sommer
MESSTECHNIK

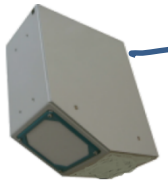
Open water
Modern measurement of
Level / Discharge / Flow

SENSOR summery for level and discharge

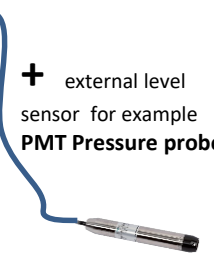
Velocity

RP-30 Velocity profiler

go to



+ external level sensor for example **PMT Pressure probe**



RQ-30-L Velocity sensor for external Level sensor go to

RG-30 Velocity sensor

go to

TQ- TRACER

Optional: TQ-S Salt, TQ-F Fluorescence

Versions: Low conductivity, Armoured version

go to

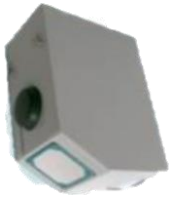
Discharge

Options:

- 15,35,75meter
- Stainless steel
- a … anlalog output

RQ-30 Discharge measurment sensor

go to



Includes:

- Data logger
- Modem
- Battery
- Solar controler

Available versions:

15/35meter

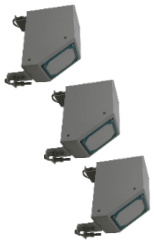
RQ-30 ADMS Discharge Measurment sensor

go to

+ up to 7 additional Velocity sensors RG-30

RQ-30D Multi sensor

go to



Level

RL 15/35meter level sensor Radar based

go to

SOMMPLUS 8/15/75meter Level sensor Radar based

go to

UWL-9 level sensor Ultrasonic

go to

Accessories

Data logger MRL series

go to

Switch cabinet & power option

go to

MRL-7 camera

go to

Measured Data Server (MDS)

gor to

Open water measurement
RQ RL RG RP –Sensor TQ TRACER:

To select the right system for your requirement we have here a short guidance to help and select/propose the right system for the client.

Step 1) What do you want to measure?

- Velocity (RG-30), go to
- Surface Velocity profile (RP-30) go to
- Level (RL-15/35, Sommplus 8/15/75), go to
- Discharge (RQ-30/RQ-30 ADMS/RP-30,TQ-Tracer)

go to go to go to go to

Selection of sensor

Step 2) Stationary measurement or mobile measurement

Stationary measurement = fixed installation

RQ-30/ RG-30 / RL-30 / RQ-30 ADMS

go to go to go to go to

Mobile measurement = flexible installation / no installation

RP-30 (Velocity) RQ-30 ADMS (discharge)

TQ-Tracer (discharge) go to

- TQ-S Salt up to 10m3 / sec.
- TQ-F Fluorescence/Rhodamine also for higher discharge

Step 3) Is the Level sensor existing: RQ30L go to

(integration of existing 4-20 mA loop powered sensor level e.g. Vega WL61) is possible. For other sensor its clients obligation)

Step 4) Data logger required?

If yes we do have 2 versions: go to

MRL6 / MRL7 with integrated remote data transmission using 2G/3G modem (4G optional)

Selection of accessories

Step 5 If Datalogger is being used
do you require additional go to
Switch cabinet (also version with sea water resistance available)

Step 6 Power available YES / NO go to
NO.. we propose our battery solution plus solar (different power package available)

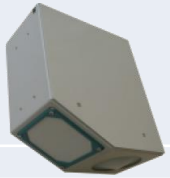
Step 7 If data transfer is required:
is the reception good or bad?
As we provide 2 versions of antenna Small / Big

Step 8) Distance between Sensor and Data Logger (switch Cabinet)
10m 20m or customer made wire (more than approx.40m and here we recommend lighting projection) go to

Step 9) Data hosting required? go to
has client a own solution or else we can offer our SOMMER MDS Data Service

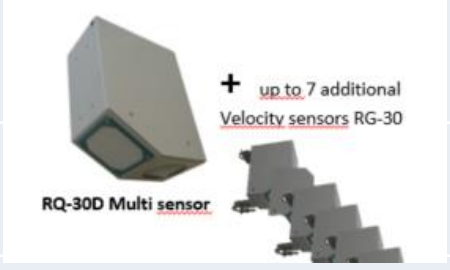
Step 10) Data analysing required?
Has client own data processing else we can offer our SOMMER Metwin Software

