

KELCO

F29 MK3 Programmable Flow Switches

FROM A SIMPLE START-UP TIMER TO A FULL SET OF ADVANCED FLOW & TIME BASED FUNCTIONS THE F29 MK3 IS SIMPLY THE MOST POWERFUL & VERSATILE FLOW SWITCH AVAILABLE

Features

- Multi Voltage Operation
- 10 Programmable Timers Built In
- Powerful 40Amp Solid State Drive
- Dedicated 16A Alarm Relay
- Detachable Electrical Housing
- 18 Bar 261 psi Rated Standard Model
- 200 Bar 2900 psi Model Available
- Suits Pipes 1" & Larger
- Accepts 2 Remote Inputs
- Weatherproof Housing



Flow Sensitivity

The flow rates required to actuate the F29 MK3 Series flow switch depends on many variables such as turbulence, liquid viscosity and the exact area of the paddle face exposed to the flow. For an accurate estimate of the switch performance and to determine the effect of paddle trimming, an online flow calculator is available at:

<http://www.kelco.com.au/paddle-trimming-calculator>

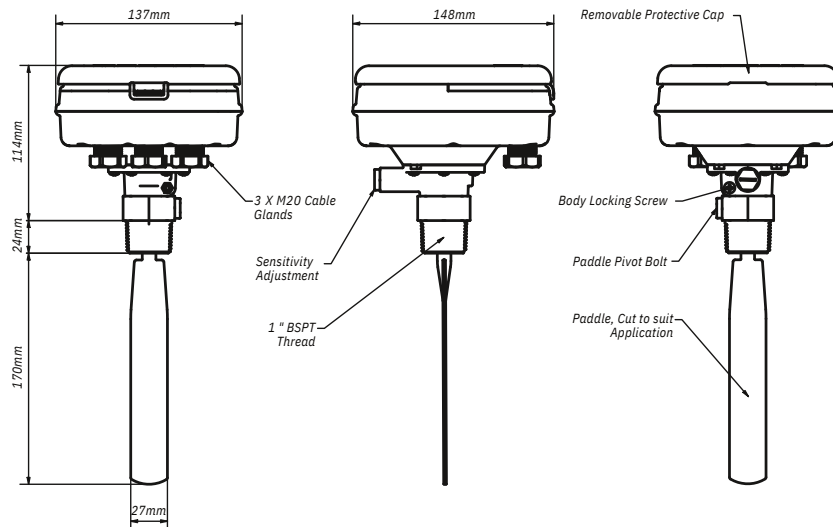
Ordering

The F29 MK3 programmable flow switches are available in various configurations to suit specific applications. Trailing wire versions for flows containing entrained solids are also available. Please contact your supplier for further information.

MODEL NUMBER	DESCRIPTION
F29-S-MK3	220~240 / 24VAC or DC Model Corrosion Resistance Thermoplastic Construction
F29-SS-MK3	220~240 / 24VAC or DC Model With High Pressure 316 Stainless Steel Process Connection
F29-S-12-MK3	12VDC Model With Corrosion Resistant Thermoplastic Construction
F29-SS-12-MK3	12VDC Model With High Pressure 316 Stainless Steel Process Connection

F29 SERIES DATA

Dimensions



Functions

The F29 MK3 programmable flow switches includes 10 unique time and flow based functions. The table below sets out these functions.

Functions (# Settable)	
# Start-up timer	
# Run-on timer	
# Pre-start delay timer	
# Delayed restarting timer	
# Batch controller	
# Cyclic running	
# Auto restart if run dry	
# Anti-cycling	
# Burst pipe detector	
# Leak detector	
# Programming Lock	
# Remote start via an external switch closing its contacts (momentary closing) pressure, temperature or level switch or a set of external relay contacts.	
# Remote start and stop. The F29 only runs the pump while the external switch is closed. The external switch can be a tank level switch, a pressure or temperature switch or a set of external relay contacts.	
Stops the pump if flow stops.	
The F29 has true loss of prime detection only when an external pressure switch is connected to its remote input terminal. In this situation the F29's alarm relay can be set to close its contacts if dry run is detected.	

Operating Limitations

Operating Range	
Ambient Temperature Range	1°C to 50°C
Liquid Temperature Range Standard Thermoplastic Models	1°C to 60°C
Liquid Temperature Range Stainless Steel Models	-20°C to 80°C
Ingress Protection Rating	IP64
Pre-Start Delay Timer	Adjustable from 1 second to 1 hour in 1 second increments.
Start-up Timer	Adjustable from 1 second to 4 minutes in 1 second increments.
Run-on Timer	Adjustable from 1 second to 15 minutes in 1 second increments.
Batch Controller	Adjustable from 1 minute to 99 hours 59 minutes in 1 minute increments.
Delayed Restarting	Adjustable from 1 minute to 99 hours 59 minutes in 1 minute increments.
Cyclic Running & Stopping	Running and stopping times both adjustable from 1 minute to 99 hours 59 minutes in 1 minute increments.
Auto Restart if Run Dry	Adjustable from 1 minute to 99 hours 59 minutes in 1 minute increments.
Anti-Cycling	Adjustable from 1 motor start per hour to 1800 motor starts per hour.
Burst Pipe Detector	Adjustable from 1 minute to 99 hours 59 minutes in 1 minute increments.
Maximum Operating Pressure Static or Dynamic Thermoplastic Model	18 Bars 261 psi
Maximum Operating Pressure Static or Dynamic Stainless Steel Model	200 Bars 2900 psi
Minimum Burst Pressure Thermoplastic Models	> 30 Bars 435 psi
Recommended pipe size	25 mm 1" or larger. (There is no upper limit)

Electrical Data

Supply voltage (Standard model)	220 to 250 VAC or 18 to 25 VAC or DC (Multi Voltage Input)
Supply voltage (12VDC model)	11 to 14 VDC
Maximum motor load (all models)	Single phase motors up to 2.4kW at 220 ~ 240 VAC (P1) 3-phase motors of any required size via an interposing contactor
Relay 1 contact rating	16 Amps at 240 VAC resistive (Main Pump Relay)
Relay 2 contact rating	16 Amps at 240 VAC resistive (Alarm Relay)

3-Phase Pump Motors

The F29 MK3 switches can be used to control either single phase or 3-phase pumps, provided a 220~240 VAC or 24VAC supply is available at the installation site.

Serviceability

The F29 MK3 programmable flow switches are not user serviceable. However, spare parts, including replacement paddles and wet end assemblies, are available from your local distributor and Kelco Engineering.

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