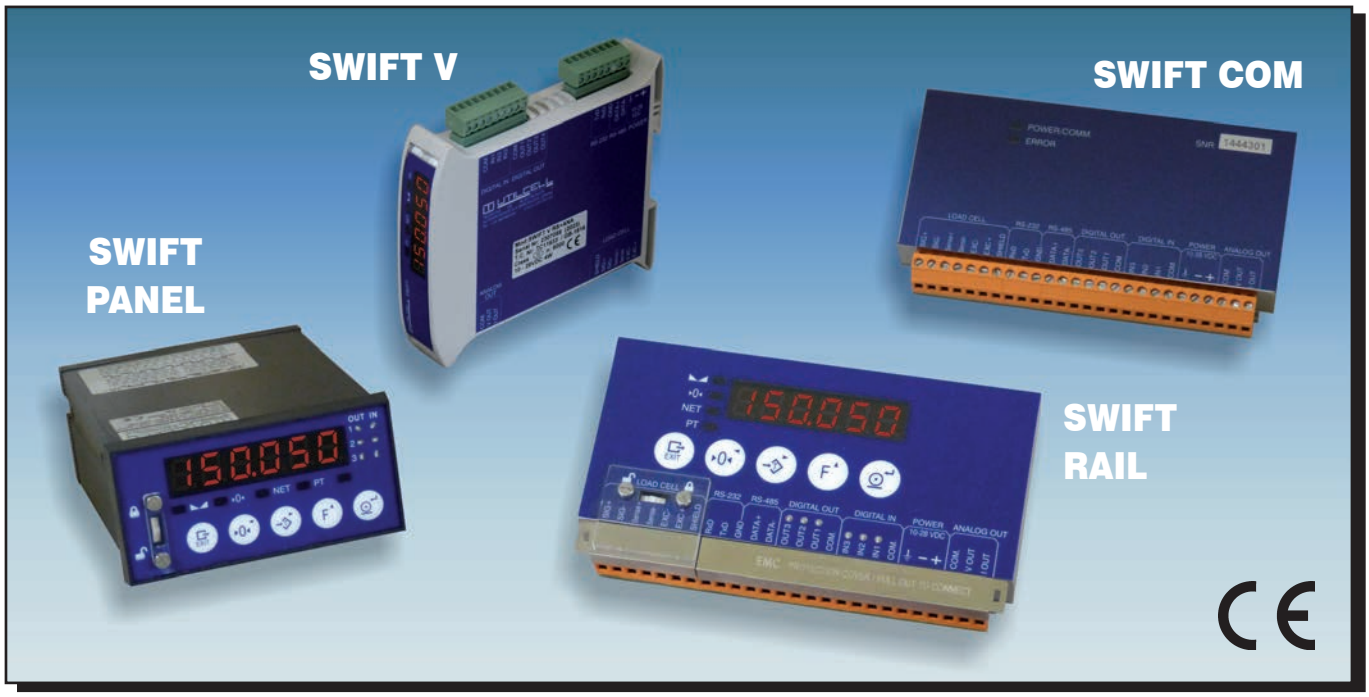
UTILCELL
LOAD CELLS - 称重传感器

SWIFT

WEIGHING INDICATOR & HIGH SPEED TRANSMITTER



The SWIFT is a weighing indicator and high-speed transmitter that is ideal for static and dynamic applications. Its mounting versions in DIN rail or panel make it particularly suitable for weighing applications in industrial processes and machinery. Its many possibilities of data transmission, digital inputs and outputs enable easy connection to PLC, PC and remote systems, in the main standards of industrial communication.