A) Radar based discharge measurment RQ-30

RADAR BASED NON CONTACT DISCHARGE MEASUREMENT RQ-30 - 15 m level radar		
17193	RQ-30 System for non-contact discharge measurement 15m 	System to measure flow velocity, water level and simultaneous calculation of discharge quantities in l/s or m³/s. Technical specifications: - Measuring element/-principle flow velocity: Radar / Doppler shift - Measuring element/-principle water level: Radar / delay time - Measuring range flow velocity: 0,1 - 15 m/s, with direction recognition, Resolution: 1 mm/s, minimum wave height 3mm - Measuring range water level: 0 - 15 m; Resolution: 1 mm, Beam angle 10° - Field of application: -35 - + 60 °C - Interface: RS-485, SDI-12 and Modbus - Supply: 6 - 30 V DC - Power consumption: about 140 mA at 12 V DC / per measurement - Protection type: IP 67 - Casing: LxHxW 338x333x154 Material: powder-coated aluminium Installation: bracket for pipe Ø 34 - 48 mm
17194	RQ-30a System for non-contact discharge measurement 15m with additional analog output	System to measure flow velocity, water level and simultaneous calculation of discharge quantities in l/s or m³/s. Technical specifications: - Interface: RS-485, SDI-12 and Modbus plus analog output 4 x 4 – 20 mA rest see above
RADAR BASED NON CONTACT DISCHARGE MEASUREMENT RQ-30 - 15 m level radar in stainless steel casing		
19902	RQ-30a System for non-contact discharge measurement stainless steel casing 15m with additional analog output	System to measure flow velocity, water level and simultaneous calculation of discharge quantities in l/s or m³/s. Technical specifications: - Casing: LxHxW 338x333x154 Material: NIRO V4A stainless steel
RADAR BASED NON CONTACT DISCHARGE MEASUREMENT RQ-30 - 35 m level radar		
19423	RQ-30 System for non-contact discharge measurement 35m	Technical specifications: - Measuring element/-principle flow velocity: Radar / Doppler shift - Measuring element/-principle water level: Radar / delay time - Measuring range flow velocity: 0,1 - 15 m/s, with direction recognition, Resolution: 1 mm/s, minimum wave height 3mm - Measuring range water level: 0 - 35 m; Resolution: 1 mm, Beam angle 10° - Field of application: -35 - + 60 °C - Interface: RS-485, SDI-12 and Modbus - Supply: 6 - 30 V DC - Power consumption: about 140 mA at 12 V DC / per measurement - Protection type: IP 67 - Casing: LxHxW 338x333x154 Material: powder-coated aluminium Installation: bracket for pipe Ø 34 - 48 mm
19424	RQ-30a System for non-contact discharge measurement 35m with additional analog output	System to measure flow velocity, water level and simultaneous calculation of discharge quantities in l/s or m³/s. Technical specifications: - Interface: RS-485, SDI-12 and Modbus plus analog output 4 x 4 – 20 mA rest see above
RADAR BASED NON CONTACT DISCHARGE MEASUREMENT RQ-30 - 75 m level radar		
20709	RQ-30a System for non-contact discharge measurement 75m with additional analog output	Technical specifications: - Measuring element/-principle flow velocity: Radar / Doppler shift - Measuring element/-principle water level: Radar / delay time - Measuring range flow velocity: 0,1 - 15 m/s, with direction recognition, Resolution: 1 mm/s, minimum wave height 3mm - Measuring range water level: 0 - 75 m; Resolution: 1 mm, Beam angle 10° - Field of application: -35 - + 60 °C - Interface: RS-485, SDI-12 and Modbus plus analog output 4 x 4 – 20 mA - Supply: 12 - 30 V DC - Power consumption: about 140 mA at 12 V DC / per measurement plus analog output max. 4 x 30 mA - Protection type: IP 67 - Casing: LxHxW 338x333x154 Material: powder-coated aluminium Installation: bracket for pipe Ø 34 - 48 mm

