

Communication protocol

• Instant throughput.....	R32 L	Control
• Average throughput	R32 L	Zero
• Speed	R32 L	Partial reset
• Overall total	R32 L	Overall reset
• Partial total	R32 L	Batch reset
• Status	E32 L	Batch printing
• Minimum threshold	R32 L/E	
• Maximum threshold	R32 L/E	
• Material ratio	E16 L/E	(0 or 1)
• Control	E16 L/E	

Connector for optional card

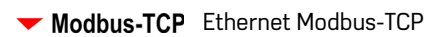
One option among the following:



Profibus-DP



DeviceNet



Ethernet Modbus-TCP



EtherNet/IP

4-20 mA or 0-10 V analogue output card

- Galvanic isolation 1500 V RMS
- Possible to read negative weight values in the 0-4 mA range
- 1 analog output:
 - flow
 - speed
 - weight/meter

Digital input / output allocation

- ▼ 2 digital inputs
 - Speed pick up.
 - Overall totalizer reset in HML
 - Partial totalizer reset.
 - Batch reset.
 - Material ratio.
 - Zero request.
 - Batch printing.
 - Slippage check.
 - Weigher On.
- ▼ 4 digital outputs.
 - Zero in progress
 - Zero OK.
 - Zero fault.
 - Maximum flow rate
 - Minimum flow rate
 - Flow rate out of range.
 - Remote counter reset timing
 - Overall totalizer pulse
 - Partial totalizer pulse

Display unit

- FSC (Field Sequential Colour) segment technology
- Configurable 7 colour backlighting
- Weight display on 7 x 25 mm high characters
- 10 x 8 mm high character text area
- Field bus metrological and activity indicator
- High viewing angle and contrast
- Selectable French or English bilingual messages

Keyboard

- Touch control keys.

Metrological characteristics

- Up to 200,000 divisions except for legal metrology use.
- Sensitivity 2mV/V
- Minimum voltage division per division 0.5 µV
- Load cell power supply 5 V
- Minimum load cell impedance 43 Ω
- Maximum load cell impedance 1245 Ω
- Connection 4/6 wires
- Up to 100 measurements / second
- Cascadable digital filtering on 2 configurable levels

Environmental characteristics

- Power supply* 9 to 30 V DC
- Maximum consumption:
 - Typical 14 W
 - With 4-20 mA / 0-10 V option..... 18 W
 - With field bus option 2,7 W
- Connections on spring loaded terminals
- Operating temperature -15 °C/ + 60 °C (at 80% relative humidity max., non-condensing)
- Storage temperature - 20 °C / + 65 °C (at 90% relative humidity, non-condensing)

Communication options

- ▼ USB port and/or RS 232 port
- ▼ 10/100Mb RJ 45 Ethernet port
- ▼ µSD card
 - Allows parameter backup / restore.
 - DSD data storage memory, 300,000 recordings, legal use

Options

- Internal power supply** 90 - 230 V AC

* If 4-20 mA option: 22 V minimum.
** - i 40-SS BS housing.

Illustrations not contractual. Precia-Molen reserves the right to alter the characteristics of the equipment described in this brochure at any time.

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i 40 BS

Indicator for continuous weighing



Field of application

The i 40 BS weight indicator is designed to measure the flow rates of any bulk product, without capacity limit. It integrates a weight measuring card and an acquisition card of the belt or screw conveyor speed.

Different housing versions allow installing the indicator on a table top, a panel mounting or a din rail mounting.

Functionalities

It has a backlit display unit allowing displaying the following selectable information:

- ▼ On the 7-segment 25 mm high main line
 - flow rate with selectable measuring unit: kg/h, kg/s, t/h or lb/h.
 - weight per meter with selectable measuring unit: kg/m or lb/m.
 - belt speed with selectable measuring unit: m/s, m/min, ft/s or rpm.
- ▼ The overall or partial summation with selectable measuring unit on the 10-segment 8mm high secondary line: kg, t or lb. When necessary, this second line alternately displays the summation and a message depending on the operation in progress.

The i 40 BS electronics can also favourably replace some existing electronics.

