

## Data sheet

750-631

SERIAL INTERFACE CARRIER RAIL DIN 35



## Technical data

Package size 1 piece.

Transmitter connection	A, A*, B, B*, C, C*
CURRENT CONSUMPTION (INTERNAL) mA	25 mA
Signal voltage	DC 5 V ... 24 V
Counter	16 Bit binär
Max. operating frequency (kHz)	1000 kHz
Quadrature decoder	4-fold report
Zero impulse latch	16 Bit
Commands	Read, set, enable
Voltage supply	DC 24 V (-15% / + 20%)
Current consumption typ.	Time constant
Operating voltage of sensor	DC 5 V
Sensor max. output current	300 mA
Internal data width	Internal bit width
Operating temperature	0 °C ... + 55 °C
Storage temperature	-25 °C ... +85 °C
Relative air humidity	95 %
Vibration resistance	acc. IEC 60068-2-6
Shock resistance	acc. IEC 60068-2-27
Degree of protection	IP 20
EMC immunity to interference	acc. EN 50082-2 (96)
EMC emission of interference	per EN 50081-1 (93)
UL 508	E175199, UL 508
UL 1604	E198726, UL 1604 Class 1 Dev2 ABCD T4A

---

## Data sheet

750-631

SERIAL INTERFACE CARRIER RAIL DIN 35

---

KEMA	01ATEX1024X Eex nA II T4
Cross section from [mm <sup>2</sup> ]	0.08 mm <sup>2</sup>
Cross section to [mm <sup>2</sup> ]	2.5 mm <sup>2</sup>
Cross section from [AWG]	28 AWG
Cross section to [AWG]	14 AWG
Voltage CSA	24 V
Weight	105.2 g
Color	light gray
Height	64 mm
Height	2.52 in
Width	24 mm
Width	0.945 in
Depth	100 mm
Depth	3.937 in
Strip length from	8 mm
Strip length to	9 mm
Strip length	0.33 in

---

Data sheet

750-631

SERIAL INTERFACE CARRIER RAIL DIN 35

---

Approval	Voltage	Current	Approval number	Notes
CSA	24		154112-1043296	
cULus	24		E175199	
cULus-EX	24		E198726	
KEMA-Ex			KEMA00ATEX1024U	

## Data sheet

750-631

SERIAL INTERFACE CARRIER RAIL DIN 35

### Accessories

### Item number

ALUMINUM CARRIER RAIL 35 X 7.5 MM, 1.5 MM / 0.059 IN THICK	210-196
CAL FIELDBUS COUPLER 10 kBaud - 1 MBaud	750-305
CANopen ECO FIELDBUS COUPLER D-Sub 10 kBaud - 1 MBaud	750-348
CANopen ECO FIELDBUS COUPLER MSS 10 kBaud - 1 MBaud	750-347
CANopen FIELDBUS COUPLER 10 kBaud - 1 MBaud	750-307
CANopen FIELDBUS COUPLER 10 kBaud - 1 MBaud	750-337
CANopen FIELDBUS COUPLER WITH D-SUB	750-338
CANopen PROGRAMMABLE FIELDBUS CONTROLLER 10 kBaud - 1 MBaud	750-837
CANopen PROGRAMMABLE FIELDBUS CONTROLLER WITH D-SUB	750-838
CC-LINK 156 kBaud - 10 MBaud	750-310
COPPER CARRIER RAIL 35 X 15 MM, 2.3 MM / 0.091 IN THICK	210-198
DeviceNet ECO FIELDBUS COUPLER 125-500 kBaud	750-346
DeviceNet FIELDBUS COUPLER 125-500 kBaud	750-306
DEVICENET PROGRAMMABLE FIELDBUS -CONTROLLER 125-500 kBaud	750-806
END MODULE CARRIER RAIL DIN 35	750-600
ETHERNET TCP/IP FIELDBUS COUPLER 10 MBit/s	750-342
ETHERNET TCP/IP FIELDBUS COUPLER 10/100 Mbit/s	750-341
FIRE WIRE FIELDBUS COUPLER DIGITAL AND ANALOG SIGNALS	750-339
I/O-LIGHTBUS FIELDBUS COUPLER 2.5 MBaud	750-300
I/O-LIGHTBUS FIELDBUS COUPLER 2.5 MBaud	750-320
Individual wire jumpers	individual jumper
INTERBUS ECO FIELDBUS COUPLER 2 MBaud	750-345
INTERBUS ECO FIELDBUS COUPLER 500 kBaud	750-344
INTERBUS FIELDBUS COUPLER 500 kBaud	750-324
INTERBUS FIELDBUS COUPLER DIGITAL AND ANALOG SIGNALS	750-304
INTERBUS FIELDBUS COUPLER DIGITAL AND ANALOG SIGNALS	750-334
INTERBUS PROGRAMMABLE FIELDBUS CONTROLLER DIGITAL AND ANALOG SIGNALS	750-804
IP65 ENCLOSURE SHEET STEEL	850-811
IP65 ENCLOSURE SHEET STEEL	850-812
IP65 ENCLOSURE SHEET STEEL	850-813
LON DATA EXCHANGE COUPLER (PEER TO PEER) 78 kbps	750-319/004-000
LON FIELDBUS COUPLER 78 kbps	750-319
LONWORKS PROGRAMMABLE FIELDBUS COUPLER 78 kbps	750-819
MARKERS FOR GROUP MARKER CARRIERS MARKER CARD DIN A4 (160 MARKERS)	750-100
MINIATURE WSB QUICK MARKING STRIPS PLAIN	248-501
MINIATURE WSB QUICK MARKING STRIPS PLAIN	248-501/000-002
MINIATURE WSB QUICK MARKING STRIPS PLAIN	248-501/000-005
MINIATURE WSB QUICK MARKING STRIPS PLAIN	248-501/000-006
MINIATURE WSB QUICK MARKING STRIPS PLAIN	248-501/000-007