A1) Multi Sensor RQ-30d for discharge

RADAR BASED NON CONTACT DISCHARGE MEASUREMENT Multi Sensor Installation		
17195	RQ-30d System for non-contact discharge measurement 15m with additional analog output and summary calculation	Technical specifications: - Measuring element/-principle flow velocity: Radar / Doppler shift - Measuring element/-principle water level: Radar / delay time - Measuring range flow velocity: 0,1 - 15 m/s, with direction recognition, Resolution: 1 mm/s, minimum wave height 3mm - Measuring range water level: 0 - 15 m; Resolution: 1 mm, Beam angle 10° - Field of application: -35 - + 60 °C - Interface: RS-485, SDI-12 and Modbus plus analog output 4 x 4 – 20 mA - Supply: 6 - 30 V DC - Power consumption: about 140 mA at 12 V DC / per measurement plus analog output max. 4 x 30 mA - Protection type: IP 67 - Casing: LxHxW 338x333x154 Material: powder-coated aluminium Installation: bracket for pipe Ø 34 - 48 mm
19425	RQ-30d System for non-contact discharge measurement 35m with additional analog output and summary calculation	Technical specifications: - Measuring range water level: 0 - 35 m; Resolution: 1 mm, Beam angle 10°
17276	RG-30d System for non-contact velosity measurement with summary calculation	Technical specifications: - Measuring element/-principle flow velocity: Radar / Doppler shift - Measuring range flow velocity: 0,1 - 15 m/s; Resolution: 1 mm/s, minimum wave height 3mm - Field of application: -35 - + 60 °C - Interface: RS-485, SDI-12 and Modbus plus analog output 4 – 20 mA - Supply: 5,5 - 30 V DC - Power consumption: about 130 mA / per measurement - Protection type: IP 67 - Casing: LxHxW 241x246x154 Material: powder-coated aluminium Installation: bracket for pipe Ø 34 - 48 mm
RADAR BASED NON CONTACT DISCHARGE MEASUREMENT RQ-30 - with external level radar		
19819	RQ-30La non-contact radar discharge sensor with interface for existing 4-20 mA level sensor	Technical specifications: - Measuring element/-principle flow velocity: Radar / Doppler shift - Analog input to connect 4-20 mA level sensor - Measuring range flow velocity: 0,1 - 15 m/s, with direction recognition, Resolution: 1 mm/s, minimum wave height 3mm - Field of application: -35 - + 60 °C - Interface: RS-485, SDI-12 and Modbus plus analog output 4 x 4 – 20 mA - Supply: 6 - 30 V DC - Power consumption: about 140 mA at 12 V DC / per measurement - Protection type: IP 67 - Casing: LxHxW 241x246x154 Material: powder-coated aluminium Installation: bracket for pipe Ø 34 - 48 mm
19980	10m Cable, for RQ-30L for external level sensor	
19981	20m Cable, for RQ-30L for external level sensor	



A2) Software and accessories

SOFTWARE Q-Commander		
20470	Software, Q-Commander V1.0, Software; for parameterisation and discharge calculation for the RQ-30 / SQ	incl. RS485 to USB adapter and cable
STANDARD CABLES AND ACCESSORIES		
18711	10m Cable, for RQ-30 / RG-30, LiYCY 12x0,25mm² incl. configuration and testing	
18712	20m Cable, for RQ-30 / RG-30, LiYCY 12x0,25mm² incl. configuration and testing	
18779	RG/RQ-30 female connector unfixed	
19294	USB to RS485 Embedded Converter +USB-Stick	Sensor communication cable to be ordered if software is not required.
20572	RQ-30 lightning protection	
20971	SOMMER Bundle Modbus - PROFIBUS Konverter for RQ/SQ/SSG/USH/IDS	
20986	RS-485 (RTU) Modbus - CANOpen converter for RQ/SQ/SSG/USH/IDS	
20987	RS-485 (RTU) Modbus - PROFINET converter for RQ/SQ/SSG/USH/IDS	
20996	RS-485 (RTU) Modbus - EtherCat converter for RQ/SQ/SSG/USH/IDS	
TAILOR MADE CABLES ONLY FOR CABLES ABOVE 20m LENGTH		
15833	SOMMER Cable, for RQ-30 / RG-30 / SQ, 12x0,25 mm², up to 60m, price per meter ; Lime green	
15543	configuration and testing of cable for RQ-30 / RG-30 / SQ	
	**pls note max cable length with cable 15833 is 60 m. for longer distances use cable with thicker core diameter, We recommend to use lightning protection starting from 40m.	

