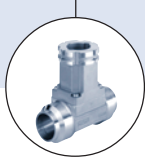
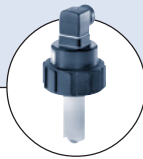
Type 8024
CompactType 8024
Panel-mounted

Type 8024 can be combined with...



Type S020

Insertion Fitting



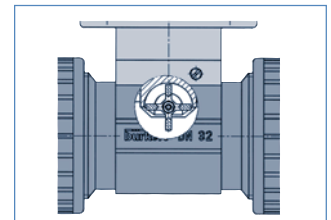
Type 8020

Flow Sensor

- Economic integration in pipe systems without any additional piping
- Adjustable flow range with standard scales for high flexibility
- Compact version or remote version
- 1.5 V battery version or power supply 12–30 VDC (for panel version only)
- Fitting available for plastic, brass and stainless steel

The paddle-wheel flow rate indicator 8024 for continuous flow measurement is specially designed for use in neutral and slightly aggressive, solid free liquids. The device is available in three models: compact, panel or wall mount version. The measuring principle is based on a local velocity measurement. When liquid flows through the pipe, the paddle-wheel is set in rotation producing a measuring frequency in

the coil or hall transducer, which is proportional to the flow. The flow rate indicator can measure a flow rate as from 1.0 ft/s (0.3 m/s) up to max. 30 ft/s (10 m/s). The speed of flow is converted into volume per time showed at the analog display, e.g. l/h, m³/h or gallons per minute (GPM). A large range of standardized scales compatible to the sizes of the ROTAMETERS is available.



Fitting-Data	
Pipe diameter	
Stainless steel	1/2"-14" (DN 15 up to DN 350)
Brass	1/2"-2" (DN 15 up to DN 50)
PVC, PP, PVDF	1/2"-16" (DN 6 up to DN 400)
Measuring range	1.0 f/s-32.8 f/s (0.3 m/s to 10 m/s)
Fitting	Type S020 Insertion - Stainless steel Brass, PVC, PVDF, PP (see corresp. data sheet)

Medium data	
Medium temperature (max.)	
Stainless steel, brass, PVDF	212°F (100°C)
PVC	122°F (50°C)
PP	179°F (80°C)
Fluid pressure (max.)	140 PSI (PN10) (with plastic fitting) 230 PSI (PN16) (with metal fitting)
Fluid	
solide particles rate	max. 1%
Viscosity	max. 300 cSt.

Electronic module data	
Accuracy	± 10% of reading (1.0-6.6 f/s)* ± 4% of reading (6.6-32.8 f/s)*
Repeatability	± 1% of reading*

Electronic module data (continued)	
Voltage supply	
Compact, wall version	2 batteries 1.5 VDC
Panel version	12-30 VDC (external power supply)
Sensor	
Compact, wall version	Coil sensor
Panel version	Hall low power sensor
Display	White background, red pointer, and black scale
Materials	
Electronic Housing	PC
Seal	FKM/ EPDM
Axis and bearing	Ceramic
Sensor and paddle-wheel	PVDF
General data	
Ambient temperature	32 to 140°F (0 to 60°C)
Remote sensor connection cable	
Cross-section	max. 1.5 mm ²
Recommendend length	
Wall version	Coil sensor: Max. 33 ft
Panel version	Hall sensor: Max. 165 ft
Protection class	IP65

* Under reference conditions, i.e. measuring fluid is water, ambient temperature and water temperature are of 20°C, the minimum inlet and outlet pipe lengths are applied and the dimensions of the pipes are matching.

Design

The compact flow indicator 8024 combines a flow sensor and an electronic module with an analogue display in a IP65 enclosure. The sensor part consist of an insertion coil transducer and an open-cell paddle-wheel. The electronics converts the measured signal and displays the actual flow rate. This version is supplied by two 1.5 V battery.

