Point Colour Serial Cables

SDI-12 – RS232 – RS485 – Krohne – Mainstream – Chloroclam
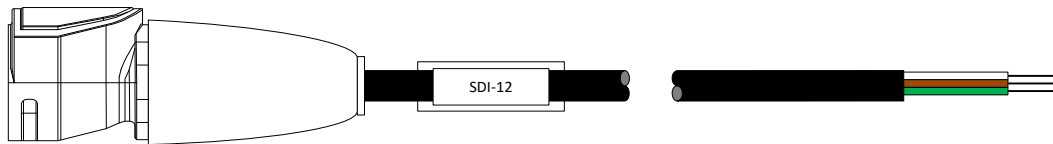
This info sheet provides useful information about the serial cables that can be used with the battery powered Point Colour RTU's.

Each cable has been specifically designed for the protocol or sensor to which it can be connected, and therefore typically have unique specifications.
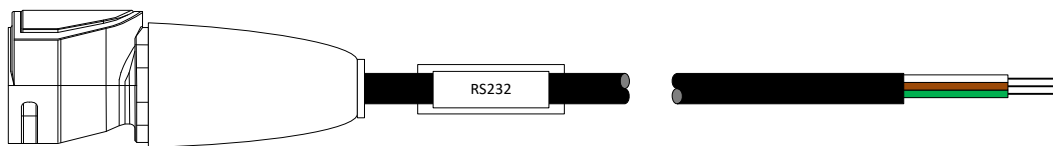
SDI-12 (PN 4-119)

Core	Signal
White	+12V
Brown	Data
Green	Ground

- Unterminated for direct connection to SDI-12 sensors
- Suitable for use with Point Orange, Blue and Green
- RTU provides power for external sensor
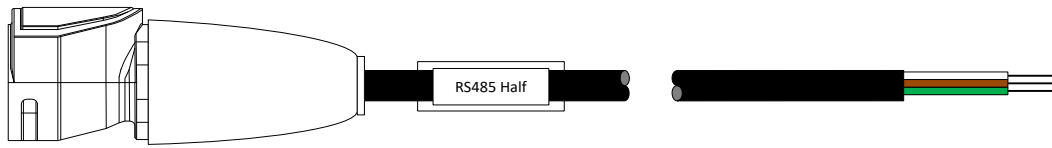- Cable length: 2m

RS232 (PN4-116)

Core	Signal
White	Tx
Brown	Rx
Green	Ground

- Unterminated for direct connection to sensor
- Adds RS232 connection (up to 19,200 baud)
- Suitable for use with Point Orange, Blue and Green
- External sensor requires own power supply
- Cable length: 2m

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RS485 HALF DUPLEX (PN 4-108)

Core	Signal
White	RS485 A (-)
Brown	RS485 B (+)
Green	Ground

- Unterminated for direct connection to sensor
- Adds RS485 half duplex connection (up to 19,200 baud)
- Suitable for use with Point Orange, Blue and Green
- External sensor requires own power supply
- Cable length: 2m
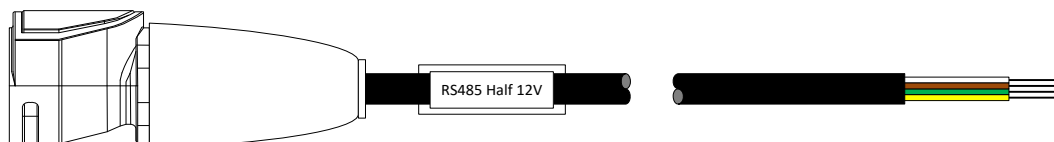- (+) = non-inverting; (-) = inverting

RS485 HALF DUPLEX 5V (PN 4-137)
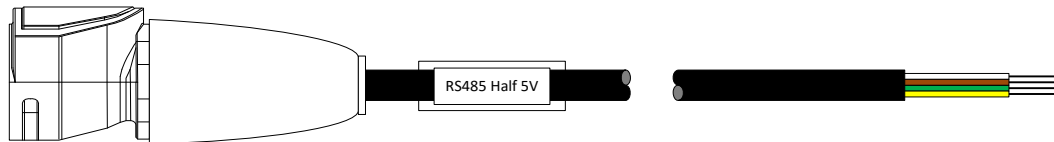
Core	Signal
White	RS485 A (-)
Brown	RS485 B (+)
Green	Ground
Yellow	+5V

- Unterminated for direct connection to sensor
- Adds RS485 half duplex connection (up to 19,200 baud)
- Suitable for use with Point Orange, Blue and Green
- Provides 5V for powering external sensors
- Cable length: 2m
- (+) = non-inverting; (-) = inverting

RS485 HALF DUPLEX 12V (PN 4-135)