B) RQ-30ADMS autonomes Station / RP Profiler

RADAR BASED NON CONTACT ***RP-30*** RADAR PROFILER			
18778	***RP-30 Radar Profiler*** 	Mobile and contact free measurement of surface velocity profile on rivers specially under flood conditions Including Software RP-Commander Calculation of discharge with known water level and cross section profile Technical specifications - Measuring element/-principle flow velocity: Radar / Doppler shift - Measuring range flow velocity: 0,1 - 15 m/s; Resolution: 1 mm/s , minimum wave height 3mm - Field of application: -35 - + 60 °C - Interface: Bluetooth (Transfer distance up to 150m) - Supply: 9 pcs Ni-Mh 1,2V/2500mAh AA/Mignon (not included by air freight) - Power consumption: about 150 mA / per measurement (preliminary data) - Protection type: IP 67 - Casing: LxHxW 445 x 154 x 226 mm Material: powder-coated aluminium Installation: - Prepared for use on cable ways - Traveller for Handrails (included) - Tripod Mount (Tripod not included) incl. Charger and Custom made flight case	
20269	Tripod for RP-30 - Complete		
20270	bracket cable crane for RP-30		
RADAR BASED NON CONTACT Autonomous Discharge measurement System ***RQ-30 ADMS 15m*** with integraded data logging and transmission			
20786	***RQ-30 ADMS*** **15m** Autonomous Discharge measurement System for non-contact discharge measurement with integradet data logging and transmission 	RQ-30 Autonomous Discharge measurement System: - Velocity measurment: 0,1 - 15 m/s, with direction recognition, Resolution: 1 mm/s, minimum wave height 3mm - Level measurment: Radar pulse, 0....15 m, Beam angle 10° - Calculation of Discharge - everything in one housing - housing is powder coate - 4 MB Memory (equivalent up to 500.000 measured values) - SD Card up to 32 GB (SD card not included) - Planar antenna - Power supply: Accumulator 2x 12V/12 Ah (not included), Connection to Solar panel - No batteries included - Battery charger is included Outputs/parameterisation: USB/RS 232 or Bluetooth for Logger, RS 485 for sensor Long-range transmission Quadband EGSM 850/900/1800/1900 MHz net Data transmission CSV- or XHydro over FTP, CSV over HTTP Licence R&TTE, CE, GCF, PTCRB, IC, Anatel Including Software Q-Commander, readout cable for MRL-6 und MRL-7	
RADAR BASED NON CONTACT Autonomous Discharge measurement System ***RQ-30 ADMS 35m*** with integradet data logging and transmission			
20787	***RQ-30 ADMS*** **35m** Autonomous Discharge measurement System for non-contact discharge measurement with integraded data logging and transmission	RQ-30 Autonomous Discharge measurement System: - Level measurment: Radar pulse, 0....35 m, Beam angle 10° 	
RQ-ADMS STANDARD **SUPPLY** AND **BATTERY**			
20989	Power supply 50W (ADMS), 50W with mounting for Ø=60mm; for ART: 20787 & 20786		
10085	Storage battery, LC-RA1212P, 12 VDC / 12 Ah		

