

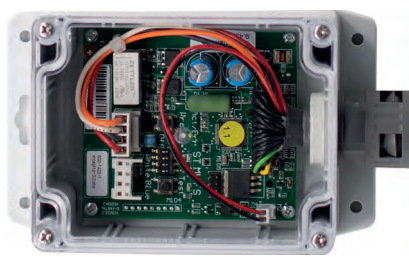
# Technical Data



## Management Computers > Single-Cable Systems

With SRC **AGDI** and **Converter 3000 D** systems is possible to transform any control unit with 24 V AC into modular single-cable systems. A simple connection between the outputs of the existing control unit and the SRC system, made with a suitably preconfigured multipolar cable, makes it possible to transform all or only part of the controls into a single-cable system with decoders. A simple programming of the Converter SRC system will allow to match the single outputs to the decoders positioned in the field, thus making the automation systems simpler and less expensive.

### > Converter AGDI



#### DESCRIPTION

##### Application

- Conversion of conventional systems into single-cable systems

##### Specifics

- Internal programming keys
- Status and operation LEDs
- 2-wire decoder 24V AC
- Unit power supply: from 24 V AC
- Master control unit
- Number of stations: 24
- Max number of simultaneous active stations: 3
- Use only decoder OAC223

##### Code

OPG770

##### Description

AGDI interface 24 sectors

### > Converter 3000 D



#### DESCRIPTION:

##### Application

- Conversion of conventional systems into single-cable systems

##### Specifics

- LCD display
- Soft touch keys
- 2-wire 24 V AC decoder
- Unit power supply: 230-24 V AC transformer
- Number of stations: 48, expansion to 96 sectors
- Max number of simultaneous active stations: 10
- 1 master valve
- 2 high frequency counters
- Integrated lightning protection
- 4 output powers to the decoder
- Use only decoder OAC223

##### Code

OPG771

##### Description

3000 D converter

##### Outputs nr

48

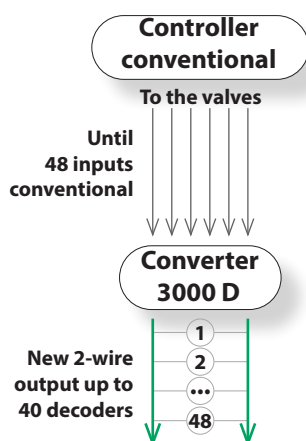
OPG772

3000 D converter expansion from 48 to 96

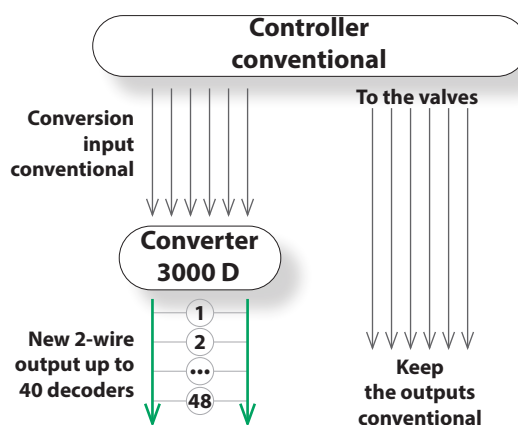
48

## Typical installation

### BASIC



### MIXED



## Management Computers > Single-Cable Systems

### > Ranger 4000 D



#### DESCRIPTION:

##### Application

- Landscape and agriculture large irrigation systems

##### Specifics

- LCD display
- Soft-touch keyboard and knob for functions selection
- ETP management with meteo station
- Instantaneous flow-rate control
- Control unit supply: 230 - 24 V AC transformer
- 2 wires, 24 V AC decoder
- Stations: 100
- Remote control by smart systems via WEB

##### Software Features

- 10 irrigation programmes
- 12 daily starts per programm
- Cyclic starts form 1 to 99 per programm start
- Calendar: 14 days
- Module: SRC LAN for local communication - SRC 3G/4G
- mobile Gateway
- Irrigation cycle from 0 to 999 min
- Water budget: 0 ÷ 250%
- Starts: manual, programm

##### Materials

- Box: PVC/ABS with key

Code	Description	Outputs nr
OPG774	Ranger 4000 D control unit • stand alone	100
OPG780	Ranger 4000 D control unit with LAN module + 3G/4G module + 1 year traffic included	100

