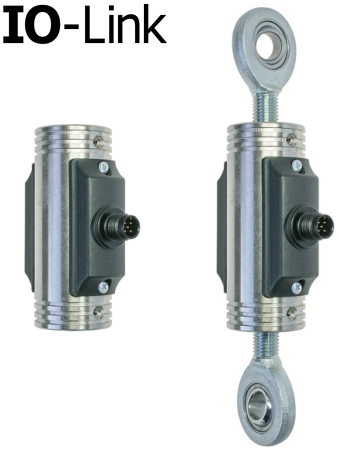
Characteristics

IO-Link



- Input:	Load suspension device
- Function load cell:	Tension / Compression / Tension and compression
- Measuring range:	500 kg / 1000 kg / 1500 kg / 3000 kg
- Output:	IO-Link interface
- Voltage supply:	24 VDC
- Accuracy:	See technical data
- Protection class:	IP54
- Vibration protection:	Electronics completely potted
- Configuration:	per software (IO-Link)
- Material load cell:	Stainless steel / Tool steel nickel-plated
- Accessories:	Rod ends

Technical Data

Input

Load suspension device: (Strain gauge full bridge)	Tension load, compression load, tension and compression load
Ranges:	500 kg / 1000 kg / 1500 kg / 3000 kg

Output

Interface:	IO-Link
Signal level:	0/24V (as per IO-Link specification)

Performance Parameters

Measurement amplifier:	Accuracy:	max. 0,05% of range + sensor error
	Resolution:	16 Bit
	Filter adjustment:	0...5 s
	Switch-on delay:	<5 s
	Response time:	20 ms
	Configuration:	via software (IO-Link)

Load Cell Specifications

Material:	Stainless steel / Tool steel nickel-plated
Hysteresis:	0,5% of range
Repeatability:	0,05% of range
Creepage:	0,05% of range / 10 min
Temperature drift on zero:	0,05% of range / 10 K
Temperature drift on span:	0,05% of range / 10 K
Safe overload:	150% of range
Ultimate load:	200% of range

Applications

The load cell with integrated measuring amplifier IO-Link is for use in applications where dynamic forces have to be measured. Possible are tension, compression and tension / compression loads. The output signal has a signal level of 24 V (IO-Link specification). The load cells are available with rod ends.

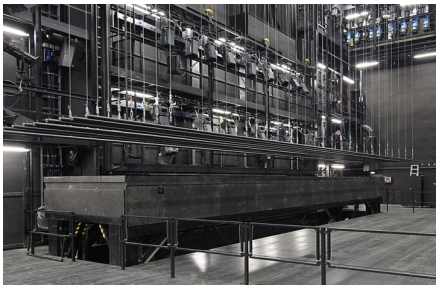


photo: www.pixelquelle.de

Technical Data (Continued)

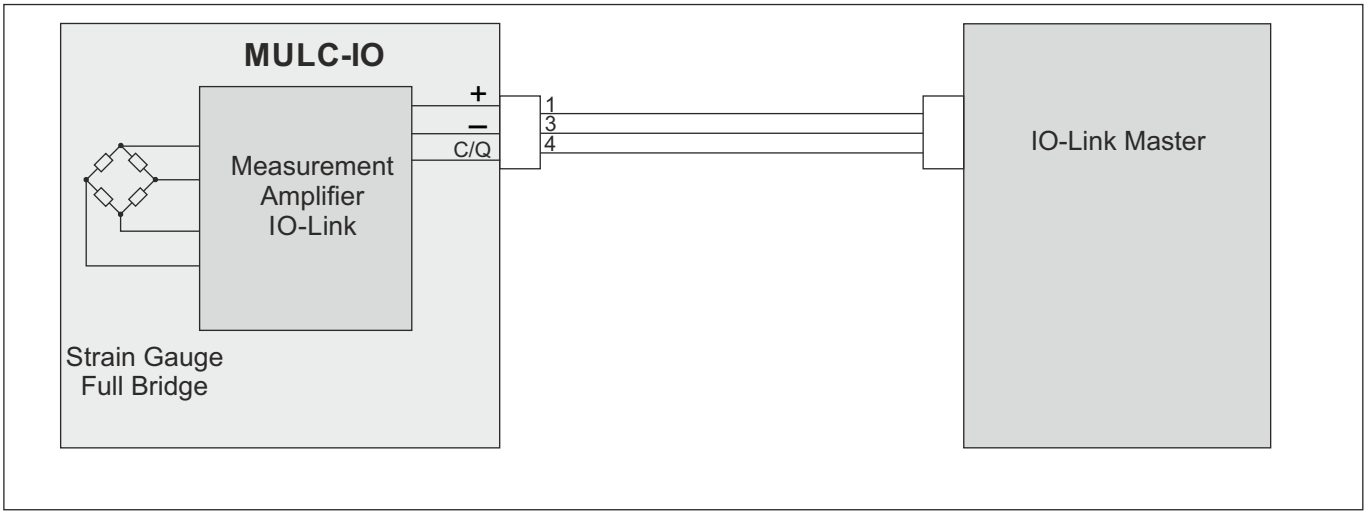
Supply	
Voltage:	24 VDC
Current:	
Standard:	<30 mA
Switching (SIO):	max. 100 mA
Total current:	max. 130 mA
Reverse voltage protection:	Available (no function, no damage)
Environmental Conditions	
Operating temperature:	-20...+80°C
Storage temperature:	-20...+85°C
Humidity:	30...90% rH (40 °C, no condensation)
Mechanics	
Protection class:	IP54
Weight:	
500/1000 kg:	approx. 343 g (no rod ends, no covers)
1500/3000 kg:	approx. 423 g (no rod ends, no covers)
Vibration resistance:	Inside potted
Electrical connection:	IO-Link: Male plug M12x1, 4-pole
Load cell:	
Type:	Tension and compression load cell
Dimensions:	See table page 3
Material:	Stainless steel / Tool steel nickel-plated
Mounting device:	Rod ends / Option: without (The operator uses the threaded holes of the load cell.)

