




Communication to the 5th

Integration of the Thermal Mass Flow Meters and Controllers of the red-y smart series

	Analog operation		Digital operation		Software tools		
	analog		MODBUSRTU				
	Analog signals		Modbus RTU	Profibus DP-V0/DP-V1		get red-y 5 software	LabVIEW VIs
	The devices of the <i>red-y smart series</i> offer the opportunity to read the measurement via the analog interface and specify a set value.		The <i>Modbus RTU</i> protocol facilitates a communication based on the Master/ Slave principle and is widespread in measurement and control technology. As an open protocol it is the de-facto standard in the industry.	With over 40 million installed units at the end of 2011, <i>Profibus</i> is the most successful fieldbus in the world. The devices of the red-y smart series are certified for the protocol variants <i>Profibus DP-V0</i> und <i>DP-V1</i> .		The free software <i>get red-y</i> offers efficient device management for devices of the <i>red-y smart series</i> . Besides displaying key information from devices, users can also view and modify various operating parameters.	<i>LabVIEW</i> from National Instruments offers engineers and scientists a rapid and cost-effective possibility for connecting measurement and control hardware. The <i>virtual instruments</i> (VI) allow easy read and write access to the devices of the <i>red-y smart series</i> .
Specifications	<ul style="list-style-type: none"> » Analog signals (input): 0..20 mA, 4..20 mA, 0..5 V, 1..5 V, 0..10 V, 2..10 V » Analog signals (output): 0..20 mA, 4..20 mA, 0..5 V, 1..5 V, 0..10 V, 2..10 V » Switch analog signals via <i>get red-y</i> software 		<ul style="list-style-type: none"> » Power supply 24 Vdc (18 – 30 Vdc), 15 Vdc on request » Addressing and configuration via <i>get red-y</i> software 	<ul style="list-style-type: none"> » Transmission speed max. 12 MBaud » Max. buslength: 1200m at 9,6 kBaud 1000m at 187 kBaud 100m at 12 MBaud » Galvanic isolation 1000V » Selectable device parameters: Flow, setpoint, etc. (30 parameter) 		<ul style="list-style-type: none"> » Display all key device information, e.g. reading, temperature, total, etc.. » Specify a setpoint for flow and pressure controllers » Adjust the control speed » Runs under Windows XP, Vista, 7, 8 & 10 » Plug & play with USB cable (PDM-U) » Download the free <i>get red-y</i> software at www.voegtlin.com 	<ul style="list-style-type: none"> » Required software: <ul style="list-style-type: none"> – LabView 8.6 or higher – NI-VISA driver – NI-Serial driver » Download the <i>LABVIEW VIs</i> software at www.voegtlin.com
Protocol	–		Modbus RTU	Profibus (optional connector)		Modbus RTU	Modbus RTU, Profibus / analog signals
HW interface	Analog		RS-485	RS-485		–	–
Device plug	Sub D 9 pole (male)		Sub D 9 pole (male)	Sub D 9 pole (female)		–	–
Accessories	PAC (Art.-N° 328-2164) For use with analog setpoint and reading signals		PDC (Art.-N° 328-2165) For digital operation of meter/controller	–		PDM-U (Art.-N° 328-2180) Communication cable USB/RS-485 PSD Plug-type power supply 24Vdc	PDM-U (Art.-N° 328-2180) Communication cable USB/RS-485 PSD Plug-type power supply 24Vdc
			For more cables and power supplies see datasheet < cable accessories for <i>red-y smart series</i> >		For more cables and power supplies see datasheet < cable accessories for <i>red-y smart series</i> >		
Information	Operating instructions <i>red-y smart series</i> part I		www.modbus.org Operating instructions <i>red-y smart series</i> part II	www.profibus.com Operating instructions <i>red-y smart series</i> part II		Data sheet <i>get red-y</i> software Operating instructions <i>get red-y</i> software	www.ni.com Operating instructions <i>LabVIEW</i>