C) TQ Tracer sensor for discharge measurement

DISCHARGE MEASUREMENT ***TQ-S MOBILE SALT TRACER***		
20313	***TQ-S Bundle*** - 2 pcs case	TQ-S System for discharge measurement to connect up to 4 pieces of conductivity probes consists of: - Software TQ-Commander - Bluetooth Adapter (for USB Port at your Laptop) - calibration Set 250ml with pipette - 2 pcs - case type 111 - 2 pcs - Bluetooth Module with amplifier and battery charger for conductivity and fluorescine probes - 2 pcs - conductivity probe with protection and weighting armour, handy cable-spool and 10m cable
20314	***TQ-S Bundle*** - 1 pcs case	as above - 1 pc - case type 126 - 2 pcs - Bluetooth Module with amplifier and battery charger for conductivity and fluorescine probes - 2 pcs - conductivity probe with protection and weighting armour, handy cable-spool and 10m cable
20315	***TQ-S Bundle*** - 1 pcs case at low conductivity places	as above - calibration Set 500ml with pipette - 1 pc - case type 126 with two-parts inlay - 2 pcs - Bluetooth Module with amplifier and battery charger for conductivity and fluorescine probes - 2 pcs - conductivity probe with protection and weighting armour, handy cable-spool and 10m cablebove
20424	***TQ-S Bundle*** - 2 pcs TQ-AMP with 2 pcs Armoured conductivity probe with 25m cable (Heavy-Duty-Version)	as above TQ-S Bundle - 2 pcs TQ-AMP with 2 pcs Armoured conductivity probe with 25m cable (Heavy-Duty-Version) - 1 pcs - case type 111 - 2 pcs - Bluetooth Module with amplifier and battery charger for conductivity and fluorescine probes - 2 pcs - Armoured conductivity probe with 25m cable (Heavy-Duty-Version) with 25m cable spoolTQ-S Bundle - 2 pcs TQ-AMP with 2 pcs Armoured conductivity probe with 25m cable (Heavy-Duty-Version)
DISCHARGE MEASUREMENT ***TQ-F MOBILE FLUORESCEINE TRACER***		to connect up to 4 pieces of conductivity probes
20316	***TQ-F Bundle*** (Fluorescein)	TQ-F System for discharge measurement to connect up to 4 pieces of fluorescein probes consists of: - Software TQ-Commander - Bluetooth Adapter (for USB Port at your Laptop) - calibration Set 500ml with pipette - 2 pcs - case type 126 - 2 pcs - Bluetooth Module with amplifier and battery charger for conductivity and fluorescine probes - 2 pcs - Fluorescein probe for TQ-F with protection and weighting armour, handy cable-spool and 10m cable
20317	***TQ-F Bundle*** (Rhodamine)	TQ-F System for discharge measurement to connect up to 4 pieces of Rhodamine WT probes consists of: as above

D) Radar based VELOCITY sensor RG series

RADAR BASED NON CONTACT SURFACE VELOCITY MEASUREMENT *RG-30*		
17191	***RG-30*** System for non-contact velocity measurement	System to measure flow velocity Technical specifications: - Measuring element/-principle flow velocity: Radar / Doppler shift - Measuring range flow velocity: 0,1 - 15 m/s; Resolution: 1 mm/s, minimum wave height 3mm - Field of application: -35 - + 60 °C - Interface: RS-485, SDI-12 and Modbus - Supply: 6 - 30 V DC - Power consumption: about 130 mA / per measurement - Protection type: IP 67 - Casing: LxHxW 241x246x154 Material: powder-coated aluminium Installation: bracket for pipe Ø 34 - 48 mm
17192	***RG-30a*** System for non-contact velocity measurement with additional analog output	Technical specifications: as above - Interface: RS-485, SDI-12 and Modbus plus analog output 4 – 20 mA
	SOFTWARE COMMANDER Free (included)	
20488	Software, Commander V1.0, Software; for data logger MRL-6/7, RG-30, USH-9, SSG-2	
STANDARD CABLES AND ACCESSORIES		
18711	10m Cable, for RQ-30 / RG-30, LiYCY 12x0,25mm² incl. configuration and testing	
18712	20m Cable, for RQ-30 / RG-30, LiYCY 12x0,25mm² incl. configuration and testing	
18779	RG/RQ-30 female connector unfixed	
19294	USB to RS485 Embedded Converter +USB-Stick	Required for communication with sensor using commander sioftware
20572	RQ-30 lightning protection	
20971	SOMMER Bundle Modbus - PROFIBUS Konverter for RQ/SQ/SSG/USH/IDS	
TAILOR MADE CABLES ONLY FOR CABLES ABOVE 20m LENGTH		
15833	SOMMER Cable, for RQ-30 / RG-30 / SQ, 12x0,25 mm², up to 60m, price per meter ; Lime green	
15543	configuration and testing of cable for RQ-30 / RG-30 / SQ	
	**pls note max cable length with cable 15833 is 60 m. for longer distances use cable with thicker core diameter, We recommend to use lightning protection starting from 40m.	

