We measure it. testo

Compressed air counter DN 15-50

testo 6441-6444

Measurement of norm volume flow in the measuring range 0.25 to 700 m^3/h (DN15 to DN50 or ½''-2''); consumption quantity in m^3; media temperature in °C

Highest flexibility thanks to different signal outputs:
- Analog output 4 to 20 mA (4-wire)
- Pulse output
- 2 switch outputs (parameterizable: consumption or volume flow-dependent, opener, closer, hysteresis, window)

Built-in totalizer, even without additional analysis unit

Operating menu with LED display

m^3/h; l/min; m^3

°C

The compressed air counters testo 6441 to testo 6444 are designed for the measurement, monitoring and recording of compressed air consumption, and therefore also for the determination of leakages in compressed air systems, consumption-based allocation of costs and the implementation of peak load management. Using the compressed air counters testo 6441 to testo 6444, transparency of consumption is created for compressed air, similarly as for the media current, water or gas, thus increasing the motivation of those responsible for the process regarding cost reduction measures and energy savings. The compressed air counters testo 6441 to testo 6444 record norm volume flow according to the calorimetric principle, which means the measurement procedure is independent of the process pressure and does not cause a permanent pressure drop. While the thermal, glass-coated ceramic sensor offers a high level of robustness and fast response times, the integrated inflow and outflow pipes ensure optimum accuracy.

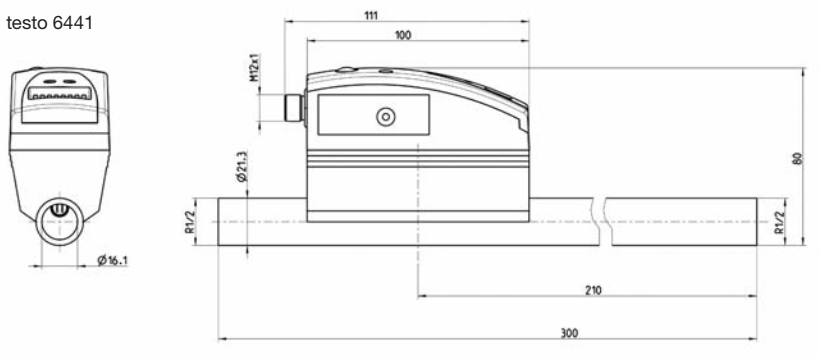
Technical data

	testo 6441	testo 6442	testo 6443	testo 6444
Measurement parameters				
(Norm) volume flow				
Selectable units	m^3/h; l/min; m^3			
Measuring range (1:300)[1]	0.25 to 75 m^3/h	0.75 to 225 m^3/h	1.3 to 410 m^3/h	2.3 to 700 m^3/h
Accuracy (norm volume flow)	For compressed air quality classes (ISO 8573: particles-humidity-oil) 1-4-1: ±3 % of meas. value ±0.3 % of final value For compressed air quality classes (ISO 8573: particles-humidity-oil) 3-4-4: ±6 % of meas. value ±0,6 % of final value			
Sensor	Thermal, glass-coated ceramic sensor (calorimetric measurement procedure)			
Response time	‹0.1 sec (for damping parameter = 0), delayable via operating menu (0 to 1 sec)			
Temperature				
Unit	°C			
Measuring range	0 to +60 °C / 32 °F to +140 °F			
Inputs and outputs				
Analog outputs				
Output type	4 to 20 mA (4-wire) freely scalable between zero and measuring range end			
Load	max. 500 Ω			
Further outputs				
Pulse output	Consumption quantity counter (value remains available after reset or power cut due to non-volatile memory), value 1 or 10 m^3, pulse length 0.02 s to 2 s, 24 VDC level			
Switch output	2 switch outputs, parameterizable (consumption or volume flow-dependent, opener, closer, hysteresis, window), loadable with max. 20 to 30 VDC or 250 mA each, switch status is displayed via 2 LEDs			
Supply				
Voltage supply	19 to 30 V DC			
Current consumption	‹100 mA			
Connection	M12 x 1 plug, loadable up to 250 mA, short-circuit-proof (synchronized), reverse-polarity-proof, overload-proof			
General technical data				
Design				
Material housing	PBT (GF 20%), diecast zinc, silica-free			
Long measurement stretch	300 mm	475 mm		
Pipe diameter	DN 15 (for 1/2“ pipes)	DN 25 (for 1“ pipes)	DN 40 (for 1 1/2“ pipes)	DN 50 (for 2“ pipes)
Weight	0.9 kg	1.1 kg	3.0 kg	3.8 kg
Display				
Material	4-figure alphanumerical display, two operating buttons, operating menu, LED (4 x green for phys. units, 3 x yellow for display x 1,000 or switch status)			
Max. display value norm volume flow	90 m^3/h	270 m^3/h	492 m^3/h	840 m^3/h
Temperature display	0 to +60 °C, measurement error ±2 K, (+32 to +140 °F)			
Operation				
Parameterization	2 operating buttons			
Installation				
Measurement stretch: thread (both sides) / material	R 1/2, outer thread Stainless steel 1.4301	R1, outer thread Stainless steel 1.4301	R1 1/2, outer thread Stainless steel 1.4401	R2, outer thread Stainless steel 1.4401
Miscellaneous				
Protection class	IP 65/III			
EMC	according to guideline 89/336 EEC			
Media contact	Materials stainless or galvanized steel, PEEK, polyester, Viton, anodized aluminium ceramic			
Operating conditions				
Humidity (sensor)	re. humidity ‹90 %RH			
Operating temperature (housing)	0 to +60 °C (+32 to +140 °F)			
Storage temperature	-25 to +85 °C (-13 to +185 °F)			
Measurement medium	Compressed air, on request also CO_2 or N_2			
Process pressure	PN 16 (max 16bar/232psi)			
Air quality	ISO 8573: recommended classes 1-4-1			