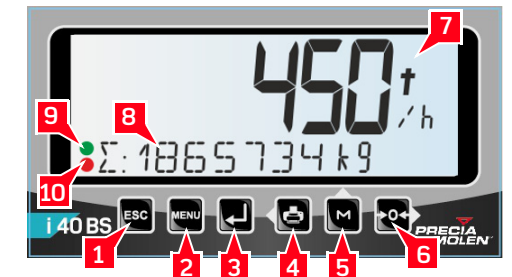
The i 40 BS meets the basic requirements of its application domain:

- ▼ Weighing
 - Weight and speed measuring.
 - Automatic or manual zero request.
 - Instant flow calculation.
 - Average flow rate with adjustable time constant.
 - Partial and overall summations
 - Min/max threshold management on the flow rate value with displayed colour change
- ▼ Printing
 - Manual or automatic batch ticket printing.

Printing example:

SBS	21/08/10	13:43
Début du lot	le 21/08/10 à 13:43	
Tonnage lot	0,09 t	
Débit du lot	32,4 t/h	
Temps en charge	0:00 h	
Temps à vide	0:00 h	
Temps d'arrêt	0:00 h	
Débit de pointe	31,4 t/h	
Temps surdébit	0:00 h	
Temps sousdébit	0:00 h	
Derniers zéros effectués:		
01/06/10	17:12	+0.08%
02/06/10	16:11	+0.12%
03/06/10	16:11	-0.24%
05/06/10	16:11	+0.02%
12/06/10	16:11	-0.16%

Front panel



Keyboard

1. Allows exiting a menu.
2. Allows accessing the user or engineer menu.
3. Validation (Enter) key.
4. Allows starting a paper printing and navigation function.
5. Allows accessing the application screen, the metrological menu and the navigation function.
6. Allows a dynamic zeroing of the scale and the navigation function.

Display

7. Display the flow rate, weight per metre or speed.
8. Display the total or partial summation and the current fault or the current zero state alternately.
9. Indicate the maximum flow rate reached.
10. Indicate the minimum flow rate reached.

Models available

- ▼ Stainless steel housing: i 40-SS BS
- ▼ Panel mounting housing: i 40-PM BS
- ▼ DIN rail housing: i 40-DR BS

Default communication

- ▼ RS232/485 port slave RTU Modbus
- ▼ **CANopen** CanOpen bus
 - Allows connecting a d 20 remote display unit
 - Allows integrating an i 40 BS weight indicator into an i 410 network

Electrical certification

- Compliant with the requirements of the Electromagnetic Compatibility directive 2004/108/CE
- Compliant with the requirements of the Low Voltage directive 2006/95/CE
- International certification: IEC-low tension (n°FR 638805 - n°FR 642888)

Your specialist

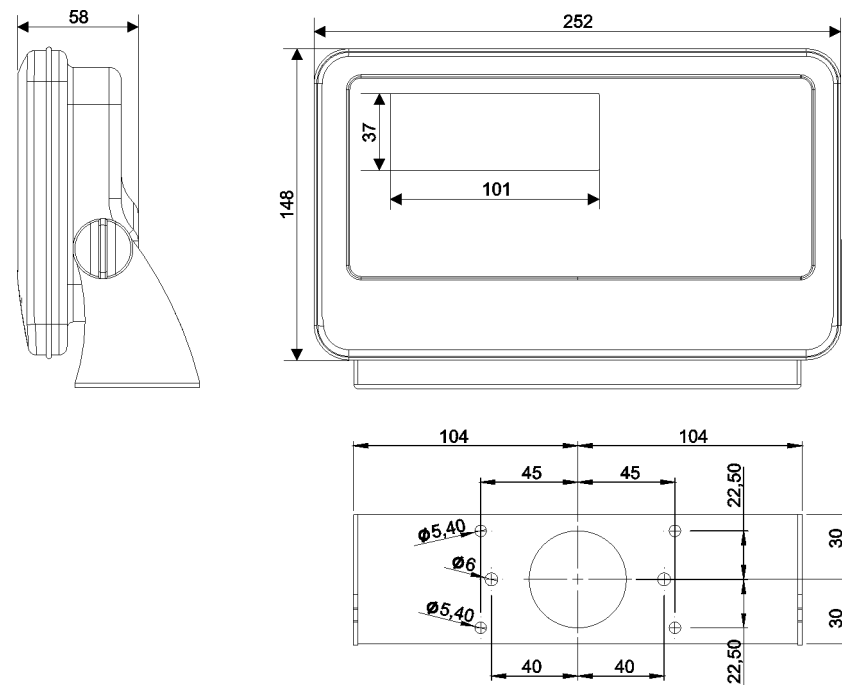
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Models available