#### PROGRAM:

##### SPECIFICATIONS

- Programs: 10 + 1 test program
- Simultaneous programs: 10
- Starting times: 6 per program
- Calendar: 14 or 15 days
- Station run times: 0 - 999 minutes: 1 minute increments
- Water balance: 0-250% - 1% increments
- Program mode: active, passive or linked programs
- Startup methods: Auto, Manual by program, Manual display by station: monitors active programs, times of
- Execution, line conditions and alarms
- Decoders: SRC 1001, 1002, 2002, 4001 and 6001 adjustable valve power output
- Software licenses: 24/12/50/100/150/200 stations

##### DIAGNOSTICS

- Decoder test: pass / fail, in the field
- Short Test: Allows 2-wire condition measurement
- Line Sense: Displays 2-wire voltage and current

##### REMOTE MANAGEMENT

Web-enabled when the controller is equipped with one of the following:

- SRC LAN Modul
- SRC 3G / 4G Gateway Module

##### SENSORY

- Contact / digital (pulses) and analog 4-20 mA

##### SENSOR ALARMS

- Above (multiple levels)
- Below (multiple levels)
- Open close

### > SRC Decoder



#### DESCRIPTION

##### Application

- SRC decoder modules

##### Specifics

- Compatible with SRC models
  - AGDI converter
  - Converter 3000 D
  - Ranger 4000 Control unit supply: 24 V AC
- Unit power supply: max 33 V AC/min 21 V AC
- Consumption: 0,5 mA/25 mA
- Max solenoid/decoder distance: 100 mt
- Output power: adjustable from central unit
- Programmable by converter unit
- Protection: Waterproof IP67

Code	Description
OAC223	Decoder Ranger 4000 D 1 output

# Technical Data



## Management Computers > Single-Cable Systems

### > Grower 6000 D



#### DESCRIPTION:

##### Application

- Landscape and agriculture large irrigation systems

##### Specifics

- LCD display
- Soft-touch keyboard and knob for functions selection
- ETP management with meteo station
- Instantaneous flow-rate control
- Control unit supply: 230 - 24 V AC transformer
- 2 wires, 24 V AC decoder
- Stations: 200 - 12 outputs base
- Remote control by smart systems via WEB

##### Software Features

- 10 irrigation programmes
- 6 daily starts per programm
- Cyclic starts form 1 to 99 per programm start
- Calendar: 14 or 15 days
- Module: SRC LAN for local communication - SRC 3G/4G mobile Gateway
- Digital inputs: 4-20 mA
- Irrigation cycle from 0 to 999 min
- Water budget: 0 ÷ 250%
- Starts: manual, programm
- Compatible decoder

##### Materials

- Box: PVC/ABS with key

#### EXPANSION LICENCE FOR OUTPUTS

Code	Outputs nr
OPG761	from 12 to 24
OPG762	from 24 to 50
OPG764	from 50 to 100
OPG765	from 100 to 150
OPG769	from 150 to 200

To be added to arrive at the desired number of outputs

Code	Description	Outputs nr
OPG760	Grower 6000 D control unit • stand alone	12
OPG779	Grower 6000 D control unit • LAN module + 3G/4G module + 1 year traffic included	12

#### PROGRAM:

##### SPECIFICS

- Programs: 10 + 1 test program
- Simultaneous programs: 10
- Starting times: 6 per program
- Calendar: 14 or 15 days
- Station run times: 0 - 999 minutes: Â 1 minute increments
- Water balance: 0-250% @ 1% increments
- Program mode: active, passive or linked programs
- Startup Methods: Auto, Manual by Program, Manual Display by Station: Monitors active programs, run times, line conditions and alarms
- Decoders: SRC 1001, 1002, 2002, 4001 and 6001 adjustable valve power output
- Software licenses: 24/12/50/100/150/200 stations

##### DIAGNOSTICS

- Decoder test: pass / fail, in the field
- Short Test: Allows 2-wire condition measurement
- Line Sense: Displays 2-wire voltage and current

##### REMOTE MANAGEMENT

Web-enabled when the controller is equipped with one of the following:

- SRC LAN Module
- SRC 3G / 4G Gateway Module

##### SENSORY

- Contact / digital (pulses) and analog 4-20 mA

##### SENSOR ALARMS

- Above (multiple levels)
- Below (multiple levels)
- Open close

### > Grower SRC Decoder



#### DESCRIPTION:

##### Application

- SRC decoder modules

##### Specifics

- Compatible with SRC models Grower 6000 D
- Unit power supply: max 33 V AC/min 21 V AC
- Consumption: 0,5 mA/25 mA
- Max solenoid/decoder distance: 100 mt
- Output power: adjustable from central unit
- Programmable via DPU (Decoder Programming Unit)
- Protection: Waterproof IP67

