

Ring/Multidrop Fibre Converter ODW-700 Series

- **Numerous fibre configuration options**
 - Up to 120 km distance
 - BiDi support (single fibre)
 - Multimode and singlemode SFPs in single ring
- **Designed for use in industrial applications**
 - Dual 10 V to 60 VDC power input
 - 500,000h MTBF according to MIL HDBK-217K
 - Compact housing with integral DIN rail clip
- **Unique solutions for multiple serial protocols**
 - Asynchronous and synchronous support to 1.5 Mbit/s for RS-422/485
 - Data rates to 250 kbit/s and up to 12 data bits for RS-232
 - Supports all standard data rates to 12 Mbit/s for PROFIBUS DP
- **Simple to use and install**
 - Dip switches to set data rate and delay
 - Single or dual fibre available for point-to-point or ring/multidrop networks
 - Compact housing with integral DIN rail clip



EN 50121-4
Railway Trackside

EN 61000-6-1
Residential Immunity

EN 61000-6-2
Industrial Immunity

EN 61000-6-3
Residential Emission

EN 61000-6-4
Industrial Emission

The ODW-700 series has been designed to allow PROFIBUS DP, RS-232 or RS-422/485 data to be transmitted over fibre optic links in point-to-point, multidrop or redundant ring networks. The design allows the use of a range of Westermo verified SFP (Small Form Pluggable) transceivers which can provide solutions with, for example, only a single fibre or distances up to 120 km.

The units have been designed for industrial use where the requirement is for a long and reliable service life in a harsh environment. To ensure this reliable operation, it is manufactured using the highest quality components.

The ODW-710 can be used on all PROFIBUS DP networks to extend the operational network size beyond the normal constraints of the copper cable. All the data rates defined in EN 50170 are supported.

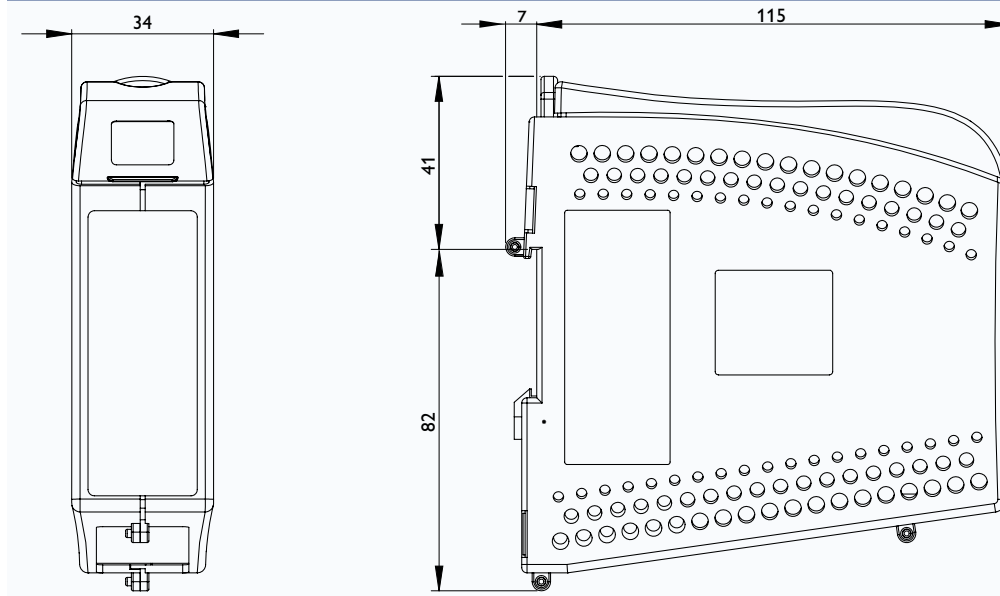
The ODW-720 and ODW-730 draws on Westermo's many years of knowledge of serial protocols, with the ODW-720 being able to transmit RS-232 serial data, even the RTS/CTS hardware controls if required. The ODW-730 supports RS-422/485 and can be used on both synchronous and asynchronous data streams, with switch selectable termination circuits that save the need for external terminating resistors.

The F1 variants are excellent for cost effectively creating point-to-point networks with their single fibre port. Meanwhile, the F2 variants offer flexible multidrop and redundant ring solutions to be created with the dual fibre ports. Large ring networks can be created to provide network resilience to guarantee system functionality, even if a cable is damaged. The ring recovery time ensures that the network devices are not aware of the failure. The fault contact provides a method to communicate network failures.

The ODW-700 series is simple to install, being small, with an easy-to-use integral DIN rail clip. The unit are totally transparent to any data rate, meaning configuration is not needed.

Specifications - ODW-700 Series

Dimensional drawing



Housing

Dimensions (W x H x D)	34 x 122 x 123 mm (1.34 x 4.80 x 4.84 inches)
Weight	260 gr
Ingress protection	IP21

Power parameters	ODW-7x0-F1	ODW-7x0-F2
Rated voltage	12 to 48 VDC, 24 VAC	
Operating voltage	10 to 60 VDC, 20 to 30 VAC	
Rated current	300 mA at 12 VDC 150 mA at 24 VDC 75 mA at 48 VDC 300 mA at 24 VAC	400 mA at 12 VDC 200 mA at 24 VDC 100 mA at 48 VDC 400 mA at 24 VAC

Environmental	ODW-7x0-F1	ODW-7x0-F2
Operating temperature	-40 to +70°C (-40 to +158°F)	-40 to +60°C (-40 to +140°F)
Storage and transport temperatures	-40 to +70°C (-40 to +158°F)	-40 to +60°C (-40 to +140°F)
Humidity (operating)	5-95% relative humidity	
Altitude	2000 m/80 kPa	
MTBF MIL-HBDK-217F	500,000 hours	

Interface	ODW-710	ODW-720	ODW-730
PROFIBUS DP (RS-485)	1 x 300 bit/s – 1.5 Mbit/s		
RS-232	-	1 x 9 600 bit/s – 12 Mbit/s	-
RS-422/485	-	-	1 x 300 bit/s – 250 kbit/s
FX (fibre)	ODW-7x0-F1: 1 x SFP-slots, 100 Mbit/s ODW-7x0-F2: 2 x SFP-slots, 100 Mbit/s		
Status	1 x Detachable screw terminal		

Approvals	
EMC	EN/IEC 61000-6-1, Immunity residential environments EN/IEC 61000-6-2, Immunity industrial environments EN/IEC 61000-6-3, Emission residential environments EN/IEC 61000-6-4, Emission industrial environments
Trackside	EN 50121-4/IEC 62236-4, Railway signalling and telecommunications apparatus
Marine	DNV rules for classification - Ships and offshore units
Safety	UL/CSA 60950-1, IT equipment

Warranty	
Validity	10 years

Ordering information	
Art. no.	Description
3651-0711	ODW-710-F1
3651-0712	ODW-710-F2
3651-0721	ODW-720-F1
3651-0722	ODW-720-F2
3651-0731	ODW-730-F1
3651-0732	ODW-730-F2

Accessories	
3125-0150	PS-60, power supply