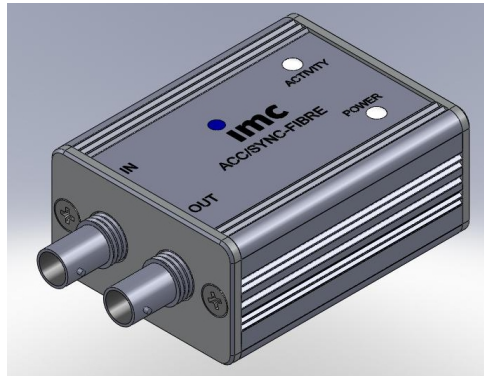


## ACC/SYNC-FIBRE

### Optical SYNC Adapter



Datasheet Version 1.2 06.09.2012

One fundamental feature of all imc measurement devices, whether belonging to the device families imc CRONOS*flex*, imc CRONOS*compact*, imc CRONOS-SL, imc CRONOS-PL, imc SPARTAN, imc BUSDAQ or imc C-SERIES, is their ability to synchronize multiple devices, even of differing models, and to operate them all in concert. The synchronization is typically accomplished by means of a Master/Slave process via the electrical SYNC-signal, which terminates on the devices at a BNC socket.

In areas of high electrical interference, or where long-distance signal transmission is needed, the signal can be conducted via fiber optic cabling with total isolation and no interference. For this purpose, the externally connectable optical SYNC adapter ACC/SYNC-FIBRE is available.

When this adapter is used, the BNC socket is not in use, but rather the DSUB-9 socket for GPS, which then conducts both the isolated electrical SYNC signal and additionally a supply voltage which is required by the adapter, as well as supplying directional indication (Master to Slave).

For this reason, any imc measurement devices used must be remodeled in accommodation to the DSUB-9 socket. Once the GPS DSUB-9 socket has been remodeled (device preparation for SYNC-FIBRE) even parallel operation is possible (via Y-cable), if the GPS-data are only used for the position data and the adapter is used for the SYNC signal.

For whichever signal (adapter or BNC) is currently connected, both the electrical and the optical mode can be used, however not both at the same time.

The plug is designed for the extended environmental range. The imc measurement devices used with this adapter require some modification.

#### Housing

- aluminum housing

#### Terminal connections

- ST-connection (FOC) for a connection with next plug/adapter
- DSUB-9 plug for the connection with imc measurement device

#### Supply

- 5 V power supply via imc measurement device internal sensor supply

| Order Code:           | article number | Remarks   |
|-----------------------|----------------|---|
| <b>ACC/SYNC-FIBRE</b> | 1350156        | plug for synchronization via FOC<br>suited for extended environmental temperature range |

## ACC/SYNC-FIBRE

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| Parameter                    | Value typ.                               | min./ max. | Remarks  |
|------------------------------|--|------------|--|
| Compatible with              | GPS-connection<br>imc measurement device |            | Modification of the GPS-connection is necessary (device preparation for SYNC-FIBRE).<br><br>The simultaneous use of both SYNC-FIBRE and the device's SYNC plug (BNC) is not allowed. Only the SYNC-FIBRE or the SYNC plug (BNC) can be used. |
| Terminal connection          | 2x ST plug<br>1x DSUB-9                  |            | FOC<br>connection with measurement device  |
| <b>Supply</b>                |  |            |  |
| Supply                       | 5 V                                      | ±10%       | out of device internal sensor supply   |
| Power consumption            | 0.5 W                                    | ±10%       |  |
| Propagation Delay $t_{PD}$   | 25 ns                                    | 75 ns      | SYNC-In to Opto-Out or<br>Opto-In to Sync-Out  |
| Link length                  |  | 500 m      | Length of the fiber optic distance between two ACC/SYNC-FIBRE  |
| Total delay                  |  | 8 $\mu$ s  | SYNC-In first device to SYNC-Out last device   |
| Fiber Optics plug type       | ST                                       |            |  |
| Fiber Optics                 | 50 / 125 $\mu$ m<br>62.5 / 125 $\mu$ m   |            |  |
| Wave length                  | 820 nm                                   |            |  |
| <b>General</b>               |  |            |  |
| Extended environmental range | -40°C to + 85°C                          |            | with condensation  |