

2.1.2 FLOXACT-L

Air velocity sensor for rectangular air ducts



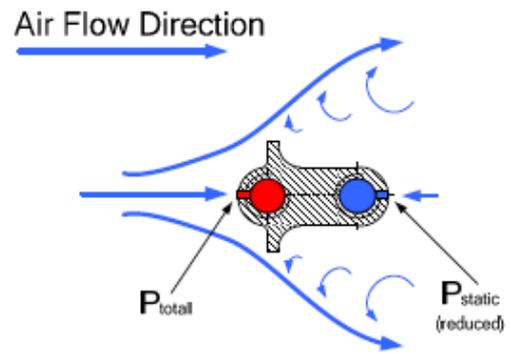
Application

The FloXact™ Stick is used for air velocity measurements in air ducts. Depending on the model, an average velocity is determined over a minimum of 2x6 measuring points. The unique shape of the measuring profile amplifies the measuring signal by at least 2.5x, enabling accurate measurements from 1.0 m/s air velocity.

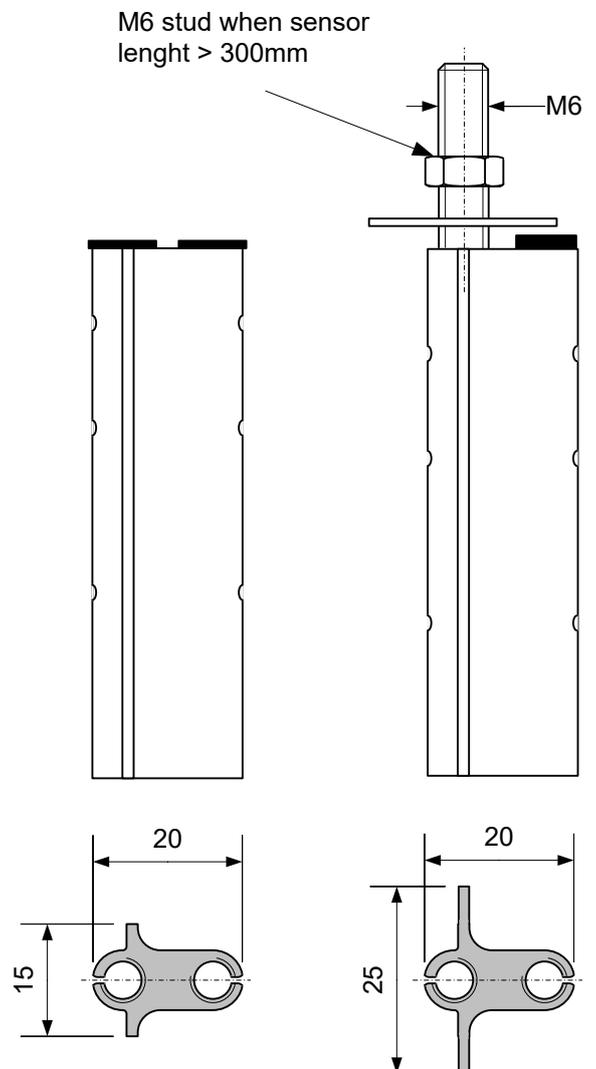
The FloXact-L is available in 27 standard sizes from 200 to 1500, but other diameters are also available on request. The FloXact-L is available in lengths up to 1500 mm.

Features

- Easy installation in existing air ducts or VAV units.
- 2% accuracy (if installed correctly, see installation instructions).
- Hole distribution according to the log-Tchebycheff method.
- Average measurement over at least 2x6 measuring points.
- Amplification of measurement signal by at least 2.5x.
- Accurate measurement from 1.0m/s air velocity. Rounded measuring openings make the FloXact™-Stick insensitive to skewed or turbulent flow up to 30° in all directions relative to the profile axis.
- Extruded aluminium measuring profile.
- Brass connection sleeves standard for hose internal diameter 4 mm. Sleeves for hose internal diameter 6 mm available on request.
- Above a length of 350 mm, the sensors are equipped with an additional M6 fastening at the tip for stable mounting in the air duct.
- Ambient temperature +5 to 95°C (non-condensing)