- **Display** 6 digit 10 mm LED.
- **High resolution**: 24 bits ADC with 16.000.000 internal divisions and 500.000 external divisions.
- **High speed reading**: 2400 measures per second.
- **Configuration and calibration by keyboard or computer**.
- **Calibration by Masses or in mV/V**, allowing the start-up without calibration masses entering the load cell capacity and sensitivity in mV/V.
- Selectable **digital filters**.
- **Calibration sealing** by software or mechanically.
- **Power up to 8 load cells** (350 Ω) **or up to 16 load cells** (700 Ω).
- **Communication RS-232 & RS-485** (ModBus RTU & ASCII) and optional Profibus, Profinet or Ethernet/IP.
- **Analogue output configurable** at 0-5 V, 0-10 V, 0-20 mA & 4-20 mA, with galvanic isolation.
- **Digital opto-isolated inputs**.
- **Digital outputs** to relay.
- **DIN rail** or **Panel** mounting.
- **Power supply** 10 - 28 V DC.

- **Applications:**
  - Weighing and Level Measurement in Tanks & Silos.
  - Filling and Dosing Machines.
  - Check-Weigher Scales.
  - Animal Weighing Scales.
  - Test Machinery.
  - High Speed Dynamic Sorting Scales.
  - Multihead Scales.
  - PC/PLC Weight Transmision.
  - Multiple Weight Indicators in the same Bus.
  - Crane overload control.

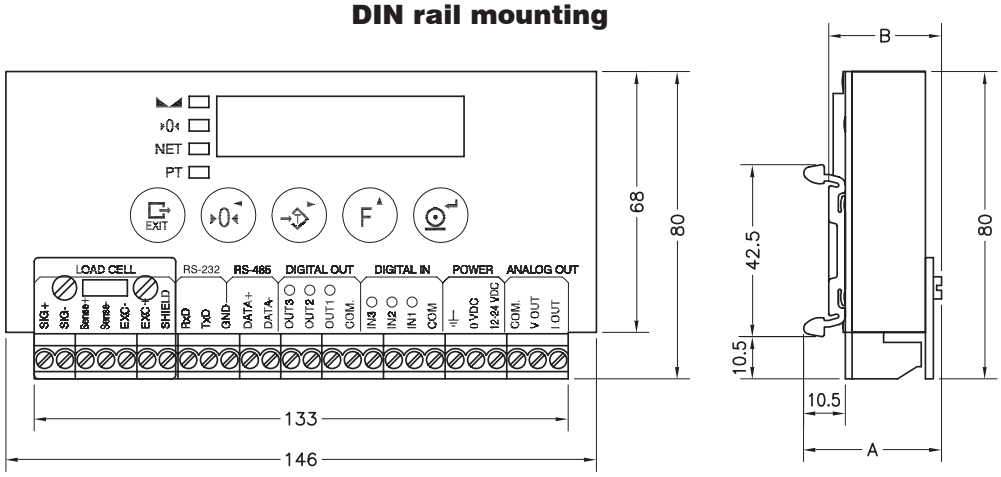
ACCESSORIES:

- **89458** Mounting Box
- **89459** Power supply
  100-240 V AC at 24 V DC.
  15 W.
  DIN rail mounting
- **89469**
  Front cover
  IP 65 protection