E) Level measurement: Radar or Ultrasonic

18008	***Level sensor, RL-15***, with housing, radar, range: 15 m, output: 4-20 mA	Non-contact radar-sensor for continuous recording the water level of open waters using a horn antenna (K-band) Technical specifications: - Measuring element/-principle: horn antenna / Radar - Measuring range: 15 m; Accuracy: ±2 mm, Blocking distance 0,5m, Beam angle 10° - Field of application: -40 - +80 °C - Output: 4 - 20 mA / HART - Supply: 9,6 - 36 V DC - Sensor Protection type: IP 68 - incl. 6m cable - Housing Powder-coated, WxHxD 153 x 325 x 200mm - Installation: bracket for pipe Ø 34 - 48 mm
18009	***Level sensor, RL-35,*** with housing, radar, range: 35 m, output: 4-20 mA	Non-contact radar-sensor for continuous recording of the water level of open waters using a horn antenna (K-band) Technical specifications: as above - Measuring range: 35 m; Accuracy: ±2 mm, Blocking distance 0,5m, Beam angle 10° - no cable incl.
NON CONTACT RADAR BASED LEVEL SENSOR ***SOMPULS*** up to 35m without housing		
20630	Level sensor, SOMPULS-8 without housing, radar, range: 8 m, output: 4-20 mA	Non-contact radar-sensor for continuous recording the water level of open waters using a horn antenna Technical specifications: - Measuring element/-principle: horn antenna / Radar - Measuring range: 8 m; Accuracy: ±5 mm - Field of application: -40 - +80 °C - Output: 4 - 20 mA / HART - Supply: 11 - 36 V DC - Protection type: IP 68 - incl. 12m cable - Mount: G1½
17216	Level sensor, ***SOMPULS-15*** without housing, radar, range: 15 m, output: 4-20 mA	Non-contact radar-sensor for continuous recording the water level of open waters using a horn antenna (K-band) Technical specifications: as above - Measuring range: 15 m; Accuracy: ±2 mm - incl. 6m cable
10354	Level sensor, ***SOMPULS-35*** without housing, radar, range: 35 m, output: 4-20 mA	Non-contact radar-sensor for continuous recording the water level of open waters using a horn antenna (K-band) Technical specifications: - Measuring element/-principle: horn antenna / Radar - Measuring range: 35 m; Accuracy: ±2 mm - Field of application: -40 - +80 °C - Output: 4 - 20 mA / HART - Supply: 9,6 - 36 V DC - Protection type: IP 66 / 67
NON CONTACT RADAR BASED LEVEL SENSOR ***SOMPULS*** above 35m without housing		
20645	Level sensor, SOMPULS-75 without housing, radar, range: 75 m, output: 4-20 mA	Non-contact radar-sensor for continuous recording the water level of open waters using a horn antenna Technical specifications: - Measuring element/-principle: horn antenna / Radar - Measuring range: 75m; Accuracy: ±5 mm - Field of application: -40 - +80 °C - Output: 4 - 20 mA / HART - Supply: 12 - 36 V DC - Protection type: IP66/IP67 - Cable Mount: M20x1,5 (ø5-9mm) - Mount: 300mm / 316L - no cable incl.
20643	Level sensor, ***SOMPULS-120*** without housing, radar, range: 120 m, output: 4-20 mA	Non-contact radar-sensor for continuous recording the water level of open waters using a horn antenna Technical specifications: as abovbe - Measuring range: 120m; Accuracy: ±5 mm
20648	Level sensor, ***SOMPULS-120*** without housing, **ATEX**, radar, range: 120 m, output: 4-20 mA	Non-contact radar-sensor for continuous recording the water level of open waters using a horn antenna Technical specifications: as above - ATEX II 1G, 1/2G, 2G Ex ia IIC T6 -- Measuring range: 120m; Accuracy: ±5 mm
NON CONTACT ULTRASONIC LEVEL		NON CONTACT ULTRASONIC LEVEL MEASUREMENT UL
21069	***USH-9*** Standard Bundle with 10m cable	Non-contact ultrasonic sensor for measurment of water level with integrated temperature compensation Technical specifications: - Measuring element/-principle: ultrasonic - Measuring range: 0 - 10 m; accuracy: 0.1 %FS, max. +/-1cm - Dimensions (D x H): 180mm x 320mm; opening angle: 12° - Operating temperature : -40 - +60 °C - Output: SDI-12, RS-485 (ASCII, MODBUS RTU), 4 - 20 mA (configurable, snow and temperature) - Air-temp measurement: -40 - +60 °C; accuracy: 0,3°C; resolution: 0,01°C - Supply: 9 - 27 VDC - Power consumption: typ. 40mA (max peak 300mA for 0,05s) - Power consumption@ 12VDC: sleep <0,4mA - Protection type: housing: IP 66, ultrasonic head: IP 68 - 3 years warranty on the utrasonic membrane - incl. sensor mount for pipe 32-60mm - incl. 10m cable - incl. USB- RS-485 cable