i 40-SS BS housing version

- ▼ 304L stainless steel housing
- ▼ IP66 protection rating
- ▼ 180 ° swivel bracket
- ▼ Weight 1.5 kg
- ▼ Optional panel mounting kit:
 - Cut-out 270 $\begin{smallmatrix} +2 \text{ mm} \\ -0 \text{ mm} \end{smallmatrix}$ x 165 mm $\begin{smallmatrix} +2 \text{ mm} \\ -0 \text{ mm} \end{smallmatrix}$ (max thickness 4 mm).

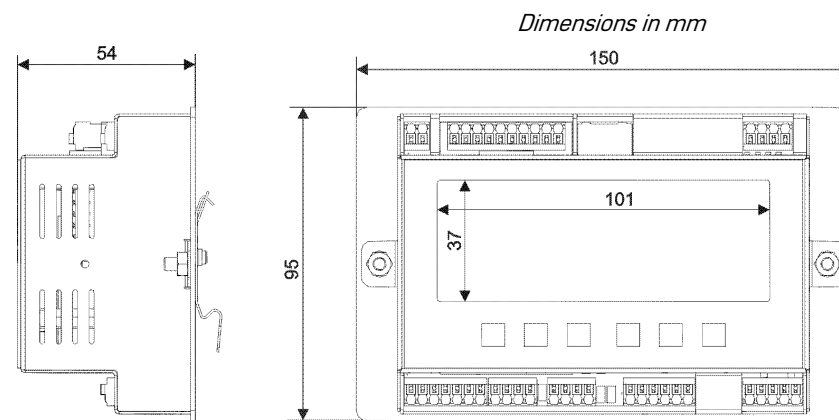


i 40-SS BS



i 40-DR BS DIN rail version

- ▼ Omega 35mm DIN EN 50022 rail mounting
- ▼ Metal housing
- ▼ IP30 protection rating
- ▼ Weight 450 g

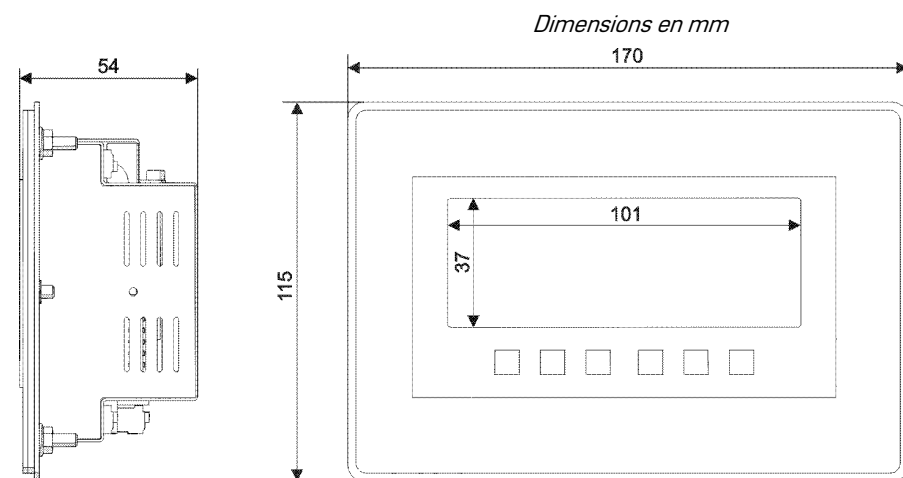


i 40-DR BS



i 40-PM BS panel mounting version

- ▼ Front panel in 304L stainless steel
- ▼ Metal housing
- ▼ IP54 protection rating
- ▼ Overall IP30 protection rating
- ▼ Weight 450 g
- ▼ Cut-out for panel mounting:
 - 153 $\begin{smallmatrix} +2 \text{ mm} \\ -0 \text{ mm} \end{smallmatrix}$ x 95 mm $\begin{smallmatrix} +2 \text{ mm} \\ -0 \text{ mm} \end{smallmatrix}$ (max thickness 5 mm).



i 40-PM BS