Transport weight: 0.1 kg

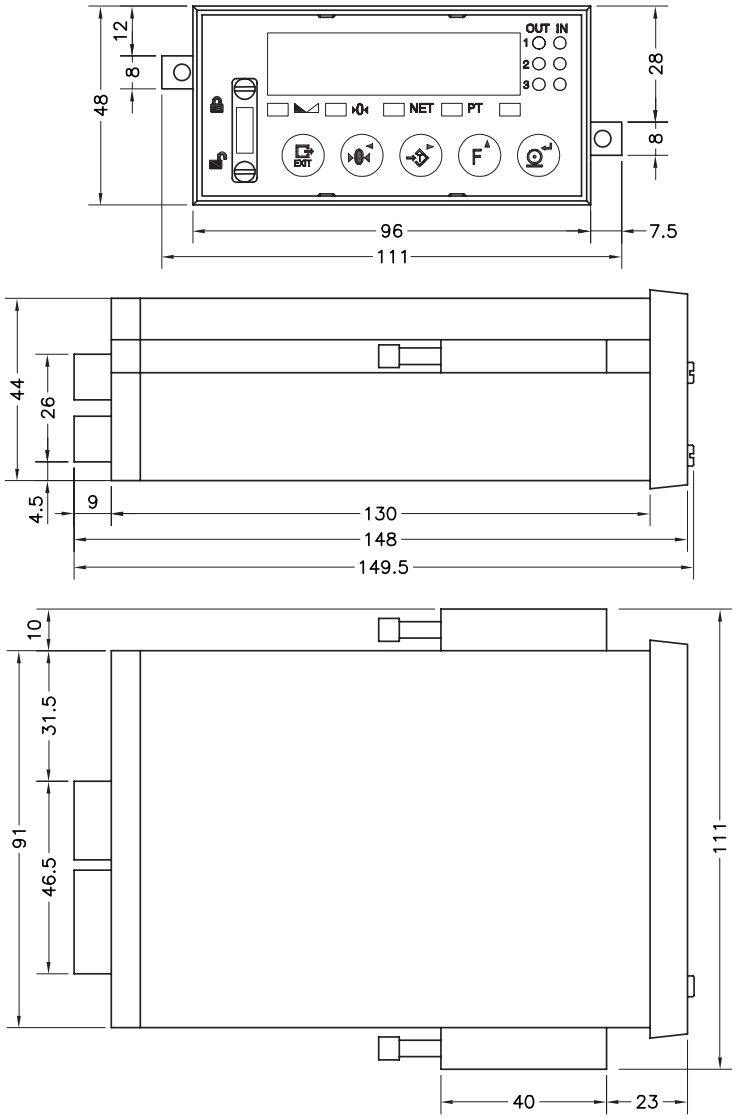
SWIFT

SWIFT RAIL & SWIFT COM
DIN rail mounting

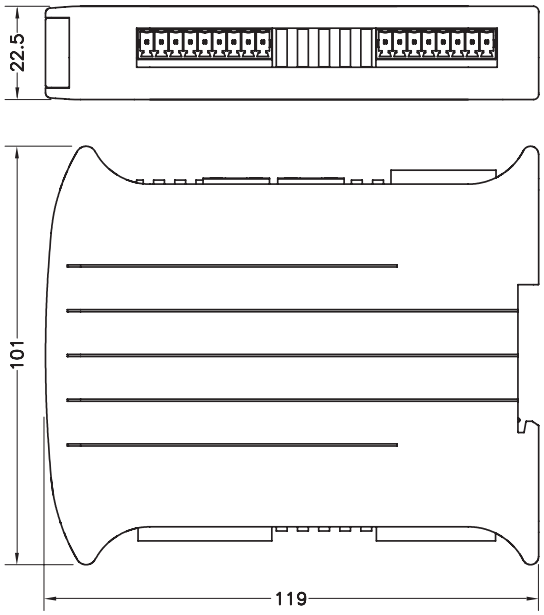


Version	A	B	Transp. weight
89450-89451	34	29	0.3 kg
89452/53/54-89472/73/74	38	33	0.35 kg
89470-89471	30	25	0.3 kg

SWIFT PANEL
Panel mounting



SWIFT V
DIN rail mounting



Transp. weight: 0.25 kg

Dimensions in mm.

