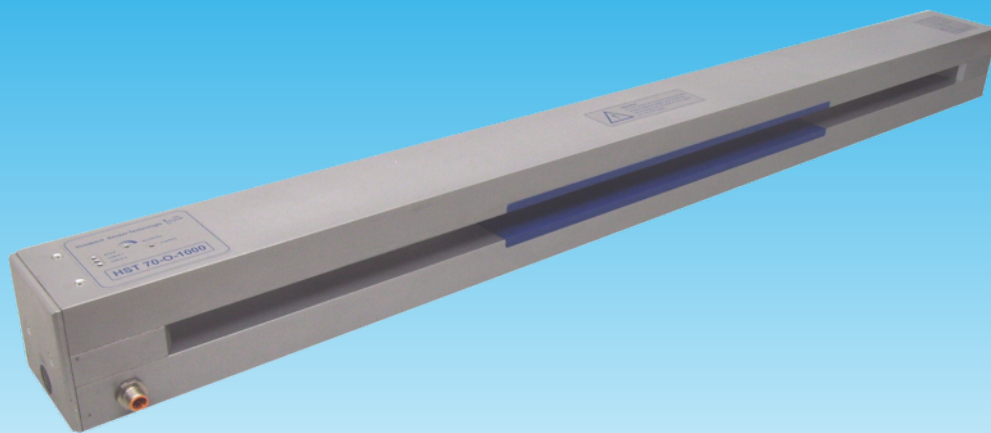
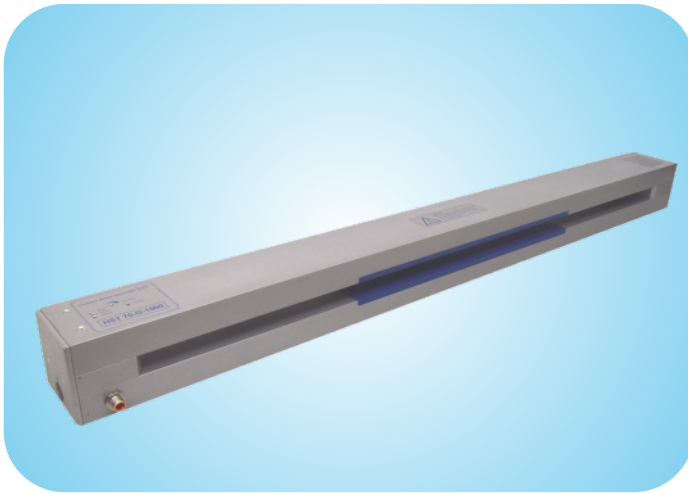


Sensor



QMS 70-O-1000

QMS 70 - O - 1000



Features :

- O-shaped sensor for non-contact operation
- inspection or control of continuous or intermittently aligned products made of voluminous materials
- stand alone operation or preferable operation within the HST sensor systems
- wide gap, wide sensing area, high sensitivity
- switching output version
- analog output 0...+10V version
- +24VDC +/- 10% operation voltage
- robust aluminium housing 1000 x 80 x 80 mm

Description :

The QMS 70-O-1000 is a size larger, compact and robust sensor using an unique capacitive sensor technique as well as highly sophisticated electronics. The QMS 70-O-1000 covers solutions of a wide range of applications, where voluminous, non-metallised objects, products and materials are to be inspected or controlled. The QMS 70-O-1000 is easily mounted in machines to measure the continuous material flow as well as intermittently aligned products on carriers like foils or papers. The measurement object may also be packaged or enclosed. The QMS 70-O-1000 can be delivered containing a switching output, signalling a too much or too little or detecting if a certain amount of material passing the sensor field.

The QMS 70-O-1000 can be delivered containing an analog output. Operation of this sensor versions allows to acquire the weight information of the transported product by a weight proportional voltage. This voltage is used by the inspection and control system, like HST Ranger and HST Analyser to derive and evaluate important qualitative and quantitative information and data. The qualitative information and data concern production, machine and material etc. Weight, average weight, weight distribution, statistics etc. are classified to the quantitative information and data.

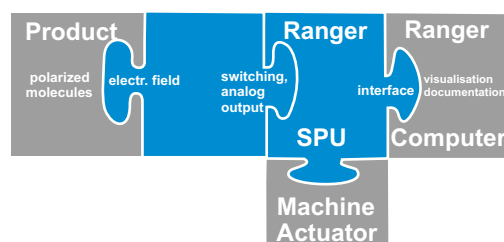
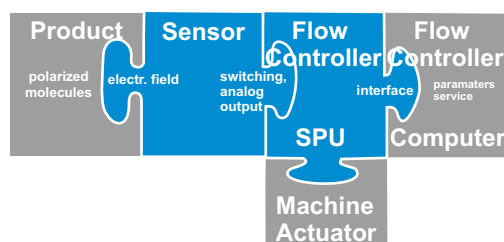
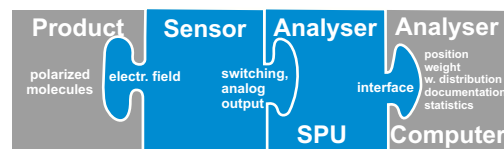
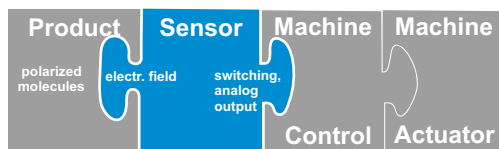
Bringing into operation is very easy. Adjustment is performed, if needed at all, at the first commissioning. Due to the auto-taring function, no re-adjustment is needed normally. Pollution and abrasion have no effect on sensor operation in a very wide extent.