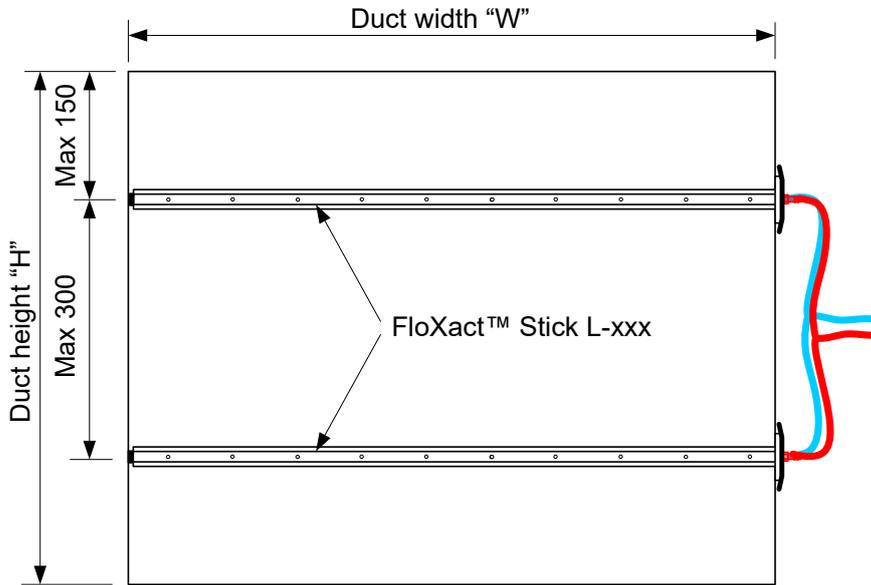


Operation of the FloXact™



Aluminium profile:
 15 mm profile length up to 200 mm
 25 mm profile length >200 mm up to 1500 mm

Installation in rectangular ducts



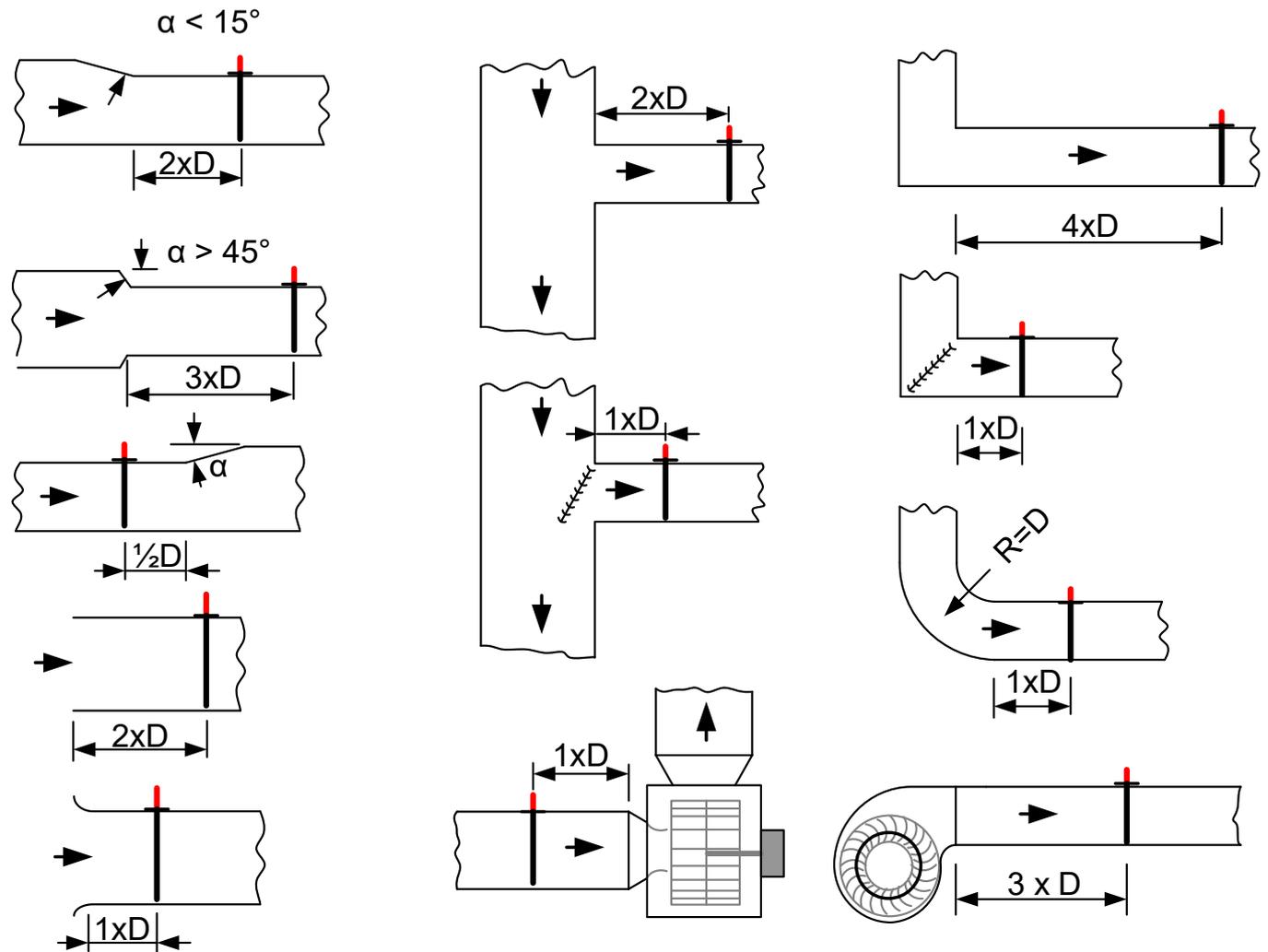
Kanaal hoogte "H"	Aantal FloXact™ Sticks	Kanaal breedte "B"													
		200	250	300	350	400	450	500	600	700	800	900	1000	1100	1200
		K _v waarde in m ³ /h/Pa													
150	1	83	104	124	145	166	186	207	249	290	332	374	414	457	497
200		119	149	179	209	239	269	298	358	418	479	536	598	655	716
250		149	186	224	261	298	336	374	446	522	598	670	745	821	896
300		169	211	253	296	338	382	421	508	590	677	760	846	929	1015
350	2	199	249	298	348	396	446	497	598	695	796	896	994	1094	1192
400		235	294	353	410	472	529	587	706	824	940	1058	1177	1296	1411
450		265	332	396	464	529	598	662	796	929	1062	1192	1325	1458	1591
500		302	378	454	529	605	680	752	904	1055	1206	1357	1508	1660	1811
600		364	457	547	637	731	821	911	1094	1274	1458	1642	1822	2005	2189
700	3	414	518	623	724	828	932	1037	1242	1451	1656	1865	2070	2279	2488
800		479	601	720	842	961	1080	1202	1440	1681	1922	2164	2401	2642	2884
900		547	684	821	958	1094	1231	1368	1642	1915	2189	2462	2736	3010	3280
1000	4	598	745	896	1044	1192	1343	1490	1789	2088	2387	2686	2984	3280	3578
1100		662	828	994	1159	1325	1490	1656	1987	2318	2653	2984	3316	3647	3978
1200		731	911	1094	1274	1458	1642	1822	2189	2552	2916	3280	3647	4010	4374

