

## F29 PROGRAMMABLE FLOW SWITCH

### A DIGITAL TOOL BOX FOR THE PUMP ENGINEER

FROM A SIMPLE START-UP TIMER TO A FULL SET OF  
ADVANCED FLOW & TIME BASED FUNCTIONS THE F29 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 Remote Input
- IP67 Rated

#### ORDERING

The F29 programmable flow switch is 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.

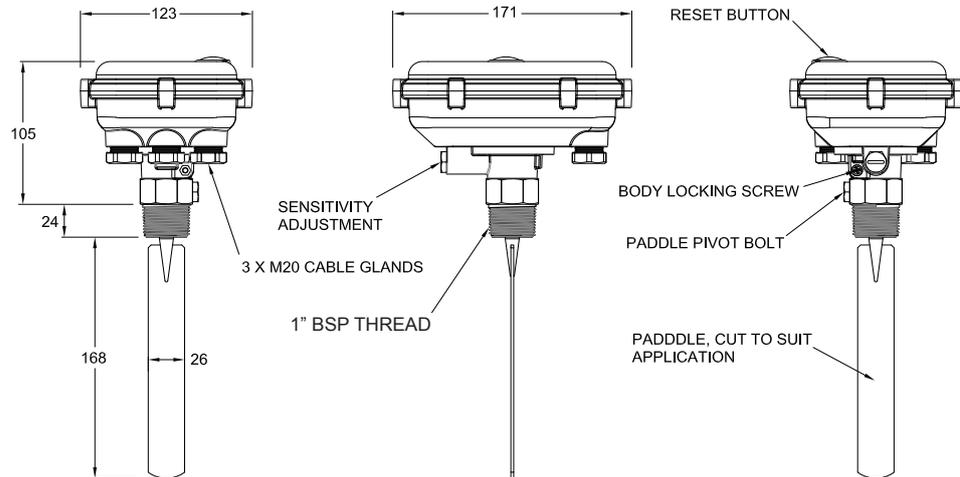
#### FURTHER INFORMATION

Further information including installation guides, programming guides and videos can be found at the following web page: <http://www.kelco.com.au/f29-programmable-flow-switch>

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

# TECHNICAL DATA

## DIMENSIONS



## FUNCTIONS

The F29 Programmable Flow Switch 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.

## ELECTRICAL

Supply Voltage Standard Model	220 to 250 VAC or 18 to 25 VAC or DC (Multi Voltage Input)
Supply Voltage 12V DC 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 can be used to control either single or 3-phase pumps provided a 220~240 VAC or 24VAC supply is available at the installation site.

## 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	IP67
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)

## SERVICEABILITY

The F29 programmable flow switch is not user serviceable. However, spare parts and paddles are available from Kelco Engineering or from your distributor.

## KELCO Engineering Pty Ltd

ABN 20 002 834 844 Head office and factory: 9/9 Powells Road Brookvale NSW 2100 Australia. Postal Address: PO Box 7485 Warringah Mall Post Shop Brookvale NSW 2100 Australia. Phone: +61 2 9905 6425 Fax: +61 2 9905 6420 Email: Sales@kelco.com.au Web: www.Kelco.com.au

**PLEASE NOTE:** Kelco Engineering Pty Ltd reserves the right to change the specification of this product without notice. Kelco Engineering Pty Ltd accepts no liability for personal injury or economic loss as a consequence of the use of this product. All rights reserved copyright Kelco Engineering Pty Ltd © 2014 The Kelco F29 Programmable Flow Switch is protected by a 12 month return to base warranty. Full details of our warranty can be downloaded from: <http://www.kelco.com.au/warranty>