Example for Application see p.194

Building Blocks :

Hossbach equipment

machine line device

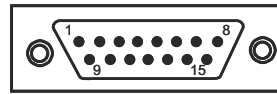


Plug Connections : analog output

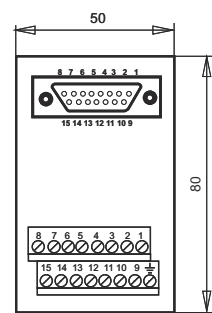
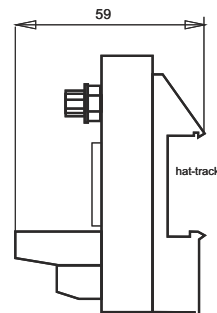
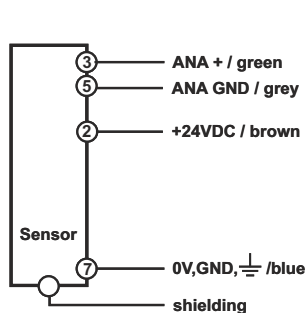
8-pin male M12 sensor connector



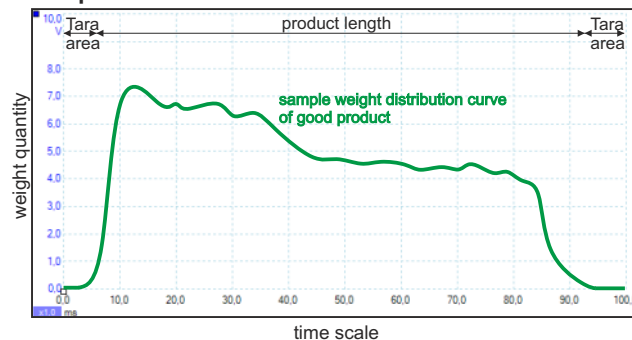
15 pin male SUB-D sensor cable connector



sensor version sensor+profiler	8 pin male sensor connector*)	cable color	15 pin male SUB-D cable connector **)	function
	pin 1 pin 2 pin 3 pin 4 pin 5 pin 6 pin 7 pin 8 shielding	white brown green yellow grey rose blue red blanc	pin 5 pin 12 pin 3 pin 4 pin 2 pin 1 pin 11 pin 8 pin 11	taring input +24V *) power supply +24V analog output 0...+10V analog output GND not to connect, test power supply 0V/GND shielding
			don't use pin 1,5,6,7,9,10,13,14,15 *) only active for "interval measuring" sensor version	



Visualize weight distribution in each product



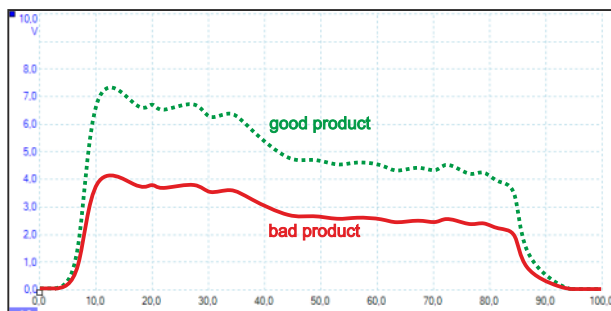
Visualization of weight distribution:

Y-axis: weight quantity;
curve elevation proportional to
weight of product section

X-axis: time;
should be scaled according to
production speed

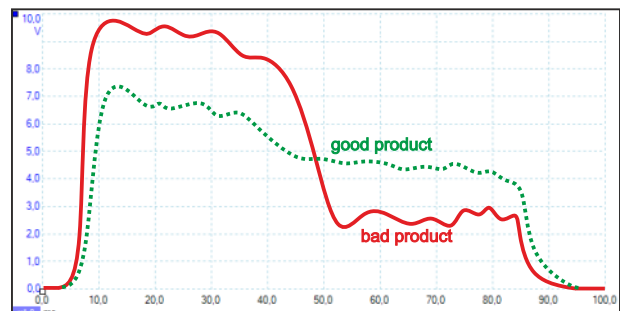
Example 1:

One component is missing over whole product length;
weight distribution curve lowers



Example 2:

Product is folded lengthwise;
weight distribution curve increases partially and lowers partially



By visualizing the sensor signal, any defectives could be discovered which are caused by faulty weight distribution.
It enables the operator to react immediately to machine or material irregularities.