Core	Signal
White	RS485 A (-)
Brown	RS485 B (+)
Green	Ground
Yellow	+12V

- Unterminated for direct connection to sensor
- Adds RS485 half duplex connection (up to 19,200 baud)
- Suitable for use with Point Orange, Blue and Green
- Provides 12V for powering external sensors
- Cable length: 2m
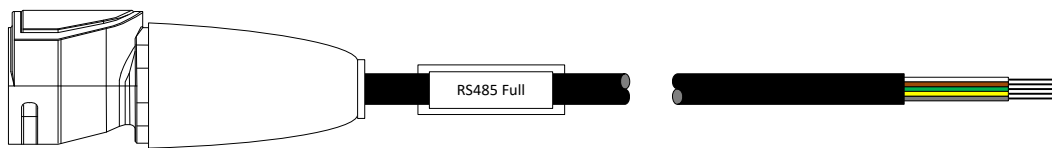- (+) = non-inverting; (-) = inverting

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RS485 FULL DUPLEX (PN4-117)

Core	Signal
White	RS485 A (Rx+)
Brown	RS485 B (Rx-)
Green	RS485 Z (Tx-)
Yellow	RS485 Y (Tx+)
Grey	Ground

- Unterminated for direct connection to sensor
- Adds RS485 full duplex connection (up to 19,200 baud)
- Suitable for use with Point Orange, Blue and Green
- External sensor requires own power supply
- Cable length: 2m
- (+) = non-inverting; (-) = inverting

RS485 HALF DUPLEX KROHNE (PN 4-109)
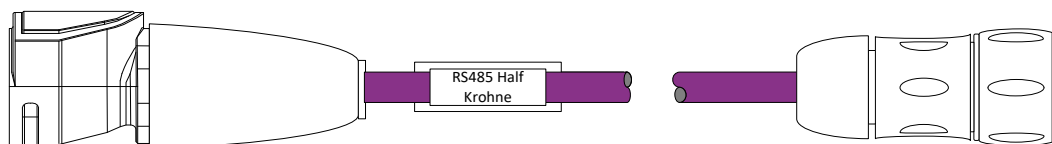
Signal	Waterflux
RS485 B (-)	Pin 1
RS485 A (+)	Pin 2
Ground	Pin 3

- Terminated with Souriau connector for direct connection to Krohne Waterflux flowmeter
- Compatible with Modbus enabled Krohne Waterflux flowmeters e.g. Waterflux 3070.
- Suitable for use with Point Orange, Blue and Green
- Cable length: 2m

MAINSTREAM (PN 4-100)
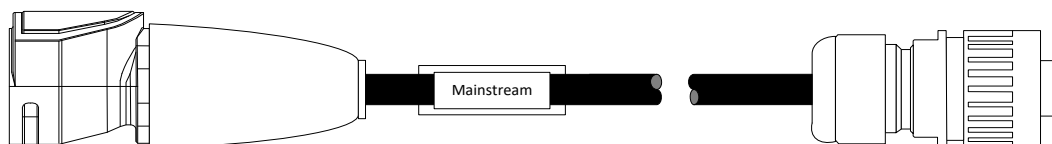
Signal	Mainstream
+12V	Pin 1
Rx	Pin 3
Tx	Pin 2
Ground	Pin G

- Terminated with Hirschmann connector for direct connection to Mainstream Flowmeter
- Provides power to Mainstream sensor
- Compatible with Mainstream AV-Flow Transmitter
- Suitable for use with Point Orange
- Cable length: 2m

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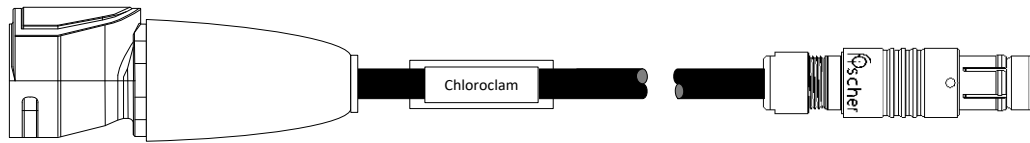
Signal	Chloroclam
CTS	Pin 2
Tx	Pin 3
Wake	Pin 5
Rx	Pin 6
Ground	Pin 9

- Terminated with Fischer connector for direct connection to Evoqua Chloroclam
- Converts Chloroclam info into Modbus registers that can be read by the Point Colour
- Compatible with Evoqua Chloroclam Water Quality Monitor
- Suitable for use with Point Green, Orange and Blue.
- Cable length: 2m

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CABLE DESIGN	
Construction	Point Colour 12-pin IP68 Deutsch connector 2m length (including stripped and tinned ends)
Conductor	0.25mm per core Bare copper class5 IEC60228
Core	Colour Identification according to DIN 47100 Material: PVC TI2
Overall screen	Tinned Copper Braid
Outer sheath	Polyurethane + Chemical, termite and rodent protection Black RAL9011 (UV resistant)
IP Rating	IP68. Note, users must ensure unterminated ends are properly connected to retain this IP rating
ELECTRICAL	
Nominal voltage	300V
Test voltage	1500V
Temperature	-40°C + 90°C
Electrical propeties	80.5 Ω/km 120nF/km (core/core) 160nF/km(core/screen) 0.7mH/km
APPROVALS	
Flame retardant	IEC 60332-1
Fire retardant	IEC 60332-3
Halogen Free	IEC 60754-1

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