- De luchthoeveelheid kan worden berekend met onderstaande formule :
 - $Q = K_v \times \sqrt{P_{fs}}$
 - Q = luchthoeveelheid in m³/h
 - K_v = K_v waarde in m³/h/Pa
 - P_{fs} = druk gemeten door FloXact™-Stick in Pa
- Bovenstaande tabel is geldig voor een soortelijke dichtheid van 1.20 kg/m³ (20°C, 50% en 1013 mbar). De correctie voor andere soortelijke dichtheden wordt als volgt berekend:
 - $C = \sqrt{(r/1.20)}$
- Voor afwijkende afmetingen kunt u contact opnemen met de technici van Air-Concepts.

Installation instructions

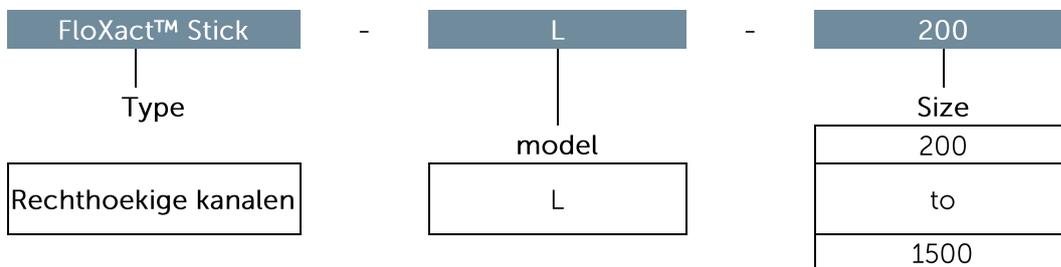
- Check that the FloXact™ Stick dimensions match the dimensions of the duct in which it will be installed.
- The FloXact™ Stick is installed by drilling a hole with a diameter of 25 mm in the duct.
- Check that the direction of air flow matches the arrow on the FloXact™ Stick.
- For round ducts, we recommend installing the FloXact™ Stick diagonally in the duct to even out both horizontal and vertical irregularities in the air flow.
- For non-standard solutions, we recommend contacting the technicians at Air-Concepts.

Minimum straight flow required for the FloXact™ Stick



Round ducts : $D = \text{duct diameter}$
 Rectangular ducts : $D = 2 \times (H \times W) / (H + W)$
 Example:
 $W = 600, H = 300$
 $D = 2 \times (600 \times 300) / (600 + 300) = 400 \text{ mm}$

Type Designation



Delivery

The FloXact™ is supplied complete with foam gasket and mounting plate with Kv value.

Air-Concepts locations

Headoffice:
AIR-CONCEPTS BV
 De Compagnie 22E
 1689 AG Hoorn
 Nederland
 +31 229 262 300
 info@air-concepts.nl
 www.air-concepts.nl

Factory:
AIR-CONCEPTS d.o.o.
 Obrtniška ulica 25
 8010 Trebnje
 Slovenie
 +386 31 34 22 79
 j.pekolj@air-concepts.nl
 www.air-concepts.nl



Sales UK:
BARCOL-AIR UK Ltd
 128, City Road
 London, EC1V 2NX
Groot-Brittannië
 +44 1225 310309
 info@barcol-air.co.uk
 www.barcol-air.co.uk

Sales Middle-East
AIR-CONCEPTS FZ-LLC
 Al Hamra Industrial
 Zone-FZ
 Ras Al Khaimah
Verenigde Arabische Emiraten
 info@air-concepts.nl
 www.air-concepts.nl