Transp. weight: 0.25 kg

SWIFT

VERSIONS

	Ref.	Name	Display	0/20 mA 4/20 mA	0/5 V 0/10 V	RELAY OUTPUTS	DIGITAL INPUTS	COMMUNICATIONS
 SWIFT RAIL	89450	SWIFT RAIL RS+ANALOG	✓	✓	✓	3	3	RS-232 / RS-485 MODBUS
	89451	SWIFT RAIL RS	✓			3	3	RS-232 / RS-485 MODBUS
	89452	SWIFT RAIL PROFIBUS	✓			3	3	RS-232 / RS-485 MODBUS PROFIBUS
	89453	SWIFT RAIL PROFINET	✓			3	3	RS-232 / RS-485 MODBUS PROFINET
	89454	SWIFT RAIL ETHERNET/IP	✓			3	3	RS-232 / RS-485 MODBUS ETHERNET/IP
 SWIFT COM	89470	SWIFT COM RS+ANALOG		✓	✓	3	3	RS-232 / RS-485 MODBUS
	89471	SWIFT COM RS				3	3	RS-232 / RS-485 MODBUS
	89472	SWIFT COM PROFIBUS				3	3	RS-232 / RS-485 MODBUS PROFIBUS
	89473	SWIFT COM PROFINET				3	3	RS-232 / RS-485 MODBUS PROFINET
	89474	SWIFT COM ETHERNET/IP				3	3	RS-232 / RS-485 MODBUS ETHERNET/IP
 SWIFT PANEL	89460	SWIFT PANEL RS+ANALOG	✓	✓	✓	3	3	RS-232 / RS-485 MODBUS
	89461	SWIFT PANEL RS	✓			3	3	RS-232 / RS-485 MODBUS
	89462	SWIFT PANEL PROFIBUS	✓			3	3	RS-232 / RS-485 MODBUS PROFIBUS
	89463	SWIFT PANEL PROFINET	✓			3	3	RS-232 / RS-485 MODBUS PROFINET
	89464	SWIFT PANEL ETHERNET/IP	✓			3	3	RS-232 / RS-485 MODBUS ETHERNET/IP
 SWIFT V	89480	SWIFT V RS+ANALOG	✓	✓	✓	4	3	RS-232 / RS-485 MODBUS
	89481	SWIFT V RS	✓			4	3	RS-232 / RS-485 MODBUS
	89483	SWIFT V PROFINET	✓			4	3	RS-232 / RS-485 MODBUS PROFINET
	89484	SWIFT V ETHERNET/IP	✓			4	3	RS-232 / RS-485 MODBUS ETHERNET/IP

TECHNICAL SPECIFICATIONS

Load cell connection:

Scale input signal range ..... ±3.9 mV/V

Resolution ..... ADC 24 bits; 16.700.000 internal divisions
Display -99 999…999 999

Measuring rate ..... Internal: 2400 readings per second
Transmission: 600 readings per second

Linearity error ..... ≤0.01 % of measuring range

Thermal stability ..... Zero: 150 nV/°C max
Span: 3.5 ppm/°C max

Load cell excitation voltage ..... 5.0 V DC

Minimum load cell resistance ..... 43 Ω (8 load cells of 350 Ω, 16 load cells of 700 Ω)

Inputs & Outputs:

Serial communications ..... RS-232 bi-directional
RS-485 half-duplex
Protocol: Own protocol, ModBus (RTU & ASCII)
Transmission rates: 4800…115200 bauds selectable

Logical Inputs & Outputs ..... 3 opto-isolated inputs
3 or 4 relay outputs max. 30 V AC - 30 V DC, 100 mA

Analogue output (Version SWIFT RS+ANALOGUE) ..... Output with galvanic isolation, DAC of 16 bits
Output voltage: 0-10 V Output current: 0/4 - 20 mA (<500 Ω)

Profibus communication (Version PROFIBUS) ..... Profibus DP-V0 (Slave)

Profinet communication (Version PROFINET) ..... Profinet I/O Realtime (Class A)

Ethernet/IP communication (Version ETHERNET/IP) ..... Ethernet/IP

Power, working condition and mechanical data:

Power supply ..... 10 V to 28 V DC

Power consumption ..... 4 W (6 W for Profibus, Profinet and Ethernet/IP version)

Temperature range ..... -20 °C to 50 °C operating; -30 °C to 60 °C storage

Protection ..... IP 40

Operator interface ..... Display: 6 digit LED 10 mm; Keyboard: 5 keys