX** : II 1 G EEx ia IIC T4 for Zone 0,1 and 2.
- **FM/CSA** : Intrinsically safe, Class 1, Div. 1, group A, B, C, & D T4
 : Class 1, Zone 0, AEx ia IIC T4

Construction

The function module is mounted at the side of the Pneumatic Control Module in front of the basic actuator housing. Inside are terminals available for connecting the bus wiring. Four cable entries are available for this purpose.

Communication Protocol:

Protocol : FOUNDATION™-Fieldbus
 Transmission : H1, IEC 61158-2
 Maximum current : 22mA from bus

Function blocks

The function module provides the following function blocks:

- Transducer block - DI : 2x for feedback
- Resource block - AI : 2x for temperature and position
- DO : for control feedback.

Diagnostics and Alerts

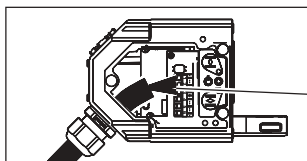
Standard FOUNDATION™- Fieldbus diagnostics and alerts provided meets Emerson PlantWeb Alerts standard. Applicable diagnostics include:

- Break Times - Open and Close, Average and Current
- Travel Times - Open and Close, Average and Current
- Cycle Counts - Controller, Solenoid, Actuator, and Valve
- Time in Position
- Various internal electronic health tests

For more detailed information on diagnostics see data sheet 1.604.021

Option: Pneumatic manual control by "Push/Lock" button.

FOUNDATION™- Fieldbus terminal wiring connection:



Standard PI-filter present.
 For intrinsically safe wiring see C0240-08.

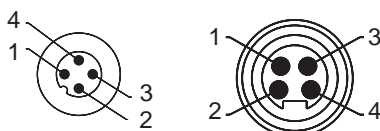
Terminal	Description
1	+
2	Shield FF 1 Signal
3	-
4	+
5	Shield FF 2 Signal
6	-

Wiring dimensions

Cable range : 0.14 - 1.5mm² or 26-14 AWG
 For massive copper : 2.5mm² max.

Quick connector pinouts: (male chassis part)

Nr	<i>euromast</i> ®	<i>minifast</i> ®	Color
1	= FF signal -	= FF signal -	Blue
2	= FF signal +	= FF signal +	Brown
3	= Not connected	= Not connected	NC
4	= Shield	= Shield	Green/Yellow



Views from above