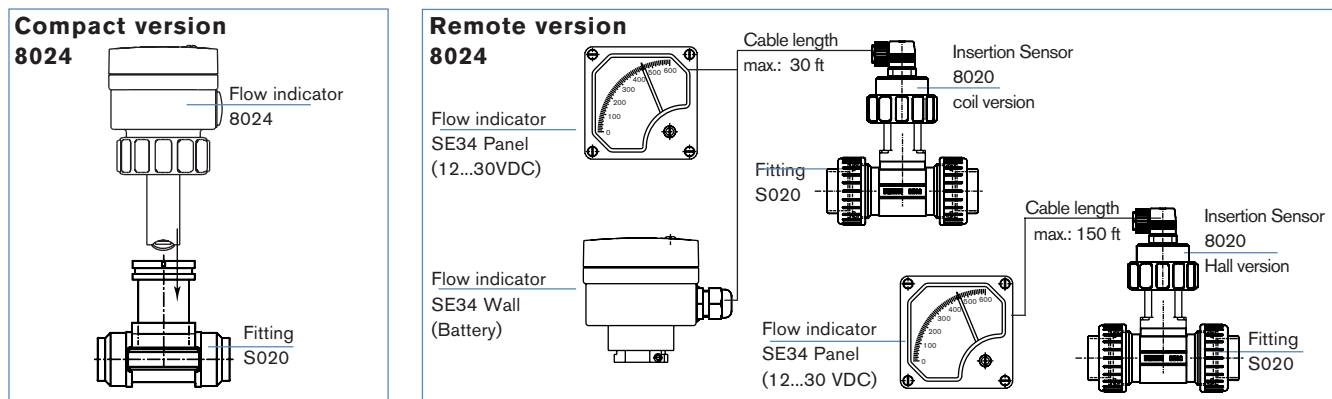
The panel version consists of an electronic module SE34 integrated in a front-cover. The associated separate flow sensor is a 8020 with coil or hall transducer. This version is supplied by an external 12-30 VDC power supply.

The wall-mount version consist of an electronic module SE34 in a IP65 enclosure. The associated flow sensor is a 8020 with coil transducer. This version is supplied by two 1.5 V battery.

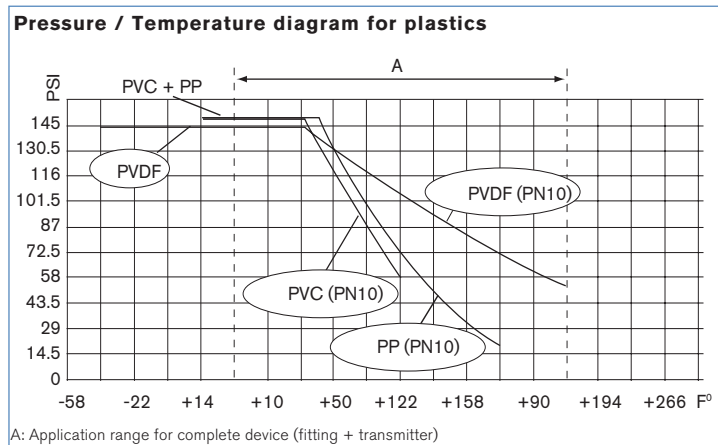
The above described remote version allows a maximum shielded cable length between displays electronics and sensor as follow:

- 30 feet for battery version
- 150 feet for 12-30 VDC-version with mounted Hall sensor version

Burkert designed fitting ensures simple installation of the sensor into pipes from 1/2" to 16" (DN 15 to DN 400).



Diagrams



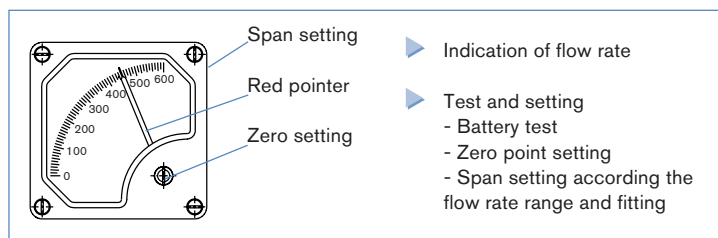
Installation

The 8024 flow rate indicator can easily be installed into any Burkert insertion fitting system (S020) by just fixing the main nut. The minimum straight upstream (10xDN) and downstream (3xDN) distances must be observed. According to pipe's design, necessary distances can be bigger.