QMS 70 - O - 1000

Technical Data :

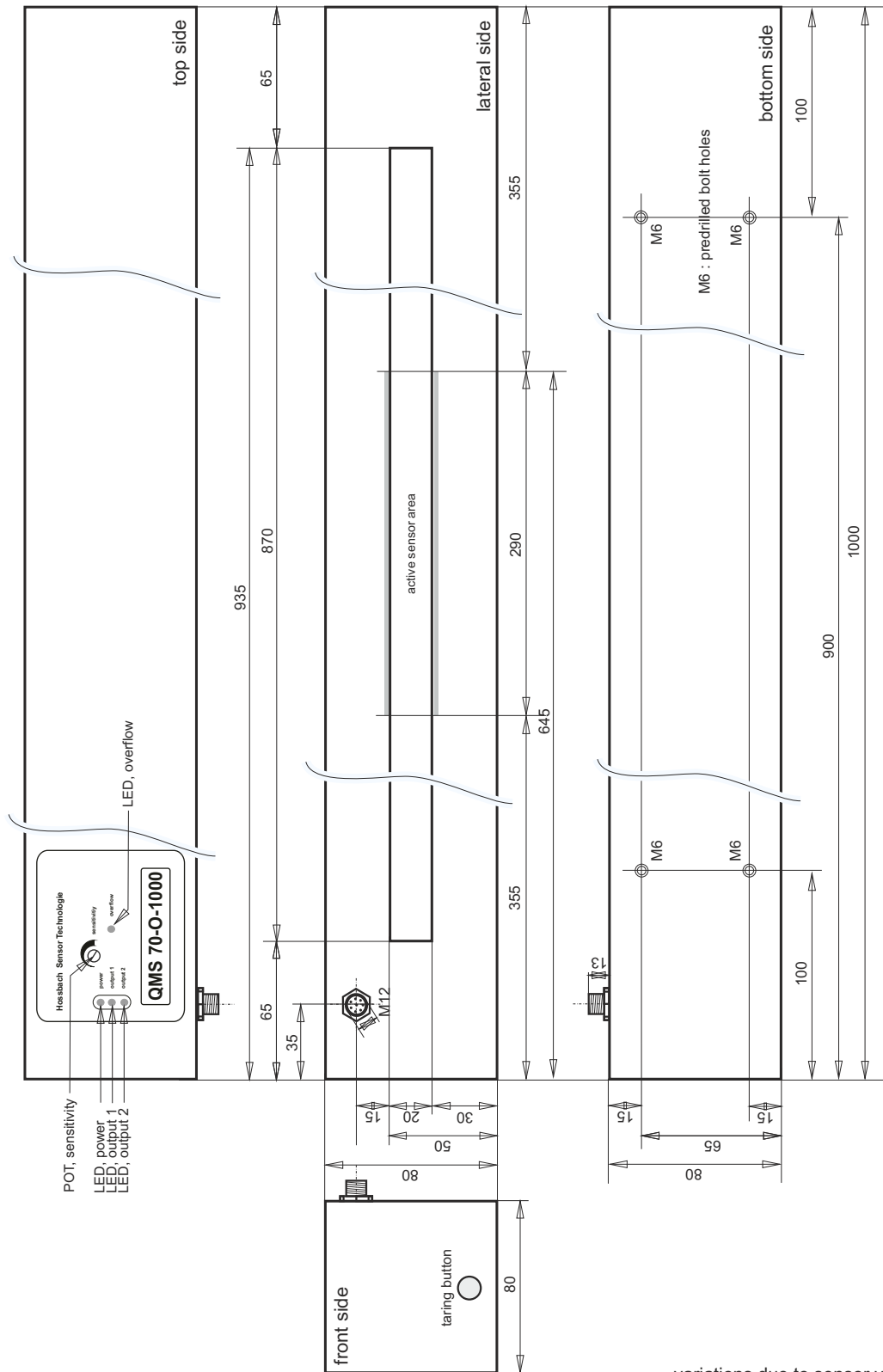
sensitivity :	middle	evaluation time :	< 1ms	weight :	typ. 4700 gr.
measurement mode :	interval, permanent	external taring :	automatically or by external 24V signal or push button (INT, TARA version)	operation temper- ature range :	10°C ...40° C
lowest detectable weight quantity :	< 10 mg	output :	0...+10V	storage temper- ature range :	0°C ...50°C
accuracy :	1...3 % depending on material quantity and material characteristics,	operation voltage :	+24VDC +- 10% 50 mA typ.	meets or exceeds standard and re- quirements :	EN 50011 class A EN 61326-1:2006
active sensor area :	290 x 15 mm	mounting :	4 pre-drilled bolt holes, M6 on bottom side	protection type	IP 60
gap height :	20 mm	dimension :	1000 x 80 x 80 mm		
					CE

Order Data :

sensor version	order no.
QMS 70-O-1000 for interval measurement with analog output 0...10V	QMS 70-O-1000-INT-ANA
QMS 70-O-1000 for permanent measurement with analog output 0...10V	QMS 70-O-1000-PERM-ANA
QMS 70-O-1000 for permanent measurement, controlled tara with analog output 0...10V	QMS 70-O-1000-PERM-ANA-TARA
sensor including 5m connection cable plus adapter box	

QMS 70 - O - 1000

Dimension : [mm]



variations due to sensor version