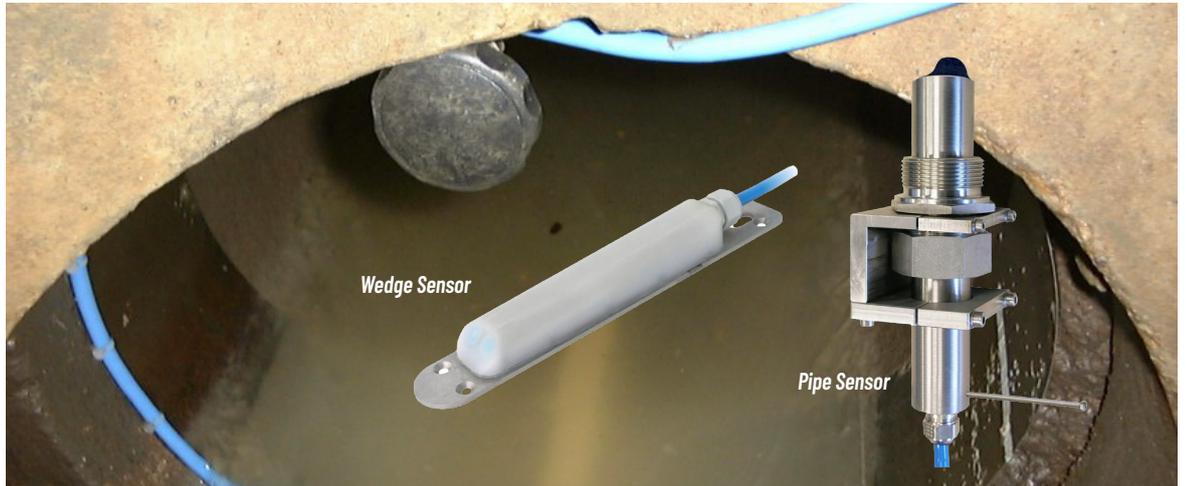




Sensors Doppler KDA

For detecting flow velocity or flow level in pipelines full/partially full and channels