The flow rate indicator can be installed in either horizontal or vertical pipes. The suitable pipe size is selected using diagram Flow/Velocity/DN. Pressure and temperature ratings must be respected according to the selected fitting material.

The flow sensor is not designed for gas flow measurement.

Operation and display



Operation / Commissioning

The electronic module is factory calibrated according to the flow range (scale, unit) and the used fitting type (DN, K-factor).

Ordering chart – Make your Own Analog flow indicator 8024

Compact flow indicator Type 8024

A compact flow indicator Type 8024 consists of:

- 1– Insertion flow indicator 8024 with standard scale according to the required max. flow rate
- 2– Insertion fitting S020 1/2" – 16" (DN 6 – DN 400) (Refer to corresponding data sheet)

Housing SE34/8024 for compact and remote Type 8024

Description	Compact coil, short 2 x 1.5 VDC	Compact Coil, long 2 x 1.5 VDC	Remote Wall 2 x 1.5 VDC	Remote Panel 12...30VDC
Flow indicator 8024/SE34, FKM seal, no scale	551 703 B	551 704 C	551 701 H	551 702 A

Available units

(included in housing

SE34/8024)

GPM	l/h	m ³ /h
x 0.1	x 0.1	x 0.1
GPM	l/h	m ³ /h
x 10	x 10	x 10
	l/h	%
	x 100	
DN		
0 -	K :	
DN		
0 -	K :	

Scale for compact or remote Type 8024

Scale	Item no.
0–50	551 689 D
0–100	551 690 A
0–160	551 693 Z
0–250	551 692 Y
0–400	551 694 S
0–600	551 688 C



The selected unit has to be stuck on the scale.

Insertion flow sensor Type 8020 for 8024 remote version (Panel or Wall)

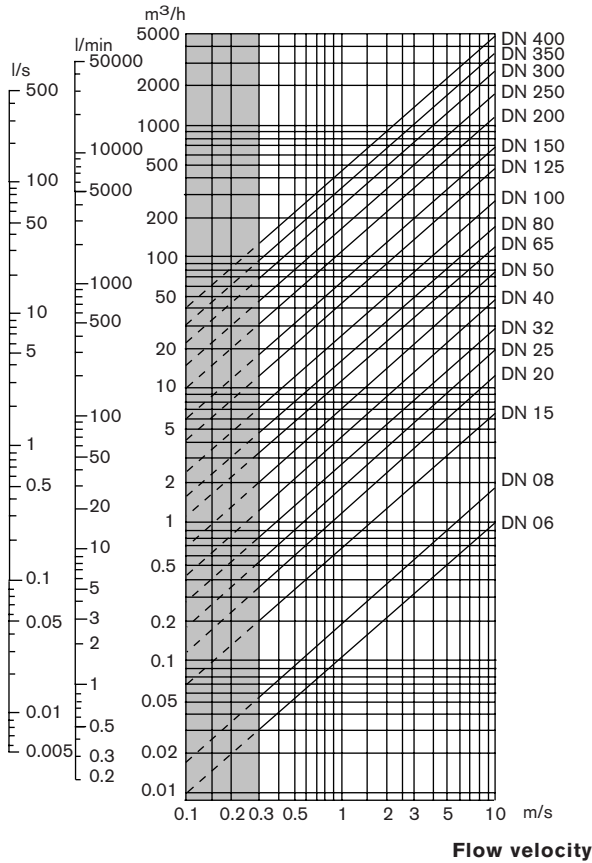
Description	Power supply	Cable connector	Item no.	
			Short sensor	Long Sensor
Insertion flow sensor 8020 with coil sensor	None	DIN 43650	419 583 P	419 585 R
Insertion flow sensor 8020 with Hall low power sensor	from SE34	DIN 43650	419 591 P	419 593 R