## Data sheet

750-631

## SERIAL INTERFACE CARRIER RAIL DIN 35

---

MINIATURE WSB QUICK MARKING STRIPS PLAIN	248-501/000-012
MINIATURE WSB QUICK MARKING STRIPS PLAIN	248-501/000-017
MINIATURE WSB QUICK MARKING STRIPS PLAIN	248-501/000-023
MINIATURE WSB QUICK MARKING STRIPS PLAIN	248-501/000-024
MODBUS FIELDBUS COUPLER RS 232 / 1,2 - 115,2 kBaud	750-316
MODBUS FIELDBUS COUPLER RS 232 / 150 - 19200 Baud	750-314
MODBUS FIELDBUS COUPLER RS 485 / 1,2 - 115,2 kBaud	750-315
MODBUS FIELDBUS COUPLER RS 485 / 150 - 19200 Baud	750-312
MODBUS PROGRAMMABLE FIELDBUS CONTROLLER RS 232 / 1,2 - 115,2 kBaud	750-816
MODBUS PROGRAMMABLE FIELDBUS CONTROLLER RS 232 / 150 - 19200 Baud	750-814
MODBUS PROGRAMMABLE FIELDBUS CONTROLLER RS 485 / 1,2 - 115,2 kBaud	750-815
MODBUS PROGRAMMABLE FIELDBUS CONTROLLER RS 485 / 150 - 19200 Baud	750-812
MODULE BUS EXTENSION, COUPLER MODULE	750-628
MODULE BUS EXTENSION, END MODULE	750-627
MP-BUS (MULTI POINT-BUS) MASTER MODULE CARRIER RAIL DIN 35	750-643
Open individual wire jumpers ends	individual jumper open end
POWER SUPPLY PASSIVE	750-613
POWER SUPPLY UNIT PRIMARY TRIGGERED	787-903
POWER SUPPLY UNIT PRIMARY TRIGGERED	787-904
POWER SUPPLY UNIT PRIMARY TRIGGERED	787-912
PROFIBUS DP ECO FIELDBUS COUPLER 12 MBaud	750-343
PROFIBUS DP FIELDBUS COUPLER 1,5 MBaud	750-331
PROFIBUS DP FIELDBUS COUPLER 12 MBaud	750-323
PROFIBUS DP/FMS FIELDBUS COUPLER 1,5 MBaud	750-301
PROFIBUS DP/FMS FIELDBUS COUPLER 12 MBaud	750-303
PROFIBUS DP/V1 FIELDBUS COUPLER 12 MBaud	750-333
PROFIBUS DP/V1 PROGRAMMABLE FIELDBUS CONTROLLER 12 MBaud	750-833
PROFINET IO FIELDBUS COUPLER 100 Mbit	750-340
PROFINET PROGRAMMABLE FIELDBUS CONTROLLER 100 Mbit	750-840
RADIO RECEIVER MODULE CARRIER RAIL DIN 35	750-642
RAIL-MOUNTED MODULES - POWER SUPPLYUNITS WITH UNIVERSAL MOUNTING CARRIER	288-808
RAIL-MOUNTED MODULES - POWER SUPPLYUNITS WITH UNIVERSAL MOUNTING CARRIER	288-809
RAIL-MOUNTED MODULES - POWER SUPPLYUNITS WITH UNIVERSAL MOUNTING CARRIER	288-810
RAIL-MOUNTED MODULES - POWER SUPPLYUNITS WITH UNIVERSAL MOUNTING CARRIER	288-812
RAIL-MOUNTED MODULES - POWER SUPPLYUNITS WITH UNIVERSAL MOUNTING CARRIER	288-813

