

CONVEYOR BELT SCALE - SBS (SMART BELT SCALE)

HIGH FLOWRATE BELT CONVEYORS

SBSTechnical Sheet

Accuracy \pm 0,25-0,5 % Discharge totalization No field calibration ever required (with digital load cells) Easy installation thanks to the state-of-the art mechanical design High performances

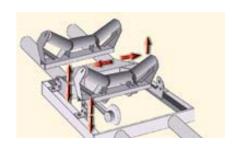




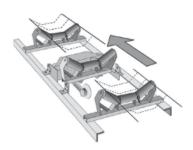
- A single model adapts to all conveyor types and a wide range of widths.
- Easy alignment of the weighbridge.
- ✓ No special tooling required.
- Totally prewired with cables and connectors supplied for error-free installation.
- All operational parameters are pass word protected with 2 levels of security (hardware and software).

Function:

The Smart Belt Scale is a conveyor belt scale specially built for rugged use and outdoor environment such as quarries, gravel processing and mining. It is also well suited for cement mills, fertilizer and chemical processing plants as well as food, tobacco plants and sugar beet processing. It is designed for easy installation which can be done by the customer's own maintenance staff.



entirely modular construction (height and width)



Smart Belt Scale Single, Twin and Double (Multi-Station):

Depending on the application (high belt speed and / or flow rate), up to FOUR load cells can be used as a multi-idlers belt scale. The load cells are connected to the same controller.

Only the first one is equipped with either a speed sensor wheel or an incremental encoder mounted on the return drum.

Controller:

The Smart Belt Scale is connected to a MACC/VHRS electronic controller - panel or wall version - having the following interfaces:

Standard

Through isolated digital input / output:

- totalizers 1 and 2
- out-of-range indicator
- · out-of-range acknowledgement
- start printer

Isolated 0/4-20 mA analog output :

• flow rate

In option

Serial communication, isolated:

- RS 232, RS 422 or RS 485 using a J-Bus / Modbus protocol for a connection
- with a PLC or host computer
- RS 232 connection with a printer



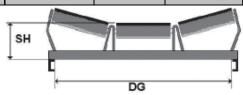
MACC/VHRS Controller

HIGH FLOWRATE BELT CONVEYORS

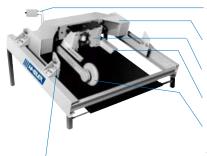
SBS Technical Sheet

Dimensions and weight

Type		Station height		Distance between		Weight of	Weight of	
			0	girders	Belt width	mechanics	electronics	Total weight
		(SH)		(DG)	approx.	SBS	MACC/VHRS	packed
SBS 2	Н	-	145 mm	390 - 500 mm	200 - 350 mm	34 kg	6,5 kg	54 kg
	L	75 -	144 mm					
SBS 3	Н	-	145 mm	500 - 600 mm	350 - 450 mm	38 kg	6,5 kg	58 kg
	L	75 -	144 mm					
SBS 4	Н	-	145 mm	600 - 800 mm	450 - 650 mm	42 kg	6,5 kg	62 kg
	L	75 -	144 mm					
SBS 5	Η	-	145 mm	800 - 1000 mm	650 - 850 mm	50 kg	6,5 kg	70 kg
	L	75 -	144 mm					
SBS 6	Н	-	145 mm	1000 - 1300 mm	850 - 1150 mm	60 kg	6,5 kg	80 kg
	L	75 -	144 mm					
SBS 7	Τ	-	145 mm	1300 - 1600 mm	1050 - 1350 mm	70 kg	6,5 kg	90 kg
	L	75 -	144 mm					
SBS 7 TW IN	Н	-	145 mm	1400 - 1600 mm	1050 - 1350 mm	75 kg	6,5 kg	120 kg
	L	75 -	144 mm					
SBS 8 TW IN	Н	-	145 mm	1600 - 1900 mm	1350 - 1650 mm	82 kg	6,5 kg	128 kg
	L	75 -	144 mm					
SBS 9 TW IN	Н	-	145 mm	1900 - 2200 mm	1650 - 1950 mm	97 kg	6,5 kg	145 kg
	L	75 -	144 mm					
SBS 10 TWIN	Н	-	145 mm	2200 - 2500 mm	1950 - 2250 mm	102 kg	6,5 kg	160 kg
	L	75 -	144 mm					



The weighing station:



Terminal box and connector for the electronic controller cable

Crossbeam, adjustable width

Parallelogram with load cell

Idler station supports

Digital speed sensor

Weighing station alignment screws

Specifications:

Accuracy: 0,25-0,5 % (if installed in an approved conveyor in accordance with the manufacturer's specifications)

Temperature range : -25° C to $+60^{\circ}$ C (-13° F to $+140^{\circ}$ F)

Protection class: IP 65, NEMA 4

Belt speed: standard: 0.05 to 2 m/s with analog cell - 0.05 to 6 m/s with digital cell

Flowrate: up to 2500 t/h for a 2 m. weighbridge

Slope of belt: material should not tumble backwards, max. acceptable slope ≤ 20°

Max. trough angle : $\leq 45^{\circ}$

Load cell: Analog or in option 100 % digital Smart Force Transducer (SFT)

Standard colour: RAL 5000 (blue)

Options:

- ♦ Heating device for load cell and/or controller up to -45°C (-49°F)
- ♦ Fertilizer version with special protection of terminal Box and screw connections
- ♦ Ex protection version
- ♦ Certified version of Smart Belt Scale available for some countries (called VHRS)

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