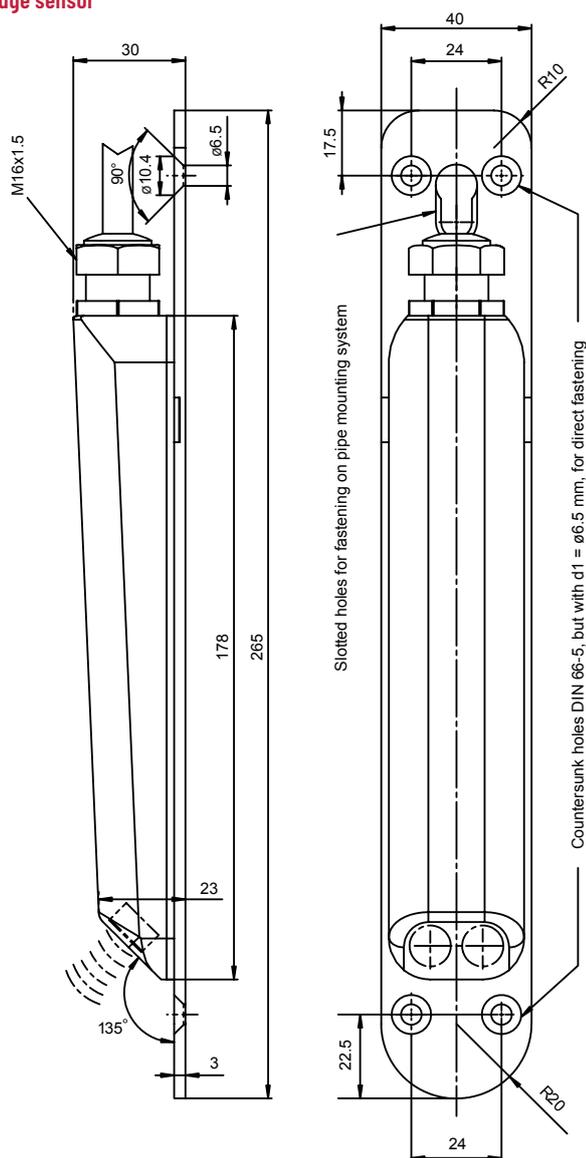


SENSORS

Measurement principle	<ul style="list-style-type: none"> Piezo-resistive pressure measurement (level measurement) Doppler (flow velocity) 																							
Measurement frequency	<ul style="list-style-type: none"> wedge sensors 1MHz pipe sensors 750 kHz 																							
Protection	IP68																							
Operation temperature	-20 °C to +50 °C																							
Storage temperature	-30 °C to +70 °C																							
Operating pressure	<ul style="list-style-type: none"> combi sensor with pressure measurement (only wedge sensor): max. 1 bar sensors without pressure measurement: max. 4 bar 	Sensor types <ul style="list-style-type: none"> flow velocity sensor with v measurement using Doppler principle and temperature measurement to compensate temperature effects on velocity of sound combi sensor (only wedge sensor) with flow velocity sensor using Doppler principle; level measurement via pressure and temperature measurement to compensate temperature effects on velocity of sound 																						
Cable length	10/15/20/30/50/100 m pre-configured, extendable to max. 250 m; if using sensors with integrated pressure measurement cell it is necessary to use a pressure compensation element after 30 m	Constructions <ul style="list-style-type: none"> wedge sensor for installation on channel bottom pipe sensor for installation using nozzle, sensor screw connection and retaining element in pipes 																						
Cable types	<ul style="list-style-type: none"> combi sensor with pressure meas.: LiYC11Y 2x1.5 + 1x2x0.34 + PA 1.5/2.5 sensors without pressure meas.: LiYC11Y 2x1.5 + 1x2x0.34 	Medium contacting materials <ul style="list-style-type: none"> wedge sensor: Polyurethane, stainless steel 1.4571, PVDF, PA Hastelloy C276 (only combi sensor) pipe sensor: stainless steel 1.4571, Polyurethane, HDPE 																						
Outer cable diameter	<ul style="list-style-type: none"> combi sensor with pressure measurement: 9.75 mm ±0.25 mm sensors without pressure measurement: 8.4 mm ±0.25 mm 	Flow Velocity Measurement																						
Sensor connection	<ul style="list-style-type: none"> cable with plug for connection to portable transmitter PCM F, for sensors without pressure measurement, cable type "S" cable with plug and replaceable filter element for connection to portable transmitter PCM F, for sensors with pressure measurement, cable type "F" 	<table border="1"> <tbody> <tr> <td>Measurement range</td> <td>-600 cm/s a +600 cm/s</td> </tr> <tr> <td>Measurement uncertainty</td> <td>±1% F.S.</td> </tr> <tr> <td>Deriva punto zero</td> <td>absolutely stable zero point</td> </tr> <tr> <td>Zero point drift</td> <td>±5 degrees</td> </tr> </tbody> </table> <table border="1"> <tbody> <tr> <td colspan="2">Temperature Measurement</td> </tr> <tr> <td>Measurement range</td> <td>-20° C to +60° C</td> </tr> <tr> <td>Measurement uncertainty</td> <td>±0,5 K</td> </tr> </tbody> </table> <table border="1"> <tbody> <tr> <td colspan="2">Level Measurement - Pressure</td> </tr> <tr> <td>Measurement range</td> <td>0 to 500 cm</td> </tr> <tr> <td>Zero point drift</td> <td>max. 0.75 % of final value (0 - 50° C)</td> </tr> <tr> <td>Measurement uncertainty</td> <td>(standing medium) <0.5% of final value</td> </tr> </tbody> </table>	Measurement range	-600 cm/s a +600 cm/s	Measurement uncertainty	±1% F.S.	Deriva punto zero	absolutely stable zero point	Zero point drift	±5 degrees	Temperature Measurement		Measurement range	-20° C to +60° C	Measurement uncertainty	±0,5 K	Level Measurement - Pressure		Measurement range	0 to 500 cm	Zero point drift	max. 0.75 % of final value (0 - 50° C)	Measurement uncertainty	(standing medium) <0.5% of final value
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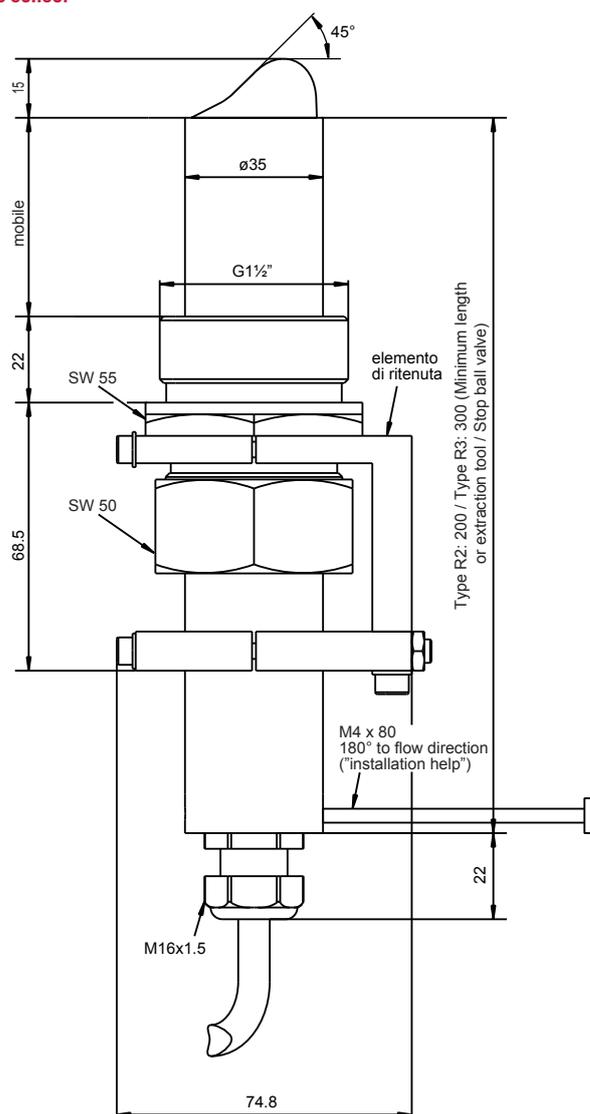
Sensor Dimensions

Wedge sensor



Dimensions in mm

Pipe sensor



Dimensions in mm

ACCESSORIES

Tapping saddle	for pipe sensors (G1 1/2") for sensor mounting in pipes with inner diameters from 100 to 800 mm
Retractable fitting	for removal of pipe sensors (G1 1/2") under process conditions; retractable length 150 mm material: duralumin, brass, stainless steel 1.4571
Stop ball valve	for removal of sensors from pipes without pressure; material: stainless steel 1.4571
Welding nozzle	straight construction (90°) for pipe sensors, steel or stainless steel 1.4571, 1 1/2" inner thread
Pipe mounting system	for temporary, non-permanent clamp fastening of wedge sensors in pipes with inner diameters 200 - 800 mm and egg profiles up to h = 600 mm
Sensor cover	for wedge sensors, stainless steel 1.4571
Pressure compensation element	for connection of combi wedge sensors