

## Data sheet

750-635

## DIGITAL IMPULSE INTERFACE CARRIER RAIL DIN 35



### Technical data

Package size 1 piece.

Transmitter connection	Start / Stop; Init; Uv; ground shield via the housing of the sensor
No. of inputs	1
CURRENT CONSUMPTION (INTERNAL) mA	45 mA
Voltage via power jumper contacts (max)	DC 24 V (-15% / + 20%)
Data transmission	RS 422
Signal output	Differential signal (RS 422)
Signal input	Differential signal (RS 422)
Resolution ( $\mu\text{m}$ )	1 $\mu\text{m}$
HYSTERESIS, PRECISION	depends on the distance sensor
Precision	depends on the distance sensor
Update time	2 ms
Distance sensor length	$\leq 4$ m
Line length (max)	500 m
Isolation	500 V system / supply
Data size	1 x 24 Bit Data 1 x 8 Bit Control / status
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)

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EMC emission of interference	per EN 50081-1 (93)
UL 508	E175199, UL 508 (applied for)
Conformity marking	CE
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
Weight	51 g
Color	light gray
Height	64 mm
Height	2.52 in
Width	12 mm
Width	0.472 in
Depth	100 mm
Depth	3.937 in
Strip length from	8 mm
Strip length to	9 mm
Strip length	0.33 in

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Approval	Voltage	Current	Approval number	Notes
cULus	24		E175199	

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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

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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

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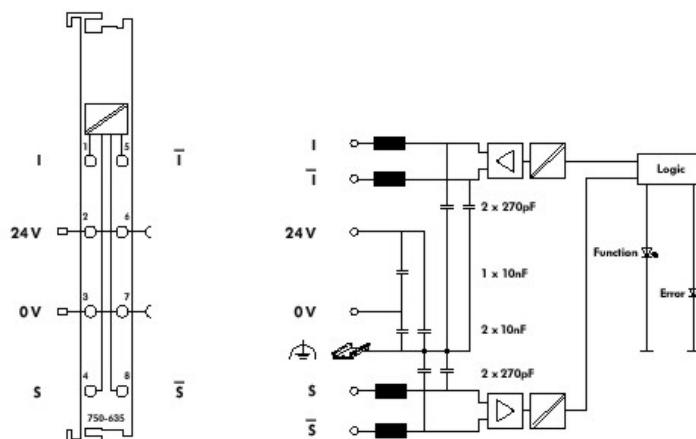
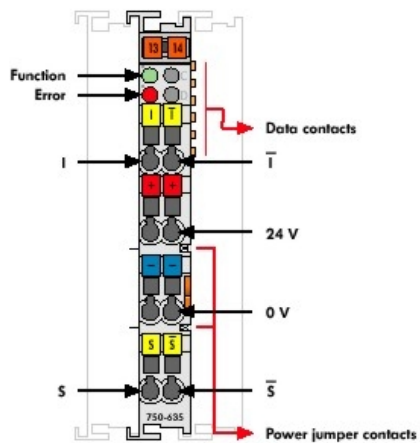
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RAIL-MOUNTED MODULES - POWER SUPPLY UNITS WITH UNIVERSAL MOUNTING CARRIER	288-814
RAIL-MOUNTED MODULES - POWER SUPPLY UNITS WITH UNIVERSAL MOUNTING CARRIER	288-815
SCREWDRIVER Type 1, bar (2,5 x 0,4) mm	210-119
SCREWDRIVER Type 2, bar (3,5 x 0,5) mm	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
SUPPLY MODULE PASSIVE	750-602
SUPPLY MODULE PASSIVE	750-612
SUPPLY MODULE WITH FUSE HOLDER	750-601
SUPPLY MODULE WITH FUSE HOLDER / DIAGN.	750-610

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The digital impulse interface is designed for the connection of magnetostrictive distance measurement sensors with a start/stop interface. After receiving a read pulse, these sensors deliver a time-delayed reply impulse. The time delay is proportional to the sensor distance.

Each sensor may have up to four position transmitters (permanent magnets). Their position data can be accessed serially by the control. The position data is stored in the process image of the fieldbus coupler as a 24 bit value.

The parameterization of the ultrasonic speed and the transmission points is done via the control byte. The parameters can be changed during operation.

The transmission of the impulses is done with RS 422 differential drivers which guarantees trouble free data transmission.

Distance sensors with the following features can be used:

- Start/Stop interface with RS 422 differential signals, Sensor supply 24 V, Manufacturer: e.g. Balluff