- Note:**
- 1) Insertion flow indicator 8024, remote electronic module SE34, Insertion flow sensor 8020 and fitting S020 have to be ordered separately
 - 2) Burkert will create ONE assembly part number to insure necessary calibration

Selection of fitting / pipe size

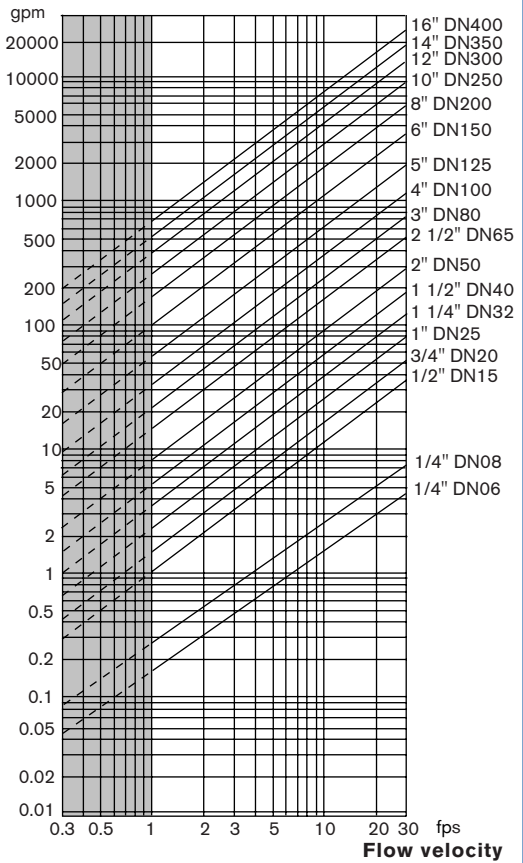
Example 1: - Specification of nominal flow: 10m³/h
 - Ideal flow velocity: 2...3 m/s
 - For these specifications, the diagram indicates a pipe size of DN 40

Flow rate



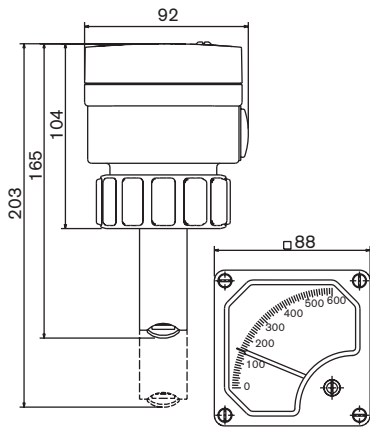
Example 2: - Specification of nominal flow: 50 gpm
 - Ideal flow velocity: 8 fps
 - For these specifications, the diagram indicates a pipe size of 1 1/2"

Flow rate

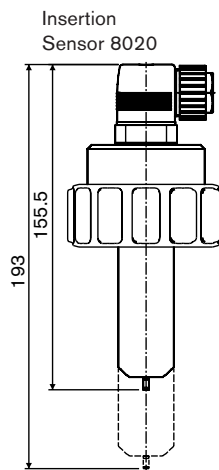


Dimensions [mm]

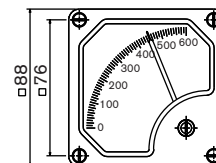
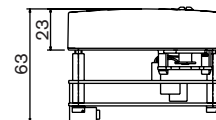
Compact version 8024



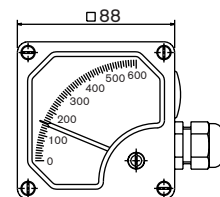
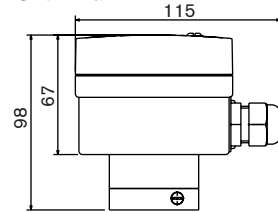
Remote version 8024



Flow indicator SE34 Panel



Flow indicator SE34 Wall



In case of special application conditions, please consult for advice.

We reserve the right to make technical changes without notice.

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