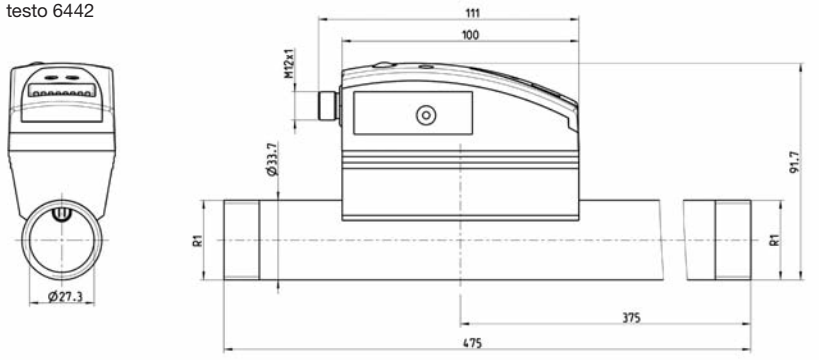
[1] Specifications according to DIN 2533 (+15 °C, 1013.25 hPa, 0 %RH)

Technical drawings

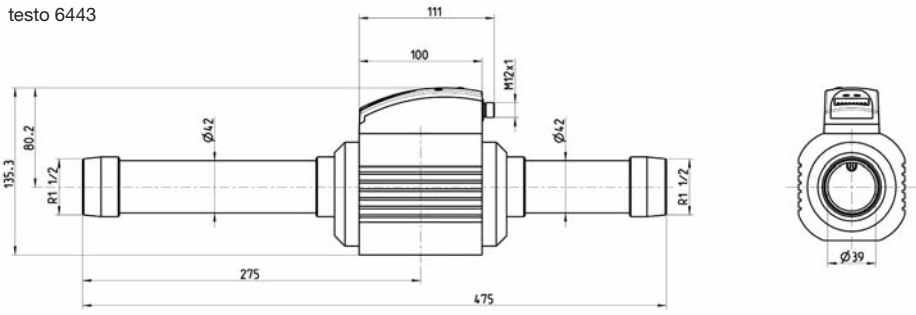
testo 6441



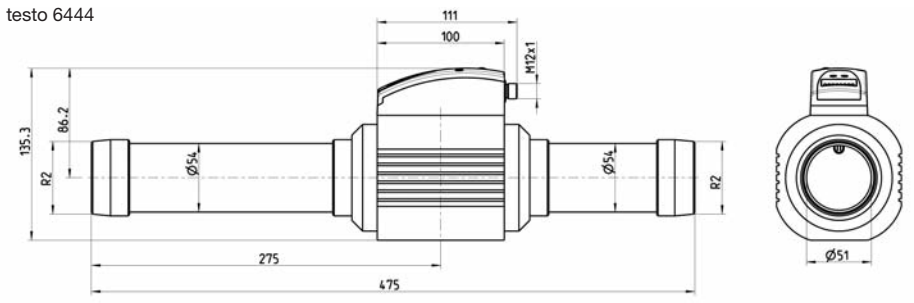
testo 6442



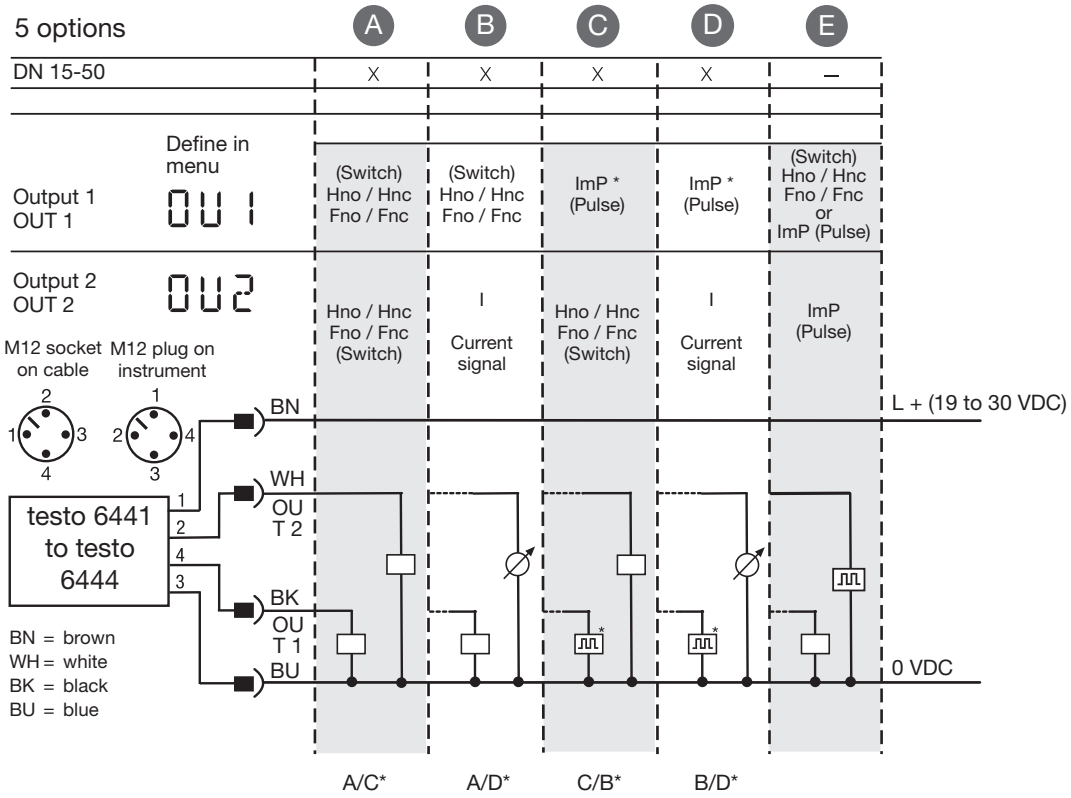
testo 6443



testo 6444



Options / Ordering example



* If menu selection ImPR = Yes -> Pulse output
If menu selection ImPR = No -> Switch output (pre-selection counter)

Terminal allocation		Wire colours for cable 0699 3393
1	Supply connection 19 to 30 VDC (+)	brown
2	OUT 2 (analog output (4 to 20 mA) or switch output	white
3	Supply connection 0 V (-)	blue
4	OUT 1 (pulse output or switch output)	black

Order data testo 6441 to testo 6444	Part no.
testo 6441 compressed air counter with integrated inflow/outflow, diameter DN15 (1/2), with analog, pulse and switch output *	0555 6441
testo 6442 compressed air counter with integrated inflow/outflow, diameter DN25 (1), with analog, pulse and switch output *	0555 6442
testo 6443 compressed air counter with integrated inflow/outflow, diameter DN40 (1 1/2), with analog, pulse and switch output *	0555 6443
testo 6444 compressed air counter with integrated inflow/outflow, diameter DN50 (2), with analog, pulse and switch output *	0555 6444

* a connection cable, e.g. part no. 0699 3393, is required for operation

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