---

## Data sheet

750-631

## SERIAL INTERFACE CARRIER RAIL DIN 35

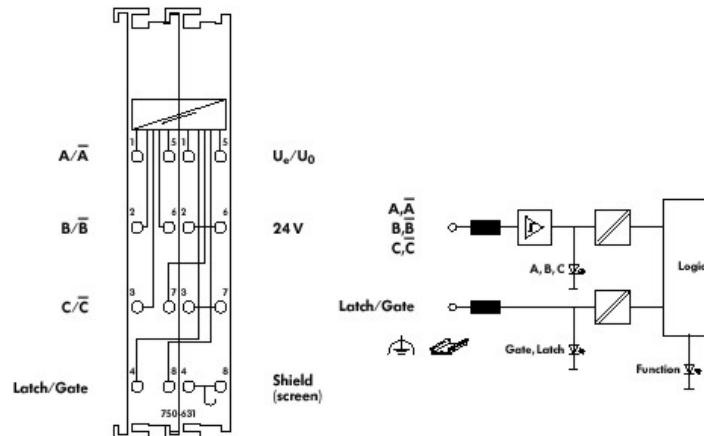
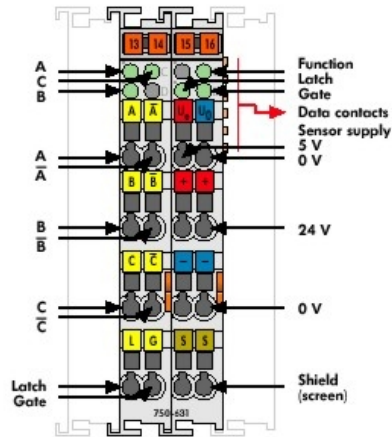
---

RAIL-MOUNTED MODULES - POWER SUPPLY UNITS WITH UNIVERSAL MOUNTING CARRIER	288-814
RAIL-MOUNTED MODULES - POWER SUPPLY UNITS WITH UNIVERSAL MOUNTING CARRIER	288-815
SCREWDRIVER Type 1, bar (2,5 x 0,4) mm	210-119
SCREWDRIVER Type 2, bar (3,5 x 0,5) mm	210-120
SCREWDRIVER WITH PARTIALLY INSULATED SHAFT Type 1, bar (2,5 x 0,4) mm	210-619
SCREWDRIVER WITH PARTIALLY INSULATED SHAFT Type 2, bar (3,5 x 0,5) mm	210-620
SCREWLESS END STOP 10 MM / 0.394 IN WIDE	249-117
SDS FIELDBUS COUPLER DIGITAL AND ANALOG SIGNALS	750-313
SEPARATION MODULE CARRIER RAIL DIN 35	750-616
SHIELD CLAMPING SADDLE 11 MM / 0.433 IN WIDE	790-108
SHIELD CLAMPING SADDLE 19 MM / 0.741 IN WIDE	790-116
SHIELD CLAMPING SADDLE 27 MM / 1.053 IN WIDE	790-124
SHIELD CLAMPING SADDLE 43 MM / 1.677 IN WIDE	790-140
STEEL CARRIER RAIL 35 X 15 MM, 1.5 MM / 0.059 IN THICK	210-114
STEEL CARRIER RAIL 35 X 15 MM, 1.5 MM / 0.059 IN THICK	210-197
STEEL CARRIER RAIL 35 X 15 MM, 1.5 MM / 0.059 IN THICK	210-506
STEEL CARRIER RAIL 35 X 15 MM, 1.5 MM / 0.059 IN THICK	210-508
STEEL CARRIER RAIL 35 X 15 MM, 2.3 MM / 0.091 IN THICK	210-118
STEEL CARRIER RAIL 35 X 15 MM, 2.3 MM / 0.091 IN THICK	210-548
STEEL CARRIER RAIL 35 X 7.5 MM, 1 MM / 0.039 IN THICK	210-112
STEEL CARRIER RAIL 35 X 7.5 MM, 1 MM / 0.039 IN THICK	210-113
STEEL CARRIER RAIL 35 X 7.5 MM, 1 MM / 0.039 IN THICK	210-504
STEEL CARRIER RAIL 35 X 7.5 MM, 1 MM / 0.039 IN THICK	210-505
STEEL IP65 ENCLOSURES 10 MBit/s	750-842
STEEL IP65 ENCLOSURES 10/100 Mbit/s	750-841
STEEL IP65 ENCLOSURES 10/100 Mbit/s	750-841/025-000
STEPPER MODULE FOR THE WAGO-I/O-SYSTEM 750	750-670
STÜTZELKO-MODUL SMOOTHES UNSTABLE DC 24 V POWER SUPPLIES	288-824

## Data sheet

750-631

## SERIAL INTERFACE CARRIER RAIL DIN 35



---

**Data sheet****750-631****SERIAL INTERFACE CARRIER RAIL DIN 35**

---

This module is an interface for the connection of any incremental encoder (with line driver outputs). A 16 bit counter with quadrature encoder interface as well as a 16 bit latch for the zero impulse can be read, set, or enabled. The count of the counter will be transmitted fast and interference-free over the fieldbus to the PC, PLC, or NC.

A counter lock-out is possible using input G.

The module must be powered using an external 24 V DC power supply. It is then possible to supply the encoder with 24 V DC, or alternatively with 5 V DC derived internally from the terminations ( $U_e/U_0$ ).

The shield (screen) is directly connected to the carrier rail.