Data logger MRL7 series

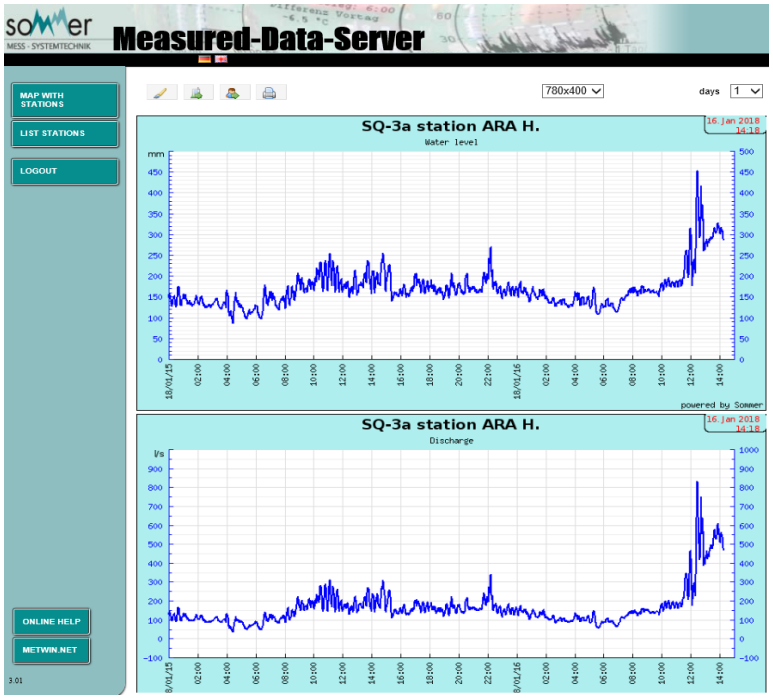
Data loggers	MRL7 series	
20054	MRL-7 - data logger with remote data transmission (modem integrated) 	Input: - 4 x analogue 0 ... 2,5 V (thereof 1 x PT-100 4-wire connection, 1 x NTC, 1 x 0 ... 0,3 V) - 3 x counter - 1 x frequency input for wind speed and wind gust - 1 x potentimeter input for wind direction - 1 x RS 485 (various ASCII protocols) - 1 x SDI-12 (Vers. 1.3) Supply: - battery external: max. 12 V, 50 Ah (not included) - external power supply: 6 ... 30 V - integrated solar charge controller for solar panel, max. 40 W Interface: - 1 x communication interface: RS 232; 9,6 ... 115 kBd - 1 x USB host (only for readout of data on USB flash drive) - 1 x Bluetooth additional: - up to 99 channels - illuminated display
20840	MRL-7O - data logger without remote data transmission	as above without modem
20056	MRL-7B - data logger with internal battery	with additional Supply: - battery: gel battery, 12 V, 4 Ah (not build-in, but included) - external power supply: 6 ... 30 V - integrated solar charge controller for solar panel, max. 40 W
20055	MRL-7B - data logger with integrated telemetry with 2G / 3G and GPS	as above with GPS: - Frequency range: 1575.42MHz (GPS L1 band) - Bandwidth +/- 1.023MHz - The Module contains an integrated LNA and pre-select SAW filter. This allows the module to work well with a passive GPS antenna
20057	MRL-7B data logger with integrated telemetry with 2G / 3G and internal 44Ah battery with GPS	Supply: - battery: gel battery, 12 V, 4 Ah (not build-in, but included) - external power supply: 6 ... 30 V - integrated solar charge controller for solar panel, max. 40 W GPS: - Frequency range: 1575.42MHz (GPS L1 band) - Bandwidth +/- 1.023MHz - The Module contains an integrated LNA and pre-select SAW filter. This allows the module to work well with a passive GPS antenna
20992	MRL-7 data logger with integrated telemetry with 4G (Europe Version)	GPS: - Frequency range: 1575.42MHz (GPS L1 band) - Bandwidth +/- 1.023MHz - The Module contains an integrated LNA and pre-select SAW filter. This allows the module to work well with a passive GPS antenna
20061	MRL-7 data logger with integrated telemetry with 4G NA (North America version)	additional: - 4G modem spez. for US and Canada
	ACCESSORIES AND STANDARD CABLES	
20595	MRL-7 RS-485 WDR Camera 1.0mp (4mm lense)	
20181	Readout cable for MRL and PD-x	
21118	Antenna for MRL-7 and DCM-3; Screw-on antenna with 2.5m cable for 2G / 3G / 4G / Bluetooth / WiFi 2.4 / with SMA / M connection	