Code	Description	Code	Description
OAC215	Decoder 1001 1 output	OAC218	Decoder 4001 4 outputs
OAC216	Decoder 1002 1 output*	OAC219	Decoder 6001 6 outputs
OAC217	Decoder 2002 2 outputs*	OAC221	Pump command decoder

\*Models with activation of 2 simultaneous solenoids

## Management Computers > Single-Cable Systems

### > Decoder Sensor



#### DESCRIPTION:

Application	
• Sensor	
Specifics	
<ul style="list-style-type: none"> <li>• Allows reading of sensors located remotely using the single cable</li> <li>• It doesn't need extra power in the field</li> <li>• Configurable for contact, EV flow count and 4-20 mA</li> <li>• Compatible with Grower family to monitor various conditions, generate alarms and perform associated actions</li> <li>• Single sensor input</li> <li>• Consumption: 8 mA (inactive), up to 28 mA for 4-20 mA mode</li> </ul>	<ul style="list-style-type: none"> <li>• Dimensions: length: 85 mm</li> <li>• Max. distance from the sensor: 25 m</li> <li>• Sensor types: contact, pulse count or 4-20 mA</li> <li>• Contact types normally open or normally closed and dry contact</li> <li>• Pulse count: up to 200 pulses per second</li> <li>• Minimum pulse width 2,5 ms</li> <li>• Sensor source: power supply with 20 V DC</li> <li>• Surge Protection: Built-in</li> </ul>

Code	Description
0AC222	Flow sensor decoder

The technology behind SRC decoders has been proven for decades in applications around the world. SRC decoders have replaced satellites on centrally controlled irrigation systems for many years. They work with your central control system just like traditional satellites but are buried underground away from the elements. The decoders act as switching stations for digitized commands to the sprinkler heads. Underground installation and simple and inexpensive wiring make decoders an aesthetically pleasing and economical option for reliable control in the field.

#### An affordable alternative

Simple wiring configuration and the absence of protective casings keep installation and maintenance costs low.

SRC decoders require 1/10 of the cable length normally required in a traditional satellite-based system.

The decoders use a bi-directional path with 1,5 mm<sup>2</sup> or 2,5 mm<sup>2</sup> wire connecting the central control system, decoders and valves or overhead valve sprinklers.

#### Protected from the elements

With all electronic components fully sealed inside a watertight and buried case, damage caused by floods, frost, rodents or vandals are virtually eliminated. SRC decoders are a particularly good choice for floodplains and other areas where the risk of damage to satellites is high.

#### An exceptional solution

Buried decoding systems leave nothing exposed to the elements. With no evidence of control in the field, this aesthetically pleasing alternative works perfectly in situations where satellite protection fences are unwanted or impractical.

#### SPECIFICATIONS SRC GROWER DECODER 1001:

##### Single field decoder (1 address and 1 solenoid)

- Mounting: in valve box or direct burial
- Absorption: 0,5 mA (inactive) 25 mA (for active solenoid)
- Dimensions: Length: 57 mm
- Solenoid: 1 solenoid
- Wires: blue to lead, white to solenoid
- Output power: adjustable by the central controller
- Encapsulation: fully waterproof (IP67)
- Address: blank
- Programming via control panel and via SRC decoder programming unit (DPU)
- Electrical input: rated voltage: 33V
- peak-to-peak from the line
- Minimum voltage: 21 V peak-to-peak
- Max. Voltage: 33 V peak-to-peak
- Max. Load: 1 solenoid 24 VAC
- Max. Cable length Decoder / solenoids 60/100 m
- Wiring: 2 x 2,5 mm<sup>2</sup> solid copper, insulated PVC
- Environment: working range: 0 ° ÷ 50 ° C
- Storage interval: 20 ÷ 70 ° C
- Humidity: 100%
- Surge protection: via SRC surge protection decoder

# Technical Data



## Management Computers > Single-Cable Systems

### > SRC Lightning Protection



#### DESCRIPTION:

- Lightning protection module

#### Application

#### Specifics

- Protects the system from atmospheric discharges
- To be installed along the bipolar electric cable of the system
- Install approximately every 150 meters or near network branches

Compatible with SRC Models:

- Grower 6000 D
- Ranger 4000 D
- Converter 3000 D
- AGDI converter

Code	Description
OAC220	Lightning protection decoder

Automation

### > Communication

Code	Description
OPG773	LAN communication module
OPG778	3G/4G communication module
OPG777	3G/4G traffic data (per year, from the 2nd year)



See specific cable for Decoder Automation section



See solenoids for Decoder Valves section