IO-Link

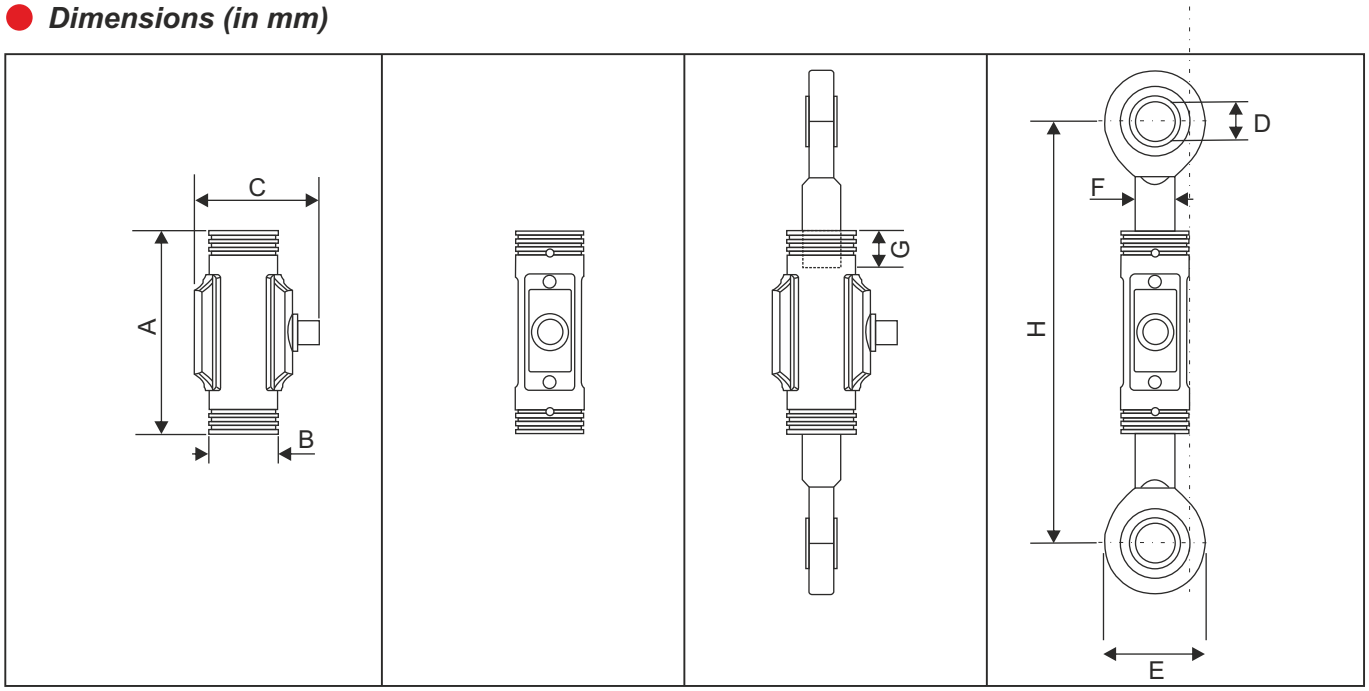
The configuration has to take place over a connected IO-Link master. You will also need the related IO Device Description (IODD) file. You can find information about working with IO-Link and a list of all readable parameters in *Technical Overview IODD - MULC-IO*. The IODD-file can be downloaded directly via the IODD-Finder. The TO IODD MULC-IO and a link to the IODD-Finder can be found on our website *www.mueller-ie.com*.

Electrical Connection

IO-Link Connection with Plug M12x1 (4-pole)



Dimensions (in mm)



Range	A	B	C	D	E	F	G	H
1000 kg*	90	Ø35	64	Ø17	35	M16	18	198 ±2
1500 kg	90	Ø35	64	Ø17	34	M16	17	198 ±2
3000 kg	105	Ø35	64	Ø20	53	M20x1,5	23	218 ±1,5

*Dimensions 500 kg = dimensions 1000 kg

Order Code

C	K	X	X	X	X	X	X	-	X	X	X	X

Function load cell:	Tension load	A
	Compression load	B
	Tension- and compression load	C
Output:	IO-Link (24 VDC)	0
Supply:	24 VDC	0
Vibration resistance:	Yes (inside potted)	1
Range load cell:	500 kg	0
	1000 kg	1
	1500 kg	2
	3000 kg	3
Material load cell:	stainless steel	0
	tool steel nickel-plated	1
Mounting device:	rod ends	0
	without (The operator uses the threaded holes of the load cell.)	1
Electrical connection:	M12x1, 4-pole	1
Configuration:	without	0
	factory setting	1
	customized (please specify)	2
Special model:	No	0
	Yes (please specify)	1