Products

Product number	Description
1772-2100164	SPIDER Universal ON/OFF controller with 2G modem.
1772-2104164	SPIDER Universal ON/OFF controller with 4G modem.
1772-2103824	SPIDER - IO-Modul. Extended I/O modul.
1772-2101164	Display 2.4 “” OLED incl. joy-stick for the SPIDER Controller.
1772-2102164	Serial interface for the SPIDER external HMI display. Incl. 1.5m cable set.
ACOWA-EAGLE-7	HMI 7”” Touch Color Display.
DR-15-24	Power Supply, 230V AC / 24V DC.
EM340DIN	CG EM340 400V AC w/MODBUS.

Spider Quickguide

ACOWA INSTRUMENTS

V. 1.0

About Spider

SPIDER is a compact unit on a DIN rail. As standard, SPIDER is delivered with a GSM/GPRS modem and without a display. Modules are available to adapt the SPIDER to suite specific applications.

SPIDER is developed and produced in Denmark. The hardware and software design is based upon many years of experience within communication products. SPIDER complies with all specifications regarding placement of electronic components in harsh environments.

SPIDER is a universal controller with standard functions for:

- Pump stations
- Data logger
- Alarm handling
- Ground water
- Management

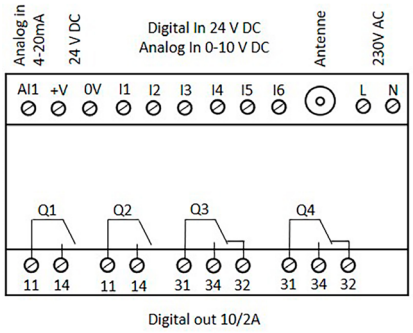
Applications

- The SPIDER is a universal pump controller, with multiple applications. The SPIDER controls several pumps with alternating operation, with only one float switch connected. On the same float switch it has the option of high level alarm, or a defect pump function.
- The SPIDER can also be connected to a standard pressure transmitter or ultrasound level measurer with optional measuring range. Upon the connection of a pressure transmitter, Spider can perform a valid Pump Flow measurement like never before seen. Based on this functionality, the necessity of pump service can be predicted.

Installation and specifications

For installation of the SPIDER controller, the following specifications may be required.

NOTE! SPIDER controller is not EX-rated and therefore cannot be used for installation in EX areas.



Dimensions	L = 87mm x H = 90mm x W = 62mm
Operation tempature	-20°C til +60°C
Weight	250g
Cable connection	0.5 – 2,5 mm2
Enclosure class	IP20
Number of analog input	1. (4-20mA, impedanca approx. 100Ω)
Electrically isolated	No
Number of digital input	6. (Of which 2 can be changed to 0-10V DC, impedance approx. 20Ω)
Electrically isolated	No
Number of digital output	4. (max current 10/2A)
Electrically isolated	Yes
Relay type	Relay outputs
Signal cable length	Max. 100m
Voltage supply	230V AC +10% / -20%
Frequency	50/60Hz
Startup current	<10A
Output voltage	24V DC
Output current	Max 100mA

Functions

- Advanced 1 and 2 pump control with empty/fill function and internal pump alternation.
- Multiprotocol, Modbus RTU/TCP & COMLI. SPIDER auto-detects the protocol used by the SCADA system.
- Click connection for a joystick-equipped graphic 2,4” OLED display directly onto SPIDER.
- Possibility to connect a 7” color touch-sensitive display via a serial HMI interface.
- Validated flow calculation where the pump’s exact capacity is calculated.
- Status words function that can take a failed pump out of operation.
- Emergency control function via a float switch when a pressure transmitter fails.
- Indication of required pump service where SPIDER informs that a pump has reduced capacity.
- Built-in power bank that maintains control during power failures and sends an alarm to SCADA.
- Daily running of pumps so they do not seize after long idle periods.
- Daily depth pumping to avoid top sediment layer.
- Choice of various start levels to prevent sediment accumulation at liquid entrance point.
- Configuration of SPIDER via ACOWA ZOO software, both locally (Micro USB cable) or via server setup.

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