Switch cabinet and power supply

	COMPLETE SWITCH CABINET	
20765	Switch cabinet with data logger for RQ-30 /SQ ; 600x400 NIRO ; max. 72Ah	- MRL-6 data logger incl. data readout cable with integrated RS-232 to USB converter - prepared for solarpanel with integrated 8A solar charger - preconfigured for RQ-30, SQ or RL through RS-485 interface - stainless steel switch cabinet 600x400 with mounting brackets for 60 mm pipe - No Battery included
20766	Switch cabinet with data logger for RQ-30 / SQ ; 380x380 NIRO ; max. 28Ah	as above
20250	Switch cabinet with data logger and telemetry for RQ-30 / SQ ; 380x380 NIRO ; max. 28Ah	- MRL-7 data logger incl. data readout cable with integrated RS-232 to USB converter - 3G Modem incl. planar antenna - prepared for solarpanel with internal solar charger - preconfigured for RQ-30 through RS-485 interface - stainless steel switch cabinet 380x380 with mounting brackets for 60 mm pipe - No Battery included
20703	Switch cabinet with data logger and telemetry for RQ-30 /SQ ; 600x400 NIRO ; max. 72Ah	- MRL-7 data logger incl. data readout cable with integrated RS-232 to USB converter - 3G Modem incl. planar antenna - prepared for solarpanel with integrated solar charger up to max. 80W / 72Ah - preconfigured for RQ-30 or SQ through RS-485 interface - stainless steel switch cabinet 600x400 with mounting brackets for 60 mm pipe - No Battery included
	POWER SUPPLY	
20710	Power supply 20W / 28Ah (solar with battery), with mounting for Ø=60mm; for ART: 20250 & 20703	- 20W Solar panel - 28Ah Battery - 5m cable - Solar panel reenforcement - Mounting for DM 60mm
20704	Power supply 50W / 28Ah (solar with battery), 50W / 28Ah with mounting for Ø=60mm; for ART: 20250 & 20703	- 50W Solar panel - 5m cable - Mounting for DM 60mm - Solar panel reenforcement - 28Ah Battery
20705	Power supply (solar with battery), 80W / 72Ah with mounting for Ø=60mm; for ART: 20703	- 80W Solar panel - solar charger 8A - 5m cable - Mounting for DM 60mm - Solar panel reenforcement - 72Ah Battery
20767	Power supply (with battery option), 110-240V for ART: 20250 & 20703	- residual current breaker - Schuko socket - Fuse

data hosting

Measured Data Service MDS:



Online Measurement Network

The measured data from any measuring station or site is transferred to a web server via internet.
The server stores the data and makes it available for further processing and downloading.

Possible data output:

- RS-485/SDI-12
- ☐ Water Level
- ☐ Velocity
- ☐ Quality (SNR)
- ☐ Discharge
- ☐ Daily discharge
- ☐ Total discharge
- ☐ Learned velocity
- ☐ Learned discharge
- ☐ Opposite direction
- ☐ Supply Voltage
- ☐ CSQ Modem Quality

21214 Online Dataservice for 1 year per station

20364 Online Data service for 3 years per station

>> Your Demo Login

Mds.sommer.at
Username: demo
Password: sommer