





## SPECIFICATION DATASHEET

MEDIA		Single phase liquid with <5% solid content, <2% gas content and max. Viscosity up to 100 cSt				
APPLICATIONS						
DESCRIPTIONS		CONTROL ELEMENT		MEASUREMENT SENSOR ELEMENTS		
ELEMENT NAME		Valve		Flow	Pressure	Temperature
TECHNOLOGY		Flow control		Double acoustic reflection path	Thin film technology	Thin film technology
MEASURED & CALCULATED PARAMETERS		% Opening at real time dynamic flowrate conditions		Flow velocity	Inlet pressure	Temperature
		Cavitation and Flashing	Volumetric flowrate	Outlet pressure		
		Cv/Kv		Pressure drop		
		Total Weight = approx. 90 kg				
TECHNICAL PARAMETERS	Controllability	Confirmed only after detailed analysis of application & sizing results	Measurement accuracy	Uncertainty, typically better than 0,5% of setpoint value and stability better than +0,2%.		
	Max flow velocity	Typically up to 7m/s	Pressure measurement range	N/A	0 to 40 bar g	N/A
	Rangeability	30:1	Burst pressure	N/A	80 bar g	N/A
	Face to Face	As per ISA 75.08	Temperature measurement range	N/A	N/A	-40 up to 180 °C
MATERIAL OF CONSTRUCTION	Body / Bonnet	1.4408 /ASTM A351 Gr.CF8M	Body	AISI 316L	N/A	
	Stem	1.4404 / 316L	Process Connection	1.4404 /316L	1.4404 /316L	
	Plug	1.4404 / 316L (Stellite face opt)	Housing	N/A	1.4404 /316L	
	Seat	1.4404 / 316L (Stellite face opt)	Sensor Diaphragm	N/A	1.4548 /17-4PH	
	Packing / Gasket	Standard V Ring - PTFE with Carbon / Graphite on metal core	O-Ring	N/A	Silicone	
DEVICE PARAMETERS	Seat leakage	ANSI Class IV& ANSI Class V	DEVICE PARAMETERS	Electrical connection	Spring clamp connections according to VDE 0100	
	Size	3" or DN 80 3" or DN 80 / 1 (1 stage reduction) 3" or DN 80 / 2 (2 stage reduction)				
	Pressure class	ANSI 150 # / 300# PN 16/40		Air Filter Regulator	Manufacturer Standard	
	End connection	Flanged connections according ANSI B16,5 or DIN 1092-1B1		Pneumatic conn.	1/2" NPT	
				Air supply min/max	3.8 Barg/6 Barg	
	Trim type	Standard V - Port plug, with Metal seal		Power supply	85-250 VAC or 18-32 VDC	
	Flow characteristics	Linear / Eq%		Power Consumption	15 Watts	
		Cable entry	M20X1.5			

FOCUS-1 DEVICE PARAMETERS			PRE-REQUISITES FOR INSTALLATION		
Design pressure	40 bar g		Inlet run	Min. 4 DN (Straight inlet)	
Design temperature Min. / Max.	-40 °C up to 180 °C		Outlet run	0 DN (Straight outlet)	
Ambient conditions Min. / Max.	-20 °C up to 55°C		Face to Face Dimension	3" inch ANSI 150 : 298mm 3" Inch ANSI 300 : 318mm  DN 80 PN 16 : 310 mm DN 80 PN 40 : 310 mm	
DEVICE MANAGEMENT & VALUE-ADDED FEATURES			APPROVALS & CERTIFICATES		
General	All in- and outputs are galvanically separated from main power supply and each other. Through a browser user interface all operating settings can be reviewed and adjusted		NAMUR	NE21, 43, 53, 80,107	
Input & Output	4-20 mA HART <sup>®</sup> Input                      4-20 mA Output				
Control philosophy	Flow Optimized Control Using Sensors		Low Voltage Directive	Over-voltage category	II
Digital Twin Technology	Redundancy feature based on correlation of dynamic process parameters			Material group (CTI: 175...250)	III
Diagnostics	Product & Process Monitoring & Alarming			Pollution deg.	3
				Humidity	30%-100%
Altitude	2000m				
Remote operations	Wi-Fi and wired connection with access control & dual password protection to the internal web server for full functionality & configuration		Hazardous Area Classification	For use in non- hazardous areas	
Remote access & control	Hardware security authorization via single button on device further granting remote access for configuration & verification				
Single button control & Bluetooth	Single button for easy and secure installation & maintenance access via smartphone, tablet or laptop		Ingress Protection (IP) as per IEC 529/EN60529	IP66	
WiFi/Ethernet	Either Wi-Fi or 4 wire ethernet can be used for remote access and configuration				
Communication protocols	4-20mA, HART		Shock Resistance	IEC 65-2-2730g for 18ms	
Health status communication	Communication via LED Ring in colors as per NAMUR NE107 & NE43 standards and via HART				
Languages	English, German, French		Vibration Resistance	IEC 68-2-6; 0,5g 1800Hz up to 1800 Hz IEC 60721; 15g	
On board data storage	Timestamped log of process & diagnostic data with 32 GB capacity sufficient for 18 months of data storage				
Webserver	Integrated for installation & service		IT Security	According to IEC 62443	